

THE IMPACT OF CONGRUENCY BETWEEN INTERACTION EXPECTANCIES
AND MIMICRY BEHAVIORS ON COGNITIVE DEPLETION AND MOOD IN
INTERRACIAL INTERACTIONS

AN ABSTRACT

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DOCTOR OF PHILOSOPHY

BY

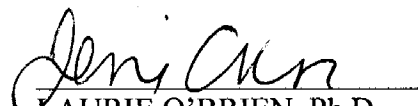
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Abstract

For a variety of reasons Whites often expect negative interracial interactions. Previous research suggests that negative expectations for interracial interactions often lead to negative interaction experiences. Specifically, interracial interactions are experienced as cognitively depleting, engendering of negative affect, and devoid of behavioral mimicry—a nonconscious behavior that engenders liking, and smooth, harmonious interactions. Because individuals do not expect mimicry in interracial interactions, when mimicry is present individuals experience cognitive depletion. While the majority of research has focused on how White individuals' expectations for interracial interactions lead to self-regulatory efforts that ultimately are cognitively depleting, the present research proposes that the behaviors of one's interaction partner must also be considered. It was predicted that Whites who expect positive interracial interactions would not experience cognitive depletion when mimicked by a Black person, but would experience depletion when they are not mimicked. Conversely, Whites expecting a negative interracial interaction were predicted to experience cognitive depletion when mimicked by a Black person, but would not experience depletion when not mimicked. Findings revealed that the interaction between mimicry and interaction expectations on cognitive depletion was not significant. Counter to predictions, those with positive interaction expectations experienced the most cognitive depletion following an interracial interaction. Consistent with predictions, significant interactions between mimicry and interaction expectations revealed that, for those with positive expectations, not being mimicked was associated with decreased positive affect and increased negative affect. These findings suggest that mimicry in interracial interactions may not be

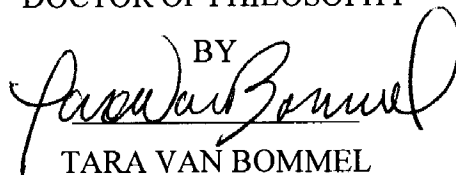
counternormative for those who expect positive interactions, and its absence (rather than its presence) may lead to negative emotional outcomes.

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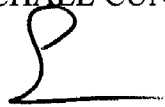
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The impact of congruency between interaction expectancies and mimicry behaviors on
cognitive depletion and mood in interracial interactions

The current demographics of the United States show that it is the most racially and ethnically diverse time in our history (US Census Bureau, 2012), with estimates projecting that by 2060 racial and ethnic minorities will in fact be the numerical majority at a projected 57% of the nation's population (US Census Bureau, 2012). Thus, interactions among racial outgroup members will likely become more and more common. However, despite improvements in discrimination against minorities, the current state of interracial relations continues to be problematic. These interactions tend to be uncomfortable, anxiety provoking, and cognitively depleting for both interactants (Finchilescu, 2010; Richeson & Shelton, 2003; Richeson & Trawalter, 2005; Stephan & Stephan, 2000; Toosi, Babbitt, Ambady, & Sommers, 2012). Thus, to avoid these negative outcomes, an important research goal is to understand why interracial interactions go poorly. One reason these interactions may go poorly lies in the expectations that individuals bring to the interaction. Research on expectations demonstrates that they are powerful determinants of the quality of an interaction. But what happens when a person's expectations are not met? While negative expectations are shown to elicit poor outcomes, unmet expectations may also lead to interaction dysfunction. The present research proposes that poor interracial interaction outcomes result from a mismatch between one's expectations for the interaction and whether those

expectations are met. In particular, the present research focuses on the common experience of cognitive depletion after interracial interactions. Specifically, this research examined the prediction that cognitive depletion after an interracial interaction is dependent upon the congruency (or incongruency) between one's expectations for the interaction and the nonverbal cues (i.e., mimicry behaviors) of one's interaction partner.

Expectations for Interactions

Entering into an interaction with another person is almost certainly laden with assumptions or expectations about one's interaction partner, and following from these judgments stem expectations about the interaction. Individuals entering into an interaction bring with them beliefs about the other person, beliefs about how the other person likely will view them, and beliefs about the likely quality of the interaction. One primary source of expectations about an interaction partner and an anticipated interaction stems from information associated with that individual's group membership(s). In the case of intergroup interactions, people's expectations often stem from stereotypes about the outgroup (Hamilton & Sherman, 1994). Indeed, reliance on stereotypes about an individual's group membership is an efficient means to process information (Petty & Cacioppo, 1981, 1986), and some stereotypes may be based on a kernel of truth. However, in the case of racial stereotypes, the content of these stereotypes is often grossly inaccurate. For example, the association between Blacks (especially Black men) and violence and criminality has little basis in reality; examination of crime base rates actually shows no statistical difference in rates of offending (Walker, Spohn & DeLone 2012). Nonetheless, because these stereotypes are quite pervasive in American society, many Whites enter into interracial interactions with pre-formed negative opinions of their

Black interaction partner. Due to the ubiquitous nature of these negative stereotypes, they are learned passively at a young age resulting in strong implicit associations. These associations exist regardless of an individual's explicit beliefs and/or endorsement of the stereotypes, which are typically formed at later ages (Devine, 1989). Thus, due to these negative beliefs, Whites may expect negative interactions with Blacks, and ultimately, these negative expectancies can impact the quality of these interactions. Indeed, a growing body of research continues to confirm that negative interracial interaction experiences are rooted in negative expectations (e.g., Devine, Evett, & Vasquez-Suson, 1996; Plant, 2004; Tropp, 2003). Further, not only do Whites' beliefs about Blacks impact expectations for interracial interactions, the beliefs that Whites perceive Blacks hold about them and their group (i.e., meta-stereotypes) impact expectations for interracial interactions.

Meta-stereotypes. Whites are also aware of the stereotypes associated with their own group (Vorauer, Main, & O'Connell, 1998) and may enter into an interracial interaction with the expectation that Blacks believe these stereotypes to be true. For Whites, these meta-stereotypes, or beliefs about the stereotypes that an outgroup holds about one's ingroup, include being prejudiced, close-minded, and selfish (Vorauer et al., 1998). Whites who believe that they personally will be viewed in terms of these meta-stereotypes by outgroup members have more negative attitudes toward outgroup members and more negative interracial interactions (Vorauer et al., 1998). In an interracial interaction, the belief that an outgroup member is evaluating oneself negatively leads individuals to evaluate interaction partner more negatively (Vorauer, 2003; Vorauer & Kumhyr, 2001). Thus, the more one endorses meta-stereotypes, the

more likely one is to expect and experience negative interracial interactions.

Motivation to control prejudice. Whites' knowledge of stereotypes about their group often manifests in interracial interactions as concern over appearing prejudiced (Crandall & Eshleman, 2003; Dunton & Fazio, 1997; Monin & Miller, 2001; Monteith, 1993; Plant & Devine, 1998). Furthermore, Plant and Devine (1998) demonstrated that Whites' concern over appearing prejudiced has two distinct motivational components: internal motivation to control prejudice (IMS) and external motivation to control prejudice (EMS). Individuals who are high in IMS are motivated to control their prejudice because being nonprejudiced is an integral part of their self-concept. Whereas those who are high in EMS are motivated to control their prejudice because of normative pressures to be nonprejudiced and the fear of being punished by others for acting in prejudiced ways. Importantly, these unique motivations to respond without prejudice in interracial interactions predict distinct expectations and experiences in these interactions.

Research shows that Whites' concern over appearing prejudiced in interracial interactions has important implications for their interaction expectancies. First, this interpersonal concern leads Whites to avoid interracial interactions altogether (Plant & Devine, 2003; Stephan & Stephan, 1985; Towles-Schwen & Fazio, 2003). Importantly, much work has shown that Whites' desire to avoid interracial interactions stems from negative expectations for the interaction (Britt, Boniecki, Vescio, Biernat, & Brown, 1996; Gudykunst, 1993; Plant, 2004; Plant & Devine, 2003; Shelton & Richeson, 2005). The significant implication of avoiding interracial interactions is that White individuals will not have the potential to experience the many positive effects, such as decreased prejudice, that can occur from intergroup contact (Allport, 1954; Pettigrew, 1998).

However, avoiding interracial interactions is not always an option, especially as our nation continues to become increasingly diverse. When interracial interactions do occur, Whites' concern over appearing prejudiced results in negative interactions for Whites and Blacks (Plant & Butz, 2006). Furthermore, people who report negative expectations experience more anxiety about interacting with an outgroup member (Plant & Devine, 2003), which tends to lead Whites to act in ways that thwart positive interactions (Butz & Plant, 2006). For example, Whites who expected a negative interracial interaction engaged in more hostile behavior directed at their interaction partner, compared to those without negative expectations (Butz & Plant, 2006). Thus, Whites' interaction expectancies stem from stereotypes about Blacks, their concern over meta-stereotypes, and their beliefs in the ability to perform well and convey a positive, nonprejudiced impression. In actual interactions, Whites' interaction expectancies have been demonstrated to have distinct cognitive, affective, and behavioral impacts on the interactants, both during and after interracial interactions.

The current research focuses on understanding why expectations may lead to the downstream consequence of cognitive depletion, an outcome that exacerbates negative interracial interaction expectations, and has negative personal effects. Understanding the source of these negative outcomes is important to ultimately improve expectations of interracial interactions. Improving expectations has many potential positive implications for intergroup relations, such as an increasing the likelihood of developing new cross-race friendships (Mallett & Wilson, 2010), which may ultimately improve intergroup attitudes (Pettigrew, 1998).

Impacts of Interaction Expectations in Interactions

Research on expectations in intergroup interactions demonstrates that one's expectations profoundly impact outgroup attitudes, one's perception of the interaction, and the overall quality of the interaction. Positive expectations have been shown to foster positive outgroup attitudes (Plant & Devine, 2003) and decrease intergroup anxiety (Riek, Mania, & Gaertner, 2006), which in turn foster more positive interactions (Mallett & Wilson, 2010; Plant, Butz, & Tartakovsky, 2008), and the increased likelihood of developing cross-race friendships. Unfortunately, negative expectations are more prominent, as most Whites approach interracial interactions with anxiety and apprehension (Dovidio, Kawakami, & Gaertner, 2002; Mallett, Wilson, & Gilbert, 2008; Shelton & Richeson, 2005). Negative expectations are shown to garner negative emotions and intentions to act with hostility and blame one's interaction partner if the interaction goes poorly (Butz & Plant, 2006). Ultimately, these poor interactions perpetuate negative intergroup attitudes by negatively biasing attributions and encoding of outgroup members' behavior (Maass, Milesi, Zabbini, & Stahlberg, 1995; Rothbart & John, 1985). In fact, research has shown that when positive expectations about an intergroup interaction are not met (i.e., the interaction is actually negative), negative outgroup attitudes result (Deegan, Hehman, Gaertner, & Dovidio, 2015). Overall, expectations appear to influence the quality of interracial interactions, and regardless of whether these expectations are positive or negative, unmet expectations appear to also lead to negative perceptions of the interaction.

Of particular importance to the current research is the resultant cognitive depletion individuals experience after engaging in an effortful, strained, or uncomfortable

interracial interaction. Previous work has shown that the effort involved in monitoring one's thoughts, feelings, and behavior, in order to manage negative interaction expectations results in executive functioning impairments (i.e., cognitive depletion; Apfelbaum, Sommers, & Norton, 2008; Engle, Conway, Tuholski, & Shisler, 1995; Muraven & Baumeister, 2000; Pearson, Dovidio, Phillips, Onyeador, 2013; Richeson & Shelton, 2003; Richeson & Trawalter, 2005). Thus, amassing evidence suggests that expectations are a major driving force behind the continued problematic nature of intergroup interactions. Although previous research has focused on how expectations lead to expectation-consistent experiences, sometimes the dynamics of an interaction may run counter to the nature of one's expectations.

