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## Considering Contextual Factors in the Perception and Attribution of Racial Microaggressions

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Considering Contextual Factors in the Perception and Attribution of Racial Microaggressions

A dissertation submitted in partial fulfillment  
of the requirements for the degree of  
Doctor of Philosophy in Psychology

by

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## **Abstract**

Black, Indigenous, People of Color (BIPOC) experience interactions with subtle or ambiguous racial undertones that may be perceived as discriminatory, benign, or even complimentary. These interactions have been labeled microaggressions or a subtle form of everyday discrimination. Microaggressions are associated with detrimental health and cognitive effects (Lui & Quezada, 2019; Ozier et al., 2019). To better understand and label microaggressions, it is important to consider contextual factors. For example, the same statement or behavior is likely interpreted differently depending on who is involved, what is said or done, when it occurs, where it takes place, and why the statement or behavior occurred. The current studies examine three contextual variables (race, power status, offering an apology) to see how this impacts the perception and attribution of the microaggression statement. Participants were predominately White college students. They watched videos of interactions between students and a representative of the psychology club. The psychology club representative commits a microaggression. In study 1, the race of the psychology representative is manipulated. In study 2, the power of the psychology representative is manipulated. In study 3, I manipulated whether the psychology representative provided an apology and the level of sincerity. For study 1, I hypothesized that microaggressions perpetrated by an ingroup member would be rated as less problematic than microaggressions perpetrated by an outgroup member (H1). I also hypothesized that microaggression perpetrated by a White person would be rated as most problematic compared to microaggressions perpetrated by a BIPOC (H2). For study 2, I hypothesized that microaggressions perpetrated by a person with higher power would be rated as more problematic than microaggressions perpetrated by a person with equal power (H3). For study 3, I hypothesized that microaggressions followed by an apology (sincere or insincere) will be rated as more problematic than microaggressions

without an apology, because the intent of the statement (i.e., that it was racially motivated) will be made clear (H4). I also hypothesized that microaggressions followed by a sincere apology will be rated as less problematic than microaggressions followed by an insincere apology (H5). Across all three studies, microaggressions were viewed as problematic. Contextual factors largely did not impact perceptions, contrary to my hypotheses. However, individual difference variables such as the acceptability of racial microaggression, internal and external motivations to respond without prejudice, and perspective taking did impact perceptions. Future research with more diverse samples, especially with people who have directly experienced microaggressions, would be useful to continue elucidating contextual nuance in microaggressive behaviors.

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### **Dedication**

Para mi mamá y papá que vinieron a este país con esperanzas y deseos de oportunidades.

Reconozco y aprecio sus sacrificios. Estoy eternamente agradecida por todo su amor y esfuerzo.

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## **Considering Contextual Factors in the Perception and Attribution of Racial Microaggressions**

Microaggressions are a form of subtle discrimination that Black, Indigenous, People of Color (BIPOC) experience on a daily basis that challenge their sense of belonging. During the 1970s, Dr. Pierce, a Black psychiatrist, coined the term microaggressions to differentiate between macroaggressions and microaggressions. According to Pierce (1977), macroaggressions are systemic manifestations of racism such as lynching and microaggressions were everyday experiences with racism. Pierce described microaggressions as “subtle, stunning, often automatic, and nonverbal exchanges which are “put downs” of Black [people] by offenders” (Pierce et al., 1977, pg. 65). Pierce (1977) articulated the ways Black people were portrayed in the media, specifically as people who were gluttonous, hypersexual, or whose main role was to serve or entertain (e.g., used for comedy). Pierce’s definition of microaggression was focused on the subtle messages communicated by non-verbal behaviors, especially as depicted by the media.

Later, researchers in a cultural and ethnic studies department defined microaggressions as “subtle insults (verbal, nonverbal, and/or visual) directed toward people of color often automatically or unconsciously” (Solorzano et al., 2000, pg. 60). Solorzano et al. (2000) described the microaggression experiences of African American<sup>1</sup> college students. These were verbal and/or behavioral messages that Black students do not belong in a college setting (e.g., being the only Black student in a classroom, being stared at when walking into the library). Other experiences were when White professors, students, or staff make negative assumptions and lower their expectations of Black students (e.g., being told they will not succeed in medical careers).

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<sup>1</sup>Solorzano et al. (2000) used the term African American in their research. I will be using the term Black people to include Black people of all backgrounds (e.g., African American, Caribbean, Middle Eastern and North African, Latin American, Afro-Latinx, etc.).



Solorzano expanded on Pierce's (1977) definition to include verbal acts. Both Pierce's and Solorzano's definitions recognize the subtle, automatic, and unconscious nature of microaggressions.

In 2007, Sue and colleagues, all psychologists, conducted microaggression research with a focus on clinical practice and therapeutic settings. They defined racial microaggressions as “brief and commonplace daily verbal, behavioral, and environmental indignities, whether intentional or unintentional, that communicate hostile, derogatory, or negative racial slights and insults to the target person or group” (Sue et al., 2007, pg. 273). Researchers identified three types of racial microaggressions: microinvalidations, microinsults, and microassaults (Sue et al., 2007). *Microinvalidations* are often unconscious, unintentional behaviors or comments that “exclude, negate, or nullify the psychological thoughts, feelings or experiential reality of a person of color<sup>2</sup>” (Sue et al., 2007, pg. 278). Researchers have identified forms of microinvalidations, including not a true citizen, color evasion, myth of meritocracy, denial of individual racism, and invalidation of interethnic differences (Nadal, 2011; Sue et al., 2007; Torres-Harding et al., 2012; Williams et al., 2021). *Microinsults* are often conscious, unintentional, behaviors or comments that “convey rudeness, insensitivity, and demean a person's racial heritage or identity” (Sue et al., 2007, pg. 278). Forms of microinsults include ascription of intelligence, second-class citizen, pathologizing cultural values/communication styles, assumption of criminality, and exoticization. *Microassaults* are often conscious, intentional, comments or behaviors and include “explicit racial degradations” and “purposeful discriminatory acts” (Sue et al., 2007, pg. 278). Examples of microassaults are using racial

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<sup>2</sup> Sue et al. (2007) used the term people of color in their research. Unless I am specifying what researchers shared, I will be using the term Black, Indigenous, People of Color (BIPOC) to center the experiences of Black and Indigenous people.

epithets or denying entry to someone based on their race or ethnicity. Researchers have identified *environmental microaggressions* as a subtype of microassaults. These are racial invalidations, insults, and assaults that are apparent at environmental and systematic levels (Nadal, 2011; Sue et al., 2007; Torres-Harding et al., 2012). An example of this is when there are confederate statues in public spaces or governmental buildings. Overall, this theme considers how physical space and systemic issues result from interpersonal microaggressions such as microinvalidations, microinsults, and microassaults.

This study focuses on the theme *not a true citizen*, which is the belief or assumption that BIPOC in the U.S. are all born in a foreign country or viewed as not being a meaningful part of U.S. society (Nadal, 2011; Sue et al., 2007; Torres-Harding et al., 2012; Williams et al., 2021). An example of this microaggression theme is asking BIPOCs, “Where are you from?” which can be interpreted as questioning nationality or birthplace. Overall, this theme describes the ways U.S.-born BIPOCs are assumed to be foreigners before their American identity is acknowledged.

### **Microaggressions and Health Outcomes**

Several studies, including a meta-analysis, have found associations between experiencing microaggressions and several negative health outcomes. Individual studies have found BIPOC’s cortisol levels increase after experiencing microaggressions (Majeno et al., 2020; Zeiders et al., 2018). Being the target of microaggressions is also associated with increased self-reported stress and distress (Hernández & Villodas, 2020; Sanchez et al., 2018; Wong-Padoongpatt et al., 2020). A sleep diary study found daily reports of microaggression experiences were associated with less sleep and poor sleep quality (Ong et al., 2017). Microaggression experiences are also associated with internalizing disorders such as increased anxiety (Liao et al., 2016; Rucker et al., 2010) and depression symptoms (Lilly et al., 2018; Nadal et al., 2014a; Williams & Lewis, 2019).

Furthermore, experiencing racial microaggression in school and workplace settings is associated with low self-esteem among BIPOC (Nadal et al., 2014b). In an experimental study, Asian participants reported decreased self-esteem after reading microaggression vignettes with a White microaggressor (Wong-Padoongpatt et al., 2017). Racial microaggressions are also associated with increased substance use (Blume et al., 2012) and suicide (Hollingsworth et al., 2017; O'Keefe et al., 2015). In a meta-analysis, Lui & Quezada (2019) assessed how microaggressions are associated with internalizing problems (i.e., anxiety, depression), externalizing problems (i.e., alcohol use, smoking), stress and negative affect, positive affect and adjustment (i.e., self-esteem, subjective well-being), and physical symptoms (i.e., cardiovascular problems, cortisol output). Overall, microaggression was more strongly associated with internalizing problems, stress, negative affect, positive affect, and adjustment in comparison to externalizing problems and physical symptoms. Ozier et al. (2019) conducted a meta-analysis, finding that experiencing or witnessing subtle discrimination is associated with impairments in executive functions, including inhibition, shifting, and updating.

### **Acceptability of Racial Microaggressions**

Most recently there has been a focus on understanding the acceptability of saying microaggressive statements. This literature has found differences in acceptability based on participants' race, gender, and political orientation (Mekawi & Todd, 2018). Regarding racial differences, White people were significantly more likely than any other racial group to believe it was acceptable to say color evasive statements such as, "I don't see your race, I see you as a person." White, Latino, South Asian, East Asian, and bicultural/multicultural people believed it was significantly more acceptable than Black people to say power evasive statements such as, "Everyone is treated the same by the legal system" (Mekawi & Todd, 2018, pg. 7).

## **Critiques of Microaggression as a Construct**

During 2017, Lilienfeld published an article critiquing microaggression research. One of his main critiques was that the definition of microaggression lacks clarity and consensus (Lilienfeld, 2017). It is noteworthy that many psychology areas of research lack consensus over construct definitions. In fact, much of psychology research is focused on understanding why people do not seem to agree on the definitions or aspects of constructs. Lilienfeld (2017) recommended microaggression researchers provide a clear operationalization of microaggression and consensus on how to identify a microaggression. There is limited guidance on how to identify a microaggression, especially because the same statement or behavior could be identified as a microaggression by some people and not by others. Without considering contextual factors, it can be difficult to decide whether a microaggression occurred.

For example, when asked, “Where are you from?”, there are various factors that can contribute to BIPOCs’ appraisal of this question. Some of the contextual factors that BIPOC may consider are the relationship they have with the person who asked the question or the setting in which the conversation occurred. Some people may be asked, “Where are you from?” by someone they are having coffee with and actively trying to learn more about each other. In this scenario, it may be more acceptable to be asked this question as two people are learning about each other. However, when BIPOCs are asked, “Where are you from?” by a stranger at a grocery store, it may be offensive. Lilienfeld (2017) suggested it is problematic that the same behavior or statement may be considered a microaggression depending on the person being microaggressed and setting. It would be helpful for microaggression researchers to offer guidance for considering situational factors and context to help define and identify microaggressions.

However, there are also individual differences in how people interpret statements and behaviors. In fact, one study found Black people vary on how offended they are when asked about their ethnicity, nationality, or place of birth. Being asked about nationality and birthplace is one of the most common microaggressions (*not a true citizen*; Williams et al., 2021). Michaels et al. (2018) suggested the lack of consensus may be because some people interpret these questions as a genuine interest and curiosity in learning more about a person. Overall, it is difficult to say how a whole group of people (in this case BIPOC) will label a statement or behavior without considering their personal cultural background, immigration status, and lived experiences. Considering contextual factors such as cultural or racial identity can offer guidance on what would constitute acceptable statements or behaviors.

Defining microaggressions is further complicated by the fact that microaggression identification “lie[s] in the eye of the beholder” (Lilienfeld, 2017, pg. 143). There are individual differences among BIPOCs. Therefore, not all BIPOCs will label the same words or behaviors as microaggressions. Just as described in the example above, identical statements or behaviors may be interpreted differently based on the people or the situation. Lilienfeld (2017) said it is problematic that the same behaviors may be considered supportive by some BIPOCs and patronizing by others. For example, one BIPOC may interpret this statement as patronizing while others view it as supportive, “I realize you didn’t have the same educational opportunities as most Whites, so I can understand why the first year of college has been challenging for you” (Lilienfeld, 2017, pg. 143). Based on the scenario Lilienfeld described, I believe people’s racial knowledge and racial identity salience will likely impact what they label as a microaggression. For example, if a BIPOC’s racial identity is not salient, they may be offended if someone attributes something to their race. However, if their racial identity is a salient part of their

identity, they may appreciate the acknowledgement of race. Furthermore, the relationship with the person saying the comment would also impact how BIPOC interpret the situation. For example, if a White stranger said this comment, a BIPOC may be offended because the White stranger assumed the BIPOC had difficult life experiences due to their race. However, if the comment was made by a BIPOC's White friend, they may be less offended. The White friend may already know information about their BIPOC friend's racial experiences. Thus, their comment would not be based on assumptions and may be interpreted as supportive. These examples illustrate how difficult it is to define microaggressions without considering context and individual differences.

Overall, Lilienfeld's critique identified issues with the microaggression definition. There is a lack of guidance on how to identify a microaggression beyond existing microaggression taxonomies (Sue et al., 2007; Williams et al. 2021). The process of defining and identifying microaggressions is further complicated by people's individual differences and contextual factors.

### **Three Contextual Factors**

To bring definitional clarity to the microaggression construct, this study identifies contextual factors that may impact whether a statement or behavior is labeled a microaggression. The perception and attribution of statements or behaviors likely varies by context. For example, the same statement or behavior will be interpreted differently depending on who is involved, what is said or done, when it occurs, and where it takes place. The current study explores the following contextual factors: the perpetrator's race, power differential occurring between the perpetrator and target, and whether/what kind of apology the perpetrator offers.

## *Social Identities*

In most microaggression studies, the perpetrator of a microaggression is White (Tao et al., 2017; Tran & Lee, 2014). Some studies have not specified the race of the perpetrator; however, they specifically used a traditionally non-Asian first name and last name (e.g., Mike Kerr, Kirsten Hollingsworth) to signal the perpetrator was a dominant (White) group member (Kim et al., 2019). Meanwhile other studies have used both White and BIPOC microaggression perpetrators (Wong-Padoongpatt et al., 2017; Wong-Padoongpatt et al., 2020; Young, 2019). Two studies had an Asian microaggression target and White and Asian perpetrators (Wong-Padoongpatt et al. 2017; Wong-Padoongpatt et al. 2020). Across both studies, having a White microaggression perpetrator elicited more stress than Asian perpetrators. In Young (2019) a Black student was the target of the microaggression, and findings showed that White microaggression perpetrators were reported to be more discriminatory compared to Black perpetrators. The differential responses based on the perpetrator's race could be understood as a manifestation of social dominance theory. Social dominance theory suggests people try to act in accordance with or challenge intergroup hierarchies (Hewstone et al., 2002). White supremacy is the system that organizes White people at the top of the racial hierarchy (Wong-Padoongpatt et al., 2017). Therefore, when racism is inflicted by White people to BIPOCs, it may be associated with higher stress.

In-group favoritism also plays a role in intra- and inter-group dynamics. People tend to favor in-group members over out-group members (Hewstone et al., 2002). Therefore, when racism is enacted by members outside of the racial group, it may be viewed less favorably compared to racism enacted by members within the same racial group. This theory may help

explain why same racial (in-group) microaggression perpetrators are not viewed as negatively as White perpetrators of microaggressions (out-group).

Study 1 includes three race conditions for the perpetrator (Black, Asian, White). The target of the microaggression in these studies was Asian. These race conditions were selected to allow for an understanding of both in-group (Asian) and out-group (Black, White) perpetration as well as microaggression by other BIPOCs (Black, Asian). Specifically, I hypothesized:

***H1:** Microaggressions perpetrated by an ingroup member would be rated as less problematic than microaggressions perpetrated by an outgroup member.*

***H2:** Microaggression perpetrated by a White person would be rated as most problematic compared to microaggressions perpetrated by a BIPOC.*

### ***Power Differential***

Studies suggest power differences are impactful in the perception of discrimination and microaggression experiences (Inman, 2001; Wood et al., 2013; Young, 2019). Inman (2001) described power and perceived discrimination as it relates to violating norms and expectations. The expectancy violation theory suggests people pay greater attention to a scenario where their expectations of an interaction are violated (Burgoon & Jones, 1976). For example, students may expect professors to be respectful, educated, and act in non-discriminatory or non-prejudicial ways toward students. Therefore, professors acting in discriminatory ways or saying prejudicial comments would be violating the expectation. Young (2019) manipulated the status of a microaggression perpetrator to be either a peer or a professor, finding that microaggressions said by professors were associated with greater psychological distress compared to microaggressions said by peers.



