

INTERRACIAL INTERACTIONS, EXECUTIVE FUNCTIONING, AND ANXIETY

by

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Abstract

Interracial interactions are part of everyday life for many people. However, interacting with someone of a different race can sometimes be uncomfortable, leading people to avoid these interactions entirely. Research has examined what individuals experience during interracial interactions and considered factors that could potentially hinder people from interacting with those of different racial backgrounds. This theoretical thesis reviews the current research that investigates the relationship between interracial interactions and executive functioning. The literature shows that interracial interactions have negative cognitive outcomes in both White and Black individuals as shown by executive functioning impairment, particularly inhibitory control. Inhibitory control and self-regulation are commonly used by those engaging in an interracial interaction which results in the subsequent impairment. Anxiety is proposed as a possible explanation as to why interracial interactions impair cognition and increase the use of inhibitory control for individuals. Research also suggests there is a divergence in how White and Black individuals experience anxiety and display anxious behaviors. It is noted that White individuals have anxiety regarding appearing prejudiced while Black individuals have anxiety about being the target of prejudice. Ways in which to reduce this anxiety in both groups are discussed, and ideas for future research are suggested.

Interracial Interactions, Executive Functioning, and Anxiety

Interracial interactions are more commonplace in society today than ever before in history. People from different racial and ethnic backgrounds interact with each other in various public spaces such as workplaces, schools, and healthcare settings. Individuals of all different cultures and backgrounds have the ability to work together, live together, befriend, marry, and in general coexist with one another. Interracial contact gives people the opportunity to understand others who experience the world differently, which can be an enriching experience for everyone involved. In fact, previous research suggests that diversifying experiences leads to increased creative problem solving and cognitive processes (Leung, Maddux, Galinsky, & Chiu, 2008). Exposure to diverse experiences over time is also associated with greater support for policies intended to increase diversity, like affirmative action (Aberson, 2007). Similarly, and consistent with theories of contact, previous research has noted that majority and minority group members living in more heterogeneous neighborhoods are more supportive of redistribution policies (Steele & Perkins, 2019).

However, interracial interactions can be awkward and uncomfortable. Research indicates that such interactions result in increases in anxiety, physiological arousal, and a decrease in executive functioning compared to same-race interactions (Richeson & Shelton, 2003). For example, executive functioning refers to a set of cognitive processes that aid in planning, focusing, attention, remembering, and managing multiple tasks. Core executive functions include working memory, cognitive flexibility, and inhibitory control. Working memory temporarily stores information in order to make it available for immediate use for a task or other purposes. Cognitive flexibility refers to the ability to switch between different conceptual thoughts as well as the ability to think about multiple ideas at the same time. Inhibitory control allows for

individuals to choose their own behavioral response rather than act on impulse through self-regulation. The resource depletion model describes executive functions as limited, renewable resources. When an individual utilizes executive functioning resources, it temporarily diminishes the availability of those resources for immediate use (Richeson & Shelton, 2005). Hence, the purpose of this thesis is to provide an integrative review of the current theory and research examining how interracial interactions affect executive functioning. Specific attention is paid to the similarities and differences between how White and minority people are affected by these interactions. Consideration is also given to the interactive effects of anxiety on interracial interactions in that interracial interactions may create anxiety that leads to negative expectations and the avoidance of these interactions. Anxiety has been shown to affect executive functioning abilities (Stephan, 2014). The anxiety that individuals experience during interracial interactions may provide further insight into why interracial interactions affect executive functioning. This thesis concludes with an overview of the importance of studying the issue of anxiety in interracial interactions, potential ways to reduce impairment while encouraging interactions, and direction for future research.