The bulk of previous research has identified how a person's interaction expectancies impact their experiences in the interaction, while much less research has examined how an interaction is experienced when one's expectations are not met. Further, even less research has addressed the behavioral factors that moderate negative outcomes following an interaction that violates one's expectations. In other words, sometimes those with negative expectations may experience a positive interracial interaction, and sometimes those with positive expectations may experience a negative interracial interaction.

Research on attitude-behavior correspondence provides some insight into the outcomes one experiences when attitude and behavior are misaligned. Recently researchers have investigated this phenomenon in the context of an interracial interaction, demonstrating that cognitive depletion and negative impressions of one's interaction partner result from engaging in behaviors that are inconsistent with one's implicit racial

attitudes (Pearson, Dovidio, Phillips, & Onyeador, 2013). More specifically, individuals were given emotion suppression goals that were either congruent or incongruent with their implicit racial attitudes. Being low in implicit racial bias and having to suppress positive emotions, or being high in implicit racial bias and having to suppress negative emotions resulted in cognitive depletion and more negative impressions of one's interaction partner (Pearson et al., 2013). An implication of this research is that poor interracial interactions are not simply the product of negative attitudes or expectations, but rather, negative outcomes result when the content of these interactions do not match one's attitudes or beliefs. While Pearson et al.'s (2013) findings suggest that, in interracial interactions, engaging in behaviors that are incongruent with one's attitudes is cognitively depleting, what remains unknown is what happens when one's interaction partner engages in behaviors that are incongruent with one's expectations. The current research will address both of these paucities by examining how congruency (or incongruency) between one's expectations and the nonverbal cues of one's interaction partner impact the experience of cognitive depletion following an interracial interaction. Specifically, this research will examine expectation confirmation through a behavior known to signal liking, affiliation, and rapport: mimicry.

Mimicry

Research has demonstrated that nonverbal cues often contribute above and beyond verbal cues to successful communication in an interaction (Mehrabian & Ferris, 1967; Mehrabian & Wiener, 1967). Of particular import to the quality of an interaction is mimicry. Mimicry is the nonconscious, automatic imitation of another's bodily postures, speech patterns, gestures, mannerisms, and facial expressions. The presence of mimicry

in an interaction has been consistently shown to engender high-quality, smooth, positive interactions. Initial accounts of mimicry demonstrated a positive relationship between postural synchrony and rapport (LaFrance, 1979; LaFrance & Broadbent, 1976). Further investigations continued to document a positive relationship between mimicry and liking (Bernieri, 1988; LaFrance & Ickes, 1981). Researchers have proposed a *perception-behavior link* to explain the automaticity and frequency of mimicry in interactions (Bargh, Chen, & Burrows, 1996). The term perception-behavior link refers to the notion that merely thinking about a behavior, or perceiving another engaged in said behavior, results in increased likelihood of engaging in that behavior. Indeed this notion has received long historical support, stemming back to the early theorizing of William James (1890) on the ideomotor principle, or the idea that simply thinking about a behavior increases the tendency to engage in that behavior. Experimental support for the perception-behavior link has been documented through the priming of behavioral concepts (Bargh et al., 1996), as well as imitation of another's behaviors following perception of that behavior (i.e., mimicry; Chartrand & Bargh, 1999). Findings from neuroscience research corroborate the existence of a perception-behavior link. Specialized neurons, known as mirror neurons, are activated in the brain both while performing a given behavior and when simply viewing another perform that same behavior (Iacoboni et al., 1999). In an explanation for why behavioral mimicry and a perception-behavior link developed it is theorized that the phenomenon of mimicry was as an evolutionary mechanism that helped humans communicate, ultimately evolving to serve to foster social relationships (Lakin, Jefferis, Cheng, & Chartrand, 2003). In the

modern day, mimicry has indeed been shown to enhance interpersonal interactions and relations.

Although mimicry has been of interest to researchers for several decades due to its' role in facilitating liking and rapport (e.g., Bavelas et al., 1986; LaFrance & Broadbent, 1976), the earlier work was correlational in nature (Bernieri, 1988; LaFrance & Ickes, 1981). More recent investigations provide critical evidence for a causal relationship between mimicry, liking, and rapport. In a seminal series of studies, Chartrand and Bargh (1999) provided the first experimental evidence that mimicry engenders liking and rapport. These experiments demonstrated that: 1) participants nonconsciously mimicked the nonverbal behaviors of a confederate (Chartrand & Bargh, 1999, Study 1), and 2) participants who are mimicked by an interaction partner subsequently report greater liking for their interaction partner, compared to those who are not mimicked. Furthermore, these mimicked individuals report smoother, more harmonious interactions (Chartrand & Bargh, 1999, Study 2). Altogether these findings demonstrate a bidirectional relationship between liking and rapport and mimicry: when rapport or liking of another is present, increased mimicry occurs (e.g., Bavelas, Black, Lemery, & Mullett, 1986; LaFrance, 1979; LaFrance & Broadbent, 1976, McIntosh, 2006), and being mimicked by another leads to increased liking and rapport with that person (Chartrand & Bargh, 1999). Subsequent investigations reveal that individuals utilize mimicry (nonconsciously) especially when liking and rapport is the goal in an interaction. Individuals given a conscious or nonconscious (via priming) goal of affiliation engaged in greater mimicry of a confederate than those not given this goal (Lakin & Chartrand, 2003). Furthering the case for a causal link between mimicry and

liking, those individuals who engaged in greater levels of mimicry were liked more by the confederates (who were blind to condition; Lakin & Chartrand, 2003).

Beyond liking and rapport, a large body of research has documented numerous other positive effects of mimicry for interpersonal interactions. This research has demonstrated that mimicry increases other positive interpersonal outcomes including prosocial behaviors such as helping and generosity (van Baaren, Holland, Kawakami, & van Knippenberg, 2003; van Baaren, Holland, Kawakami, & van Knippenberg 2004) and empathy (Chartrand & Bargh, 1999). Research also shows that mimicry improves evaluations in romantic contexts: the same women were rated more positively and sexually attractive when they mimicked, compared to when they did not mimic (Guéguen, 2009). Mimicry is also involved in comprehension of others' emotional states, playing a critical role in the perception and understanding of others' facial expressions (Halberstadt, Niedenthal, Winkielman, & Dalle, 2009; Niedenthal, Brauer, Halberstadt & Innes-Ker, 2001). A causal role for mimicry in understanding others' emotional states is illustrated by research showing that experimental inhibition of the ability to mimic results in decreased ability to experience and recognize the emotion associated with the inhibited facial muscles (Niedenthal, Winkielman, Mondillion, & Vermeulen, 2009). Moreover, children with autism demonstrate little to no mimicry of others, a finding that has been used to partly explain the social deficits experienced by individuals with autism (McIntosh, Reichmann-Decker, Winkielman, & Wilbarger, 2006). Thus, a strong case emerges for mimicry's role in facilitating interpersonal interactions. Initially, the amassing findings that nonconscious mimicry was observed in the laboratory among complete strangers led researchers to theorize that mimicry would occur in all social

interactions. However, more recent research suggests that the affiliative tool of mimicry is utilized selectively, and often along traditional group boundaries.

Mimicry in Intergroup Interactions

Research has delineated several boundary conditions under which mimicry is and is not employed. Context, goals, and classic group boundaries influence the implementation of mimicry. Yabar, Johnston, Miles, and Peace (2006) present evidence that mimicry is utilized as a tool for affiliation with religious ingroup members, whereas interactions with religious outgroup members result in a marked decrease in mimicry. These results corroborate the role of mimicry in facilitating relational solidarity in the same manner as other intergroup phenomenon, whereby individuals give preferential treatment to ingroup members over outgroup members. In other words, mimicry is elicited to increase affiliation when ingroup cues are present, and it is inhibited in an almost anti-affiliation manner when outgroup cues are present. In interracial interactions, individuals also display decreased amounts of mimicry (Heider & Skowronski, 2009). Given these findings, researchers have argued that mimicry in intergroup interactions is counternormative, and in support of this argument have shown that when mimicry is present in an interracial interaction individuals experience cognitive depletion (Dalton, Chartrand, & Finkel, 2010). Cognitive depletion occurs because individuals devote greater attentional resources to expectation violations (Dickter & Guyrovski, 2012; Stern, Marrs, Millar, & Cole, 1984). However, previous research has not considered the fact that not all individuals are averse to intergroup interactions, thus not everyone may find mimicry in these contexts counternormative. Given that mimicry is an indicator of liking and affiliative goals, it stands to reason that an individual's positive or negative

expectations about a given interaction should predict whether an individual expects a smooth, friendly interaction that would include mimicry. Because mimicry occurs automatically and nonconsciously, individuals would not have an explicit expectation for the presence or absence of mimicry. Rather, given its evolutionary role as ‘social glue,’ individuals have developed the ability to nonconsciously detect its presence. Thus, the conscious outcome is whether liking and affiliation is felt and if the interaction is experienced as smooth and harmonious. Specifically, individuals with positive expectations about interacting with an outgroup member should expect positive interactions that include mimicry, whereas those with negative expectations would expect negative interactions lacking in mimicry. Therefore, incongruency between expectations and mimicry’s presence or absence is predicted to have negative outcomes for interactants, including cognitive depletion.

Cognitive Depletion

A well-documented effect of strained interracial interactions is cognitive depletion. Cognitive depletion is the phenomenon of decreased executive function, and higher-level goal directed behaviors such as planning, self-control, and self-regulation after engaging in a cognitively challenging or stressful task. Executive control is believed to be a finite cognitive resource that can be exhausted by previous bouts of exertion, resulting in depletion on subsequent tasks tapping the same resource (Engle, Conway, Tuholski, & Shisler, 1995; Muraven & Baumeister, 2000). The research on cognitive depletion delimits multiple negative outcomes that can arise when this resource is depleted. Under conditions of cognitive depletion individuals act more aggressively (Stucke & Baumeister, 2006), perform worse on logical and reasoning tasks, cognitive

extrapolation, and reading comprehension tasks (Schmeichel, Vohs, & Baumeister, 2003), and exhibit decreased persistence on challenging tasks (Baumeister, Bratslavsky, Muraven, & Tice, 1998). Thus, on the whole, unimpaired executive function is crucial to quality decision-making and tasks requiring more effort and self-control.

In interracial interactions individuals often engage in goal-directed behaviors and/or self-control as a means to manage or attenuate negative expectations for the interaction. For example, Whites' goals may be directed towards appearing non-prejudiced. The self-regulation involved in trying to suppress one's biases is cognitively depleting, ultimately resulting in impaired executive function (Richeson et al., 2003; Richeson & Shelton, 2003; Trawalter & Richeson, 2006). Similarly, Blacks with higher levels of ingroup bias evince greater cognitive depletion after an interracial interaction (Richeson, Trawalter, & Shelton, 2005). Importantly, deficits in cognitive resources have significant implications for both race relations and the self. For example, decreased cognitive resources have been shown to predict impaired self-presentation (Vohs et al., 2005) and increases in socially inappropriate (von Hippel & Gonsalkorale, 2005) or stereotypical (Govorun & Payne, 2006) responses. These negative outcomes arising from cognitive resource deficits may ultimately reinforce prejudiced attitudes and negative expectations about interracial interactions. Not only does cognitive depletion have negative implications for the quality of interracial interactions, it also is likely to result in negative downstream consequences for the self, such as decreased success at tasks requiring self-control or self-regulation. Thus, understanding the contexts that elicit cognitive depletion in interracial interactions is an important first step in being able to reduce the harms it causes to race relations, as well as the detrimental intrapersonal costs

associated with impaired executive function. The bulk of previous research suggests that the presence of negative expectations for interracial interactions will result in negative interactions, and thus cognitive depletion. The current research offers a more nuanced understanding of the experience of cognitive depletion after interracial interactions: it is proposed that cognitive depletion following interracial interactions is a function of the congruency between one's interaction expectancies and the nonverbal cues of one's interaction partner, specifically whether or not one's interaction partner engages in mimicry behaviors.