Study 2 examines how power differences between the target and perpetrator of a microaggression affects perceptions of a racial microaggression. There was an equal power condition where both perpetrator and target were both undergraduate students and a differential power condition where the perpetrator was a faculty advisor and the target was an undergraduate student. I hypothesized:

***H3:** Microaggressions perpetrated by a higher (differential) power person would be rated as more problematic than microaggressions perpetrated by an equal power person.*

### ***Apologizing for Behavior***

To my knowledge, studies have not assessed how the perception and attribution of a microaggression is impacted by apologizing for saying or engaging in a microaggression. Thurber & DiAngelo (2017) discuss what people can do when they perpetrate, witness, or are the target of a microaggression. Perpetrators of microaggression can take accountability by acknowledging the microaggression. Sue et al. (2019) described various ways to respond to a microaggression such as making the invisible (microaggression) visible by acknowledging the messaging behind the microaggression. There has been some guidance within microaggression trainings to identify and apologize for acting on stereotypes, saying microaggressive or discriminatory statements (e.g., *“Ouch! That stereotype hurts”*, University of Arkansas Division of Diversity, Equity and Inclusion, 2021). However, there is limited knowledge regarding the effects of these apologies. Microaggressions are known for being ambiguous, leaving the target with uncertainty and confusion about the events. This uncertainty has been associated with impacts on cognitive functioning (Ozier et al., 2019). Therefore, if the perpetrator recognizes there was a problem with their behavior and apologizes for it, I hypothesize it would ease the target of any ambiguity regarding the microaggression.

Some studies suggest apologies are helpful in the resolution of harassment complaints and discrimination in the workplace because it acknowledges the behavior and involves taking personal responsibility (Allan et al., 2010). There is also evidence to suggest the sincerity of the apology impacts people's perceptions of reconciliation (Mu & Bobocel, 2019). For example, if the apology is perceived as sincere, it may be more likely to be interpreted positively. However, if the apology is perceived as insincere, it increases people's desire to punish the person. This suggests that the type of apology given is important. Therefore, study 3 examines how the type of apology (sincere, insincere, no apology) affects the perception of the perpetrator and attribution of a microaggression statement. These three conditions allow for a greater understanding of the effect recognizing a microaggression and apologizing (vs. not apologizing) as well as the type of apology given (sincere vs. insincere vs. no apology). Specifically, I hypothesize:

***H4:** Microaggressions followed by an apology (sincere or insincere) will be rated as more problematic than microaggressions without an apology, because the intent of the statement (i.e., that it was racially motivated) will be made clear.*

***H5:** Microaggressions followed by a sincere apology will be rated as less problematic than microaggressions followed by an insincere apology.*

Microaggressions can be difficult to identify without considering the context in which these behaviors occur. The current studies examine how three contextual variables (perpetrator race, power differential, and apologizing for behavior) impact the perceptions and attributions of the perpetrator and interaction. Study 1 manipulates the perpetrator's race (Asian, Black, or White). Study 2 manipulates the level of power (equal vs. differential power) of the perpetrator.

Study 3 manipulates whether the perpetrator gives an apology for the microaggression and whether the apology is sincere or insincere.

## **Study 1**

### **Method**

The current studies were approved by the University of Arkansas' Institutional Review Board (IRB; Appendix A) and preregistered with Open Science Framework (OSF) <https://doi.org/10.17605/OSF.IO/D7HRJ>.

### ***Participants***

Participants were 124 undergraduate students enrolled in Introduction to Psychology courses at the University of Arkansas, a large public university in the southern region of the U.S. All participants received partial research credit for their psychology course commensurate with the time they spent participating in the study.

### ***Procedure***

Participants were recruited through Sona, the Psychology department's online psychology experiment management system. Participants saw a brief description of the study, including the nature of their participation and the potential risks and benefits. Interested students signed up for the study through Sona and were directed to a Qualtrics survey. The study was advertised as a survey that was focused on understanding campus organizations' student recruitment strategies to help increase student enrollment in campus organizations. Participants read the study consent form and either consented or declined consent. If participants consented, they continued onto the survey. Participants answered questions regarding their campus involvement such as being members or leaders of campus organizations. Participants were then randomly assigned to watch one of three recorded videos described in the next section. After

participants watched the video, they answered two open-ended questions about the interaction they observed. This section was followed by manipulation check questions assessing whether participants were paying attention to various details regarding the interaction they watched. Next, participants answered questions about their perceptions of the psychology representative and the interaction (dependent variables). Then participants completed individual difference measures in the following order: perspective taking, social dominance, motivations to respond without prejudice, and acceptability of racial microaggressions. Each individual difference measure was presented in a block. Items within each block were presented in random order for each participant. At the end, participants completed sociodemographic measures and then saw the study debriefing form.

**Videos.** The independent variables were manipulated through a series of brief videos. Study scripts are listed on Appendix B. The average video length was 3 minutes and 25 seconds. The videos depicted an interaction between three undergraduate students speaking with the psychology club representative to learn more about campus organizations. All the people in the videos were paid actors (Appendix C). Three students approach the psychology club representative (a female undergraduate student who was sitting at a table), one at a time, to learn more about the psychology club. The first two students to approach the table were White females. The goal of this was to ensure that participants watching the videos noticed differential treatment of the Asian student in comparison to the White students. Neither of the two White students were asked about where they were from or if they knew the Malaysian psychology club president. The third student to approach the club table was an Asian female. The psychology representative tells the Asian student that the current club president is from Malaysia and asks if she has ever been there. After the student states she has never been to Malaysia, the psychology

representative asks the student where she is from. When the student says she is from Texas, the psychology representative asks if that is where her family is from. In this study the race of the psychology representative was manipulated so there were three different psychology representatives (Black, Asian, and White). Although they were people of different races, all psychology representatives were women. The psychology representative said the same lines in each condition and efforts were made during rehearsal to ensure that the facial expressions and tone of the three psychology representatives were similar.

### ***Measures***

After watching the video, participants answered open-ended questions about what they observed. These responses were not analyzed.

**Sociodemographic Variables.** Participants answered questions related to their age, gender identity, transgender identity, sex, race/ethnicity, sexual orientation, year in school, and political orientation (Appendix D).

**Individual Difference Variables.** Four scales were included as measures of individual difference.

***Perspective Taking.*** To assess the ability to adopt other's point of view, participants completed the Interpersonal Reactivity Index – Perspective Taking (IRI-PT; Davis, 1980) subscale. This is a 7-item self-report questionnaire (Appendix E). Items were rated on a Likert-type scale ranging from 1 (*does not describe me well*) to 7 (*describes me very well*). Sample items are “I believe there are two sides to every question and try to look at them both” and “I sometimes try to understand my friends better by imagining how things look from their perspective.” Items 1 and 4 are reverse coded. All subscale items were summed to create a total

score. Higher scores suggest a better ability to take other's perspective. The internal reliability for the current sample yielded a Cronbach alpha of .83.

***Social Dominance.*** To assess level of support for inequality between groups, participants completed the Social Dominance Orientation scale (SDO7; Ho et al., 2015). This is a 16-item self-report questionnaire (Appendix F). Items were rated on a Likert-type scale ranging from 1 (*strongly oppose*) to 7 (*strongly favor*). There are two subscales for this measure, dominance and anti-egalitarianism. However, past versions of this measure have viewed this construct as a unidimensional measure (Pratto et al., 1994). The current studies also use social dominance as a unidimensional construct. High scores suggest support for oppression to maintain domination of “low status” groups of people and the opposition of equality between groups to maintain a social hierarchy. Sample items are, “An ideal society requires some groups to be on top and others to be on the bottom” and “It is unjust to try to make groups equal.” One total score was created by reverse scoring all con-trait items and then calculating a composite mean score. The internal reliability for the current sample yielded a Cronbach alpha of .91.

***Motivations to Respond Without Prejudice.*** To assess motivations to respond without prejudice, an adapted version of the internal and external motivation to respond without prejudice scale was used (Plant & Devine, 1998). The internal motivation to respond without prejudice scale (IMS) and external motivation to respond without prejudice scale (EMS) is a 10-item self-report questionnaire, five items assess IMS and five assess EMS (Appendix G). Motivations were assessed on a Likert scale ranging from 1 (*strongly disagree*) to 9 (*strongly agree*). A sample IMS item is, “Being non-prejudiced toward racial or ethnic minorities is important to my self-concept.” A sample EMS item, is “I try to hide any negative thoughts about racial or ethnic minorities in order to avoid negative reactions from others.” Total scores are

calculated for each subscale by calculating a mean score for each subscale (after reverse coding item 7) for each subscale. Higher IMS and EMS scores suggest greater internal or external motivations to respond without prejudice, respectively. The internal reliability for the current sample yielded a Cronbach alpha of .90 for the internal motivation subscale and .78 for the external motivation subscale.

**Microaggressions.** To assess attitudes regarding the acceptability of a White person to say racial microaggressive statements, participants completed the Acceptability of Racial Microaggressions (ARMS; Mekawi & Todd, 2018). The ARMS is a 34-item self-report scale (Appendix H). Items were rated on a Likert-type scale ranging from 1 (*totally unacceptable*) to 6 (*perfectly acceptable*). There are four subscales for this measure, victim blaming, color evasion, power evasion, and exoticizing. However, it was used as a unidimensional construct for current studies. Sample items include, “I don’t see your race, I see you as a person” and “Everyone is treated the same by the legal system.” One mean total score was calculated. Higher scores represent greater acceptability of racial microaggressions. The internal reliability for the current sample yielded a Cronbach alpha of .96.

**Manipulation Check.** Participants answered questions about the video-recorded interaction (Appendix I). Among these were a set of true or false questions (e.g., “The psychology club meets weekly” or the “The psychology club brings in guest speakers”) as well as multiple-choice questions regarding the video they watched (e.g., “What kind of club was recruiting new members? How many students approached the club’s table?”). There was a question asking about the perpetrator’s racial identity (“What was the race of the psychology club representative?”). Participants who answered the question about the manipulation incorrectly were excluded from the analyses. Participants who answered other questions

incorrectly such as how many students were approached at the table were not excluded from the analyses.

**Dependent Variables.** Two scales were created to assess participant's overall perceptions and attributions of the interaction and psychology representative as well as potential outcomes of the interaction observed in the video.

***Perceptions and Attributions of Psychology Representative.*** Participants answered 14 questions after they viewed the video (Appendix J). These questions assessed perceptions and attributions of the interaction and the perpetrator. Items were rated on a Likert-type scale where the anchors of the scales varied based on the item (e.g., *not offensive at all, very offensive; not nice at all, very nice*). Items from Tao et al.'s (2017) cultural bias questionnaire were adapted and included along with other researcher-generated items. Sample items are, "During the interaction with the last student, do you think the psychology representative was prejudiced?" and "During the interaction with the last student, do you think the psychology club representative was inclusive?" Similar to Tao et al. (2017), items did not specifically ask participants if the psychology representative's racial statement was a microaggression. This was done so as to not bias participants into labelling the behavior as a microaggression. This researcher-generated measure was evaluated for appropriateness using exploratory factor analyses (EFA).

***Outcomes of Interaction.*** Participants answered five questions regarding potential outcomes of the interaction (Appendix K). Items assessed how participant's perceptions of how the student who was microaggressed felt after the interaction and whether they would attend the next psychology club meeting. Items were rated on a Likert-type scale ranging from 1 (*not likely at all*) to 5 (*extremely likely*). Sample items include, "During the interaction with the psychology club representative, do you think the last student felt excluded?" and "Do you think the last



student would feel welcomed at the next Psychology Club meeting?” This researcher-generated measure was evaluated for appropriateness using an EFA.

### ***Analytic Approach***

For study 1, I conducted two EFAs to assess the structure of items assessing participant’s perceptions and attributions of the interaction and the psychology representative as well as the outcomes of the interaction. The Kaiser-Myer-Olkin (KMO) values were assessed to ensure the data were adequate for factor analysis (Kaiser 1970, 1974). Bartlett’s Test of Sphericity (Bartlett, 1954) was also examined to ensure it reached statistical significance and supported the factorability of the correlation matrix. I conducted one-way analysis of variance (ANOVAs) assessing differences in perpetrator’s race (Black, Asian, White; IV1) on the factors from the EFA. I also conducted post-hoc analyses. I conducted analyses of covariance (ANCOVAs) to explore the impact of the condition (race of psychology representative) and individual difference variables (perspective taking, social dominance, internal and external motivations to respond without prejudice, and acceptability of racial microaggressions) on the EFA factors. I also conducted regressions where individual difference variables predicted the EFA factors.

### ***Power Analysis***

An *a priori* power analysis was conducted to evaluate sample size for a one-way ANOVA. Young (2019) manipulated the microaggression perpetrator’s race (Black vs. White) and found large effect sizes. Specifically,  $\eta^2$  ranged from .14 to .19 across microaggression types (ascription of intelligence, assumption of criminality, denial of racial reality). I was interested in detecting effects that were “large enough to be subjectively experienced and deemed meaningful by individuals” (Anvari & Lakens, pg. 8-9). The field of psychology is starting to recognize the utility of powering differences detectable at the individual level. A power analysis using the G-

Power computer program indicated a total sample of 159 participants would be needed to detect medium effects ( $f = .25$ ) with 80% power for a one-way ANOVA with one numerator degree of freedom, three groups, and an alpha of .05.

## **Results**

Twenty-eight participants were excluded because they failed the manipulation check question where they were asked to identify the race of the psychology representative (Black, Asian, or White). In the Black psychology representative condition, one participant selected “Asian” and two selected “I don’t know” leaving 49 participants. In the Asian psychology representative condition, 11 participants selected “White” and 11 selected “I don’t know” leaving 29 participants. In the White psychology representative condition, three participants selected “I don’t know” leaving 46 participants. Therefore, the total sample size for the analyses was 124.

## ***Descriptives***

For the overall sample, the average age of participants was 19.21 years old ( $SD = 1.14$ ) and the majority identified as female (52.42%), cisgender (97.58%), White (80.65%), and heterosexual (88.71%). Most participants were freshman/first-year students (68.55%) and endorsed an overall moderate political leaning ( $M = 5.47$ ,  $SD = 2.16$ ). Means and standard deviations of study variables are included in Table 1. A correlation table with all study variables is included in Table 2.

## ***Factor Structure for Perceptions and Attributions of Psychology Representative***

The 14 items assessing perceptions and attributions of the interaction and the psychology representative were subjected to an EFA using SPSS version 24. Prior to performing EFA, the suitability of data for factor analysis was assessed. Inspection of the correlation matrix revealed

the presence of many coefficients of .3 and above. The KMO value of .89 suggested the data were adequate for factor analysis. Bartlett's Test of Sphericity reached statistical significance ( $p < .001$ ), supporting the factorability of the correlation matrix.

Results of the EFA suggested a two-factor solution after removing item 14, which was complexly loaded. All remaining items loaded significantly on their predicted factors (Table 3). The first factor, labeled Biased, explained 48.93% of the variance in the items. The second factor, labeled Pleasant, explained an additional 17.07% of variance. The two factors were correlated at  $r = -.382$ . A sample item on the biased subscale was, "During the interaction with the last student, do you think the psychology club representative was insensitive about the last student's cultural group?" A sample item on the pleasant subscale was, "During the interaction with the last student, do you think the psychology club representative was friendly?" Item 1 was reverse coded and mean scores were calculated for each subscale, biased and pleasant. Higher biased scores suggest the psychology representative was perceived as rude, offensive, and prejudiced. Higher pleasant scores suggest the psychology representative was perceived as friendly, nice, and welcoming. The internal reliability for the current sample yielded a Cronbach alpha of .88 for the biased subscale and .92 for the pleasantness subscale.

### ***Factor Structure for Outcomes of Interaction***

The 5 items assessing outcomes of the interaction were subjected to an EFA. Inspection of the correlation matrix revealed the presence of many coefficients of .3 and above. The KMO value of .83 suggested the data were adequate for factor analysis. Bartlett's Test of Sphericity reached statistical significance ( $p < .001$ ), supporting the factorability of the correlation matrix. Results of the EFA suggested a one-factor solution with simple structure (Table 4). All items loaded significantly onto a single factor. The items asked whether the last student felt a strong

sense of belonging and whether she would feel welcomed or accepted at the next club meeting. The factor was labeled Affinity and explained 68.60% of the variance in the original set of variables. Item 1 was reverse coded, and a mean score was calculated. Higher scores suggest more affinity to the psychology club, specifically feeling a strong sense of belonging, acceptance, and feeling welcomed. The internal reliability for the current sample yielded a Cronbach alpha of .88.

### ***Social Identities***

The means and standard deviations for biased, pleasant, and affinity scores across conditions are included in Table 5. Across these sets of analyses, I largely failed to support my first hypothesis (that participants would rate microaggressions perpetrated by an ingroup member as less problematic than those perpetrated by an outgroup member). I also failed to support my second hypothesis (that microaggressions perpetrated by a White person would be rated as more problematic than microaggressions perpetrated by a person of color).

**Biased.** A one-way ANOVA was conducted to explore biased scores across race conditions of the psychology representative (Table 6). There was a marginally statistically significant difference in biased scores across the race of the psychology representative,  $F(2,121) = 2.912, p = .058, \eta_p^2 = .046$ . Post hoc comparisons using the Tukey test indicated that the mean biased score for the White psychology representative ( $M = 5.02, SD = 1.51$ ) was significantly different than biased scores for the Asian psychology representative ( $M = 4.19, SD = 1.19$ ). However, the Black psychology representative's biased scores were not significantly different from the White or Asian psychology representative ( $M = 4.75, SD = 1.54$ ).

**Pleasant.** A one-way ANOVA was conducted to explore pleasant scores across race conditions of the psychology representative (Table 6). There was no statistically significant difference in mean pleasant scores across the race of the psychology representative.

**Affinity.** A one-way ANOVA was conducted to explore the impact of affinity scores across race conditions of the psychology representative (Table 6). There was no statistically significant difference in mean affinity scores across the race of the psychology representative.

### ***Individual Difference Measures***

Fifteen ANCOVAs were conducted to explore the impact of the condition (race of psychology representative) and individual difference variables (perspective taking, social dominance, internal and external motivations to respond without prejudice, and acceptability of racial microaggressions) on the three dependent variables (biases, pleasant, affinity). There was a main effect of social dominance on biased and affinity scores, internal motivation on biased and affinity scores, and microaggressions on biased, pleasant, and affinity scores. There were no significant interactions between individual difference scores and condition on any of the dependent variables. Results are presented in Table 7 to Table 11.