Previous research has examined the link between resource depletion and interracial interactions. For example, a recent study used fMRI technology to record the neural activity of White individuals when presented with images of Black faces in order to see the effect on areas of the brain that are involved with executive functioning. This study also examined how neural activity related to participants' implicit bias and performance on a cognitive task (Richeson, et al., 2003). The researchers specifically examined activity in the dorsolateral prefrontal cortex (DLPFC) and the anterior cingulate cortex (ACC), both of which are brain structures that are involved in facilitating executive control and response inhibition. They investigated whether

neural activity in these regions would mediate the relationship between racial bias and inhibitory control after interracial contact. In order to assess racial bias, a category association task called the IAT was used where participants quickly categorized Black and White faces with good or bad stereotypes. Higher response times on Black and bad stereotypes compared to White and bad stereotypes on the IAT is indicative of greater implicit bias. Participants also completed the Stroop task which measures executive functioning, specifically response inhibition. Participants were shown a series of words, some where the color is congruent to the word and some where the color is incongruent. Participants sort whether or not the words are congruent to the color. Greater reaction times on incongruent trials compared to congruent trials on the Stroop imply greater executive functioning impairment. In the first experiment of this study, participants completed the IAT task and were then interviewed by a Black experimenter. They then proceeded to take the Stroop task. No more than two weeks later, participants underwent fMRI scans while they were exposed to both Black and White faces. Participants did not interact with the images and the purpose was to compare how the identified regions of the brain involved with executive functioning would be activated when participants were presented with Black and White faces. In a second experiment, the procedures were the same as the previous experiment, but in the first session, participants interacted with a White experimenter instead of a Black experimenter. The results of both experiments revealed that when White participants were shown images of Black faces, the fMRI scans indicated increased activity in the DLPFC and the ACC compared to when participants were shown White faces. Furthermore, participants' IAT scores also correlated with neural activity in these regions, where higher IAT scores were associated with increased neural activity. Importantly, results also showed that increased activity in the DLPFC mediated Stroop impairment following an interracial interaction, but not a same-race

interaction (Richeson et al., 2003). These results provide neural evidence of resource depletion caused by interracial interactions. This research also introduces the idea that there is a relationship between interracial interactions and performance on tasks that measure executive functioning. Although these studies did not compare the differences of Stroop impairment following interracial interactions when compared to same-race interactions, other research has addressed this effect more directly.

Impairment on the Stroop task is used to measure to identify executive functioning impairment. Other studies have utilized the Stroop to measure how performance on the task is affected following interactions with interracial partners to draw conclusions about their executive functioning abilities (Richeson & Shelton 2003). In one study, White undergraduate students completed a measure of implicit bias and then proceeded to have a videotaped interview with either a White or Black experimenter according the condition. The interview included controversial topics on the college's fraternity system and racial profiling. The experimenter did not provide any input during the interaction. Following the interaction, participants completed the Stroop task. It was found that participants experienced greater impairment on the Stroop task, indicating greater cognitive impairment, when interacting with a Black partner in comparison to those who interacted with a White partner. This effect was moderated by the participants level of implicit bias, but only when participants interacted with a Black partner, not with a White partner (Richeson & Shelton, 2003). These results provide further evidence that interracial interactions cause executive functioning depletion in White individuals.

When individuals participate in an interracial interaction, they often engage in self-regulation which causes executive functioning impairment. Self-regulation is a component of inhibitory control in which individuals monitor and control behaviors, thoughts, and emotions

(Richeson & Shelton, 2003). Research has suggested that there are ways in which the need for self-regulatory demand can be manipulated during interracial interactions. Across three studies, Richeson and Trawalter (2005) provided further evidence of this effect. In particular, self-regulatory demand was manipulated in order to see how this affected White participant's executive functioning abilities. The researchers hypothesized that by decreasing the need for self-regulatory demand during interracial interactions, it may shift the focus away from the interaction and therefore makes the interaction itself less depleting. In the first experiment, White participants completed the IAT and were then given either feedback for the task that was either performance related or prejudice related. In the performance feedback condition, participants were told the task was used to study category associations and most people perform worse than they think they did. In the prejudice feedback condition, participants were told the task was used to study racial bias and that most people are more prejudiced than they think they are. Participants went on to have either an interracial or same-race interaction where they were interviewed on controversial topics and then completed the Stroop task. The results revealed that participants who had an interracial interaction showed more Stroop impairment than those who had a same-race interaction, regardless of feedback type. Moreover, those primed with worry about seeming prejudiced had greater Stroop interference as compared to those in the non-prejudice concern condition. This shows that individuals may be concerned about how to portray themselves during an interracial interaction and that overall White individuals are more impaired by interacting with someone of a different race than with someone of their own race.