Study Overview and Hypotheses

The proposed research will test an explanation for why interracial interactions induce cognitive resource depletion. I propose that the experience of cognitive resource depletion after an interracial interaction is a result of a mismatch between one's expectations for the interaction and the nonverbal behaviors of one's interaction partner. Three different types of interaction expectations will be measured: positive intergroup expectancies, meta-stereotypes, and motivation to control prejudice. For each type of interaction expectation a two-way interaction between expectations and partner mimicry is predicted. Specifically, it is predicted that cognitive depletion *will not* occur for Whites with positive intergroup expectancies who are mimicked by a Black person in an interracial interaction. Cognitive depletion will also *not occur* for Whites with negative intergroup expectancies who are not mimicked in an interracial interaction. In both previous cases, the partner behaves as expected. Conversely, cognitive depletion *will* occur for Whites with positive intergroup expectancies who are not mimicked by a Black person in an interracial interaction. Cognitive depletion *will* also occur for Whites with

negative intergroup expectancies who are mimicked in an interracial interaction. In both previous cases, the partner's behavior is incongruent with expectations. The same patterns should emerge when expectations are assessed via meta-stereotypes and motivations to control prejudice. See Figures 1-4 for a pictorial representation of the predicted results.

Given that the current research is the first empirical test of the interactive effects of mimicry and interaction expectations, this study will focus gender-matched dyads to avoid any potentially confounding effects of gender. Specifically, the current research focuses on female interracial dyads for two important reasons. First, differences in negative affect between same-race and different-race interactions are substantially different when different-race dyads are same-gender, compared mixed-gender interracial dyads (Toosi, et al., 2012). Specifically, inclusion of mixed-gender dyads would make interpretation of mimicry effects convoluted, as these effects could be due to mimicry or the gender of the outgroup member. Second, the current research focuses on females in particular, because previous research suggests that males and females have distinct responses in interracial dyads (Taylor et al., 2000). This research suggests that when experiencing anxiety in an interracial interaction, women are more likely to effortfully express friendliness than men are (Littleford, Wright, & Sayoc-Parial, 2005). Thus, there is reason to believe that women may be more sensitive to the presence or absence of mimicry. Therefore, to provide the cleanest test possible of the impact of interaction expectations and mimicry on cognitive depletion, this research will focus on female interracial interactions.

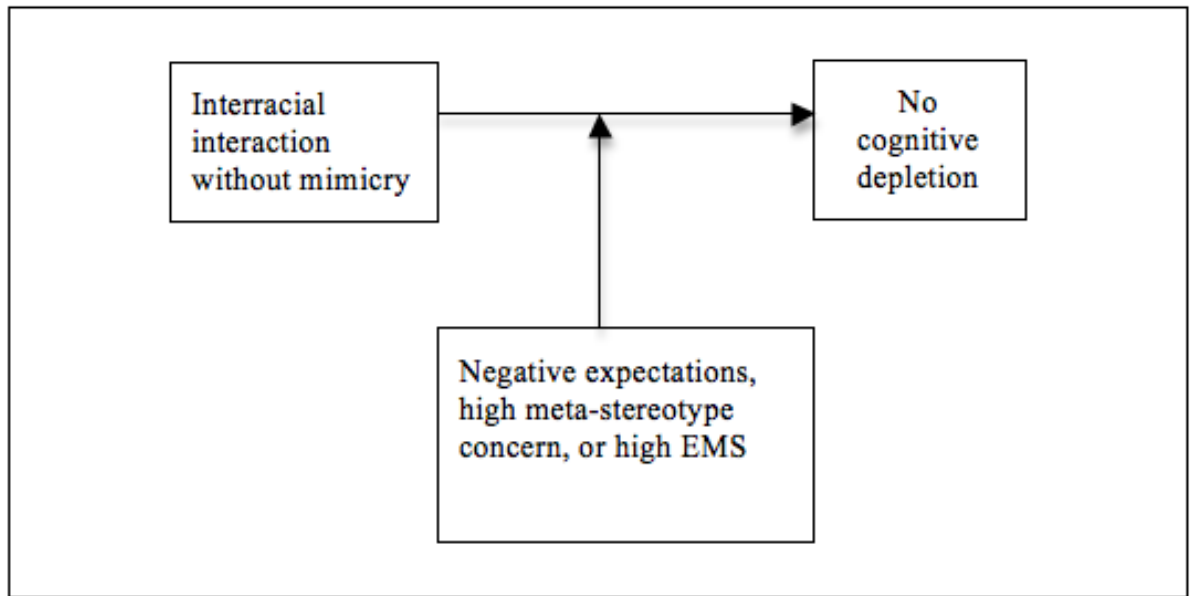


Figure 1. For those with negative expectancies, the predicted impact of *no mimicry* in an interracial interaction on subsequent cognitive depletion

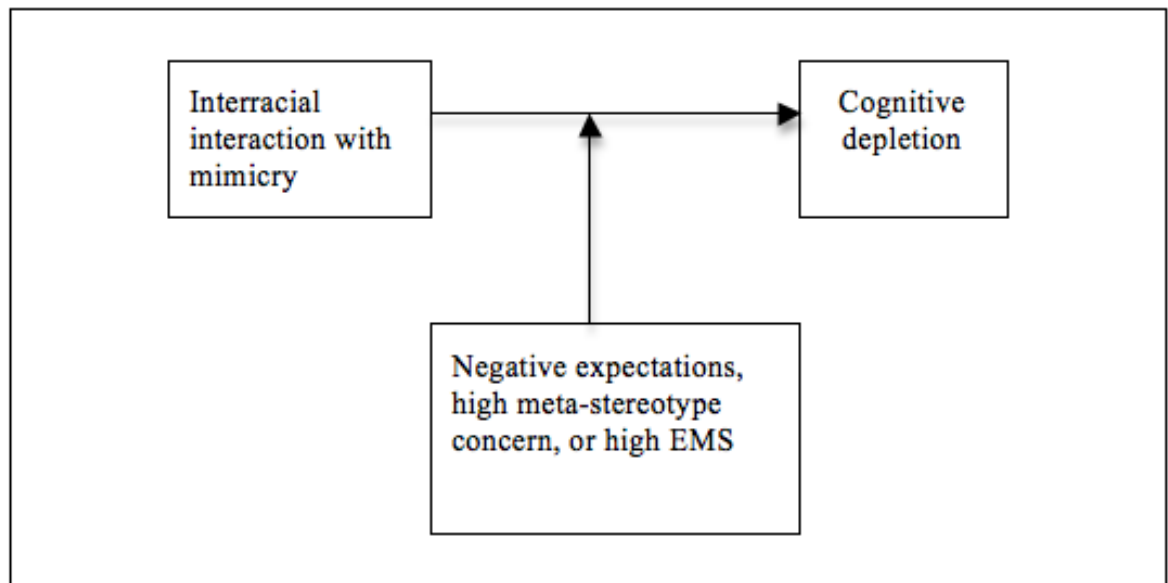


Figure 2. For those with negative expectancies, the predicted impact of *mimicry* in an interracial interaction on subsequent cognitive depletion

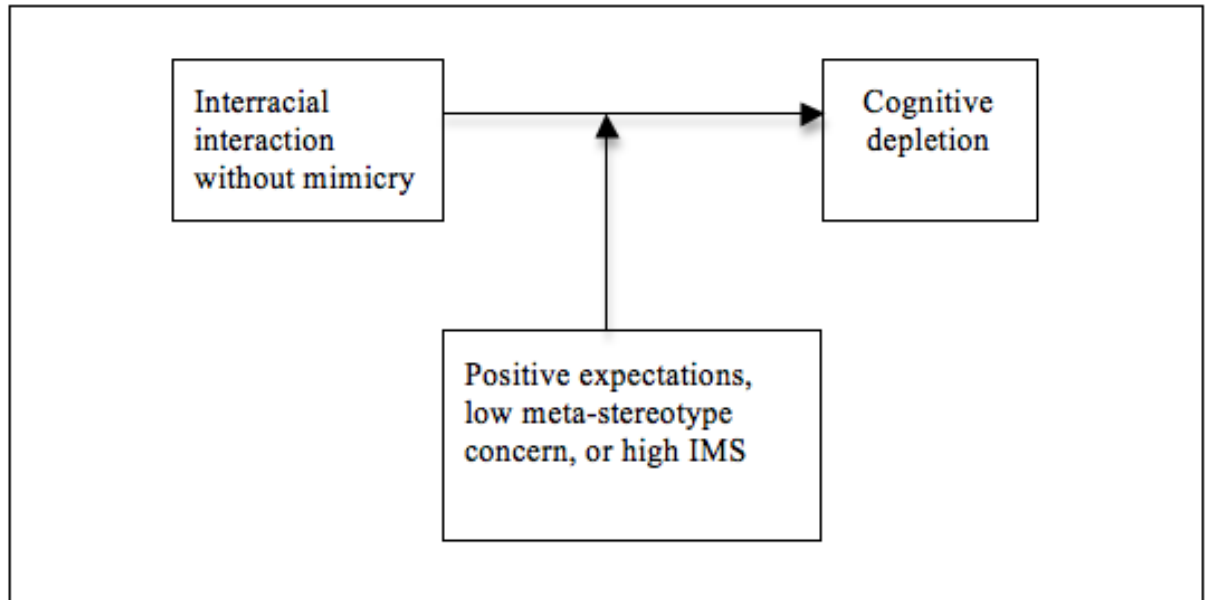


Figure 3. For those with positive expectancies, the predicted impact of *no mimicry* in an interracial interaction on subsequent cognitive depletion

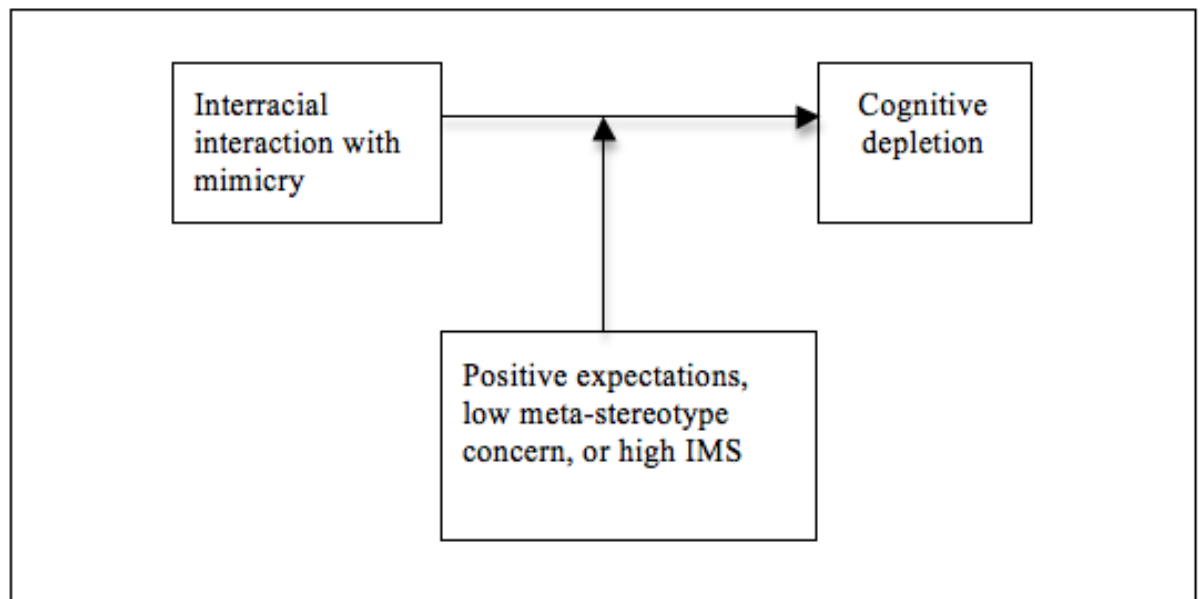


Figure 4. For those with positive expectancies, the predicted impact of *mimicry* in an interracial interaction on subsequent cognitive depletion

Method

The current research is an experimental study testing the prediction that Whites' experience of cognitive depletion after an interracial interaction is dependent upon the match between their expectations for interracial interactions and their interaction partner's nonverbal behaviors (i.e., mimicry).