### ***Post-Hoc Analyses***

Three multiple regressions were used to assess how well individual difference measures (perspective taking, social dominance, motivations to respond without prejudice, and microaggressions) predicted perceptions of the psychology representative's bias, pleasantness, and affinity (Table 12). Preliminary analyses were conducted to ensure there were no violations of the assumptions of normality, linearity, multicollinearity, and homoscedasticity. The total variance explained by the model predicting bias was 25.4%,  $F(5,116) = 7.904$ ,  $p < .001$ . Of the five variables, internal motivations to respond without prejudice made the largest unique

contribution ( $\beta = .435, p = .001$ ), although acceptability of racial microaggressions also made a statistically significant contribution ( $\beta = -.272, p = .006$ ). The model predicting pleasantness was not statistically significant. The total variance explained by the model predicting affinity was 17.7%,  $F(5,115) = 4.982, p < .001$ . Of the five variables, acceptability of racial microaggressions was the only individual difference variable that made a statistically significant contribution ( $\beta = .334, p = .001$ ).

### **Discussion for Study 1**

The purpose of study 1 was to examine how microaggression perpetrator's race impacts the perceptions and attributions of the perpetrator and interaction. Overall, the psychology representative was rated as biased. There was a marginally significant effect of race where participants made some distinctions regarding the psychology representative's bias based on race. The Asian psychology representative was viewed as less biased than the White psychology representative. Although the study was underpowered, results were trending in the direction that was consistent with in-group favoritism and social dominance theory (Hewstone et al., 2002). While the rest of the experimental manipulations were not statistically significant, the individual difference variables did predict the outcome variables in a way that made sense conceptually. This will be explained further in the overall discussion.

The current study focused on the effects of the race of the psychology representative; however, all microaggression perpetrators were presented as peers to the undergraduate students. It is unclear how this racial microaggression would be perceived if there was a variation in the power status of the person saying the statement. Therefore, study 2 examined how the psychology representative's power status impacted the perceptions and attributions of the perpetrator and the interaction.

## Study 2

### Method

#### *Participants*

Participants were 133 students recruited from the same institution and subject pool described in study 1.

#### *Procedure*

The procedure was the same as study 1. However, for study 2, participants were randomly assigned to watch one of two recorded videos.

**Videos.** The independent variables were manipulated through a series of brief videos. As described in study 1, the videos depicted an interaction between three undergraduate students speaking with the psychology representative to learn more about campus organizations. All the people in the videos were paid actors. The same interaction recorded in study 1 was recorded for study 2. However, since this study manipulated power differential, one video depicted the psychology representative as a White undergraduate student (equal power) and the second video depicted a White faculty advisor (power differential). The video for the equal power condition was the same video used in study 1 for the White psychology representative condition.

#### *Measures*

After watching the video, participants answered open-ended questions about what they observed. These responses were not analyzed. Participants completed the same measures described in study 1.

**Sociodemographic Variables.** Participants answered questions related to their age, gender identity, transgender identity, sex, race/ethnicity, sexual orientation, year in school, and political orientation.

**Individual Difference Variables.** Four scales were included as measures of individual difference.

***Perspective Taking.*** The internal reliability for the current sample yielded a Cronbach alpha of .75.

***Social Dominance.*** The internal reliability for the current sample yielded a Cronbach alpha of .89.

***Motivations to Respond Without Prejudice.*** The internal reliability for the current sample yielded a Cronbach alpha of .89 for the internal motivation subscale and .76 for the external motivation subscale.

***Microaggressions.*** The internal reliability for the current sample yielded a Cronbach alpha of .96.

**Manipulation Check.** Participants answered the same manipulation check questions described in study 1. Only one item changed. In study 2, participants answered a question regarding the perpetrator's level of power and identified whether the psychology representative was the undergraduate student representative or the faculty advisor. The item was "What was the Psychology Club member's role in the club?" Participants who answered the question incorrectly were excluded from the analyses.

**Dependent Variables.** Two scales were created to assess participant's overall perceptions and attributions of the interaction and psychology representative and potential outcomes of the interaction observed in the video.

***Perceptions and Attributions of Psychology Representative.*** Participants answered 14 questions assessing perceptions and attributions of the interaction and the perpetrator. This



researcher-generated measure was evaluated for appropriateness using exploratory factor analyses (EFA).

***Outcomes of Interaction.*** Participants answered five questions regarding potential outcomes of the interaction. Items assessed how participant's perceptions of how the student who was microaggressed felt because of the interaction and whether they would attend the next psychology club meeting. This researcher-generated measure was evaluated for appropriateness using exploratory factor analyses (EFA).

### ***Analytic Approach***

For study 2, I conducted two EFAs to assess the structure of items that assessed participant's perceptions and attributions of the interaction and the psychology representative as well as the outcomes of the interaction. I conducted one-way ANOVAs assessing differences in perpetrator's power level (equal power, differential power; IV1) on the factors from the EFA. I also conducted post-hoc analyses. I ran ANCOVAs to explore the impact of the condition (power level) and individual difference variables (perspective taking, social dominance, internal and external motivations to respond without prejudice, and acceptability of racial microaggressions) on the EFA factors. I also conducted regressions where individual difference variables predicted the EFA factors.

### ***Power Analysis***

A power analysis using the G-Power computer program indicated a total sample of 128 participants would be needed to detect medium effects ( $f = .25$ ) with 80% power for a one-way ANOVA with one numerator degree of freedom, three groups, and an alpha of .05.

## Results

Forty-one participants were excluded because they failed the manipulation check question where they were asked to identify the psychology representative's role in the club (undergraduate student or faculty advisor). In the equal power condition, one participant selected "I prefer not to respond", five selected "faculty advisor", and 11 selected "I don't know" leaving 70 participants. In the differential power condition, eight selected "I don't know" and 16 selected "undergraduate student representative" leaving 64 participants.

### *Descriptives*

For the overall sample<sup>3</sup>, the average age of participants was 19.14 years old ( $SD = 1.22$ ), and the majority identified as female (54.14%), cisgender (98.5%), White (81.95%), and heterosexual (89.47%). Most participants were freshman/first-year students (69.17%) and endorsed an overall moderate political leaning ( $M = 5.46$ ,  $SD = 2.13$ ). Means and standard deviations of study variables are included in Table 13. A correlation table with all study variables is included in Table 14.

### *Factor Structure for Perceptions and Attributions of Psychology Representative*

The 14 items assessing perceptions of the psychology representative were subjected to an EFA using SPSS version 24. Prior to performing EFA, the suitability of data for factor analysis was assessed. Inspection of the correlation matrix revealed the presence of many coefficients of .3 and above. The KMO value of .907 suggested the data were adequate for factor analysis. Bartlett's Test of Sphericity reached statistical significance, supporting the factorability of the correlation matrix.

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<sup>3</sup> One participant in the equal power condition did not complete the sociodemographic measures leaving a total of 133 participants who completed the descriptives data. This participant completed all other study measures and was included in the statistical analyses.

Results of the EFA suggested a two-factor simple solution. All items loaded significantly on their predicted factors (Table 15). The first factor, labeled Biased, explained 52.57% of the variance. The second factor, labeled Pleasant, explained an additional 14.20% variance. The biased subscale suggested the psychology representative was perceived as rude, offensive, and prejudiced. The pleasant subscale suggested the psychology representative was perceived as friendly, nice, and welcoming. The two factors were correlated at  $r = -.471$ . The internal reliability for the current sample yielded a Cronbach alpha of .93 for the biased subscale and .69 for the pleasantness subscale.

### ***Factor Structure for Outcomes of Interaction***

The 5 items assessing the outcomes of the interaction were subjected to an EFA. Prior to performing the EFA, the suitability of data for factor analysis was assessed. Inspection of the correlation matrix revealed the presence of many coefficients of .3 and above. The KMO value of .835 suggested the data were adequate for factor analysis. Bartlett's Test of Sphericity reached statistical significance, supporting the factorability of the correlation matrix. Results of the EFA suggested a one-factor solution with simple structure (Table 16). All items loaded significantly on the predicted factors. The factor, labeled Affinity, explained 73.71% of the variance in the items. The affinity subscale assessed whether the student who was microaggressed would feel a strong sense of belonging or feel welcomed at the next psychology club meeting. It also assessed whether participants believed the student who was microaggressed would attend the next psychology club meeting. The internal reliability for the current sample yielded a Cronbach alpha of .91.

### ***Power Differential***

The means and standard deviations for biased, pleasant, and affinity scores across conditions are included in Table 17. Across these sets of analyses, I failed to support my third hypothesis (that participants would rate microaggressions perpetrated by a person with higher power (faculty advisor) as more problematic than microaggressions perpetrated by a person with equal power (undergraduate student)).

**Biased.** A one-way ANOVA was conducted to explore biased scores across the psychology representative's level of power (Table 18). There were no statistically significant differences in mean biased scores.

**Pleasant.** A one-way ANOVA was conducted to explore pleasant scores across the psychology representative's level of power (Table 18). There were no statistically significant differences in mean pleasant scores.

**Affinity.** A one-way ANOVA was conducted to explore affinity scores across the psychology representative's level of power (Table 18). There were no statistically significant differences in mean affinity scores.

### ***Individual Difference Variables***

Fifteen ANCOVAs were conducted to explore the impact of the condition (power level) and individual difference variables (perspective taking, social dominance, internal and external motivations to respond without prejudice, and acceptability of racial microaggressions) on the three dependent variables (biases, pleasant, affinity). There was a main effect of perspective taking on pleasant scores, social dominance on biased and affinity scores, internal motivation on biased and affinity scores, external motivation on pleasant scores, and microaggressions on biased, pleasant, and affinity scores. There was a significant interaction between condition and

perspective taking on pleasant scores. There were no other significant interactions between any other individual difference scores and condition on any other dependent variables. Results are presented in Table 19 to Table 23.

### ***Post-Hoc Analyses***

Three multiple regressions were used to assess how well individual difference measures (perspective taking, social dominance, motivations to respond without prejudice, and acceptability of racial microaggressions) predicted perceptions of psychology representative's bias, pleasantness, and affinity (Table 24). Preliminary analyses were conducted to ensure there were no violations of the assumptions of normality, linearity, multicollinearity, and homoscedasticity. The total variance explained by the model predicting bias was 18.5%,  $F(5,121) = 5.488, p < .001$ . Of the five variables, internal motivations to respond without prejudice made the largest unique contribution ( $\beta = .288, p = .008$ ), although acceptability of racial microaggressions also made a statistically significant contribution ( $\beta = -.252, p = .014$ ). The total variance explained by the model predicting pleasantness was 14.2%,  $F(5,121) = 4.000, p = .002$ . Of the five variables, acceptability of racial microaggressions made the largest unique contribution ( $\beta = .251, p = .017$ ), although internal motivations to respond without prejudice ( $\beta = -.222, p = .044$ ), perspective taking ( $\beta = .218, p = .023$ ), and external motivations to respond without prejudice ( $\beta = .192, p = .027$ ) also made a statistically significant contribution. The total variance explained by the model predicting affinity was 17.6%,  $F(5,121) = 5.186, p < .001$ . Of the five variables, acceptability of racial microaggressions was the only variable that made a statistically significant contribution ( $\beta = .317, p = .002$ ).

## **Discussion for Study 2**

The purpose of study 2 was to examine how power status impacts the perceptions and attributions of the perpetrator and the interaction when race is kept constant (White psychology representative). Overall, the psychology representative was rated as biased. Contrary to my hypothesis, participants did not make nuanced distinctions regarding bias, pleasantness, or affinity when the perpetrator's power is manipulated. This suggests that in this study the level of power of the perpetrator did not impact the perception of the *not a true citizen* racial microaggressions. While the experimental manipulations were not statistically significant, the individual difference variables did predict the outcome variables in a way that made sense conceptually. This will be explained further in the overall discussion.

The current study focused on how the power status of the perpetrator impacts the perceptions of the perpetrator and attributions of microaggressions. However, it is still unclear how apologizing for behavior impacts these perceptions. Study 3 holds the perpetrator's power status and race constant (White undergraduate peers) and manipulates whether there is no apology, a sincere apology, or an insincere apology.

## **Study 3**

### **Method**

#### ***Participants***

Participants were 108 students recruited from the same institution and subject pool described in study 1.

#### ***Procedure***

Participants completed the same procedure described in study 1. However, for study 3, participants were randomly assigned to watch one of three recorded videos.

**Videos.** The independent variables were manipulated through a series of brief videos. As described in study 1, the videos depicted an interaction between three undergraduate students speaking with the psychology representative to learn more about campus organizations. All the people in the videos were paid actors. This study manipulated whether the perpetrator apologized and what type of apology was given (sincere or insincere). The no apology condition video was the same video used for study 1 (White psychology representative condition) and study 2 (equal power condition). In the sincere apology condition, the psychology representative tells the Asian student, “I am so sorry there is no excuse for asking that. It was wrong of me to press about where you are from and assume you've been to Malaysia.” In the insincere apology condition the psychology representative tells the Asian student, “Oh, sorry if you got offended. I promise I’m not being racist!”

### ***Measures***

After watching the video, participants answered open-ended questions about what they observed. These responses were not analyzed. Participants completed the same measures described in study 1.

**Sociodemographic Variables.** Participants answered questions related to their age, gender identity, transgender identity, sex, race/ethnicity, sexual orientation, year in school, and political orientation.

**Individual Difference Variables.** Four scales were included to measure individual differences.

***Perspective Taking.*** The internal reliability for the current sample yielded a Cronbach alpha of .79.

***Social Dominance.*** The internal reliability for the current sample yielded a Cronbach alpha of .85.

***Motivations to Respond Without Prejudice.*** The internal reliability for the current sample yielded a Cronbach alpha of .86 for the internal motivation subscale and .81 for the external motivation subscale.

***Microaggressions.*** The internal reliability for the current sample yielded a Cronbach alpha of .97.

**Manipulation check.** Participants answered the same manipulation check questions described in study 1. Only one item changed. In study 3, participants answered a question about whether the perpetrator apologized. The item was “Did the psychology club member apologize to one of the students?” Participants who answered the question incorrectly were excluded from the analyses.

**Dependent Variables.** Two scales were created to assess participant’s overall perceptions and attributions of the interaction and psychology representative and potential outcomes of the interaction observed in the video.

***Perceptions and Attributions of Psychology Representative.*** Participants answered 14 questions assessing perceptions and attributions of the interaction and the perpetrator. This researcher-generated measure was evaluated for appropriateness using exploratory factor analyses (EFA).

***Outcomes of Interaction.*** Participants answered five questions regarding potential outcomes of the interaction. Items assessed participant’s perceptions of how the student who was microaggressed felt due to the interaction and whether they would attend the next psychology



club meeting. This researcher-generated measure was evaluated for appropriateness using exploratory factor analyses (EFA).

### ***Analytic Approach***

For study 3, I conducted two EFAs to assess the structure of items assessing participant's perceptions and attributions of the psychology representative and the interaction as well as the outcomes of the interaction. I conducted one-way ANOVAs assessing whether the perpetrator apologized and what kind of apology they said (no apology, sincere apology, insincere apology; IV1) on the factors from the EFA. I also conducted post-hoc analyses. I ran ANCOVAs to explore the impact of the condition (apology) and individual difference variables (perspective taking, social dominance, internal and external motivations to respond without prejudice, and acceptability of racial microaggressions) on the EFA factors. I also conducted regressions where individual difference variables predicted the EFA factors.

### ***Power Analysis***

A power analysis using the G-Power computer program indicated a total sample of 159 participants would be needed to detect medium effects ( $f = .25$ ) with 80% power for a one-way ANOVA with one numerator degree of freedom, three groups, and an alpha of .05.

### **Results**

Fifty-four participants were excluded because they failed the manipulation check question where they were asked whether the psychology representative apologized to one of the students. In the no apology condition, nine participants selected "Yes", and 20 participants selected "I don't know." One participant discontinued the study after answering the manipulation check question; therefore, they did not answer any study measures and were excluded from the analyses leaving 24 participants. In the insincere apology condition, seven participants selected

“I don’t know” and eight selected “No” leaving 42 participants. In the sincere apology condition, three participants selected “I don’t know” and seven selected “I don’t know” leaving 42 participants.

### ***Descriptives***

For the overall sample, the average age of participants was 19.24 years old ( $SD = 1.06$ ), and the majority identified as female (52.78%), cisgender (100%), White (80.65%), and heterosexual (87.96%). Most participants were freshman/first-year students (62.96%) and endorsed an overall moderate political leaning ( $M = 5.14$ ,  $SD = 2.33$ ). Means and standard deviations of study variables are included in Table 25. A correlation table with all study variables is included in Table 26.

### ***Factor Structure for Perceptions and Attributions of Psychology Representative***

The 14 items assessing perceptions of the psychology representative were subjected to an EFA using SPSS version 24. Prior to performing EFA, the suitability of data for factor analysis was assessed. Inspection of the correlation matrix revealed the presence of many coefficients of .3 and above. The KMO value of .879 suggested the data were adequate for factor analysis. Bartlett's Test of Sphericity reached statistical significance, supporting the factorability of the correlation matrix.