The second study investigated how cognitive impairment would be affected when White participants were given a script to follow during the interaction. The script was expected to relieve concern for the individual because they would not have to take ownership for their

responses. Half of participants were given a script about racial profiling by the experimenter in preparation for the interaction and the other half were given a blank page and told to take up to two minutes to prepare a response on the same topic. Participants then went on to have either a same-race or interracial interaction and then completed the Stroop task. The results revealed that participants in the script condition showed less impairment on the Stroop task than those in the no-script condition. Furthermore, participants in the no-script condition were more impaired during the interracial interaction than those who had a same-race interaction. One limitation of this study was that the act of creating a script in the no-script condition may have contributed to Stroop impairment by using executive resources. However, other studies that manipulated self-regulatory demand and its effect on executive functioning came to similar conclusions. Thus, scripts appear to alleviate the need for self-regulation, indicating that the content of what is said may be a concern for individuals who engage in interracial interactions.

The third study followed similar procedures to the previous two, but investigated the misattribution paradigm, which refers to the redirection of physiological arousal to a benign source. Participants in the anxiety misattribution condition were told they may feel anxiety because of the confinement of the room and the presence of a one-way mirror. Participants in control were not told any additional information prior to the interaction. They then went on to have either an interracial interaction or a same-race interaction and then took the Stroop task. Similar to previous studies, participants in the anxiety misattribution condition experienced less Stroop impairment than those who were in the control condition. Participants in the misattribution condition who had an interracial interaction experienced almost the same amount of impairment as participants who had a same-race interaction. Importantly, acknowledging the potential for anxiety and directing it away from the interaction significantly decreased the

impairment. This implies that anxiety may play some role in the cognitive impairment caused by interracial interactions. Overall, the results of these studies demonstrate that decreasing the need for self-regulation during interracial interactions leads to a decrease in cognitive impairment.

Reducing self-regulatory demand may be one of the keys to improving the experience of interracial interactions. One study that explored a potential solution for reducing self-regulatory demand considered shifting participant's regulatory focus (Trawalter & Richeson, 2006). Regulatory focus theory suggests that there are two different approaches to goal fulfillment, including promotion focus and prevention focus. Both focus types aim to accomplish a positive outcome, but promotion focus emphasizes the potential for a positive outcome while prevention focus emphasizes the potential for a negative outcome. For example, the researchers hypothesized that individuals who utilize a promotion focused approach in interracial interactions would experience less cognitive impairment when compared to those with a prevention focus. To examine these ideas, White participants were instructed prior to an interracial interaction to either: utilize a prevention focus where they were to refrain from saying something prejudiced, utilize a promotion focus where they were to focus on having an enjoyable interaction, or were given no prior instruction. The results showed that the participants who were in the promotion focus group experienced significantly less impairment than participants in the prevention and control groups. It was also shown that the prevention and control groups were the same, suggesting that the default approach that White individuals have when interacting with Black individuals is prevention focused (Trawalter & Richeson, 2006). This is consistent with previous research that suggests that White individuals regulate themselves so that they do not come across as prejudiced. However, the results may also indicate that a promotion focused approach may relieve some of the impairment experienced by White

individuals. Given that these studies have outlined the ways in which self-regulatory demand depletes executive functioning in White individuals (Richeson & Trawalter, 2003; Richeson & Trawalter, 2005; Richeson & Trawalter, 2006), it may indicate that White individuals' primary focus is on the way they appear to their interaction partners so that they do not act in a prejudiced way. If this is in fact the default in which Whites approach interactions, then knowing this may provide some context to the uncomfortable aspect of interracial interactions from Whites' perspective and what could be preventing meaningful interactions from occurring.