Participants and Design

One hundred twenty five White female participants were recruited to participate in a study on 'personality and working styles.' A G*Power (Faul, Erdfelder, Buchner, & Lang, 2007) power analysis demonstrates that for a linear regression analysis with a Cohen's f-squared of .15, a desired power level of .90, and 9 predictors, a sample size of 99 is required. Participants completed measures of interaction expectations (i.e., interaction expectancies, meta-stereotypes, and motivation to control prejudice) during prescreening. Eligible participants were invited to participate in the lab study on 'personality and working styles,' and were randomly assigned to interact with a Black female confederate who either mimicked or did not mimic them in an interracial interaction.

Measures

Intergroup interaction expectations. Interaction expectations were measured using Tropp's (2003) Positive Intergroup Expectancies Scale (see Appendix A). Participants responded to five items, on 1 (strongly disagree) to 9 (strongly agree) Likert scale, that assessed how much they expect positive experiences in interactions with Blacks (i.e., outgroup interaction expectations; $\alpha = .93$) and five items that assessed how much they expect positive interactions with Whites (i.e., ingroup interaction expectations;

$\alpha = .95$). Examples include, “I think I would get along with most Blacks (Whites)” and “I think I would have a lot in common with most Blacks (Whites).”

Meta-stereotypes. Because interracial interaction expectancies are also driven by the degree individuals expect to be viewed in terms of meta-stereotypes, participants completed a measure of meta-stereotypes. Participants answered seven questions that assessed their endorsement of meta-stereotypes. For example, participants were asked to what extent they believe the average Black person views Whites to be prejudiced (close-minded, unfair, arrogant, racist, intolerant, selfish) against Blacks (0 = not at all to 10 = very much; $\alpha = .96$). See Appendix B.

Motivation to control prejudice. The Internal and External Motivation to Respond Without Prejudice Scales (the IMS and EMS, respectively; Plant & Devine, 1998) assessed the sources of individuals’ motivations to respond without prejudice. Participants responded to 10 items on a 1 (strongly disagree) to 9 (strongly agree) Likert scale. Example EMS items include “I try to hide any negative thoughts about Black people in order to avoid negative reactions from others” and “I try to act nonprejudiced toward Black people because of pressure from others” ($\alpha = .80$). Example IMS items include “According to my personal values, using stereotypes about Black people is ok (R)” and “Being nonprejudiced toward Black people is important to my self-concept” ($\alpha = .86$). People’s sources of motivation to respond without prejudice in an interracial interaction has been shown to predict expectancies for interracial interactions (Plant, 2004), thus inclusion of these measures may provide additional insight into why individuals may expect either positive or negative interracial interactions.

Outcome measures. Participants completed the following outcome measures after their interaction with the confederate.

Cognitive Resource Depletion. Participants completed the Stroop (1935) color-naming task as a measure of cognitive depletion. For this task, participants were presented with the names of colors (blue, green, red, and yellow) or a string of X's displayed in the center of the computer screen in variations of these four colors. Participants were instructed to indicate the color of the word that appears on the screen using a color-coded keyboard. On some trials the name of the color and color of the font were congruent (i.e., the word "Blue" presented in blue font), and on other trials the name of the color and color of the font were incongruent (i.e., the word "Blue" presented in red font). Color names or control xs appeared on the screen one at a time. Each word or color stimulus appeared for a maximum of 2,000 ms, preceded by a fixation cross (+). The intertrial interval was 1,500 ms. The task consisted of 32 practice trials followed by 120 experimental trials. Incongruent trials were those in which the color name appears in a color other than the semantic meaning (e.g., blue in red font), whereas control trials were those in which the "xxxx" is presented in colored font. Reaction time is slowed on incongruent trials because literate adults tend to automatically read the word rather than name the color in which the word appears. Because overriding this automatic response requires effort and self-control, reactions times are especially slow when individuals are cognitively depleted. Stroop interference, an indicator of cognitive resource depletion, is computed by subtracting reaction times for the series of Xs from reaction times for mismatched trials (Richeson & Shelton, 2003; Richeson & Trawalter, 2005).

Mood. Participants completed a measure of mood, the brief Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988;). The PANAS consists of 10 positive affect words (e.g., interested, excited; $\alpha = .89$), and 10 negative affect words (e.g., distressed, guilty; $\alpha = .83$). Word order was random across participants, and for each item the participant was asked to indicate to what extent they feel that emotion at the current moment on a scale from 1 to 5, with 1 being slightly or not at all and 5 being extremely. See appendix D for the full measure.

Explicit prejudice. Explicit prejudice was assessed using a feeling thermometer, a method commonly used to assess feelings towards nine social groups. Participants rated how positive they felt towards a given group on a scale from 0-100. Participants provided ratings of Blacks and Whites, as well as several other social groups (e.g., Muslims, Jews, Asian Americans). Scores range between 0 (*Cold/Not Positive*) to 100 (*Warm/Positive*), with a midpoint of 50 (*Neutral*) ($\alpha = .89$). See Appendix E.

Contact. Previous and current contact with ingroup and outgroup members was assessed with items adapted from adapted from Yip, Seaton, and Sellers, 2010. Participants answered six questions about the racial makeup of their social experiences in high school and currently at Tulane. Ratings were provided on a 5-point Likert scale ranging from 1 (Almost all White students) to 5 (Almost all Black students) ($\alpha = .89$). See Appendix F.

Quality of contact. Quality of contact with Blacks was also assessed with eight items adapted from Gomez, Tropp, and Fernandez, 2011. Examples include, “I consider my contact with Black people to cooperative,” and “I consider my contact with Black

people to be intimate.” Participants provided their ratings on a 1 (totally disagree) to 7 (totally agree) Likert scale ($\alpha = .89$). See Appendix G.

Warmth and liking. Participants indicated how warm they felt towards their interaction partner and how much they liked their interaction partner. Ratings were provided on a 1 (not very much) to 7 (a lot) Likert scale. See Appendix H.

Procedure

Participants completed all predictor variables (i.e., interaction expectations, meta-stereotypes, and motivation to control prejudice) during a mass prescreening in Qualtrics. Participants then signed up to participate in a study of ‘Personality and Working Styles.’ Participants were told the purpose of the study was to examine how personality characteristics contribute to the way individuals work independently and with others. Upon arrival to the lab, participants were greeted by one of five experimenters running the study (four White females, and one White male) and were escorted into the lab to read the consent form. After consenting, the experimenter brought the participant’s interaction partner (i.e., one of five Black female research confederates) into the lab room and explained to both that the study consisted of two tasks: a joint task and an independent task. For the joint task participants and the research confederate completed the photo description task together (adapted from Chartrand & Bargh, 1999). During the photo description task the trained confederates either mimicked the participants’ nonverbal behaviors or did not mimic, and instead either maintained neutrality or engaged in the opposite nonverbal behavior than the participant. Participant/confederate interactions were videotaped during the photo description task (the videos will be coded for subsequent research).

During the photo description task, participant and confederate were seated across from one another with a small coffee table between them. The experimenter placed two sets of photographs face-down on the coffee table (one in front of each person), and explained that they should take turns describing the photos to each other, each description should be approximately one minute long, and that they should avoid showing each other the pictures. Each set contained six photos of nature scenes selected from *National Geographic*. Photos were pre-tested to ensure equal complexity to allow for equal length of descriptions. Participant and confederate always received the same set of 6 photos, although photo order was random. To ensure reliability across confederates and experimental sessions, confederate descriptions were scripted. The experimenter confirmed that the instructions were clear, and then told the confederate that she had been randomly to go first--this was to establish a precedent of length and detail of description for the participant to match. The experimenter left the room and waited in the hallway during the photo description task. Once the photo description task was complete a bell was rung to signal to the experimenter that the task was complete. The experimenter then entered the lab room and set the participant up on a computer for the independent tasks, and then escorted the confederate to a neighboring lab room for her ostensible independent tasks. These procedures were adapted from Chartrand and Bargh (1999) and are consistent with prior mimicry research in interracial interactions (e.g., Dalton et al., 2010; Heider & Skowronski, 2009).

All the independent tasks were completed on a desktop computer in MediaLab. Participants first completed the main dependent variable of interest: the Stroop color-naming task. Next, participants completed ratings of warmth and liking of their

interaction partner, the PANAS, and the feeling thermometer. Lastly, participants answered questions assessing quantity of previous and current contact with ingroup (i.e., Whites) and outgroup members (i.e., Blacks), and quality of contact with Black people. Upon completion of all computer tasks participants were funnel debriefed to assess suspicions of the study's hypotheses, detection of mimicry or any suspicious or uncomfortable nonverbal cues, and suspicion about their interaction partner being a research confederate.

Results

Preliminary analyses

Appropriate items on Likert-type scales were reverse scored and averages were created for each of the following variables: the intergroup interaction expectation subscales: ingroup expectations and outgroup expectations, meta-stereotypes, IMS and EMS, and the PANAS. Meta-stereotype and intergroup interaction expectations were reverse-scored so that interpretation across independent variable was consistent (i.e., more positive numbers indicate more positive expectations, while more negative numbers indicate more negative expectations). Table 1 shows the means, standard deviations, ranges, and correlations among all variables. One participant indicated during the debriefing that she knew the confederate was not a real participant, thus this individual is excluded from all analyses. MediaLab did not record Stroop data for nine participants, and did not record any data for three participants. Eight participants only completed some of the predictor measures during prescreening, or consented but did not complete any of the measures. Degrees of freedom vary for the afore-mentioned reasons.

Intergroup interaction expectations. The intergroup interaction expectations scale contains two subscales: positive ingroup interaction expectations and positive outgroup interaction expectations. A bias score was created from these two sub-scales by subtracting outgroup expectation score from ingroup expectation scores, thus higher numbers would indicate more ingroup bias, or more positive expectations for interacting with one's ingroup compared to the outgroup. As mentioned above, in order to keep interpretation of this scale consistent with the other predictors, scale items were reverse-scored. These transformations make high numbers on this scale indicative of more nonbiased intergroup interaction expectations, therefore in order to remind the reader of the meaning of this scale henceforth this scale will be referred to as, "*nonbiased interaction expectancies.*"

Stroop. Consistent with the procedures detailed in Richeson and Shelton (2003), all Stroop latencies greater than 2,000 ms were recoded as 2,000 ms, and all latencies less than 200 ms were recoded as 200 ms. These trimmed reaction times (RTs) were then log-transformed in order to better approximate normality, and then averaged according to type of trial (i.e., congruent, incongruent). However, the untransformed values are presented in the figures and main text. Stroop interference scores were calculated by subtracting the average transformed RTs for responses to congruent trials from average transformed RTs for responses to incongruent trials. Greater values reflect greater Stroop interference (and cognitive depletion), thus worse task performance. In the present sample, Stroop interference scores ranged from -92.11 to 207.16.

Explicit prejudice. Participants provided ratings of how positively they felt towards the following groups: African Americans, Asian Americans, gay men, homeless

people, Latinos, lesbians, men, Whites, and women. Ingroup bias scores were calculated by subtracting the rating for a given outgroup from participants' rating of their ingroup, thus higher numbers represent greater levels of ingroup bias. Because all participants were women, an ingroup bias for gender was also created. Correlations among ingroup bias scores are presented in Table 2.

Hypothesis testing

Five separate hierarchical linear regression analyses tested the hypothesis that mimicry condition would interact with the four measures of interaction expectancies (i.e., nonbiased interaction expectancies, meta-stereotypes, IMS, and EMS) to predict cognitive depletion, negative affect, positive affect, and the exploratory variables explicit prejudice and quality of outgroup contact. Mimicry condition was dummy coded (0 for mimicry condition, and 1 for the no mimicry condition), and nonbiased interaction expectancies, meta-stereotypes, IMS, and EMS were all centered around zero.¹ Dummy-coded condition and the continuous predictors were multiplied to create the four two-way interaction terms. Dummy coded condition, and the four interaction expectancy predictors were entered at Step 1. At Step 2, the four interaction terms were entered. Only significant results are discussed herein, but see Tables 3-7 for a full summary of each analysis.