Results of the EFA suggested a two-factor simple solution. All items loaded significantly on their predicted factors (Table 27). The first factor, labeled Biased, explained 48.60% of the variance. The second factor, labeled Pleasant, explained an additional 16.53% of variance. The biased subscale suggested the psychology representative was perceived as rude, offensive, and prejudiced. The pleasant subscale suggested the psychology representative was perceived as friendly, nice, and welcoming. The two factors were correlated at  $r = -.426$ . The internal

reliability for the current sample yielded a Cronbach alpha of .90 for the biased subscale and .60 for the pleasantness subscale.

### ***Factor Structure for Outcomes of Interaction***

The 5 items assessing the last student's level of affinity to the psychology club were subjected to an EFA. Prior to performing EFA, the suitability of data for factor analysis was assessed. Inspection of the correlation matrix revealed the presence of many coefficients of .3 and above. The KMO value of .816 suggested the data were adequate for factor analysis. Bartlett's Test of Sphericity reached statistical significance, supporting the factorability of the correlation matrix. Results of the EFA suggested a one-factor solution with simple structure (Table 28). All items loaded significantly on the predicted factors. The factor, labeled Affinity, explained 72.68% variance. The affinity subscale assessed whether the student who was microaggressed would feel a strong sense of belonging to the psychology club. It also assessed whether participants believed the student who was microaggressed would attend the next psychology club meeting. The internal reliability for the current sample yielded a Cronbach alpha of .90.

### ***Apologizing for Behavior***

The means and standard deviations for biased, pleasant, and affinity scores across conditions are included in Table 29. Across these sets of analyses, I failed to support my fourth hypothesis (that participants would rate microaggressions followed by an apology (sincere or insincere) as more problematic than microaggressions without an apology, because the intent of the statement (i.e., that it was racially motivated) would be made clear). I also failed to support my fifth hypothesis (that participants would rate microaggressions followed by a sincere apology as less problematic than microaggressions followed by an insincere apology).

**Biased.** A one-way ANOVA was conducted to explore biased scores across apology conditions (Table 30). There was no statistically significant difference in mean biased scores across apology conditions.

**Pleasant.** A one-way ANOVA was conducted to explore pleasant scores across apology conditions (Table 30). There was no statistically significant difference in mean pleasant scores across apology conditions.

**Affinity.** A one-way ANOVA was conducted to explore affinity scores across apology conditions (Table 30). There was no statistically significant difference in mean affinity scores across apology conditions.

### ***Individual Difference Variables***

Fifteen ANCOVAs were conducted to explore the impact of the condition (apology) and individual difference variables (perspective taking, social dominance, internal and external motivations to respond without prejudice, and acceptability of racial microaggressions) on the three dependent variables (biases, pleasant, affinity). There was a main effect of perspective taking on biased and affinity scores, social dominance on pleasant and affinity scores, internal motivation on biased and affinity scores, and microaggressions on biased, pleasant, and affinity scores. There were no significant interactions between individual difference scores and condition on any of the dependent variables. Results are presented in Table 31 to Table 35.

### ***Post-Hoc Analyses***

Three multiple regressions were used to assess how well individual difference measures (perspective taking, social dominance, motivations to respond without prejudice, and microaggressions) predicted perceptions of psychology representative's bias, pleasantness, and affinity (Table 36). Preliminary analyses were conducted to ensure there were no violations of

the assumptions of normality, linearity, multicollinearity, and homoscedasticity. The total variance explained by the model predicting bias was 19.3%,  $F(5,100) = 4.785, p < .001$ . Of the five variables, acceptability of racial microaggressions made the largest unique contribution ( $\beta = -.306, p = .006$ ), although external motivations to respond without prejudice also made a statistically significant contribution ( $\beta = .242, p = .012$ ). The total variance explained by the model predicting pleasantness was 11.9%,  $F(5,100) = 2.700, p = .025$ . Of the five variables, acceptability of racial microaggressions was the only variable that made a statistically significant contribution ( $\beta = .269, p = .020$ ). The total variance explained by the model predicting affinity was 23.9%,  $F(5,100) = 6.297, p < .001$ . Of the five variables, acceptability of racial microaggressions was the only variable that made a statistically significant contribution ( $\beta = .337, p = .002$ ).

### **Discussion for Study 3**

The purpose of Study 3 was to examine how apologizing for behavior impacts the perceptions and attributions of the *not a true citizen* racial microaggression. Contrary to my hypothesis, participants did not make nuanced distinctions regarding bias, pleasantness, or affinity when the perpetrator provided a sincere apology, insincere apology, or no apology for their behavior. While the experimental manipulations were not statistically significant, the individual difference variables did predict the outcome variables in a way that made sense conceptually. This will be explained further in the overall discussion.

### **Overall Discussion**

The current studies examined how three contextual variables (race, power differential, offering an apology) impacted perceptions of the *not a true citizen* racial microaggression. Across all three studies, the psychology representative was rated as biased, suggesting their

queries about where the last student was from or whether they had been to Malaysia were viewed as problematic. Overall, the psychology representative was rated with low pleasant scores. Affinity scores were also low, suggesting participants believed the last student who approached the table and was microaggressed would experience low affinity to the psychology club. The race, power differential, or apology did not seem to impact the perception of the psychology representative's pleasantness or the last student's level of affinity to the psychology representative or psychology club.

Despite Lilienfeld's (2017) argument that microaggressions are difficult to identify, this majority White undergraduate student sample in the Southern region of the United States identified the microaggression in the videos as problematic. Lilienfeld critiqued the ability to identify microaggressions; however, many psychology areas of research lack consensus on construct definitions. Thus, much of psychology research is focused on understanding why people do not seem to agree on the definitions and consider nuance or contextual factors. This sample was able to recognize the *not a true citizen* microaggression as problematic suggesting efforts to increase awareness about racial bias have been successful in identifying this particular microaggression theme (Sue et al., 2007; Williams et al., 2021). Even if people are not familiar with existing taxonomies (e.g., Sue et al. 2007; Williams et al. 2021), they may recognize the *not a true citizen* microaggression to be problematic.

Although each of the studies were underpowered, there were marginally significant findings in study 1 which manipulated the psychology representative's race. The Asian psychology representative was perceived to be less biased than the White psychology representative. The sample was majority White and participants were essentially bystanders observing a microaggression. From their perspective, an Asian person saying the *not a true*

*citizen* microaggression to another Asian person was viewed as less problematic than a White person saying the same microaggression. As reviewed in the study 1 discussion, in-group favoritism and social dominance theory may have been at play (Hewstone et al., 2002). There was not a significant difference in bias scores when comparing the Black psychology representative to the White psychology representative or Asian psychology representative. Unfortunately, many participants assigned to the Asian psychology representative condition failed the manipulation check and did not identify the psychology representative's race as Asian. This resulted in a smaller sample size and underpowered analyses. Furthermore, it may be that people who failed the manipulation check were differentially attuned to microaggressions, leaving a biased sample in the Asian condition. It would be important for future studies to ensure the race of the microaggression perpetrator is correctly identified, especially if this is an independent variable.

Power differential did not impact perceived levels of bias, pleasantness, or affinity. Results were not consistent with Inman's (2001) research and the expectation violation theory. Contrary to my hypothesis, racial statements were not viewed differently when made by an undergraduate student versus a faculty advisor. The *not a true citizen* microaggression was viewed as problematic by participants regardless of who said the microaggression. This manipulation rested on the assumption that participants would have different (higher) expectations for cordial behavior from a person of high power versus equal power; however, I did not ask people about their expectations. Therefore, it would be important in future studies to assess whether participants hold similar or different standards for behavior based on people's power status.

Furthermore, giving an apology, whether it was sincere or insincere, did not change how the psychology representative was perceived. Results were not consistent with Allan et al.'s (2010) research. I expected that when the perpetrator apologized (sincerely or insincerely) for their behavior, the behavior would be viewed as more biased because the apology would serve as a cue that the perpetrator understood their statement was problematic. However, apology conditions did not differ from no apology conditions.

Inconsistent with Mu & Bobocel's (2019) research, the psychology representative who gave a sincere apology was not viewed more favorably in comparison to the insincere apology or no apology conditions. Of note, both apologies given emphasized intent or fear of intent (racism) rather than simply saying sorry. In retrospect, listening to both apologies in the final videos was uncomfortable and it was unclear if the sincere apology was perceived as sincere by participants. It would be helpful in future studies to examine whether the two apologies were rated as similar in sincerity.

Across the three studies, post-hoc analyses also explored the impact of the condition on the outcome variables (biased, pleasant, affinity) controlling for the individual difference variables (perspective taking, social dominance, motivations to respond without prejudice, acceptability of racial microaggressions). However, none of these analyses changed the primary conclusions. Even when partialing out the effects of individual difference variables, manipulated contextual factors did not shift how people rated the interaction.

Secondary post-hoc analyses explored whether biased, pleasant, and affinity scores could be predicted from individual difference measures, collapsed across conditions. Across all studies social dominance did not significantly predict biased, pleasant, or affinity ratings of the



microaggression interactions. For study 1, individual difference measures did not predict pleasant scores.

Meanwhile acceptability of racial microaggression was a robust predictor of ratings for biased and affinity across all three studies and for pleasantness in study 2 and study 3. The current study used one score to capture the acceptability of racial microaggressions (study 1  $M = 2.84$ , study 2  $M = 2.76$ , and study 3  $M = 2.66$ ). When Mekawi & Todd (2018) created this measure, they reported means by subscale; however, to compare these means to the current studies, the means were calculated to reflect one average score ( $M = 3.0$ ). Overall, participants across the three current studies found microaggressions to be less acceptable in comparison to Mekawi & Todd's (2018) sample. Participants were more likely to rate the psychology representative as biased if they found racial microaggressions to be unacceptable. This suggests people who view microaggressions as unacceptable already have some awareness of microaggressions and label this behavior as problematic. Participants who found microaggressions to be acceptable were more likely to identify the psychology representative as pleasant and indicate that the student who was microaggressed would experience high affinity although the psychology representative only asked the Asian student whether she knew the Malaysian psychology club president and questioned where her family was from. These questions that were not made to the two White students who had previously approached the psychology club table in the video. These findings suggest that there may still be a need to continue microaggression training because some people continue to not view these behaviors as problematic.

Internal motivations to respond without prejudice was a predictor of biased ratings in study 1 and study 2. Participants were more likely to rate the psychology representative as biased

when they were more internally motivated to respond without prejudice. Internal motivation to respond without prejudice has been associated with greater detection and less activation of biased associations (Gonsalkorale et al., 2011). Internal motivations also predicted pleasant ratings in study 2. Participants were more likely to identify the psychology representative as pleasant if the participant had low internal motivations to respond without prejudice.

External motivations to respond without prejudice also predicted pleasant scores in biased ratings, but only in study 2. Participants were more likely to identify the psychology representative as pleasant if they reported high external motivations to respond without prejudice. External motivation to respond without prejudice predicted biased ratings, but only in study 3. Study 3 was the only study that included videos with an apology. Perhaps offering an apology, and therefore calling attention to the problematic behavior, was seen as uncomfortable for people high in external motivations to respond without prejudice. This motivation is characterized by a desire to maintain social comfort and avoid disapproval from others. An apology would have brought some social discomfort to the interaction. Being externally motivated to respond without prejudice has been associated with being less likely to acknowledge race during a conversation (Apfelbaum et al., 2008). This has implications for how motivations to respond without prejudice may impact how people react to racial microaggressions- those high in external motivations may be motivated to move quickly past the event or avoid calling attention to it, which can be counterproductive for reparations.

Perspective taking only predicted pleasant scores in study 2. Participants were more likely to identify the psychology representative as pleasant if they reported a greater ability to take other's perspectives. Past research suggests a negative relationship between perspective taking and prejudice where a greater ability to take other's perspective is associated with

decreased prejudice ratings (Dovidio et al., 2004; Sparkman & Blanchar, 2017). However, in the current studies, participant's greater ability to perspective take allowed them to view the psychology representative, who microaggressed the Asian student, as pleasant. Perhaps participants with higher perspective-taking scores considered the psychology representative's two previous interactions with the White undergraduate students that did not contain a microaggression. Participants were being asked to rate the psychology representative's level of pleasantness, so perhaps they examined the interactions as a whole instead of focusing on the microaggression interaction with the Asian student. Perspective taking was only a positive predictor in study 2, which manipulated power status and kept race constant (i.e., White psychology representative).

### ***Strengths, Limitations, and Future Directions***

A strength of the current studies is that they are experiments manipulating various contextual factors related to microaggression perpetration. Few studies have manipulated multiple factors that may be impacting the way microaggressions are perceived (e.g., race, power differential). Creating videos for participants to watch is a unique way to learn more about bystanders' experiences when witnessing microaggressions.

Participants in the current studies were asked to rate the psychology club representative's level of bias, pleasantness, and affinity after they witnessed all three student interactions. Participants witnessed two interactions that did not include microaggressions while the third interaction included the *not a true citizen* microaggression. Although participants were asked to rate biased, pleasant, and affinity levels of the psychology representative solely based on their interaction with the last student who was microaggressed, it is unclear whether participants' ratings were only based on the last interaction, an average of all three interactions, or a score that

reflected their perceptions of the interactions as a whole. Future studies could ask participants to answer questions after each interaction they witness to ensure the rating given only reflects the interaction in question (i.e., when the psychology representative microaggressed the last student).

Future research should include rigorous pilot testing of study materials to ensure the salience of the condition. Many participants incorrectly answered manipulation questions that would help identify the study condition. This resulted in several participants being excluded from the final analyses since they did not correctly identify the condition (race of psychology representative, power status, whether an apology was offered). This issue was especially prevalent in study 1 where 22 participants incorrectly identified the Asian psychology representative's race (11 participants selected "White" and 11 selected "I don't know"). This left a total of 29 participants in this condition. If more participants had correctly identified the manipulation (race of Asian psychology representative), there would have been a larger sample and greater power to detect effects.

For study 2, a total of 41 participants were excluded for being unable to correctly identify the psychology representative's role in the club (undergraduate student representative or faculty advisor). Sixteen participants indicated that the faculty advisor was an undergraduate student. The faculty advisor actor was an older White woman. Perhaps students did not hear the actress state her role in the club as she spoke with the three students. For Study 3, 54 participants were excluded because they incorrectly recalled whether the psychology representative had apologized. Since participants only heard one condition, they may not have realized they were listening to apology. None of the conditions explicitly said, "I apologize." The manipulation question did not assess whether the participant heard a sincere or insincere apology so it is unclear whether the apologies given would have been labeled as sincere or insincere. Overall,

future studies should conduct pilot studies to ensure participants were able to correctly label the study conditions and identify the manipulation. Having a greater budget and longer timeline would also create the opportunity to hire actors to audition for roles, perhaps ensuring a better fit between the intended manipulation and the actual execution of the materials. It would also permit pilot testing to ensure the confederate's race, power level, or apology condition were correctly identified.

Future studies should also consider creating a control condition. All conditions across all three studies displayed a form of racial microaggression (*not a true citizen*). Future studies should consider having a control condition in which no racial microaggression occurs.

In the current study, most participants identified as White. Therefore, current findings reflect White bystanders' perceptions of the *not a true citizen* microaggression they witnessed. There were not enough BIPOC participants to run separate analyses and understand how they may be interpreting the interaction. If there was a more ethnically or racially diverse sample, there may have been more nuance in considering contextual factors when witnessing a microaggression. Perhaps BIPOC who have more direct experiences with microaggressions are more sensitive to contextual nuance than White people who perhaps have not been the target of a racial microaggression. Future studies should consider working with a more ethnically or racially diverse sample since it may impact the level of nuance recognized when witnessing racial microaggressions.

### ***Practical Implications***

In general, a largely White undergraduate student sample of mock bystanders viewed the *not a true citizen* microaggression as problematic, regardless of the race or power status of the perpetrator, and regardless of whether an apology was offered for the behavior. There may not

have been much nuance to perceptions of racial microaggressions in this set of studies because these studies had predominately White samples and because in all cases, the participant was effectively a bystander witnessing a racial microaggression (*not a true citizen*). Nevertheless, these studies confirm that the *not a true citizen* microaggression was viewed as problematic in this sample and that apologizing for this microaggressive behavior did not change the perception about the person saying the microaggression. Although a person can recognize the statement was problematic or hurtful and offer a sincere apology, harm has been done. An implication of this study is that we should focus efforts on preventing the perpetration of microaggression statements in the first place, as repairing them may be more challenging.

Many academic institutions and various corporations/organizations have implemented diversity education training to help people identify microaggressions and recognize why they are problematic. The current sample suggests that there is some recognition of the *not a true citizen* microaggression as problematic. If training participants are able to identify microaggressions, the training may spend less time on educating or orienting people to recognize microaggressions as a problem. Training content can be dedicated to teaching people how they can avoid making microaggressive statements in the first place, in addition to how to intervene or what to do if they experience, witness, or commit a microaggression (Hernández et al., 2010; Sue et al., 2019; Thurber & DiAngelo, 2017).

## **Conclusion**

The current studies examined how three contextual variables (race, power differential, offering an apology) impacted perceptions of the *not a true citizen* microaggression. Participants watched video-recorded interactions between a psychology club representative (microaggression preparator) and three undergraduate students, two White women and an Asian woman. Most

participants were White undergraduate students. Across all three studies, participants rated the *not a true citizen* microaggression as problematic. Contextual factors largely did not impact perceptions, contrary to my hypotheses. However, individual difference variables did. Variables such as finding racial microaggressions acceptable and being internally and externally motivated to respond without prejudice did impact perceptions. Future research with more diverse samples, especially with people who have directly experienced microaggressions, would be useful to continue elucidating contextual nuance in microaggressive behaviors.