Black individuals have also been shown to experience cognitive impairments from interracial interactions similar to what White individuals experience, however, it is thought to be caused by different elements of interracial interactions, an idea elaborated on later. Richeson, Trawalter, and Shelton (2005) conducted research that examined the effect that interracial interactions has on the cognitive resources of Black individuals. It was hypothesized that the previously observed effect of resource depletion in executive functioning in Whites following interracial interactions would also be observed in Blacks. The researchers were interested in the racial attitudes and predicted that greater ingroup favoritism, where one favors members of their own race, would cause greater cognitive impairment after an interracial interaction. Similar to previous research, Black participants completed the IAT as a measure of implicit bias and then met with either a Black or White experimenter where they were interviewed about their views on a variety of controversial topics including race. Finally, participants completed the Stroop task to assess their executive functioning abilities. The results revealed that outgroup favoritism was more common in the Black participants of this study than White participants in previous studies. Participants with greater outgroup favoritism, or pro-white bias, revealed less cognitive impairment than participants with more ingroup favoritism. Greater ingroup favoritism caused

greater cognitive impairment following the interracial interaction, but not same-race interaction. Therefore, the results of this study may imply that Black individuals who largely prefer to interact with those of their own race have the potential to experience continued impairment from the interactions they have in their daily lives (Richeson, Trawalter, & Shelton, 2005). Similarly, other research suggests that are differences in the how individuals interact with and perceive outgroup members compared to fellow ingroup members, which may provide further contextual understanding for the nuance of interracial interactions (Stephan, 2014).

Forming interpersonal interracial relationships may be awkward for both White and minority individuals because of the differences between both groups. While there are benefits to interracial interactions, the consequences of these interactions may interfere in the development of relationships. A recent study examined the dynamics of interracial interactions in both Black and White individuals when creating bonds with one another (Trail, Shelton, & West, 2009). In particular, the researchers examined the behaviors and emotions of individuals in cross-race and same-race college roommate relationships for both Whites and ethnic minorities. Drawing from previous research showing cognitive impairments caused by interracial interaction, it was predicted that same-race roommates would experience more intimacy-building behaviors (friendly verbal and nonverbal behaviors) and positive feelings toward their roommates when compared to cross-race roommates. It was also hypothesized that White roommates' intimacy-building behaviors in cross-race pairs would decrease overtime while their minority roommates' positive emotions would decrease overtime. These predictions were made because it may be more difficult for White individuals to maintain the effort into building relationships with their minority roommates. White individuals engage in interracial interactions far less than their minority counterparts, which may lead them to become more psychologically fatigued by the

discomfort and anxiety of these interactions. The consequence of this may be that they make less effort into showing intimacy building behaviors which would in turn lead to a decrease in the positive emotions of their minority roommates. The participants of this study included same-sex freshmen roommates, that of which included same-race White roommate pairs, same-race minority roommate pairs, and cross-race roommate pairs. For 15 days, each participant completed a daily diary questionnaire that included questions related to their emotions that day, feelings of intimacy with their roommate, and how they felt their roommates behaved toward them (intimacy-building or intimacy-distancing). After the completion of the 15 days, the results revealed that cross-race roommates showed less intimacy-building behaviors, more distancing behaviors, and less positive emotions when compared to same-race roommates and these results declined further over time. As predicted, in cross-race roommate relationships, White roommates' intimacy building behaviors decreased over time as their minority roommates' positive emotions declined (Trail, Shelton, & West, 2009). These results speak to the experiences of White and minority individuals in forming interpersonal relationships. White individuals may stop making the effort to build relationships with their minority counterpart because they are anxious and become cognitively drained. When White individuals stop making effort to maintain a positive relationship, minority individuals may continue to put effort but their emotions toward that individual will change. Minority individuals may potentially feel pressured or anxious to put effort into building the rapport with a White individual they interact with frequently such as a roommate, even if they do not feel so positively toward them. This study demonstrates the differences in how interracial interactions affect both Black and White individuals in divergent ways.

Previous research has suggested ways to reduce the executive functioning impairment in White individuals by decreasing their self-regulatory demand and shifting the focus of the interaction to have a more positive interaction (Richeson & Trawalter, 2005; Trawalter & Richeson, 2006). Other studies have examined how interracial interactions impact both Black and White participants and considered potential solutions that alleviate the stress of the interactions as shown by reduced executive functioning impairment. For example, Babbitt and Sommers (2011) examined the contexts under which executive functioning depletion is increased or decreased in both Black and White participants. In particular, the researchers were interested in seeing how shifting the context or nature of interactions to one that is task-focused would affect executive functioning when compared to interactions that are more social-focused. They predicted that both White and Black participants would experience more positive outcomes, or less resource depletion, when instructed to focus on completing problem solving tasks with a person of a different race than the pairs that were instructed to focus on the social aspect of the interactions. Participants consisted of interracial dyads that were either in the social-focus, task-focus, or control focus condition. Those in the social-focus condition were told the study examined social interaction, that their tasks were icebreakers, and that they would later have to answer questions about their partner. Those in the task-focus condition were told the study was on performance, to focus on getting as many correct answers, and that the top scoring dyad would receive a monetary bonus. Those in the control condition were only told to work on tasks together. The tasks included both race-neutral and race-relevant material and utilized creative, logical, and social skills. Following these interactions, both Black and White participants completed the Stroop task and took the IAT. The results revealed that Black participants experienced less cognitive impairment on the Stroop task in the task-focused condition when