Cognitive depletion. At Step 1 the overall model was not significant, $R^2 = .08$, $p = .10$. However, a main effect of meta-stereotypes was detected, such that the less participants endorsed meta-stereotypes the greater cognitive depletion they experienced after an interracial interaction, $b = -7.30$, $t(107) = 2.57$, $p = .01$. The Step 2 model was

¹ Controlling for participants previous and current contact with Black people did not significantly improve any of these models.

also non-significant, $\Delta R^2 = .03$, $p = .47$, though the main effect of meta-stereotypes remained significant, $b = -8.83$, $t(103) = 1.43$, $p = .02^2$. See Table 3 for a fully summary of the analysis.

Negative affect. At Step 1 the overall model was not significant, $R^2 = .07$, $p = .13$. At Step 2 the model was also non-significant, $\Delta R^2 = .05$, $p = .25$, however an interaction between mimicry condition and nonbiased interaction expectancies was detected, $b = -.33$, $t(105) = 2.07$, $p = .04$ (See Figure 5). Tests of simple slopes revealed a marginal effect for individuals who were not mimicked: as interaction expectancies became less biased there was an increase in negative affect, $b = -.22$, $t(105) = 1.84$, $p = .07$. For individuals who were mimicked, there was no relation between negative affect and bias in interaction expectancies. $b = -.10$, $t(105) = 1.04$, $p = .30$. See Table 4 for a fully summary of the analysis.

² Tolerance for meta-stereotype x mimicry condition ranged from .12 - .14, therefore these estimates are likely unstable and should be interpreted with caution.

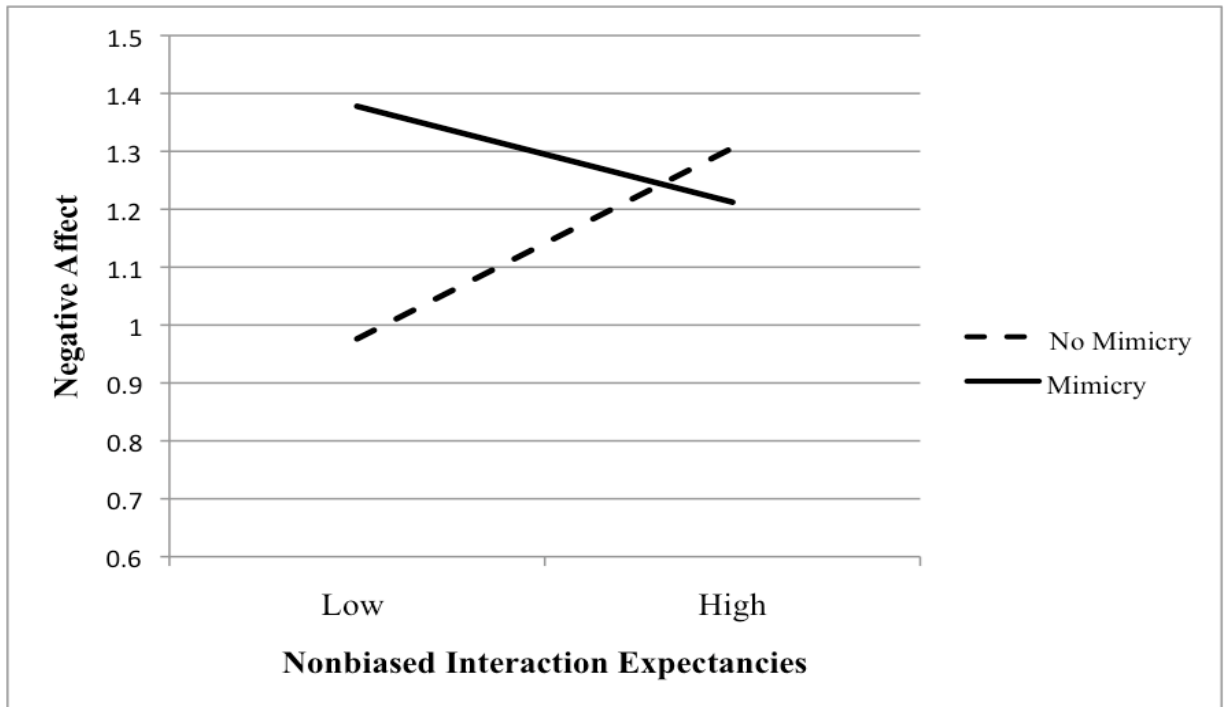


Figure 5. Interaction between mimicry condition and nonbiased interaction expectancies on negative affect.

Positive affect. At Step 1 the overall model was marginally significant, $R^2 = .09$, $p = .06$. A main effect of meta-stereotypes was detected, such that the less participants endorsed meta-stereotypes the less positive affect they experienced after an interracial interaction, $b = .11$, $t(109) = 2.62$, $p = .01$. The Step 2 model was significant, $\Delta R^2 = .11$, $p = .01$, though the main effect of meta-stereotypes was no longer significant, $b = .06$, $t(105) = 1.13$, $p = .26$. Additionally, as predicted, the interaction between IMS and mimicry condition was significant, $b = -.32$, $t(105) = 3.18$, $p = .002$; see Figure 6. Tests of simple slopes revealed that for individuals who were not mimicked, as IMS increases positive affect decreases, $b = -.30$, $t(105) = 3.70$, $p < .0001$. For individuals who were mimicked there was no relationship between IMS and positive affect, $b = .02$, $t(105) = .37$, $p = .71$.

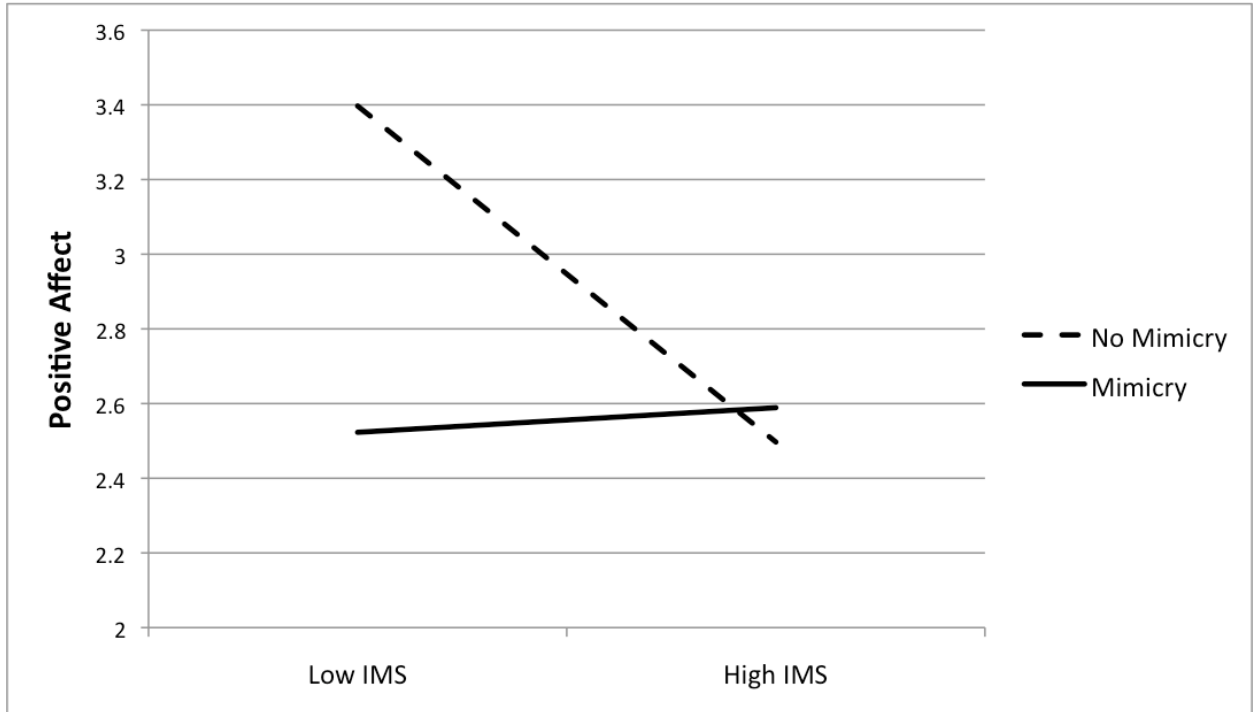


Figure 6. Interaction between mimicry condition and internal motivation to control prejudice on positive affect.

Furthermore, as predicted, the interaction between nonbiased interaction expectancies and mimicry condition was significant, $b = .39$, $t(105) = 2.02$, $p = .05$; see Figure 7. Tests of simple slopes revealed that for individuals who were not mimicked, less biased interaction expectancies were associated with a decrease in positive affect, $b = .44$, $t(105) = 3.08$, $p = .003$. For those who were mimicked, there was no relationship between nonbiased interaction expectancies and positive affect, $b = -.05$, $t(105) = .42$, $p = .67$. See Table 5 for a full summary of the analysis.

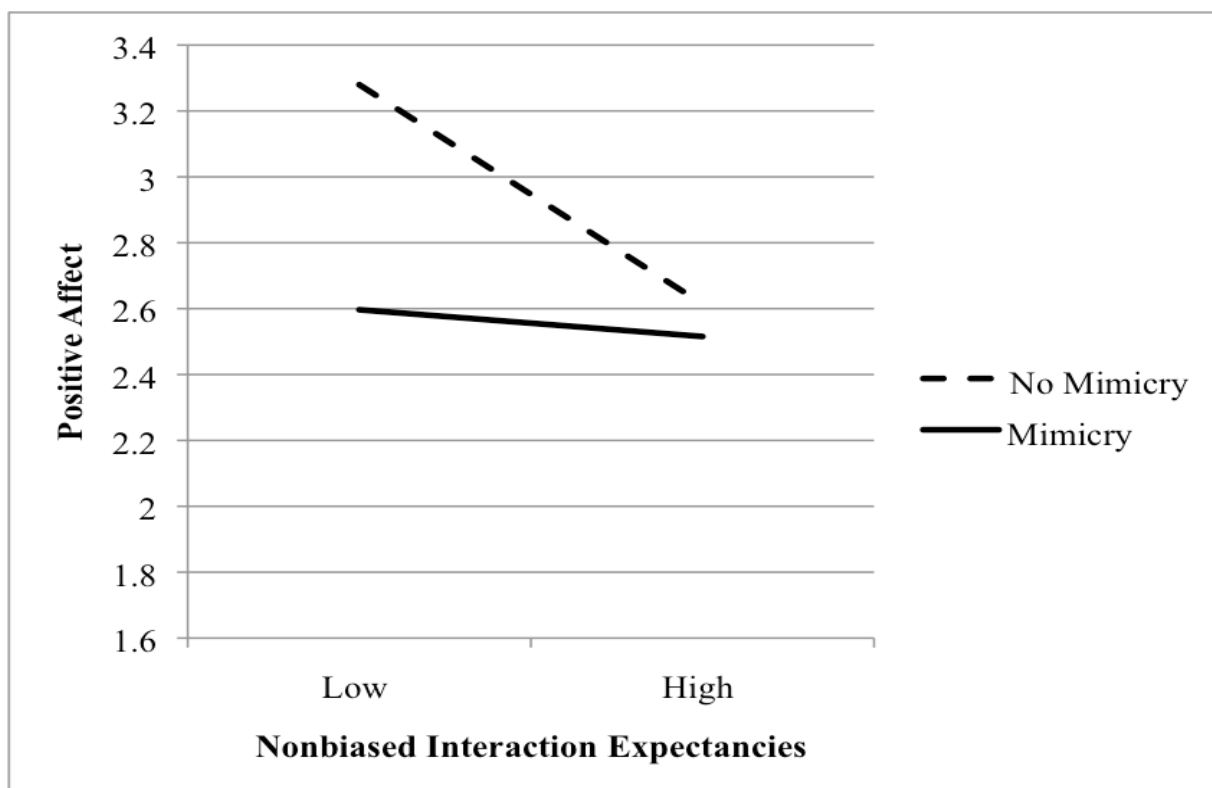


Figure 7. Interaction between mimicry condition and nonbiased interaction expectancies on positive affect.