## References

- Allan, A., McKillop, D., & Carroll, R. (2010). Parties' perceptions of apologies in resolving equal opportunity complaints. *Psychiatry, Psychology and Law*, 17(4), 538-550. <https://doi.org/10.1521/soco.19.5.521.19912>
- Anvari, F., & Lakens, D. (2021). Using anchor-based methods to determine the smallest effect size of interest. *Journal of Experimental Social Psychology*. 96, 1-11. <https://doi.org/10.1016/j.jesp.2021.104159>
- Apfelbaum, E. P., Sommers, S. R., & Norton, M. I. (2008). Seeing race and seeming racist? Evaluating strategic colorblindness in social interaction. *Journal of Personality and Social Psychology*, 95(4), 918-932. <https://doi.org/10.1037/a0011990>
- Bartlett, M. S. (1954). A note of the multiplying factors for various Chi-squares approximations. *Journal of Royal Statistical Society: Series B (Methodological)*. 16(2), 296-298. <https://doi.org/10.1111/j.2517-6161.1954.tb00174.x>
- Burgoon, J.K., & Jones, S.B. (1976). Towards a theory of personal space expectations and their violations. *Human Communication Research*. 2(2) 131-146. <https://doi.org/10.1111/j.1468-2958.1976.tb00706.x>
- Blume, A. W., Lovato, L. V., Thyken, B. N., & Denny, N. (2012). The relationship of microaggressions with alcohol use and anxiety among ethnic minority college students in a historically White institution. *Cultural Diversity and Ethnic Minority Psychology*, 18(1), 45-54. <https://doi.org/10.1037/a0025457>
- Davis, M. H. (1980). *Interpersonal Reactivity Index (IRI)* [Database record]. APA PsycTests. <https://doi.org/10.1037/t01093-000>
- Dovidio, J. F., Ten Vergert, M., Stewart, T. L., Gaertner, S. L., Johnson, J. D., Esses, V. M., ... & Pearson, A. R. (2004). Perspective and prejudice: Antecedents and mediating mechanisms. *Personality and Social Psychology Bulletin*, 30(12), 1537-1549. <https://doi.org/10.1177/0146167204271177>
- Gonsalkorale, K., Sherman, J. W., Allen, T. J., Klauer, K. C., & Amodio, D. M. (2011). Accounting for successful control of implicit racial bias: The roles of association



- activation, response monitoring, and overcoming bias. *Personality and Social Psychology Bulletin*, 37(11), 1534-1545. <https://doi.org/10.1177/0146167211414064>
- Hernández, P., Carranza, M., & Almeida, R. (2010). Mental health professionals' adaptive responses to racial microaggressions: An exploratory study. *Professional Psychology: Research and Practice*, 41(3), 202-209. <https://doi.org/10.1037/a0018445>
- Hernández, R. J., & Villodas, M. T. (2020). Overcoming racial battle fatigue: The associations between racial microaggressions, coping, and mental health among Chicana/o and Latina/o college students. *Cultural Diversity and Ethnic Minority Psychology*, 26(3), 399-411. <https://doi.org/10.1037/cdp0000306>
- Hewstone, M., Rubin, M., & Willis, H. (2002). Intergroup bias. *Annual Review of Psychology*, 53(1), 575-604. <https://doi.org/10.1146/annurev.psych.53.100901.135109>
- Ho, A. K., Sidanius, J., Kteily, N., Sheehy-Skeffington, J., Pratto, F., Henkel, K. E., Foels, R., Stewart, A. L. (2015). The nature of social dominance orientation: Theorizing and measuring preferences for intergroup inequality using the new SDO7 scale. *Journal of Personality and Social Psychology*, 109(6), 1003-1038. <https://doi.org/10.1037/pspi0000033>
- Hollingsworth, D. W., Cole, A. B., O'Keefe, V. M., Tucker, R. P., Story, C. R., & Wingate, L. R. (2017). Experiencing racial microaggressions influences suicide ideation through perceived burdensomeness in African Americans. *Journal of Counseling Psychology*, 64(1), 104-111. <https://doi.org/10.1037/cou0000177>
- Inman, M. L. (2001). Do you see what I see?: Similarities and differences in victims' and observers' perceptions of discrimination. *Social Cognition*, 19(5), 521-546. <https://doi.org/10.1521/soco.19.5.521.19912>
- Kaiser, H. F. (1970). A second-generation little jiffy. *Psychometrika*, 35(4), 401-415. <https://doi.org/10.1007/BF02291817>
- Kaiser, H. 1974, An index of factorial simplicity, *Psychometrika*, 39(1), 31-36. <https://doi.org/10.1007/bf02291575>

- Kim, J. Y. J., Block, C. J., & Nguyen, D. (2019). What's visible is my race, what's invisible is my contribution: Understanding the effects of race and color-blind racial attitudes on the perceived impact of microaggressions toward Asians in the workplace. *Journal of Vocational Behavior*, 113, 75-87. <https://doi.org/10.1016/j.jvb.2018.08.011>
- Liao, K. Y. H., Weng, C. Y., & West, L. M. (2016). Social connectedness and intolerance of uncertainty as moderators between racial microaggressions and anxiety among Black individuals. *Journal of Counseling Psychology*, 63(2), 240–246. <http://dx.doi.org/10.1037/cou0000123>
- Lilienfeld, S. O. (2017). Microaggressions: Strong claims, inadequate evidence. *Perspectives on Psychological Science*, 12(1), 138-169. <https://doi.org/10.1177/1745691616659391>
- Lilly, F. R., Owens, J., Bailey, T. C., Ramirez, A., Brown, W., Clawson, C., & Vidal, C. (2018). The influence of racial microaggressions and social rank on risk for depression among minority graduate and professional students. *College Student Journal*, 52(1), 86-104.
- Lui, P. P., & Quezada, L. (2019). Associations between microaggression and adjustment outcomes: A meta-analytic and narrative review. *Psychological Bulletin*, 145(1), 45-78. <https://doi.org/10.1037/bul0000172>
- Majeno, A., Urizar Jr, G. G., Halim, M. L. D., Nguyen-Rodriguez, S. T., & Gonzalez, A. (2020). Examining the role of ethnic microaggressions and ethnicity on cortisol responses to an acute stressor among young adults. *Cultural Diversity and Ethnic Minority Psychology*, 27(1), 135-144. <https://doi.org/10.1037/cdp0000401>
- Mekawi, Y., & Todd, N. R. (2018). Okay to say?: Initial validation of the Acceptability of Racial Microaggressions Scale. *Cultural Diversity and Ethnic Minority Psychology*, 24(3), 346-362. <https://doi.org/10.1037/cdp0000201>
- Michaels, T. I., Gallagher, N., Crawford, M., Kanter, J. W., & Williams, M. T. (2018). Racial differences in the appraisal of microaggressions through cultural consensus modeling. *The Behavior Therapist*, 41(7), 314-321.
- Mu, F., & Bobocel, D. R. (2019). Why did I say sorry? Apology motives and transgressor perceptions of reconciliation. *Journal of Organizational Behavior*, 40(8), 912-930. <https://doi.org/10.1002/job.2376>

- Nadal, K. L. (2011). The Racial and Ethnic Microaggressions Scale (REMS): Construction, reliability, and validity. *Journal of Counseling Psychology*, 58(4), 470. <http://dx.doi.org/10.1037/a0025193>
- Nadal, K. L., Griffin, K. E., Wong, Y., Hamit, S., & Rasmus, M. (2014a). The impact of racial microaggressions on mental health: Counseling implications for clients of color. *Journal of Counseling & Development*, 92(1), 57-66. <https://doi.org/10.1002/j.1556-6676.2014.00130.x>
- Nadal, K. L., Wong, Y., Griffin, K. E., Davidoff, K., & Sriken, J. (2014b). The adverse impact of racial microaggressions on college students' self-esteem. *Journal of College Student Development*, 55(5), 461-474. <https://doi.org/10.1353/csd.2014.0051>
- O'Keefe, V. M., Wingate, L. R., Cole, A. B., Hollingsworth, D. W., & Tucker, R. P. (2015). Seemingly harmless racial communications are not so harmless: Racial microaggressions lead to suicidal ideation by way of depression symptoms. *Suicide and Life-Threatening Behavior*, 45(5), 567-576. <https://doi.org/10.1111/sltb.12150>
- Ong, A. D., Cerrada, C., Lee, R. A., & Williams, D. R. (2017). Stigma consciousness, racial microaggressions, and sleep disturbance among Asian Americans. *Asian American Journal of Psychology*, 8(1), 72-81. <https://doi.org/10.1037/aap0000062>
- Ozier, E. M., Taylor, V. J., & Murphy, M. C. (2019). The cognitive effects of experiencing and observing subtle racial discrimination. *Journal of Social Issues*, 75(4), 1087-1115. <https://doi.org/10.1111/josi.12349>
- Pierce, C. M., Carew, J. V., Pierce-Gonzalez, D., & Wills, D. (1977). An experiment in racism: TV commercials. *Education and Urban Society*, 10(1), 61-87. <https://doi.org/10.1177/001312457701000105>
- Plant, E. A., & Devine, P. G. (1998). Internal and external motivation to respond without prejudice. *Journal of Personality and Social Psychology*, 75, 811-832. <https://doi.org/10.1037/0022-3514.75.3.811>
- Pratto, F., Sidanius, J., Stallworth, L. M., & Malle, B. F. (1994). Social dominance orientation: A personality variable predicting social and political attitudes. *Journal of Personality and Social Psychology*, 67(4), 741-763. <https://doi.org/10.1037/0022-3514.67.4.741>

- Rucker, L. S., West, L. M., & Roemer, L. (2010). Relationships among perceived racial stress, intolerance of uncertainty, and worry in a Black sample. *Behavior Therapy*, 41(2), 245–253. <http://dx.doi.org/10.1016/j.beth.2009.04.001>
- Sanchez, D., Adams, W. N., Arango, S. C., & Flannigan, A. E. (2018). Racial-ethnic microaggressions, coping strategies, and mental health in Asian American and Latinx American college students: A mediation model. *Journal of Counseling Psychology*, 65(2), 214-225. <https://doi.org/10.1037/cou0000249>
- Solorzano, D., Ceja, M., & Yosso, T. (2000). Critical race theory, racial microaggressions, and campus racial climate: The experiences of African American college students. *Journal of Negro Education*, 60-73. <https://doi.org/10.17763/haer.79.4.m6867014157m707l>
- Sparkman, D. J., & Blanchar, J. C. (2017). Examining relationships among epistemic motivation, perspective taking, and prejudice: A test of two explanatory models. *Personality and Individual Differences*, 114, 48-56. <https://doi.org/10.1016/j.paid.2017.03.049>
- Sue, D. W., Alsaidi, S., Awad, M. N., Glaeser, E., Calle, C. Z., & Mendez, N. (2019). Disarming racial microaggressions: Microintervention strategies for targets, White allies, and bystanders. *American Psychologist*, 74(1), 128-142. <https://doi.org/10.1037/amp0000296>
- Sue, D. W., Capodilupo, C. M., Torino, G. C., Bucceri, J. M., Holder, A., Nadal, K. L., & Esquilin, M. (2007). Racial microaggressions in everyday life: Implications for clinical practice. *American Psychologist*, 62(4), 271-286. <https://doi.org/10.1037/0003-066x.62.4.271>
- Tao, K. W., Owen, J., & Drinane, J. M. (2017). Was that racist? An experimental study of microaggression ambiguity and emotional reactions for racial–ethnic minority and white individuals. *Race and Social Problems*, 9(4), 262-271. <https://doi.org/10.1007/s12552-017-9210-4>
- Thurber, A., & DiAngelo, R. (2018). Microaggressions: Intervening in three acts. *Journal of Ethnic & Cultural Diversity in Social Work*, 27(1), 17-27. <https://doi.org/10.1080/15313204.2017.1417941>
- Torres-Harding, S. R., Andrade Jr, A. L., & Romero Diaz, C. E. (2012). The Racial Microaggressions Scale (RMAS): A new scale to measure experiences of racial

- microaggressions in people of color. *Cultural Diversity and Ethnic Minority Psychology*, 18(2), 153-164. <http://dx.doi.org/0.1037/a0027658>
- Tran, A. G., & Lee, R. M. (2014). You speak English well! Asian Americans' reactions to an exceptionalizing stereotype. *Journal of Counseling Psychology*, 61(3), 484-490. <https://doi.org/10.1037/cou0000034>
- University of Arkansas Division of Diversity, Equity and Inclusion (2021, February 24). "Ouch! That stereotype hurts." <https://diversity.uark.edu/training/ouch.php#:~:text=%E2%80%99COUCH!,hurtful%20stereotypes%20and%20respond%20appropriately>.
- Williams, M. G., & Lewis, J. A. (2019). Gendered racial microaggressions and depressive symptoms among Black women: A moderated mediation model. *Psychology of Women Quarterly*, 43(3), 368-380. <https://doi.org/10.1177/0361684319832511>
- Williams, M. T., Skinta, M. D., & Martin-Willett, R. (2021). After Pierce and Sue: A revised racial microaggressions taxonomy. *Perspectives on Psychological Science*, 16(5), 991-1007. <https://doi.org/10.1177/1745691621994247>
- Wong-Padoongpatt, G., Zane, N., Okazaki, S., & Saw, A. (2017). Decreases in implicit self-esteem explain the racial impact of microaggressions among Asian Americans. *Journal of Counseling Psychology*, 64(5), 574-583. <https://doi.org/10.1037/cou0000217>
- Wong-Padoongpatt, G., Zane, N., Okazaki, S., & Saw, A. (2020). Individual variations in stress response to racial microaggressions among Asian Americans. *Asian American Journal of Psychology*, 11(3), 126-137. <https://doi.org/10.1037/aap0000182>
- Wood, S., Braeken, J., & Niven, K. (2013). Discrimination and well-being in organizations: Testing the differential power and organizational justice theories of workplace aggression. *Journal of Business Ethics*, 115(3), 617-634. <https://doi.org/10.1007/s10551-012-1404-5>
- Young, B. D. (2019). *Ethnic racial identity and the perpetrator's race and status: Black emerging adults' discriminatory attributions to racial microaggressions*. [Doctoral dissertation, University of California Santa Cruz]. eScholarship.

Zeiders, K. H., Landor, A. M., Flores, M., & Brown, A. (2018). Microaggressions and diurnal cortisol: Examining within-person associations among African-American and Latino young adults. *Journal of Adolescent Health*, 63(4), 482-488.  
<https://doi.org/10.1016/j.jadohealth.2018.04.018>

## Tables

Table 1

*Study 1 Characteristics of Overall Sample and Across Race of Psychology Representative*

	Total Sample (N = 124)	Black Psychology Representative (n = 49)	Asian Psychology Representative (n = 29)	White Psychology Representative (n = 46)
Variable	<i>n</i> (%) or <i>M</i> ( <i>SD</i> )	<i>n</i> (%) or <i>M</i> ( <i>SD</i> )	<i>n</i> (%) or <i>M</i> ( <i>SD</i> )	<i>n</i> (%) or <i>M</i> ( <i>SD</i> )
Age	19.21 (1.14)	19.37 (1.32)	19.31 (1.04)	18.98 (0.98)
Gender				
Female	65 (52.42%)	30 (61.22%)	13 (44.83%)	22 (47.83%)
Male	57 (45.96%)	19 (38.78%)	15 (51.72%)	23 (50%)
Non-binary/third gender	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Not listed	1 (0.81%)	0 (0%)	1 (3.45%)	0 (0%)
I prefer not to respond	1 (0.81%)	0 (0%)	0 (0%)	1 (2.17%)
Transgender				
Yes	2 (1.61%)	0 (%)	1 (3.45%)	1 (2.17%)
No	121 (97.58%)	49 (100%)	27 (93.10%)	45 (97.83%)
I prefer not to respond	1 (0.81%)	0 (%)	1 (3.45%)	0 (0%)
Sex				
Female	66 (53.23%)	30 (61.22%)	13 (44.83%)	23 (50%)
Male	56 (45.16%)	19 (38.78%)	15 (51.72%)	22 (47.83%)
Intersex	0 (0%)	0 (0%)	0 (0%)	0 (0%)
I prefer not to respond	2 (1.61%)	0 (0%)	1 (3.45%)	1 (2.17%)
Race/Ethnicity (select all that apply)				
Black/African American	4 (3.23%)	2 (4.08%)	0 (0%)	2 (4.35%)
Latine/x	18 (14.52%)	7 (14.29%)	6 (20.69%)	5 (10.87%)

Table 1 (Cont.)