compared to the social-focused condition. While White participants showed a similar pattern of results, the difference between the two conditions were not statistically significant. This could potentially show that for at least Black individuals, focusing on a task rather than the social element of an interracial interaction may alleviate some stress of the interaction and cause less cognitive impairment. The same could potentially be the case for White individuals, but more research is necessary in order to make this claim.

In summary, interracial interactions has been shown to cause executive functioning impairment in Black and White individuals (Richeson & Shelton, 2003; Richeson & Trawalter, 2005). This impairment seems to be caused by the need for self-regulation during these interactions. Self-regulatory demand can be increased or decreased depending on the conditions of the interaction. White individuals are consistently more impaired when interacting with Black individuals regardless of manipulations (Richeson & Trawalter, 2005). Black individuals show more outgroup favoritism than White individuals. However, Black individuals experience greater impairment from interracial interaction when they have greater ingroup favoritism (Richeson, Trawalter, & Shelton, 2005). Although White individuals and Black individuals both experience discomfort and impairment from interracial interactions, there are key differences in how they approach and experience these interactions. The discomfort of these interactions may cause difficulties in forming interracial interpersonal relationships. White and Black individuals approach those relationships differently indicating a divergence in their experience of interracial interactions (Trail, Shelton, & West, 2009). The cognitive impairment in White individuals caused by interracial interactions may be reduced when their focus is on having a positive experience rather than preventing a negative experience (Trawalter & Richeson, 2006). The

impairment for Black individuals may be decreased when the focus is more on tasks than the social aspect of the interactions (Babbitt and Sommers, 2011).

Interracial Interactions and Anxiety

Given this evidence that shows how interracial interactions affect executive functioning, it poses the question of what factors might be causing this impairment. Anxiety is one factor that might be underlying interracial interactions and causing cognitive impairment. Some evidence suggests that anxiety negatively impacts performance on cognitive tasks and affects individuals in situations that require judgement (Stephan, 2014). Interacting with those of a different group, including interracial interactions, causes anxiety which appears to be the driving component behind these cognitive consequences. Interracial interactions may cause and worsen anxiety. Stephan (2014) conducted a large-scale review on the topic of intergroup anxiety that concluded that the anxiety surrounding intergroup interactions affects cognitive and behavioral responses. Intergroup anxiety has been linked to executive functioning impairment. This anxiety negatively impacts performance on cognitive tasks and affects individuals in situations that require judgement. One study referenced showed that during a task where participants had to sort images of weapons with images of ingroup and outgroup faces, participants were more likely to falsely perceive an outgroup member as having a weapon than an ingroup member. Intergroup anxiety leads to negative cognitions regarding outgroup members, such as negative attitudes and stereotypes. Interracial interactions cause anxiety, and this anxiety may directly affect the cognitive outcomes following these encounters. There is also evidence to suggest that this anxiety occurs within the interracial context as well.

Furthermore, Stephan's large-scale review also notes that intergroup anxiety may also affect the way that ingroup members behave during interracial interactions. Higher levels of

intergroup anxiety are correlated with increased offensive behaviors toward outgroup members, decreased interaction with outgroup members, and decreased effective communication with outgroup members (Stephan, 2014). Intergroup anxiety presents itself during interracial interactions through nonverbal behaviors. In some studies, individuals present more obvious signs of stress during interracial interactions such as closed posture, averted gaze, and leaning away. In other studies, individuals express more positive nonverbal behaviors, however, physiological measures showed increased levels of stress (Stephan, 2014). Intergroup anxiety provides an explanation for the variability in these behaviors. These studies found that individuals monitor their behaviors in order to act appropriately during these interactions as a result of their anxiety. However, there may be more nuanced explanations for how Black and White individuals each experience intergroup anxiety and why these differences may occur.