Contact quality. At Step 1 the overall model was not significant, $R^2 = .29$, $p = .09$. However, a main effect of meta-stereotypes was detected, such that participants with lesser endorsement of meta-stereotypes reported more negative interracial contact following an interaction with a Black person, $b = .07$, $t(109) = 2.06$, $p = .04$. The Step 2 model was also non-significant, $\Delta R^2 = .01$, $p = .87$, and the main effect of meta-stereotypes was no longer significant, $b = .08$, $t(105) = 1.68$, $p = .10$. See Table 6 for a fully summary of the analysis.

Explicit prejudice. At Step 1 the overall model was significant, $R^2 = .19$, $p < .0001$. A main effect of IMS was detected, such that participants with higher levels of IMS reported greater explicit prejudice following an interracial interaction, $b = 2.20$, t

(109) = 2.69, $p = .008$. A main effect of nonbiased interaction expectancies was also found. Participants with more nonbiased interaction expectancies reported more explicit prejudice following an interracial interaction, $b = 3.24$, $t(109) = 2.08$, $p = .04$. Though the Step 2 model was not significant, $\Delta R^2 = .03$, $p = .42$, the main effect of IMS remained significant, $b = 2.70$, $t(105) = 2.62$, $p = .01$. However, in the Step 2 model, the main effect of egalitarian interaction expectations was no longer significant, $b = 2.85$, $t(105) = 1.32$, $p = .19$. See Table 7 for a fully summary of the analysis.

Subsidiary analyses.

Given that none of the predicted effects of being mimicked emerged in the current sample, I explored participants' ratings of liking and warmth towards the confederate as a manipulation check, and to ascertain whether the typical mimicry effects (i.e., increased liking and interpersonal warmth) were occurring. Participants ratings of how much they liked the confederate ($M = 4.94$) and how warm ($M = 4.3$) they felt towards them were highly correlated, $r = .49$, $p < .0001$, thus these items were combined to create a warmth/liking aggregate. A one-way Analysis of Variance (ANOVA) examined the impact of mimicry condition on participants' warmth/liking scores. Participants' feelings of warmth and liking of the confederate did not vary between mimicry conditions, $F(1, 120) = .50$, $p = .48$. Participants in the mimicry condition reported similar levels of liking and warmth ($M = 4.56$) as those in the no mimicry condition ($M = 4.92$).

Discussion

The present research sought to examine the novel hypothesis that experiencing cognitive depletion after an interracial interaction is not necessarily the norm, but rather dependent upon a match between one's expectations and the nonverbal behaviors (i.e.,

mimicry) of one's interaction partner. In contrast to previous research, which suggests that mimicry is counternormative in interracial interactions, and as such elicits cognitive depletion, the present research theorized that one's experience in an interracial interaction should be significantly impacted by the expectations one has for such interactions. For the main dependent variable of interest, cognitive depletion, these predictions appear almost wholly unsupported by the current research. However, White individuals' expectations for interracial interactions did predict unique affective and attitudinal outcomes following an interracial interaction.

First, it is necessary to address the null findings for cognitive depletion following mimicry by an outgroup member. These findings are noteworthy, not just because the predicted interactions failed to emerge, but more so because this study failed to replicate previous research documenting cognitive depletion following an interracial interaction with mimicry (Dalton et al., 2010). Though one might accept that perhaps positive expectations are not powerful enough to override cognitive depletion effects, it is surprising that no main effects of cognitive depletion emerged in the mimicry condition. In fact, Stroop interference scores were quite low in both the mimicry ($M = 44.83$ ms) and no mimicry condition ($M = 32.79$ ms), which suggests that the interracial interactions in our current study did not elicit the same degree of cognitive depletion as found in previous research. For example, Dalton et al. (2010) found that participants mimicked by an outgroup member had average Stroop interference scores of ~190 ms, whereas those not mimicked evinced Stroop interference scores of ~40ms. Thus, participants in the present research evinced cognitive depletion levels more similar to those deemed by Dalton et al. (2010) to have no performance deficit. In other words, mimicry or its

absence did not induce performance deficits similar to those found in prior research. This claim is further corroborated if one compares Stroop interference scores in the present research to those found in other intergroup research on cognitive depletion (e.g., Richeson & Shelton, 2003, Richeson & Trawalter, 2005; Trawalter & Richeson, 2006). One potential explanation for this null finding lies in participants' ratings of warmth and liking of the confederates they interacted with. Across mimicry conditions, participants indicated liking and feelings of warmth above the mid-point of the scale. Furthermore, no main effects of condition were detected. Thus, it may be that the confederates in the current research engaged in other behaviors that elicited liking from the participants, and as such they did not find their interaction to be cognitively depleting.

Although mimicry did not differentially impact cognitive depletion in the present research, one interesting effect did emerge: individuals lower in meta-stereotype endorsement evinced the greatest amounts of cognitive depletion. Much previous research documents cognitive depletion after interracial interactions among those high in prejudice (Amodio, 2009; Richeson et al., 2003; Richeson & Shelton, 2003; Trawalter & Richeson, 2006). Indeed, high meta-stereotype endorsement is associated greater levels of prejudice, more negative intergroup interaction expectations, and overall more negative interaction experiences (Finchilescu, 2010; Vorauer et al., 1998). Therefore, theorizing based on prior research would suggest that those high in meta-stereotype endorsement would be the most cognitively depleted following an interracial interaction, however the current research found the opposite. Although at first this finding appears puzzling, there are methodological differences that exist between the current and prior research that may partially explain this discrepancy.

One potential explanation lies in the content of the conversation between the confederates and the participants. The photo description task lends itself to neutral, perhaps borderline positive, conversation topics. Recent research has shown that cognitive depletion effects diminish when individuals in interracial interaction discuss neutral, compared to intimate conversation topics (Zabel, Olson, Johnson, & Phillips, 2015). Indeed previous research examining cognitive depletion in interracial interactions has had interactants talk about themselves (a potentially intimate topic) and/or discuss race related topics (e.g., Richeson & Shelton, 2003; Richeson & Trawalter, 2005; Richeson, Trawalter, & Shelton, 2005). Furthermore, recent research suggests that negative meta-stereotypes only worsen interracial interactions when their retrieval difficulty is high (Vásquez, Dovidio, & Gómez, 2016), and that high racial salience is necessary to activate meta-stereotypes for Whites (Frey & Tropp, 2006). In the present research, participants' major focus during their interracial interaction was the picture description task, and because of this racial salience was likely quite low. Indeed, the majority of participants indicated during debriefing that they did not surmise the study was about race until they reached the racial contact and quality questions at the end of the study. Thus, one reason why the present research did not find cognitive depletion effects among individuals with negative intergroup expectations could be due to a lack of racial salience and the neutral/positive nature of the conversation, yet this remains an open question for future research. While low racial salience may explain why individuals high in meta-stereotype endorsement did not find their interracial interaction cognitively depleting, it does not explain why individuals low in meta-stereotype endorsement *did* experience cognitive depletion.

Given that individuals with low meta-stereotype endorsement tend to also be low in prejudice, it is possible that these individuals place greater value on conveying their nonprejudiced beliefs in an interracial interaction. This notion is consistent with research showing that individuals carefully monitor their thoughts, feelings, and behaviors during interracial interactions in order to avoid being perceived as prejudiced (Devine et al., 1996; Monteith, 1993)—a cognitively demanding task that impairs cognitive resources (Engle, Conway, Tuholski, & Shisler, 1995; Muraven & Baumeister, 2000). Similar to individuals who are high in IMS, individuals low in meta-stereotype endorsement may be more intrinsically motivated to avoid being prejudiced, and are therefore exerting extra effort to monitor thoughts, feelings, and behaviors in interracial interactions. This explanation is corroborated by the fact that IMS and meta-stereotypes were highly correlated in the present sample. Furthermore, research supports the notion that those who are intrinsically motivated to avoid prejudice engage in extra effort in all interracial interactions, regardless of the cues from their interaction partner (Plant & Devine, 2009). In other words, because these individuals are personally motivated to be non-prejudiced they will make substantial efforts in all intergroup situations. Likewise, other research has shown that following a belief-discrepant response people who view prejudice as personally unacceptable devote regulatory effort to figuring out how to prevent future prejudiced responses (Monteith, 1993; Monteith, Ashburn-Nardo, Viols, & Czopp, 2002). Thus, in the current research it seems likely that individuals low in meta-stereotype endorsement engaged in extra effort to monitor their responses, resulting in subsequent cognitive depletion.

While the presence or absence of mimicry did not differentially impact cognitive depletion in the present research, statistically significant interactions did emerge on affective outcomes. Consistent with predictions, Whites' positive affect following an interracial interaction was moderated by their expectations for interracial interactions and whether or not their Black interaction partner mimicked them. In the present research it was the absence, rather than the presence, of mimicry that led to negative outcomes after an interracial interaction. In particular, it was Whites with more positive expectations that had negative affective experiences following an interracial interaction. Specifically, for individuals who were not mimicked, as interaction expectancies become less biased there was a decrease in positive affect. A similar pattern emerged for IMS, such that for those not mimicked, as IMS increased, positive affect decreased. This finding is consistent with prior research demonstrating that individuals with positive expectations who experienced interracial interactions that were discrepant with their intrinsic motivations to be non-prejudiced subsequently experienced negative self-directed affect (Monteith, Mark, & Ashburn-Nardo, 2010). These findings are also consistent with research showing that engaging in a behavior in an interracial interaction that is inconsistent with one's attitudes leads to negative inter- and intra-personal outcomes (Pearson et al., 2013). Importantly, these findings extend the existing literature from the mismatch of self-attitudes and behavior to the behaviors of one's interaction partner. Additionally, the current research suggests that the *absence*, rather than the presence, of mimicry is associated with more negative experiences, a finding counter to previous research. Dalton et al., (2010) argue that mimicry in interracial interactions is not normative, and therefore its presence does more harm than good—the typical outcome associated with mimicry. In contrast, the

current findings suggest that the absence of mimicry induces negative emotional experiences, and while the presence of mimicry does not appear to engender positive outcomes, its absence does appear to be deleterious, which suggests that mimicry in interracial interactions might not be so counternormative after all. Taken altogether, it appears that the impact of mimicry in interracial interactions still remains equivocal, and further research is needed to fully understand the benefits and costs to behavioral mimicry in interracial interactions.

The pattern of effects for mimicry and interaction expectations was further corroborated with negative affect: for individuals who were not mimicked, less biased interaction expectancies were associated with increases in negative affect. Examining these findings in conjunction with the positive affect results, it appears that individuals with less biased interaction expectations find the absence of mimicry to be a negative interpersonal experience, which induces not only a decrease in positive emotions, but also a concurrent increase in negative emotions. This pattern of findings is noteworthy because recent research suggests that interracial interactions tend to be associated with less positive emotions, but not more negative emotions (Mallet, Akimoto, & Oishi, 2016). The present research extends upon this finding by demonstrating that unmet positive expectations for interracial interactions (i.e., no mimicry) results in both decreases in positive affect and increases in negative affect. Although caution must be exercised when interpreting null findings, altogether the current research paints a more nuanced picture for the role of mimicry in interracial interactions. Individuals' schemas for mimicry in interracial interactions appear more flexible and multifaceted than previously contended; not only does the presence of mimicry equivocally engender

cognitive depletion, it appears that the absence of mimicry from interracial interactions can be damaging for those with positive expectations.

Lastly, three main effects emerged for the exploratory variables of contact quality and explicit prejudice. For contact quality it was found that lower meta-stereotype endorsement was associated with reports of more negative interracial contact with Blacks. This finding seems counterintuitive, however given that these individuals experienced cognitive depletion, it may be that these individuals are generalizing their negative experiences to the group. This interpretation is consistent with previous research that found that those with positive interracial interaction expectations who have a negative interracial interaction subsequently report more negative outgroup attitudes (Deegan et al., 2015). For explicit prejudice, the same surprising pattern was found: higher IMS and less biased interaction expectancies were associated with greater levels of explicit prejudice. While it is unexpected that greater levels of explicit prejudice would be found among those with positive interracial interaction expectancies, in the current sample this finding fits the general pattern of results: individuals who report more positive expectations have more negative outcomes following interracial interactions.