Variable	Total Sample <i>n</i> (%) or <i>M</i> ( <i>SD</i> )	Black Psychology Representative <i>n</i> (%) or <i>M</i> ( <i>SD</i> )	Asian Psychology Representative <i>n</i> (%) or <i>M</i> ( <i>SD</i> )	White Psychology Representative <i>n</i> (%) or <i>M</i> ( <i>SD</i> )
Asian/Pacific Islander	10 (8.06%)	4 (8.16%)	3 (10.34%)	3 (6.52%)
Native American	3 (2.42%)	1 (2.04%)	0 (0%)	2 (4.35%)
White/Caucasian	100 (80.65%)	38 (77.55%)	24 (82.76%)	38 (82.61%)
Not listed	1 (0.81%)	0 (0%)	1 (3.45%)	0 (0%)
I prefer not to respond	1 (0.81%)	0 (0%)	0 (0%)	1 (2.17%)
Sexual Orientation				
Lesbian	1 (.81%)	0 (0%)	1 (3.45%)	0 (0%)
Gay	2 (1.61%)	1 (2.04%)	0 (0%)	1 (2.17%)
Bisexual	4 (3.23%)	0 (0%)	1 (3.45%)	3 (6.52%)
Pansexual	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Asexual	2 (1.61%)	0 (0%)	1 (3.45%)	1 (2.17%)
Heterosexual	110 (88.71%)	46 (93.88%)	25 (86.20%)	39 (84.78%)
Not listed	3 (2.42%)	1 (2.04%)	1 (3.45%)	1 (2.17%)
I prefer not to respond	2 (1.61%)	1 (2.04%)	0 (0%)	1 (2.17%)
Year in school				
Freshman/First year	85 (68.55%)	33 (67.35%)	18 (62.07%)	34 (73.91%)
Sophomore/Second year	25 (20.16%)	10 (20.41%)	6 (20.69%)	9 (19.57%)
Junior/Third year	8 (6.45%)	4 (8.16%)	3 (10.34%)	1 (2.17%)
Senior/Fourth year	5 (4.03%)	2 (4.08%)	1 (3.45%)	2 (4.35%)
Fifth year	1 (0.81%)	0 (0%)	1 (3.45%)	0 (0%)
I prefer not to respond	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Political Affiliation				
Economic issues	6.02 (2.309)	5.87 (2.408)	6.48 (1.740)	5.88 (2.519)
Social issues	4.97 (2.263)	4.87 (2.408)	5.26 (2.159)	4.91 (2.208)
Overall	5.47 (2.161)	5.40 (2.260)	5.67 (1.840)	5.41 (2.275)



Table 2  
*Study 1 Correlations Among Study Variables*

	1	2	3	4	5	6	7
1. Biased	-						
2. Pleasant	<b>-.459</b>	-					
3. Affinity	<b>-.541</b>	<b>.684</b>	-				
4. Perspective Taking	<b>.177</b>	-.007	-.121	-			
5. Social Dominance	<b>-.252</b>	.039	<b>.194</b>	<b>-.254</b>	-		
6. Internal Motivation	<b>.431</b>	-.144	<b>-.309</b>	<b>.412</b>	<b>-.642</b>	-	
7. External Motivation	.011	-.011	-.030	.003	-.064	<b>.292</b>	-
8. Microaggressions	<b>-.402</b>	<b>.205</b>	<b>.388</b>	<b>-.216</b>	<b>.494</b>	<b>-.517</b>	<b>-.125</b>

*Note.* Statistically significant correlations ( $p < .05$ ) in bold.

Table 3

*Study 1 Perceptions and Attributions of Psychology Representative EFA Loadings and Communalities*

Item	Factor 1	Factor 2	Communality
During the interaction with the last student, do you think the psychology club representative ...	Biased	Pleasant	(h <sup>2</sup> )
8. ...was insensitive about the last student's cultural group?	<b>.892</b>		.778
5. ...was offensive?	<b>.863</b>		.832
7. ...was rude?	<b>.800</b>		.759
2. ...was prejudiced?	<b>.790</b>		.675
12. ...was inappropriate?	<b>.781</b>		.639
9. ...was unaware of the realities of race and racism?	<b>.776</b>		.514
3. ...was biased?	<b>.700</b>		.541
1. ...asked good questions? (reverse coded)	<b>-.578</b>		.463
13. ...was friendly?		<b>.899</b>	.765
10. ...was nice?		<b>.891</b>	.793
6. ...was welcoming?		<b>.835</b>	.709
11. ...was inclusive?		<b>.759</b>	.613
4. ...was helpful?		<b>.597</b>	.500

*Note.* For readability, factor loadings < |.3| are not displayed.

Table 4

*Study 1 Outcomes of Interaction EFA Loadings and Communalities*

Item	Factor 1 Affinity	Communality (h <sup>2</sup> )
3. During the interaction with the psychology club representative, do you think the last student felt a strong sense of belonging?	<b>.886</b>	.784
5. Do you think the last student would feel welcomed at the next Psychology Club meeting?	<b>.849</b>	.722
2. During the interaction with the psychology club representative, do you think the last student felt accepted?	<b>.840</b>	.705
4. Do you think the last student will attend the next Psychology Club meeting?	<b>.829</b>	.687
1. During the interaction with the psychology club representative, do you think the last student felt excluded? (reverse coded)	<b>-.730</b>	.532

Table 5

*Study 1 Means and Standard Deviations for Continuous Dependent Study Variables*

Variable	Total Sample	Black Psychology Representative	Asian Psychology Representative	White Psychology Representative
	(N = 124) <i>M (SD)</i>	(n = 49) <i>M (SD)</i>	(n = 29) <i>M (SD)</i>	(n = 46) <i>M (SD)</i>
Biased	4.71 (1.48)	4.75 (1.54)	4.19 (1.19)	5.02 (1.51)
Pleasant	4.30 (1.21)	4.11 (1.04)	4.43 (1.10)	4.44 (1.36)
Affinity	3.25 (1.28)	3.01 (1.15)	3.43 (1.00)	3.39 (1.54)

Table 6

*Study 1 One-Way Analysis of Variance of Biased, Pleasant, and Affinity Across Race of Psychology Representative*

Source	<i>df</i>	<i>F</i>	<i>p</i>	$\eta^2_p$
Biased				
Between groups	2	2.912	.058	.046
Within groups	121			
Total	123			
Pleasant				
Between groups	2	1.058	.350	.017
Within groups	120			
Total	122			
Affinity				
Between groups	2	1.418	.246	.023
Within groups	121			
Total	123			

Table 7

*Study 1 ANCOVA Results for Condition by Perspective Taking*

Model	Test Statistic
Dependent variable: Biased	
Condition	$F(2,118) = .12, p = .891, \eta_p^2 = .002$
Perspective Taking	$F(1,118) = 2.20, p = .140, \eta_p^2 = .018$
Condition X Perspective Taking	$F(2,118) = .06, p = .942, \eta_p^2 = .001$
Dependent variable: Pleasant	
Condition	$F(2,117) = .11, p = .901, \eta_p^2 = .002$
Perspective Taking	$F(1,117) = .02, p = .887, \eta_p^2 < .001$
Condition X Perspective Taking	$F(2,117) = .24, p = .785, \eta_p^2 = .004$
Dependent variable: Affinity	
Condition	$F(2,118) = .09, p = .912, \eta_p^2 = .002$
Perspective Taking	$F(1,118) = 1.84, p = .177, \eta_p^2 = .015$
Condition X Perspective Taking	$F(2,118) = .18, p = .835, \eta_p^2 = .003$

Table 8

*Study 1 ANCOVA Results for Condition by Social Dominance*

Model	Test Statistic
Dependent variable: Biased	
Condition	$F(2,118) = 1.65, p = .197, \eta_p^2 = .027$
Social Dominance	$F(1,118) = 5.93, p = .016, \eta_p^2 = .016$
Condition X Social Dominance	$F(2,118) = .65, p = .525, \eta_p^2 = .011$
Dependent variable: Pleasant	
Condition	$F(2,117) = 1.31, p = .274, \eta_p^2 = .022$
Social Dominance	$F(1,117) < .001, p = .984, \eta_p^2 < .001$
Condition X Social Dominance	$F(2,117) = .85, p = .431, \eta_p^2 = .014$
Dependent variable: Affinity	
Condition	$F(2,118) = 1.41, p = .247, \eta_p^2 = .023$
Social Dominance	$F(1,118) = 3.90, p = .051, \eta_p^2 = .032$
Condition X Social Dominance	$F(2,118) = .83, p = .440, \eta_p^2 = .014$

Table 9

*Study 1 ANCOVA Results for Condition by Internal Motivation*

Model	Test Statistic
Dependent variable: Biased	
Condition	$F(2,117) = .38, p = .687, \eta_p^2 = .006$
Internal Motivation	$F(1,117) = 22.81, p < .001, \eta_p^2 = .163$
Condition X Internal Motivation	$F(2,117) = .76, p = .468, \eta_p^2 = .013$
Dependent variable: Pleasant	
Condition	$F(2,116) = 1.06, p = .349, \eta_p^2 = .018$
Internal Motivation	$F(1,116) = 1.18, p = .179, \eta_p^2 = .015$
Condition X Internal Motivation	$F(2,116) = 1.59, p = .209, \eta_p^2 = .027$
Dependent variable: Affinity	
Condition	$F(2,117) = .99, p = .373, \eta_p^2 = .017$
Internal Motivation	$F(1,117) = 11.86, p = .001, \eta_p^2 = .092$
Condition X Internal Motivation	$F(2,117) = 1.54, p = .219, \eta_p^2 = .026$



Table 10

*Study 1 ANCOVA Results for Condition by External Motivation*

Model	Test Statistic
Dependent variable: Biased	
Condition	$F(2,117) = .11, p = .89, \eta_p^2 = .002$
External Motivation	$F(1,117) = .14, p = .709, \eta_p^2 = .001$
Condition X External Motivation	$F(2,117) = .33, p = .720, \eta_p^2 = .006$
Dependent variable: Pleasant	
Condition	$F(2,116) = .60, p = .550, \eta_p^2 = .010$
External Motivation	$F(1,116) = .14, p = .708, \eta_p^2 = .001$
Condition X External Motivation	$F(2,116) = 1.10, p = .335, \eta_p^2 = .019$
Dependent variable: Affinity	
Condition	$F(2,117) = .10, p = .908, \eta_p^2 = .002$
External Motivation	$F(1,117) = .26, p = .614, \eta_p^2 = .002$
Condition X External Motivation	$F(2,117) = .04, p = .964, \eta_p^2 = .001$

Table 11

*Study 1 ANCOVA Results for Condition by Microaggressions*

Model	Test Statistic
Dependent variable: Biased	
Condition	$F(2,116) = .23, p = .798, \eta_p^2 = .004$
Microaggressions	$F(1,116) = 21.04, p < .001, \eta_p^2 = .154$
Condition X Microaggressions	$F(2,116) = .05, p = .952, \eta_p^2 = .001$
Dependent variable: Pleasant	
Condition	$F(2,115) = .77, p = .463, \eta_p^2 = .013$
Microaggressions	$F(1,115) = 4.34, p = .039, \eta_p^2 = .036$
Condition X Microaggressions	$F(2,115) = .36, p = .701, \eta_p^2 = .006$
Dependent variable: Affinity	
Condition	$F(2,116) = 1.17, p = .313, \eta_p^2 = .020$
Microaggressions	$F(1,116) = 19.19, p < .001, \eta_p^2 = .142$
Condition X Microaggressions	$F(2,121) = .53, p = .590, \eta_p^2 = .009$

Table 12

*Study 1 Multiple Regression Predicting Biased, Pleasant, and Affinity Scores from Individual Difference Variables*

Variables	<i>t</i>	<i>p</i>	$\beta$	<i>F</i>	<i>df</i>	<i>p</i>	<i>R</i> <sup>2</sup>
Biased				7.904	5, 116	<.001	.254
Perspective Taking	-.265	.792	-.024				
Internal Motivations	3.535	.001	.435				
External Motivations	-1.635	.105	-.141				
Social Dominance	1.331	.186	.146				
Microaggressions	-2.810	.006	-.272				
Pleasant				1.550	5, 115	.180	.063
Perspective Taking	.749	.455	.075				
IMS	-1.354	.178	-.187				
EMS	.618	.538	.060				
Social Dominance	-1.323	.189	-.163				
Microaggressions	1.953	.053	.213				
Affinity							
Perspective Taking	.224	.823	.021	4.982	5,116	<.001	.177
IMS	-1.869	.064	-.241				
EMS	.829	.409	.075				
Social Dominance	-1.006	.317	-.116				
Microaggressions	3.284	.001	.334				

Table 13

*Study 2 Characteristics of Overall Sample and Across Equal and Differential Power*

	Total Sample (N = 133)	Equal Power (n = 69)	Differential Power (n = 64)
Variable	<i>n</i> (%) or <i>M</i> ( <i>SD</i> )	<i>n</i> (%) or <i>M</i> ( <i>SD</i> )	<i>n</i> (%) or <i>M</i> ( <i>SD</i> )
Age	19.14 (1.22)	19.04 (1.01)	19.23 (1.42)
Gender			
Female	72 (54.14%)	33 (47.83%)	39 (60.94%)
Male	59 (44.36%)	35 (50.72%)	24 (37.5%)
Non-binary/third gender	0 (0%)	0 (0%)	0 (0%)
Not listed	1 (0.75%)	1 (1.45%)	0 (0%)
I prefer not to respond	1 (0.75%)	0 (0%)	1 (1.56%)
Transgender			
Yes	0 (0%)	0 (%)	0 (0%)
No	131 (98.5%)	68 (98.55%)	63 (98.44%)
I prefer not to respond	2 (1.5%)	1 (1.45%)	1 (1.56%)
Sex			
Female	73 (54.89%)	34 (49.28%)	39 (60.94%)
Male	59 (44.36%)	35 (50.72%)	24 (37.5%)
Intersex	0 (0%)	0 (0%)	0 (0%)
I prefer not to respond	1 (0.75%)	0 (0%)	1 (1.56%)
Race/Ethnicity (select all that apply)			
Black/African American	9 (6.77%)	6 (8.7%)	3 (4.69%)
Latine/x	16 (12.03%)	6 (8.7%)	10 (15.63%)
Asian/Pacific Islander	4 (3.01%)	1 (1.45%)	3 (4.69%)
Native American	3 (2.26%)	1 (1.45%)	2 (3.13%)

Table 13 (Cont.)

Variable	Total Sample <i>n</i> (%) or <i>M</i> ( <i>SD</i> )	Equal Power <i>n</i> (%) or <i>M</i> ( <i>SD</i> )	Differential Power <i>n</i> (%) or <i>M</i> ( <i>SD</i> )
White/Caucasian	109 (81.95%)	55 (79.71%)	54 (84.38%)
Not listed	1 (0.75%)	1 (1.45%)	0 (0%)
I prefer not to respond	1 (0.75%)	1 (1.45%)	0 (0%)
Sexual Orientation			
Lesbian	1 (0.75%)	1 (1.45%)	0 (0%)
Gay	3 (2.26%)	3 (4.35%)	0 (0%)
Bisexual	3 (3.26%)	1 (1.45%)	2 (3.13%)
Pansexual	2 (1.5%)	1 (0%)	1 (1.56%)
Asexual	0 (1.61%)	0 (0%)	0 (0%)
Heterosexual	119 (89.47%)	61 (88.41%)	58 (90.63%)
Not listed	2 (1.5%)	1 (1.45%)	2 (3.13%)
I prefer not to respond	3 (2.26%)	1 (1.45%)	2 (3.13%)
Year in school			
Freshman/First year	92 (69.17%)	47 (68.12%)	45 (70.31%)
Sophomore/Second year	26 (19.55%)	17 (24.64%)	9 (14.06%)
Junior/Third year	9 (6.77%)	1 (1.45%)	8 (12.5%)
Senior/Fourth year	6 (4.51%)	4 (5.8%)	2 (3.13%)
Fifth year	0 (0%)	0 (0%)	0 (0%)
I prefer not to respond	0 (0%)	0 (0%)	0 (0%)
Political Affiliation			
Economic issues	5.80 (2.110)	5.70 (2.173)	5.90 (2.055)
Social issues	4.92 (2.362)	4.91 (2.220)	4.93 (2.522)
Overall	5.46 (2.13)	5.47 (2.17)	5.44 (2.10)

Table 14

*Study 2 Correlations Among Study Variables*

	1	2	3	4	5	6	7
1. Biased	-						
2. Pleasant	<b>-.607</b>	-					
3. Affinity	<b>-.724</b>	<b>.688</b>	-				
4. Perspective Taking	.141	.137	-.054	-			
5. Social Dominance	<b>-.290</b>	.020	<b>.289</b>	<b>-.420</b>	-		
6. Internal Motivation	<b>.368</b>	-.117	<b>-.275</b>	<b>.399</b>	<b>-.608</b>	-	
7. External Motivation	.012	<b>.206</b>	.042	.019	.076	.044	-
8. Microaggressions	<b>-.346</b>	<b>.199</b>	<b>.381</b>	<b>-.288</b>	<b>.572</b>	<b>.402</b>	.134

*Note.* Statistically significant correlations ( $p < .05$ ) in bold

Table 15

*Study 2 Perceptions and Attributions of Psychology Representative EFA Loadings and Communalities*

Item	Factor 1	Factor 2	Communality
During the interaction with the last student, do you think the psychology club representative ...	Biased	Pleasant	(h <sup>2</sup> )
8. ...was insensitive about the last student's cultural group?	<b>.920</b>		.854
9. ...was unaware of the realities of race and racism?	<b>.912</b>		.674
5. ...was offensive?	<b>.902</b>		.846
2. ...was prejudiced?	<b>.810</b>		.702
12. ...was inappropriate?	<b>.749</b>		.654
7. ...was rude?	<b>.726</b>		.750
3. ...was biased?	<b>.637</b>		.490
1. ...asked good questions? (reverse coded)	<b>-.544</b>		.595
10. ...was nice?		<b>.966</b>	.822
13. ...was friendly?		<b>.949</b>	.798
6. ...was welcoming?		<b>.749</b>	.795
4. ...was helpful?		<b>.639</b>	.561
11. ...was inclusive?		<b>.579</b>	.432
14. ...was mean? (reverse coded)		<b>-.566</b>	.375

Table 16

*Study 2 Outcomes of Interaction EFA Loadings and Communalities*

Item	Factor 1 Affinity	Communality (h <sup>2</sup> )
5. Do you think the last student would feel welcomed at the next Psychology Club meeting?	<b>.904</b>	.817
2. During the interaction with the psychology club representative, do you think the last student felt accepted?	<b>.886</b>	.786
4. Do you think the last student will attend the next Psychology Club meeting?	<b>.872</b>	.760
3. During the interaction with the psychology club representative, do you think the last student felt a strong sense of belonging?	<b>.834</b>	.695
1. During the interaction with the psychology club representative, do you think the last student felt excluded? (reverse coded)	<b>-.792</b>	.637