Anxiety appears to play a role in intergroup interactions and some research directly supports this idea. For example, Babbitts & Sommers (2011) two additional studies examined how a task focus approach affects prejudice concerns in White and Black individuals. In the second study, White participants were recruited and completed the study online and were asked to envision one of three scenarios that were intended to replicate the previous study as much as possible. They received the same instructions for the social-focused, task-focused, and control conditions as before, only they did not go on to have the interaction. Participants were questioned to ensure they had paid attention to the scenario they were assigned to. Finally, they were asked direct questions to which extent they would have felt the need to monitor their thoughts and behavior to avoid appearing prejudiced and how much they would have focused on this. It was found that White participants reported less concern for appearing prejudiced in the task-focused condition than those in the social-focused condition. The third study had identical

procedures as the second study, only Black participants imagined scenarios in which they were to work with a White partner. The results found that Black participants reported less concern for experiencing prejudice in the task-focused condition in comparison to the social-focused condition (Babbitt & Sommers, 2011). The second and third studies reveal the difference in the concerns that Black and White individuals experience during interracial interactions. Both Black and White individuals experience prejudice concerns. This aligns with the previous research that has suggested that individuals monitor their behaviors during these interactions out of prejudice concern (Richeson & Trawalter, 2005, Richeson, Trawalter, & Shelton, 2005). However, their concern exists for different reasons in that White individuals have more concern for appearing prejudiced while Black individuals experience more concern for being the target of prejudice. This concern may stem from or cause anxiety in Black and White individuals as they engage in interracial interactions.

A similar study considered the role of discussion topics during interracial interactions on interracial anxiety as expressed through nonverbal behaviors in both White and Black individuals (Trawalter & Richeson, 2008). They predicted that interracial interactions would be more stressful for White participants than Black participants. They also predicted that interracial interactions would be more stressful for White individuals when compared with same-race interactions. Importantly, it was predicted that race-related conversation would be more stressful for White participants than race-neutral conversation and that it would be reversed for Black participants, in that race-related conversation would be less stressful. It was thought that Black individuals would be less stressed when discussing race because they have much more experience talking about race. White individuals may find those conversations more stressful because of their lack of experience on the topic. Undergraduate student participants engaged in a

discussion with a naïve partner who was also a participant and discussed three conversation topics that included: campus fraternities, social drinking policy, and the college's efforts to diversify the school. Most of the interactions were interracial and the only same-race interactions that occurred were with White participants. The interaction lasted 10 minutes and was recorded. Participant levels of anxiety were later coded by how avoidant and anxious physical behavior appeared during the interaction. The results revealed that White participants behaved more anxiously than Black participants regardless of discussion type. Whites also behaved more anxiously during interracial interactions compared to same-race interactions. Black participants displayed less anxiety after having race-related compared to race-neutral discussions (Trawalter & Richeson, 2008). As expressed in their hypothesis, the researchers suggest that Black individuals may have found race-related conversations less stressful because they have more practice talking about race. One of the distinct takeaways from this research is the differences in what Blacks and Whites find stressful during these interactions. Whites visibly expressed more anxiety overall during interracial interactions regardless of the discussion. This may not mean that Black individuals do not experience anxiety, but that they may have more practice managing this anxiety in conversation with White individuals. The results of this study display the divergence in individuals' experiences as a function of race and how the causes of interracial anxiety are different despite similarities in executive function depletion.