To summarize, the current research found that it was Whites who expected positive interactions with Blacks that experienced negative emotional outcomes following an interracial interaction. Importantly though, these findings pertain specifically to interracial interactions in which Black interaction partners did not mimic Whites. Whites who expressed positive expectations for interracial interactions experienced more negative affect and less positive affect following an interracial interaction without mimicry. This finding is in fact similar to recent research by Deegan

et al. (2015) demonstrating that individuals who had positive expectations but experienced a negative interaction reported negative outgroup attitudes as negative as those with negative expectations. The difference between Deegan et al. (2015) and the present research lies in the fact that Deegan et al.'s (2015) participants all experienced a negative interracial interaction, whereas half of the participants in the present sample *ostensibly* experienced a positive interaction—a contention I will address later in the discussion.

Furthermore, Whites who expected positive interracial interactions experienced greater cognitive depletion, reported that the quality of their contact with Blacks was more negative, and expressed greater explicit prejudice than those with more negative interaction expectations. In other words, it was those who expected high quality interracial interactions that experienced negative emotions following an interracial interaction and subsequently reported that their experiences do not match their expectations. These findings are surprising because they stand in contrast to a large body of research demonstrating that it is Whites who expect negative interracial interactions that tend to have such experiences. More specifically, previous work indicates that people who anticipate negative outcomes in interracial interactions tend to both anticipate and experience more negative affective reactions (e.g., Britt, Boniecki, Vescio, Biernat, & Brown, 1996; Devine, Evett, & Vasquez-Suson, 1996; Plant & Butz, 2006; Plant & Devine, 2003). Furthermore, research demonstrates that individuals with negative interaction expectations report less positive contact experiences than those with positive expectations (e.g., Plant, 2004). The present research finds the opposite: those with more positive interaction expectations are the ones reporting less positive contact experiences.

Perhaps even more troubling, is the finding that those who had positive outgroup expectations, but then experienced a negative emotional state following an interracial interaction, subsequently reported higher levels of explicit prejudice towards Blacks. Thus, these individuals appear to be generalizing their negative contact experiences to the outgroup as a whole.

One interpretation that could be drawn from these findings is that individuals who had positive expectations for interracial interactions did not have these expectations met, and therefore left the interaction with negative emotions, and then generalized their negative experience to the outgroup in the form greater explicit prejudice and perceived negative contact quality with Blacks. However, this reasoning does not take into account that half our participants experienced an interracial interaction with positive nonverbal feedback. Furthermore, research shows that Whites tend to enter interracial interactions wanting to be liked (Bergseiker et al., 2010), and because mimicry behaviors engender and foster liking (Chartrand & Bargh 1999) it stands to reason that Whites should have found these interactions to be positive in nature. So, why is it that Whites who had the most positive expectations for an interracial interaction had the most negative attitudinal outcomes, regardless of whether their interaction partner engaged in positive nonverbal behaviors?

One possibility is that while our participants may have had positive expectations for their interactions with Blacks, they may have had negative response expectancies—an expectation that regardless of one's intentions, one's interracial interaction partners will reject and respond negatively to them due to their race (Butz & Plant, 2006). In other words, while our participants may expect that they would enjoy interracial interactions,

their beliefs that interaction partners will reject them and respond negatively to them may cause them to have negative experiences in actual interactions. Future research should measure interaction expectations and response expectancies to determine their unique contributions to experiences in interracial interactions.

Another possibility stems from the characteristics of the confederates in the current research. Our team of research confederates were quite heterogeneous in nature, and although individuals tend to see the outgroup as more homogenous than one's ingroup (Boldry, Gaertner, & Quinn, 2007; Linville, 1998), characteristics such as perceived SES and peer-status may have influenced the degree to which participants perceived the confederates as similar or dissimilar to themselves. A future direction for the present research will be to examine the video taped interactions and examine confederate characteristics as a predicting variable. Indeed, there is a current movement in social psychology to examine issues related to intersectionality (e.g., Bowleg, 2008), and it remains an important theoretical question to address the impact of multiple social identities.

Limitations and Future Directions

One limitation of the current work is that the sample consisted entirely of women. In the context of interracial interactions it is particularly important to consider gender because previous work shows that men and women invoke different behavioral strategies when experiencing anxiety over an interracial interaction. There may also be differences in men and women's responses to interracial encounters, with women being more likely than men to respond to the stress of an interracial interaction with positive engaged behavior (Taylor et al., 2000). For example, when experiencing intergroup anxiety, White

women responded by acting friendlier toward a racial outgroup partner, but White men acted less friendly (Littleford, Wright, & Sayoc-Parial, 2005). Furthermore, research suggests that women tend to be more internally motivated to avoid prejudice than men (Ratcliff, Lassiter, Markman, & Snyder, 2006). Therefore, the current findings should not necessarily be generalized to male only interracial dyads, or mixed gender dyads. Thus, one future direction would be to examine the role of interaction expectations and mimicry in male only and mixed gender interracial dyads. Indeed, it may be that because women tend to engage in more mimicry in general, our female only dyads were less sensitive to the presence of mimicry or absence of mimicry because both scenarios matched a schema for group membership and mimicry norms: women expect mimicry in interactions with other women, and individuals do not expect mimicry in interracial interactions. Thus, our participants could have relied upon the ‘Women-mimicry’ schema or the ‘Outgroup member-mimicry’ schema and found either scenario schema-consistent.

Given that those with positive expectations experienced the most negative affective and attitudinal outcomes in our sample, a next step in understanding this pattern would be to assess participants’ expectations both prior to and after an interracial interaction. These data may help elucidate whether participants are maintaining positive expectations after a negative encounter, or whether they are modifying their expectations for future interactions based on their most recent experiences. The modification of expectations to reflect one’s actual experiences seems reasonable, especially since after participants’ interracial interaction they reported more negative outgroup contact. However, this hypothesis remains an open question because it also stands to reason that their interaction in our study was not their first interracial encounter, and further, the

interactions contrived in this study were far from overtly negative. Thus, in addition to examining change in interracial interaction expectations, future research should include other individual difference variables (e.g., Protestant work ethic, political ideology, optimism) that might explain the unexpected relationship between positive expectations and negative experiences.

Conclusion

Research examining the interactive effects between interracial interaction expectations and an outgroup member's nonverbal behaviors is sparse. The current research attempted to begin to examine the possibility that a match (or mismatch) between one's expectations and the nonverbal behaviors of one's interaction partner would uniquely predict cognitive depletion. The current data do not support this hypothesis, however the interaction between one's interaction expectations and mimicry condition did uniquely predict positive and negative affect—a pattern consistent with predictions. These findings suggest that other outcome variables other than cognitive depletion might be more sensitive to attitude-behavior discrepancies, particularly when the behaviors in question are not self-behaviors, but partner-behaviors.

Table 1. Means, standard deviations, range, and correlations among predictor and criterion variables

	<i>N</i>	<i>M</i>	<i>SD</i>	Range	1	2	3	4	5	6	7	8	9	10	11	12
1. Positive ingroup expectancies	117	7.16	1.41	3.8 - 9	--											
2. Positive outgroup expectancies	117	6.93	1.44	3 - 9	.87**	--										
3. Nonbiased interaction expectancies	117	-.23	.73	- 3.2 - 2	-.23*	.28**	--									
4. Meta-stereotypes	119	4.04	1.75	1 - 10.43	.10	.16	.12	--								
5. Internal motivation to control prejudice	120	7.88	1.50	1 - 9	.06	.22**	.33**	-.08	--							
6. External motivation to control prejudice	120	5.49	1.87	1 - 9	.08	.02	-.11	-.37**	-.03	--						
7. Positive affect	122	2.31	.71	1 - 4.6	.14	.09	-.09	.19*	.08	-.03	--					
8. Negative affect	122	1.52	.55	1 - 3.8	-.16	-.16	.002	-.13	-.14	-.08	-.04	--				
9. Quantity of contact	122	1.50	.40	1 - 3	.11	.10	-.03	.20*	-.13	-.19*	.15	.01	--			
10. Quality of contact	122	6.10	.62	3.9- 7	.32**	.39**	.15	.22*	.10	-.13	.09	-.13	.01	--		
11. Cognitive depletion	116	38.77	50.11	-99.11 - 207.16	.12	.06	-.12	-.21*	-.07	.0001	-.12	.25**	-.10	-.17	--	
12. Warmth/liking	122	4.62	.96	2.5 - 7	.09	.08	-.02	.004	.13	.09	.12	-.20*	-.17	.11	-.07	--

Note. * $p < .05$, ** $p < .01$

Table 2. *Explicit prejudice correlations*

Variable	<i>N</i>	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7
1. Prejudice toward Asian Americans	122	7.56	17.71	--						
2. Prejudice toward Blacks	122	2.10	13.03	.52**	--					
3. Prejudice toward gay men	122	-1.40	15.80	.40**	.75**	--				
4. Prejudice toward homeless people	122	23.11	23.22	.41**	.45**	.37**	--			
5. Prejudice toward lesbians	122	11.26	21.45	.30**	.40**	.31**	.14	--		
6. Prejudice toward Latinos	122	5.25	15.37	.65**	.75**	.60**	.46**	.47**	--	
7. Prejudice toward males	122	10.71	19.80	.15	-.06	-.08	-.05	.60**	.05	--

Note. * $p < .05$, ** $p < .01$.

Table 3. Summary of hierarchical linear regression on Stroop scores

Predictor	<i>b</i>	<i>p</i>	R	<i>R</i> ²	ΔR^2
<i>Step 1</i>					
Constant	14.54				
Mimicry v. No Mimicry	-6.37	.48			
Centered nonbiased interaction expectancies	4.96	.46			
Centered IMS	2.60	.46			
Centered EMS	1.42	.60			
Centered Meta-stereotypes	-7.30	.01			
			.29	.08	
<i>Step 2</i>					
Constant	7.67				
Mimicry v. No Mimicry	-2.32	.93			
Centered nonbiased interaction expectancies	-13.33	.15			
Centered IMS	2.89	.51			
Centered EMS	5.53	.17			
Centered Meta-stereotypes	-8.83	.02			
Mimicry v. No Mimicry x nonbiased interaction expectancies	-17.46	.21			
Mimicry v. No Mimicry x IMS	-.86	.91			
Mimicry v. No Mimicry x EMS	-7.57	.17			
Mimicry v. No Mimicry x Meta-stereotypes	.96	.87			
			.34	.11	.03

Table 4. *Hierarchical linear regression on negative affect*

Predictor	<i>b</i>	<i>p</i>	R	<i>R</i> ²	ΔR^2
<i>Step 1</i>					
Constant	1.36				
Mimicry v. No Mimicry	-.16	.12			
Centered nonbiased interaction expectancies	-.04	.64			
Centered IMS	.05	.26			
Centered EMS	.04	.15			
Centered Meta-stereotypes	-.06	.06			
			.27	.07	
<i>Step 2</i>					
Constant	1.30				
Mimicry v. No Mimicry	-.15	.59			
Centered nonbiased interaction expectancies	.11	.30			
Centered IMS	-.005	.93			
Centered EMS	.07	.15			
Centered Meta-stereotypes	-.08	.07			
Mimicry v. No Mimicry x nonbiased interaction expectancies	-.33	.04			
Mimicry v. No Mimicry x IMS	.14	.10			
Mimicry v. No Mimicry x EMS	-.03	.64			
Mimicry v. No Mimicry x Meta-stereotypes	-.002	.97			
			.35	.12	.05

Table 5. *Hierarchical linear regression on positive affect*

Predictor	<i>b</i>	<i>p</i>	R	<i>R</i> ²	ΔR^2
<i>Step 1</i>					
Constant	2.76				
Mimicry v. No Mimicry	-.14	.28			
Centered nonbiased interaction expectancies	.17	.07			
Centered IMS	-.08	.10			
Centered EMS	-.01	.75			
Centered Meta-stereotypes	.11	.01			
			.30	.09	
<i>Step 2</i>					
Constant	2.56				
Mimicry v. No Mimicry	.39	.25			
Centered nonbiased interaction expectancies	.05	.67			
Centered IMS	.02	.71			
Centered EMS	.04	.44			
Centered Meta-stereotypes	.06	.26			
Mimicry v. No Mimicry x nonbiased interaction expectancies	.39	.05			
Mimicry v. No Mimicry x IMS	-.32	.002			
Mimicry v. No Mimicry x EMS	-.11	.13			
Mimicry v. No Mimicry x Meta-stereotypes	.14	.08			
			.44	.20	.11

Table 6. *Hierarchical linear regression on contact quality.*

Predictor	<i>b</i>	<i>p</i>	R	<i>R</i> ²	ΔR^2
<i>Step 1</i>					
Constant	6.34				
Mimicry v. No Mimicry	.07	.55			
Centered nonbiased interaction expectancies	-.07	.40			
Centered IMS	-.04	.35			
Centered EMS	.02	.47			
Centered Meta-stereotypes	.07	.04			
			.29	.08	
<i>Step 2</i>					
Constant	6.36				
Mimicry v. No Mimicry	-.04	.89			
Centered nonbiased interaction expectancies	-.08	.50			
Centered IMS	-.05	.33			
Centered EMS	.05	.30			
Centered Meta-stereotypes	.08	.10			
Mimicry v. No Mimicry x nonbiased interaction expectancies	-.007	.97			
Mimicry v. No Mimicry x IMS	.03	.73			
Mimicry v. No Mimicry x EMS	-.06	.43			
Mimicry v. No Mimicry x Meta-stereotypes	-.03	.68			
			.31	.09	.01

Table 7. Hierarchical linear regression on explicit prejudice toward Black people.