Table 17

*Study 2 Means and Standard Deviations for Continuous Dependent Study Variables*

Variable	Total Sample	Equal Power	Differential Power
	N = 134	(n = 70)	(n = 64)
	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>
Biased	4.80 (1.49)	4.78 (1.47)	4.82 (1.52)
Pleasant	4.16 (1.20)	4.15 (1.27)	4.17 (1.13)
Affinity	3.11 (1.37)	3.13 (1.40)	3.08 (1.36)

Table 18

*Study 2 One-Way Analysis of Variance of Biased, Pleasant, and Affinity Across Equal and Differential Power*

Source	<i>df</i>	<i>F</i>	<i>p</i>	$\eta_p^2$
Biased				
Between groups	1	.032	.859	<.001
Within groups	132			
Total	133			
Pleasant				
Between groups	1	.009	.926	<.001
Within groups	132			
Total	133			
Affinity				
Between groups	1	.033	.856	<.001
Within groups	132			
Total	133			

Table 19

*Study 2 ANCOVA Results for Condition by Perspective Taking*

Model	Test Statistic
Dependent variable: Biased	
Condition	$F(1,129) = .03, p = .864, \eta_p^2 < .001$
Perspective Taking	$F(1,129) = 2.70, p = .103, \eta_p^2 = .020$
Condition X Perspective Taking	$F(1,129) = .01, p = .913, \eta_p^2 = <.001$
Dependent variable: Pleasant	
Condition	$F(1,129) = 4.97, p = .028, \eta_p^2 = .037$
Perspective Taking	$F(1,129) = 2.47, p = .119, \eta_p^2 = .019$
Condition X Perspective Taking	$F(1,129) = 5.01, p = .027, \eta_p^2 = .037$
Dependent variable: Affinity	
Condition	$F(1,129) = 1.48, p = .226, \eta_p^2 = .011$
Perspective Taking	$F(1,129) = .45, p = .502, \eta_p^2 = .004$
Condition X Perspective Taking	$F(1,129) = 1.66, p = .200, \eta_p^2 = .013$

Table 20

*Study 2 ANCOVA Results for Condition by Social Dominance*

Model	Test Statistic
Dependent variable: Biased	
Condition	$F(1,129) = .45, p = .506, \eta_p^2 = .003$
Social Dominance	$F(1,129) = 11.87, p = .001, \eta_p^2 = .084$
Condition X Social Dominance	$F(1,129) = .37, p = .543, \eta_p^2 = .003$
Dependent variable: Pleasant	
Condition	$F(1,129) = 1.23, p = .270, \eta_p^2 = .009$
Social Dominance	$F(1,129) = .05, p = .826, \eta_p^2 < .001$
Condition X Social Dominance	$F(1,129) = 1.32, p = .252, \eta_p^2 = .010$
Dependent variable: Affinity	
Condition	$F(1,129) = .20, p = .657, \eta_p^2 = .002$
Social Dominance	$F(1,129) = 11.81, p = .001, \eta_p^2 = .084$
Condition X Social Dominance	$F(1,129) = .13, p = .717, \eta_p^2 = .001$

Table 21

*Study 2 ANCOVA Results for Condition by Internal Motivation*

Model	Test Statistic
Dependent variable: Biased	
Condition	$F(1,127) = .39, p = .536, \eta_p^2 = .003$
Internal Motivation	$F(1,127) = 19.55, p < .001, \eta_p^2 = .133$
Condition X Internal Motivation	$F(1,127) = .49, p = .487, \eta_p^2 = .004$
Dependent variable: Pleasant	
Condition	$F(1,127) = .33, p = .570, \eta_p^2 = .003$
Internal Motivation	$F(1,127) = 1.89, p = .171, \eta_p^2 = .015$
Condition X Internal Motivation	$F(1,127) = .28, p = .596, \eta_p^2 = .002$
Dependent variable: Affinity	
Condition	$F(1,127) = .03, p = .866, \eta_p^2 < .001$
Internal Motivation	$F(1,127) = 10.44, p = .002, \eta_p^2 = .076$
Condition X Internal Motivation	$F(1,127) = .02, p = .883, \eta_p^2 < .001$

Table 22

*Study 2 ANCOVA Results for Condition by External Motivation*

Model	Test Statistic
Dependent variable: Biased	
Condition	$F(1,126) = .12, p = .731, \eta_p^2 = .001$
External Motivation	$F(1,126) = .02, p = .900, \eta_p^2 < .001$
Condition X External Motivation	$F(1,126) = .17, p = .679, \eta_p^2 = .001$
Dependent variable: Pleasant	
Condition	$F(1,126) = .03, p = .857, \eta_p^2 < .001$
External Motivation	$F(1,126) = 5.64., p = .019, \eta_p^2 = .043$
Condition X External Motivation	$F(1,126) = .07, p = .795, \eta_p^2 = .001$
Dependent variable: Affinity	
Condition	$F(1,126) = .06, p = .808, \eta_p^2 < .001$
External Motivation	$F(1,126) = .23, p = .632, \eta_p^2 = .002$
Condition X External Motivation	$F(1,126) = .08, p = .781, \eta_p^2 = .001$

Table 23

*Study 2 ANCOVA Results for Condition by Microaggressions*

Model	Test Statistic
Dependent variable: Biased	
Condition	$F(1,126) = .35, p = .558, \eta_p^2 = .003$
Microaggressions	$F(1,126) = 17.01, p < .001, \eta_p^2 = .119$
Condition X Microaggressions	$F(1,122) = .34, p = .564, \eta_p^2 = .003$
Dependent variable: Pleasant	
Condition	$F(1,126) = .01, p = .944, \eta_p^2 < .001$
Microaggressions	$F(1,126) = 4.52, p = .036, \eta_p^2 = .035$
Condition X Microaggressions	$F(1,126) = .02, p = .881, \eta_p^2 < .001$
Dependent variable: Affinity	
Condition	$F(1,126) = .18, p = .673, \eta_p^2 = .001$
Microaggressions	$F(1,126) = 17.96, p < .001, \eta_p^2 = .125$
Condition X Microaggressions	$F(1,126) = .33, p = .565, \eta_p^2 = .003$

Table 24

*Study 2 Multiple Regression Predicting Biased, Pleasant, and Affinity Scores from Individual Difference Variables*

Variables	<i>t</i>	<i>p</i>	$\beta$	<i>F</i>	<i>df</i>	<i>p</i>	<i>R</i> <sup>2</sup>
Biased				5.488	5, 121	<.001	.185
Perspective Taking	-.474	.637	-.044				
Internal Motivations	2.700	.008	.288				
External Motivations	.398	.692	.033				
Social Dominance	.073	.942	.009				
Microaggressions	-2.492	.014	-.252				
Pleasant				4.000	5, 121	.002	.142
Perspective Taking	2.295	.023	.218				
IMS	-2.034	.044	-.222				
EMS	2.241	.027	.192				
Social Dominance	-1.498	.137	-.182				
Microaggressions	2.413	.017	.251				
Affinity							
Perspective Taking	1.375	.172	.211	5.186	5,121	<.001	.176
IMS	-1.491	.139	.096				
EMS	-.005	.996	.060				
Social Dominance	.543	.588	.161				
Microaggressions	3.113	.002	.317				



Table 25

*Study 3 Characteristics of Overall Sample and Across Apology Condition*

	Total Sample (N = 108)	No Apology (n = 24)	Insincere Apology (n = 42)	Sincere Apology (n = 42)
Variable	<i>n (%) or M (SD)</i>	<i>n (%) or M (SD)</i>	<i>n (%) or M (SD)</i>	<i>n (%) or M (SD)</i>
Age	19.24 (1.06)	19.17 (1.19)	19.36 (1.12)	19.17 (0.94)
Gender				
Female	57 (52.78%)	16 (66.67%)	21 (50%)	20 (47.62%)
Male	48 (44.44%)	8 (33.33%)	20 (47.62%)	20 (47.62%)
Non-binary/third gender	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Not listed	0 (0%)	0 (0%)	0 (0%)	0 (0%)
I prefer not to respond	3 (2.78%)	0 (0%)	1 (2.38%)	2 (4.76%)
Transgender				
Yes	0 (0%)	0 (%)	0 (0%)	0 (0%)
No	108 (100%)	24 (100%)	42 (100%)	42 (100%)
I prefer not to respond	1 (.81%)	0 (%)	1 (3.45%)	0 (0%)
Sex				
Female	58 (53.7%)	16 (66.67%)	21 (50%)	21 (50%)
Male	48 (44.44%)	8 (33.33%)	20 (47.62%)	20 (47.62%)
Intersex	0 (0%)	0 (0%)	0 (0%)	0 (0%)
I prefer not to respond	2 (1.85%)	0 (0%)	1 (2.38%)	1 (2.38%)
Race/Ethnicity (select all that apply)				
Black/African American	5 (4.63%)	1 (4.17%)	2 (4.76%)	2 (4.76%)
Latine/x	7 (6.48%)	1 (4.17%)	3 (7.14%)	3 (7.14%)
Asian/Pacific Islander	5 (4.63%)	1 (4.17%)	2 (4.76%)	2 (4.76%)
Native American	5 (4.63%)	0 (9%)	1 (2.38%)	4 (9.52%)

Table 25 (Cont.)

Variable	Total Sample <i>n</i> (%) or <i>M</i> ( <i>SD</i> )	No Apology <i>n</i> (%) or <i>M</i> ( <i>SD</i> )	Insincere Apology <i>n</i> (%) or <i>M</i> ( <i>SD</i> )	Sincere Apology <i>n</i> (%) or <i>M</i> ( <i>SD</i> )
White/Caucasian	91 (84.26%)	21 (87.5%)	34 (80.95%)	36 (85.71%)
Not listed	1 (0.93%)	0 (0%)	1 (2.38%)	0 (0%)
I prefer not to respond	4 (3.7%)	1 (4.17%)	1 (2.38%)	2 (4.76%)
Sexual Orientation				
Lesbian	1 (0.93%)	1 (4.17%)	0 (0%)	0 (0%)
Gay	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Bisexual	9 (8.33%)	0 (0%)	5 (11.9%)	4 (9.52%)
Pansexual	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Asexual	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Heterosexual	95 (87.96%)	22 (91.67%)	37 (88.1%)	36 (85.71%)
Not listed	1 (0.93%)	0 (0%)	0 (0%)	1 (2.38%)
I prefer not to respond	2 (1.85%)	1 (4.17%)	0 (0%)	1 (2.38%)
Year in school				
Freshman/First year	68 (62.96%)	16 (66.67%)	21 (50%)	31 (73.81%)
Sophomore/Second year	27 (25%)	4 (16.67%)	16 (38.1%)	7 (16.67%)
Junior/Third year	8 (7.41%)	4 (16.67%)	3 (7.14%)	1 (2.38%)
Senior/Fourth year	3 (2.78%)	2 (8.33%)	0 (0%)	1 (2.38%)
Fifth year	1 (0.93%)	0 (0%)	1 (2.38%)	0 (0%)
I prefer not to respond	1 (0.93%)	1 (4.17%)	0 (0%)	0 (0%)
Political Affiliation				
Economic issues	5.56 (2.29)	4.48 (2.42)	5.63 (2.13)	6.05 (2.25)
Social issues	4.64 (2.47)	4.24 (2.57)	4.66 (2.58)	4.83 (2.34)
Overall	5.14 (2.33)	4.64 (2.42)	5.17 (2.34)	5.39 (2.29)

Table 26  
*Study 3 Correlations Among Study Variables*

	1	2	3	4	5	6	7
1. Biased	-						
2. Pleasant	<b>-.514</b>	-					
3. Affinity	<b>-.719</b>	<b>.664</b>	-				
4. Perspective Taking	<b>.202</b>	-.153	<b>-.301</b>	-			
5. Dominance	<b>-.198</b>	<b>.236</b>	<b>.230</b>	<b>-.408</b>	-		
6. Internal Motivation	<b>.313</b>	-.148	<b>-.378</b>	<b>.505</b>	<b>-.487</b>	-	
7. External Motivation	.144	-.093	-.012	-.151	-.016	-.046	-
8. Exoticizing	<b>-.328</b>	<b>.258</b>	<b>.406</b>	<b>-.243</b>	<b>.376</b>	<b>-.487</b>	<b>.275</b>

*Note.* Statistically significant correlations ( $p < .05$ ) in bold.

Table 27

*Study 3 Perceptions and Attributions of Psychology Representative EFA Loadings and Communalities*

Item	Factor 1	Factor 2	Communality (h <sup>2</sup> )
During the interaction with the last student, do you think the psychology club representative ...	Biased	Pleasant	
5. ...was offensive?	<b>.861</b>		.767
12. ...was inappropriate?	<b>.829</b>		.655
8. ...was insensitive about the last student's cultural group?	<b>.762</b>		.621
2. ...was prejudiced?	<b>.749</b>		.658
9. ...was unaware of the realities of race and racism?	<b>.746</b>		.480
3. ...was biased?	<b>.716</b>		.548
7. ...was rude?	<b>.656</b>		.728
10. ...was nice?		<b>.946</b>	.825
13. ...was friendly?		<b>.917</b>	.768
11. ...was inclusive?		<b>.790</b>	.663
6. ...was welcoming?		<b>.725</b>	.539
4. ...was helpful?		<b>.714</b>	.571
14. ...was mean? (reverse coded)		<b>-.678</b>	.645

*Note.* For readability, factor loadings < |.3| are not displayed.

Table 28

*Study 3 Outcomes of Interaction EFA Loadings and Communalities*

Item	Factor 1 Affinity	Communality (h <sup>2</sup> )
2. During the interaction with the psychology club representative, do you think the last student felt accepted?	<b>.922</b>	.851
5. Do you think the last student would feel welcomed at the next Psychology Club meeting?	<b>.868</b>	.753
4. Do you think the last student will attend the next Psychology Club meeting?	<b>.836</b>	.699
3. During the interaction with the psychology club representative, do you think the last student felt a strong sense of belonging?	<b>.824</b>	.679
1. During the interaction with the psychology club representative, do you think the last student felt excluded? (reverse coded)	<b>-.807</b>	.652

Table 29

*Study 3 Means and Standard Deviations for Continuous Dependent Study Variables*

	Total Sample	No Apology	Insincere Apology	Sincere Apology
	(N = 108)	(n = 24)	(n = 42)	(n = 42)
Variable	<i>M</i> ( <i>SD</i> )	<i>M</i> ( <i>SD</i> )	<i>M</i> ( <i>SD</i> )	<i>M</i> ( <i>SD</i> )
Biased	5.03 (1.39)	4.87 (1.60)	5.20 (1.43)	4.95 (1.22)
Pleasant	4.22 (1.31)	4.21 (1.54)	3.97 (1.32)	4.48 (1.13)
Affinity	3.12 (1.38)	3.30 (1.53)	2.90 (1.41)	3.25 (1.26)

Table 30

*Study 3 One-Way Analysis of Variance of Biased, Pleasant, and Affinity Across Apology Condition*

Source	<i>df</i>	<i>F</i>	<i>p</i>	$\eta_p^2$
Biased				
Between groups	2	.537	.586	.010
Within groups	105			
Total	107			
Pleasant				
Between groups	2	1.592	.208	.029
Within groups	105			
Total	107			
Affinity				
Between groups	2	.948	.391	.018
Within groups	105			
Total	107			

Table 31

*Study 3 ANCOVA Results for Condition by Perspective Taking*

Model	Test Statistic
Dependent variable: Biased	
Condition	$F(2,102) = .07, p = .93, \eta_p^2 = .001$
Perspective Taking	$F(1,102) = 4.39, p = .04, \eta_p^2 = .041$
Condition X Perspective Taking	$F(2,102) = .02, p = .98, \eta_p^2 = <.001$
Dependent variable: Pleasant	
Condition	$F(2,102) = .43, p = .653, \eta_p^2 = .008$
Perspective Taking	$F(1,102) = 2.55, p = .113, \eta_p^2 = .024$
Condition X Perspective Taking	$F(2,102) = .61, p = .544, \eta_p^2 = .012$
Dependent variable: Affinity	
Condition	$F(2,102) = .71, p = .493, \eta_p^2 = .014$
Perspective Taking	$F(1,102) = 9.85, p = .002, \eta_p^2 = .088$
Condition X Perspective Taking	$F(2,102) = .62, p = .542, \eta_p^2 = .012$



Table 32

*Study 3 ANCOVA Results for Condition by Social Dominance*

Model	Test Statistic
Dependent variable: Biased	
Condition	$F(2,102) = 1.07, p = .346, \eta_p^2 = .021$
Social Dominance	$F(1,102) = 2.37, p = .127, \eta_p^2 = .023$
Condition X Social Dominance	$F(2,102) = 1.30, p = .278, \eta_p^2 = .025$
Dependent variable: Pleasant	
Condition	$F(2,102) = .62, p = .539, \eta_p^2 = .012$
Social Dominance	$F(1,102) = 5.23, p = .024, \eta_p^2 = .049$
Condition X Social Dominance	$F(2,102) = .36, p = .699, \eta_p^2 = .007$
Dependent variable: Affinity	
Condition	$F(2,102) = 1.52, p = .224, \eta_p^2 = .029$
Social Dominance	$F(1,102) = 3.67, p = .058, \eta_p^2 = .035$
Condition X Social Dominance	$F(2,102) = 1.40, p = .252, \eta_p^2 = .027$