Some research suggests that anxiety has different implications for members of majority and minority groups. White individuals may experience intergroup anxiety because they are anxious to appear prejudiced to outgroup members and thus engage in more self-regulatory behaviors during interracial interactions. Previous research has shown that when White participants interact with a person of a different race and are given a misattribution to their

anxiety outside of the interaction itself, they experience less cognitive impairment. This implies that participants engage in less self-regulatory behaviors and that the stress of the interaction is lowered (Richeson & Trawalter, 2005). This anxiety in White individuals also presents itself in the aforementioned negative nonverbal behaviors. Whites experience discomfort during interracial interactions regardless of the topic of conversation but seem to experience less discomfort when the focus is shifted away from the topic of race or even general social conversation. Outward displays of prejudice have become increasingly more socially unacceptable, which may be the reason that Whites are so focused on controlling their behaviors during interracial interactions. Whites have anxiety about saying or doing something prejudiced likely because of these social standards. While one explanation may be that Whites' abide by these social standards and experience this anxiety because they have greater implicit bias, it may also be experienced by individuals with egalitarian views who do not want to offend outgroup members. There may be ways to reduce this anxiety in White individuals in order to encourage interracial interactions. One study investigated an intervention that educated White participants of the anxiety caused by interracial interactions and how that might cause avoidance of them, but that choosing to interact with someone from another race may reduce future intergroup anxiety. Participants either received the intervention as described or were in the control condition that did not receive any information prior to the interaction. Participants were given a choice to interact with either a Black or White partner where they had either a race-related or race-neutral conversation. Those in the intervention group were more likely to choose to have the interracial interaction, even more so when the conversation was race-related, and displayed more positive nonverbal engagement (Schultz, Gaither, Urry, & Maddox, 2015). The experience of interracial interactions is different for majority group members than it is for minority group members.

Black individuals experience anxiety during interracial interactions, however, the root of their anxiety differs from White individuals. Another difference is expressed through nonverbal behaviors during interracial interactions where Black individuals generally display less anxious behaviors compared to White individuals and when discussing topics of race (Trawalter & Richeson, 2008). This may further distinguish the differences in how each group experiences this anxiety. It is likely that Black individuals are more comfortable discussing race because they have more practice talking about race but may have more anxiety talking about other more general topics with outgroup members. A primary reason for Black anxiety is that they expect to be the target of prejudice from outgroup members. The more that minority individuals expect others to act in prejudiced ways toward them during interracial interactions, the more negatively they feel toward the experience. Interestingly, the greater this expectation of prejudice is, the more minority individuals act in compensatory ways in effort to avoid being the target of prejudice; meanwhile Whites interpret those interactions more positively (Shelton, Richeson, & Salvatore, 2005). These expectations may lead to the anxiety that causes executive function depletion in Black individuals. This research also outlines how differently a Black individual and a White individual may interpret the same interaction, and how it may lead to more anxiety and depletion in Black individuals. Some evidence shows ways in which this anxiety could potentially be reduced. Green, Wout, and Murphy (2020) found that approaching interracial interactions with a learning goal compared to a performance goal may reduce the threat of the interaction and increase positive expectations for Black participants. In other words, when Black participants considered having an “enjoyable intercultural exchange” rather than how competent they might appear during an interracial conversation on the topic of present-day racism, the anticipation of a possibly threatening interaction was more viewed more positively.

Conclusion

Anxiety and resource depletion affect both Black and White individuals. It is crucial to investigate the similarities and differences in these experiences in order to understand how majority and minority groups interact with each other or why they might choose to avoid one another. Ingroup members avoid interacting with outgroup members likely due to anxiety and the resource depletion caused by intergroup interactions. Majority group members have more ability to interact with mostly members of their own race. This is not the case for minority group members, including Black individuals. Interracial interactions are particularly unavoidable for minority individuals. While minorities may sometimes choose to “self-segregate” within their own social circles, many of their interactions outside of that are bound to be with majority group members. White individuals experience cognitive impairment, but there is greater concern for chronic depletion that Black individuals may face. Nevertheless, the avoidance of interracial interaction from both Black and White individuals may only perpetuate the anxiety and cognitive cost of interacting with one another. Further research should investigate how the practice of talking about race mitigates the anxiety in White individuals. Research should also study how Black individuals could approach interracial interactions in ways that decrease their need for compensatory behaviors without increasing cognitive depletion. Studies should examine the relationship between frequent interracial interactions and practice engaging in these interactions has on executive functioning impairment. While there may be an initial cost to frequent interactions, it is possible that this could act as training for individuals how to interact with each other in order to decrease anxiety and long-term impairment by strengthening cognitive control. It may also be worth investigating how to effectively educate majority and minority group

members on interracial anxiety and how to increase multicultural understanding in order to encourage more successful and harmonious interactions.

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