Predictor	<i>b</i>	<i>p</i>	R	<i>R</i> ²	ΔR^2
<i>Step 1</i>					
Constant	3.01				
Mimicry v. No Mimicry	-2.72	.20			
Centered nonbiased interaction expectancies	3.24	.04			
Centered IMS	2.20	.008			
Centered EMS	-1.23	.06			
Centered Meta-stereotypes	-.35	.60			
			.44	.19	
<i>Step 2</i>					
Constant	.70				
Mimicry v. No Mimicry	4.81	.41			
Centered nonbiased interaction expectancies	2.85	.19			
Centered IMS	2.69	.01			
Centered EMS	-1.66	.08			
Centered Meta-stereotypes	-.95	.28			
Mimicry v. No Mimicry x nonbiased interaction expectancies	2.27	.49			
Mimicry v. No Mimicry x IMS	-1.44	.40			
Mimicry v. No Mimicry x EMS	.89	.48			
Mimicry v. No Mimicry x Meta-stereotypes	2.01	.15			
			.47	.22	.03

Appendix A

Positive Intergroup Expectancies Scale (Tropp, 2003)

Instructions: Using the scale provided, please indicate the extent to which you agree or disagree with each the following statements.

1	2	3	4	5	6	7	8	9
Strongly Disagree								Strongly Agree

1. I think I would get along with most Black people
2. I think I would enjoy interacting with most Black people
3. I think I would have a lot in common with most Black people
4. I think I could trust most Black people
5. I think I would feel comfortable with most Black people
6. I think I would get along with most White people
7. I think I would enjoy interacting with most White people
8. I think I would have a lot in common with most White people
9. I think I could trust most White people
10. I think I would feel comfortable with most White people

Appendix B

Meta-stereotypes

Instructions: For the following questions please indicate to what extent you think that Black people are likely to rate you as a White person on the following descriptors.

1. To what extent do you believe the average Black person believes Whites to be prejudiced?

0 1 2 3 4 5 6 7 8 9 10

Not at all

Very
Much

2. To what extent do you believe the average Black person believe Whites to be close-minded?

0 1 2 3 4 5 6 7 8 9 10

Not at all

Very
Much

3. To what extent do you believe the average Black person believe Whites to be unfair?

0 1 2 3 4 5 6 7 8 9 10

Not at all

Very
Much

4. To what extent do you believe the average Black person believe Whites to be arrogant?

0 1 2 3 4 5 6 7 8 9 10

Not at all

Very
Much

5. To what extent do you believe the average Black person believe Whites to be racist?

0 1 2 3 4 5 6 7 8 9 10

Not at all

Very
Much

6. To what extent do you believe the average Black person believe Whites to be intolerant?

0 1 2 3 4 5 6 7 8 9 10

Not at all

Very
Much

7. To what extent do you believe the average Black person believe Whites to be selfish?

0 1 2 3 4 5 6 7 8 9 10

Not at all

Very
Much

Appendix C

The Internal and External Motivation to Respond Without Prejudice Scales (Plant & Devine, 1998)

Instructions: The following questions concern various reasons or motivations people might have for trying to respond in nonprejudiced ways toward Black people. Some of the reasons reflect internal-personal motivations whereas others reflect more external-social motivations. Of course, people may be motivated for both internal and external reasons; we want to emphasize that neither type of motivation is by definition better than the other. In addition, we want to be clear that we are not evaluating you or your individual responses. All your responses will be completely confidential. We are simply trying to get an idea of the types of motivations that students in general have for responding in nonprejudiced ways. If we are to learn anything useful, it is important that you respond to each of the questions openly and honestly. Please give your response according to the scale below.

External Motivation Items:

1. Because of today's PC (politically correct) standards I try to appear nonprejudiced toward Black people.

1 2 3 4 5 6 7 8 9

Strongly
Disagree

Strongly
Agree

2. I try to hide any negative thoughts about Blacks people in order to avoid negative reactions from others.

1 2 3 4 5 6 7 8 9

Strongly
Disagree

Strongly
Agree

3. If I acted prejudiced toward Black people, I would be concerned that others would be mad at me.

1 2 3 4 5 6 7 8 9

Strongly
Disagree

Strongly
Agree

4. I attempt to appear nonprejudiced towards Black people in order to avoid disapproval from others.

1 2 3 4 5 6 7 8 9

Strongly
Disagree

Strongly
Agree

5. I try to act nonprejudiced toward Black people because of pressure from others.

1 2 3 4 5 6 7 8 9

Strongly
Disagree

Strongly
Agree

Internal Motivation Items:

6. I attempt to act in nonprejudiced ways toward Black people because it is personally important to me.

1 2 3 4 5 6 7 8 9

Strongly
Disagree

Strongly
Agree

7. According to my personal values, using stereotypes about Black people is OK. (R)

1 2 3 4 5 6 7 8 9

Strongly
Disagree

Strongly
Agree

8. I am personally motivated by my beliefs to be nonprejudiced toward Black people.

1 2 3 4 5 6 7 8 9

Strongly
Disagree

Strongly
Agree

9. Because of my personal values, I believe that using stereotypes about Black people is wrong.

1 2 3 4 5 6 7 8 9

Strongly
Disagree

Strongly
Agree

10. Being nonprejudiced toward Black people is important to my self-concept.

1 2 3 4 5 6 7 8 9

Strongly
Disagree

Strongly
Agree

Appendix D

Positive and Negative Affect Schedule (PANAS)

Instructions: Please indicate to what extent you feel _____ at the current moment:

1	2	3	4
	5		
very slightly or extremely not at all	a little	moderately	quite a bit

Emotions:

Interested
 Distressed
 Excited
 Upset
 Strong
 Guilty
 Scared
 Hostile
 Enthusiastic
 Proud
 Irritable
 Alert
 Ashamed
 Inspired
 Nervous
 Attentive
 Determined
 Jittery
 Active
 Afraid

Appendix E

Feeling Thermometer Questionnaire

For each of the following groups, please rate the group on how positive you feel towards them. If you feel neutral toward a group, you should answer about a “50”. You should reserve very high and very low numbers for groups that you feel very strongly about.

	Cold/Not Positive					Neutral					Warm/Positive									
African Americans	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Asian Americans	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Gay Men	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Latino Americans	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Lesbian Women	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Men	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Homeless people	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
White Americans	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Women	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100

Appendix F

Contact Quantity Questions (adapted from Yip, Seaton, & Sellers, 2010)

1. Which of the following best describes the racial makeup of the students in most of your classes in high school?

1	2	3	4	5
Almost all White students	More White than Black students	Same number of Black and White students	More Black than White students	Almost all Black students

2. Which of the following best describes the racial makeup of the students in most of your classes here at Tulane?

1	2	3	4	5
Almost all White students	More White than Black students	Same number of Black and White students	More Black than White students	Almost all Black students

3. Which of the following best describes the racial makeup of the people in most of the clubs, teams, or other organizations you are were involved in during high school?

1	2	3	4	5
Almost all White students	More White than Black students	Same number of Black and White students	More Black than White students	Almost all Black students

4. Which of the following best describes the racial makeup of the people in most of the clubs, teams, or other organizations you are currently involved in?

1	2	3	4	5
Almost all White	More White than Black	Same number of Black and	More Black than White	Almost all Black

students	students	White students	students	students
----------	----------	-------------------	----------	----------

5. How many of your close friends are Black?

1	2	3	4	5
None	A few	Half	Most	All

6. How many of your close friends are White?

1	2	3	4	5
None	A few	Half	Most	All

Appendix G

Contact Quality Questions (adapted from Gomez, Tropp, & Fernandez, 2011)

1. How frequently do you have contact with Black people?

1	2	3	4	5	6	7
Never						Daily

2. I consider my contact with Black people to be agreeable.

1	2	3	4	5	6	7
Totally disagree						Totally agree

3. I consider my contact with Black people to be egalitarian.

1	2	3	4	5	6	7
Totally disagree						Totally agree

4. I consider my contact with Black people to be cooperative.

1	2	3	4	5	6	7
Totally disagree						Totally agree

5. I consider my contact with Black people to be voluntary.

1	2	3	4	5	6	7
Totally disagree						Totally agree

6. I consider my contact with Black people is as equals.

1	2	3	4	5	6	7
Totally disagree						Totally agree

7. I consider my contact with Black people to be personally important.

1	2	3	4	5	6	7
Totally disagree						Totally agree

8. I consider my contact with Black people to be intimate.

1	2	3	4	5	6	7
Totally disagree						Totally agree

Appendix H

Ratings of Warmth and Liking

Instructions: We are interested in how you perceived the other participant. Please answer the following questions about how you felt about them. Please be open and honest in your answers. All of your responses are completely confidential.

1. How warm did you feel towards your interaction partner?

1	2	3	4	5	6	7
Not very much						A lot

2. How much did you like your interaction partner?

1	2	3	4	5	6	7
Not very much						A lot

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THE IMPACT OF CONGRUENCY BETWEEN INTERACTION EXPECTANCIES
AND MIMICRY BEHAVIORS ON COGNITIVE DEPLETION AND MOOD IN
INTERRACIAL INTERACTIONS

AN ABSTRACT

SUBMITTED ON THE FIFTEENTH DAY OF APRIL 2016
TO THE DEPARTMENT OF PSYCHOLOGY
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
OF THE SCHOOL OF SCIENCE AND ENGINEERING
OF TULANE UNIVERSITY
FOR THE DEGREE
OF
DOCTOR OF PHILOSOPHY

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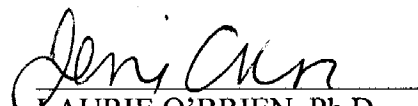
TARA VAN BOMMEL

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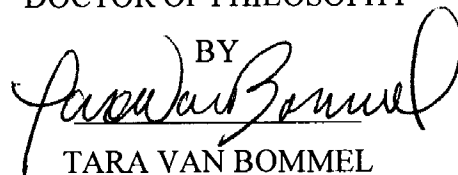
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Biography

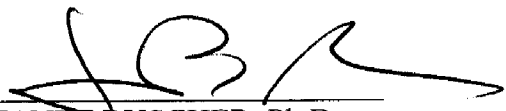
Tara Van Bommel was born in Riverhead, New York and grew up in Denver, Colorado. Most recently, Tara received her Ph.D. in Social Psychology from Tulane University (May 2016), under the mentorship and guidance of Dr. Janet B. Ruscher. She obtained her M.S. in Psychology from Tulane University in 2012, and a B.A. in Psychology from the University of Denver in 2007. Tara's research interests lie in the domain of stereotyping and prejudice. In particular, she is interested in the role of automaticity in perpetrating and being the target of stereotyping and prejudice, and in intergroup interactions.

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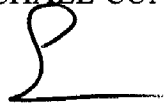
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