Table 33

*Study 3 ANCOVA Results for Condition by Internal Motivation*

Model	Test Statistic
Dependent variable: Biased	
Condition	$F(2,100) = .75, p = .473, \eta_p^2 = .015$
Internal Motivation	$F(1,100) = 7.77, p = .006, \eta_p^2 = .072$
Condition X Internal Motivation	$F(2,100) = .91, p = .408, \eta_p^2 = .018$
Dependent variable: Pleasant	
Condition	$F(2,100) = .05, p = .956, \eta_p^2 = .001$
Internal Motivation	$F(1,100) = 1.50, p = .224, \eta_p^2 = .015$
Condition X Internal Motivation	$F(2,100) = .10, p = .906, \eta_p^2 = .002$
Dependent variable: Affinity	
Condition	$F(2,100) = 1.38, p = .257, \eta_p^2 = .027$
Internal Motivation	$F(1,100) = 11.83, p = .001, \eta_p^2 = .106$
Condition X Internal Motivation	$F(2,100) = 1.62, p = .203, \eta_p^2 = .031$

Table 34

*Study 3 ANCOVA Results for Condition by External Motivation*

Model	Test Statistic
Dependent variable: Biased	
Condition	$F(2,101) = .83, p = .438, \eta_p^2 = .016$
External Motivation	$F(1,101) = 2.13, p = .147, \eta_p^2 = .021$
Condition X External Motivation	$F(2,101) = .85, p = .430, \eta_p^2 = .017$
Dependent variable: Pleasant	
Condition	$F(2,101) = 1.32, p = .272, \eta_p^2 = .025$
External Motivation	$F(1,101) = 1.08, p = .301, \eta_p^2 = .011$
Condition X External Motivation	$F(2,101) = .94, p = .394, \eta_p^2 = .018$
Dependent variable: Affinity	
Condition	$F(2,101) = 1.72, p = .184, \eta_p^2 = .033$
External Motivation	$F(1,101) = .03, p = .871, \eta_p^2 < .001$
Condition X External Motivation	$F(2,101) = 1.22, p = .299, \eta_p^2 = .024$

Table 35

*Study 3 ANCOVA Results for Condition by Microaggressions*

Model	Test Statistic
Dependent variable: Biased	
Condition	$F(2,102) = .22, p = .800, \eta_p^2 = .004$
Microaggressions	$F(1,102) = 13.83, p < .001, \eta_p^2 = .119$
Condition X Microaggressions	$F(2,102) = .87, p = .422, \eta_p^2 = .017$
Dependent variable: Pleasant	
Condition	$F(2,102) = .73, p = .484, \eta_p^2 = .014$
Microaggressions	$F(1,102) = 11.33, p = .001, \eta_p^2 = .100$
Condition X Microaggressions	$F(2,102) = 1.38, p = .255, \eta_p^2 = .026$
Dependent variable: Affinity	
Condition	$F(2,102) = .153, p = .859, \eta_p^2 = .003$
Microaggressions	$F(1,102) = 19.79, p < .001, \eta_p^2 = .162$
Condition X Microaggressions	$F(2,102) = .10, p = .902, \eta_p^2 = .002$

Table 36

*Study 3 Multiple Regression Predicting Biased, Pleasant, and Affinity Scores from Individual Difference Variables*

Variables	<i>t</i>	<i>p</i>	$\beta$	<i>F</i>	<i>df</i>	<i>p</i>	<i>R</i> <sup>2</sup>
Biased				4.785	5, 100	<.001	.193
Perspective Taking	.996	.322	.108				
Internal Motivations	1.128	.262	.136				
External Motivations	2.545	.012	.242				
Social Dominance	.293	.770	.032				
Microaggressions	-2.810	.006	-.306				
Pleasant				2.700	5, 100	.025	.119
Perspective Taking	-.930	.354	1.105				
IMS	.745	.458	.094				
EMS	-1.690	.094	-.168				
Social Dominance	1.193	.236	.135				
Microaggressions	2.357	.020	.269				
Affinity							
Perspective Taking	-1.721	.088	-.181	6.297	5,100	<.001	.239
IMS	-1.293	.199	-.151				
EMS	-1.409	.162	-.130				
Social Dominance	-.442	.659	-.046				
Microaggressions	3.187	.002	.337				

## Appendix A

### IRB Approval



---

**To:** Roselee Ledesma  
**From:** Justin R Chimka, Chair  
IRB Expedited Review  
**Date:** 12/08/2021  
**Action:** **Exemption Granted**  
**Action Date:** 12/08/2021  
**Protocol #:** 2111370696  
**Study Title:** Student Recruitment Strategies to Increase Enrollment in Campus Organizations

The above-referenced protocol has been determined to be exempt.

If you wish to make any modifications in the approved protocol that may affect the level of risk to your participants, you must seek approval prior to implementing those changes. All modifications must provide sufficient detail to assess the impact of the change.

If you have any questions or need any assistance from the IRB, please contact the IRB Coordinator at 109 MLKG Building, 5-2208, or [irb@uark.edu](mailto:irb@uark.edu).

cc: Ana J Bridges, Investigator

## Appendix B

### Script for Studies 1-3

#### Interaction with Student 1

(Student 1 approaches Psychology Club table)

Student 1: Hi

Psychology Representative: Hi, we are the Psychology Club. I am one of the student reps [**Study 2 faculty advisor: I am the faculty advisor**]. What year are you in?

Student 1: I am a sophomore.

Psychology Representative: Oh, that is a perfect time to start getting involved. I am a junior, but I became involved around that time too. [**Study 2 faculty advisor: I recommend that my students start getting involved around that time**]. Would you like to hear more about our club?

Student 1: Sure!

Psychology Representative: Well, we meet once a month, and we like to host events to share information about different careers you can pursue with a degree in psychology. We also have guest speakers come in to talk during club meetings. Sometimes we have graduate students come and talk about their experiences in research labs or what it was like to apply to graduate school.

It's a lot of great information and a lot of fun. We also provide pizza at our meetings.

Student 1: Oh, that definitely sounds like something I would be interested in!

Psychology Representative: Awesome, and what is your name?

Student 1: Kai

Psychology Representative: Oh, that's a unique name, how do you spell that?

(Turns laptop around for student to write their name on excel file).

Student 1: K – A – I

Psychology Representative: Oh, and before I forget, if you write your email, we can add you to our club's email list, so you can receive all the latest information.

(Student 1 types their email onto excel file)

Student 1: All done, thank you!

Psychology Representative: Awesome, thank you, I will be in touch.

(Student 1 walks away)

### **Interaction with Student 2**

(Student 2 approaches psychology club table)

Student 2: I have been looking to see if there was a club for psychology majors, it looks like this is it.

Psychology Representative: Yeah, we are one of the psychology-focused clubs. I am one of the student reps. **[Study 2 faculty advisor: I am the faculty advisor]**. Since you were looking for us, do you know a bit about the club?

Student 2: Well, I didn't know if there was a club for it, but I am thinking about being a psychology major, so I wanted to learn more about what you can do with a degree in psychology.

Psychology Representative: That is a good thing to be thinking about! Our club meets once a month. We bring in guest speakers to talk about careers you can pursue with a degree in psychology. Sometimes we have graduate students share their experiences about what it is like to work with a degree in psychology before they started graduate school. So, we definitely talk about some of the topics you mentioned. Are there any other things that you are hoping to get out of the club?



Student 2: That's what I was hoping to get out of a club like this. Um and I am not sure if I was looking for anything else, I guess just a chance to meet other students who are also interested in psychology.

Psychology Representative: Well, we have an email list, so I can add you on there to make sure you receive all the information about our meetings and events. What is your name?

Student 2: Jalen

Psychology Representative: You can type in your email so I can add you to our emailing list.

(Turns laptop around for student to write their name on excel file)

(Student 2 types their email onto excel file then turns laptop toward psychology representative)

Psychology Representative: Awesome, thank you! It was nice meeting you!

Student 2: Awesome, see ya

(Student 2 walks away]

### **Interaction with Student 3**

(Student 3 approaches psychology club table)

Student 3: Hi, could you tell me a little more about what you do in this club?

Psychology Representative: Yeah of course, so I am one of the student reps. **[Study 2 faculty advisor: I am the faculty advisor]** Our club meets once a month, and we try to have pizza for everyone who shows up. During the meetings we usually bring in guest speakers who can share information about careers in psychology. Sometimes we also have graduate students come and talk about the research their labs are doing because it is a good idea for us to get involved in research, especially if we are thinking about pursuing graduate school.

Student 3: That sounds super helpful!

Psychology Representative: Yeah, we try to make the meetings useful for everyone. Do you have any questions about the club?

Student 3: I don't think so, but what you shared sounds great! That is actually what I have been looking for.

Psychology Representative: Great, what's your name? I can add you to our email list.

Student 3: My name is Thi Thanh but you can call me Anna.

Psychology Representative: Oh, well our current club president is from Malaysia. Have you ever been there?

Student 3: Oh, I've never been there.

Psychology Representative: Then where are you from?

Student 3: (Move head back, blink, taken aback by question) Um, I'm from Texas.

Psychology Representative: So, is that where your family is from?

Student 3: Yeah, I mean they live there.

**[Study 3 sincere apology]** Psychology Representative: [shaking head, a bit embarrassed, flushed red face] I am so sorry there is no excuse for asking that. It was wrong of me to press about where you are from and assume you've been to Malaysia.

**[Study 3 insincere apology]** Psychology Representative: Oh, sorry if you got offended. I promise I'm not being racist!

Psychology Representative: Here is our email list, so you can add your email to make sure you receive all the information about our meetings and events.

(Turns laptop around for student to write their name on excel file)

(Student 3 types their email onto excel file then turns laptop toward psychology representative)

Student 3: Here you go.

Psychology Representative: Perfect, hope to see you at the next meeting!

Student 3: Ok, bye

(Student 3 Walks away)

## Appendix C

Pictures of Psychology Representative for each study and condition.



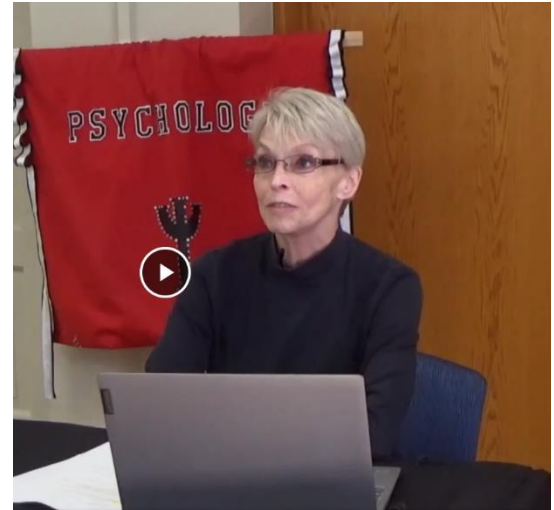
(Pictured above) Black psychology representative from study 1.



(Pictured above) Asian psychology representative from study 1.



(Pictured above) White psychology representative from study 1. Equal power psychology representative from study 2. The psychology representative from all apology conditions in study 3.



(Pictured above) Differential power psychology representative from study 2.

## Appendix D

### Sociodemographic Measures

1. What is your age?
2. What is your gender identity?
  - Female
  - Male
  - Non-binary/third gender
  - Not listed (please specify) \_\_\_\_\_
  - I prefer not to respond
3. Do you identify as transgender?
  - Yes
  - No
  - I prefer not to respond
4. What is your sex?
  - Female
  - Male
  - Intersex
  - I prefer not to respond
5. What is your race/ethnicity? (choose all that apply)
  - Black/African American
  - Hispanic/Latinx
  - Asian/Pacific Islander
  - American Indian/Native American/Alaskan Native

- White/Caucasian/European American
- Not listed (please specify) \_\_\_\_\_
- I prefer not to respond

6. What is your sexual orientation?

- Lesbian
- Gay
- Bisexual
- Pansexual
- Asexual
- Heterosexual
- Not listed (please specify) \_\_\_\_\_
- I prefer not to respond

7. What year are you in?

- Freshman/First year
- Sophomore/Second year
- Junior/Third year
- Senior/Fourth year
- Fifth year
- I prefer not to respond

8. What is your political orientation toward economic issues?

1 = Left    2            3            4            5            6            7            8            9 = Right

9. What is your political orientation toward social issues?

1 = Left   2            3            4            5            6            7            8            9 = Right

10. Although it is often difficult to summarize one's political, economic, social, and religious

views in a single word or phrase, please indicate your overall political viewpoint.

1 = Left   2            3            4            5            6            7            8            9 = Right

## Appendix E

### Interpersonal Reactivity Index – Perspective Taking subscale

1 = Does not describe me well      2      3      4      5 = Describes me very well

1. I sometimes find it difficult to see things from the "other person's" point of view.
2. I try to look at everybody's side of a disagreement before I make a decision.
3. I sometimes try to understand my friends better by imagining how things look from their perspective.
4. If I'm sure I'm right about something, I don't waste much time listening to other people's arguments.
5. I believe that there are two sides to every question and try to look at them both.
6. When I'm upset at someone, I usually try to "put myself in their shoes" for a while.
7. Before criticizing somebody, I try to imagine how I would feel if I were in their place.



## Appendix F

### Social Dominance Orientation

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

1 =	2 =	3 =	4 = Neutral	5 =	6 =	7 =
Strongly	Somewhat	Slightly		Slightly	Somewhat	Strongly
oppose	oppose	neutral		favor	favor	favor

1. Some groups of people must be kept in their place.
2. It's probably a good thing that certain groups are at the top and other groups are at the bottom.
3. An ideal society requires some groups to be on top and others to be on the bottom.
4. Some groups of people are simply inferior to other groups.
5. Groups at the bottom are just as deserving as groups at the top.
6. No one group should dominate in society.
7. Groups at the bottom should not have to stay in their place.
8. Group dominance is a poor principle.
9. We should not push for group equality.
10. We shouldn't try to guarantee that every group has the same quality of life.
11. It is unjust to try to make groups equal.
12. Group equality should not be our primary goal.
13. We should work to give all groups an equal chance to succeed.
14. We should do what we can to equalize conditions for different groups.
15. No matter how much effort it takes, we ought to strive to ensure that all groups have the same chance in life.
16. Group equality should be our ideal.

## Appendix G

### Motivations to Respond Without Prejudice

1 =	2	3	4	5	6	7	8	9 =
Strongly disagree								Strongly agree

The following questions concern various reasons or motivations people might have for trying to respond in nonprejudiced ways toward racial or ethnic minorities. Please answer each question openly and honestly.

1. Because of today's PC (politically correct) standards, I try to appear nonprejudiced toward racial or ethnic minorities.
2. I try to hide any negative thoughts about racial or ethnic minorities in order to avoid negative reactions from others.
3. If I acted prejudiced toward racial or ethnic minorities, I would be concerned that others would be angry with me.
4. I attempt to appear nonprejudiced toward racial or ethnic minorities in order to avoid disapproval from others.
5. I try to act nonprejudiced toward racial or ethnic minorities because of pressure from others.
6. I attempt to act in nonprejudiced ways toward racial or ethnic minorities because it is personally important to me.
7. According to my personal values, using stereotypes about racial or ethnic minorities is OK.
8. I am personally motivated by my beliefs to be nonprejudiced toward racial or ethnic minorities.

9. Because of my personal values, I believe that using stereotypes about racial or ethnic minorities is wrong.
10. Being nonprejudiced toward racial or ethnic minorities is important to my self-concept.

## Appendix H

### Acceptability of Racial Microaggressions

Imagine that you are talking with a racially diverse group of peers about various topics, including race and ethnicity. Rate how ACCEPTABLE you think it would be for a White group member to say the following to a racial/ethnic minority group member:

1 = Totally unacceptable                      2                      3                      4                      5                      6 = Perfectly acceptable

1. Lots of people worked their way out of poverty, why can't Blacks and Latinos do the same?
2. African Americans would get more jobs if they dressed more professionally.
3. If African Americans spoke less slang, they'd be more likely to get jobs.
4. There won't be racial progress until racial minorities stop relying on handouts from the government.
5. Black people should stop using slavery as an excuse for their problems.
6. Minorities are just too sensitive about racism.
7. Latinos receive lots of unearned benefits just for being minorities.
8. People from your racial group get hired easily because companies need to meet racial quotas.
9. If Latinos spoke more English, they'd be more likely to get jobs.
10. I don't see your race, I see you as a person.
11. I don't care if you're Black, Brown, Purple, Yellow, Green...I see all people as the same.
12. There is only one race, the human race.
13. People shouldn't see race anymore.

14. Even if we look different, we are basically the same.
15. I don't notice race.
16. We are all the same.
17. People are just people, their race doesn't matter.
18. Everyone is treated the same by the legal system.
19. Everyone has the same chance to succeed regardless of their race.
20. Everyone gets a fair legal trial regardless of their race.
21. Everyone has access to the same resources such as schools and hospitals.
22. Race doesn't play a role in who gets pulled over by the police.
23. Race doesn't matter for who gets sent to prison.
24. Everyone has access to the same educational opportunities, regardless of race or ethnicity.
25. When people get shot by the police, it is more about what they were doing rather than their race.
26. Everyone in life goes through the same kinds of obstacles, regardless of their race.
27. Latinos are just so sexy.
28. Native Americans are so fierce.
29. I just love Black women's butts.
30. Latino men are such passionate lovers.
31. You are so exotic.
32. You're so beautiful, you're like a geisha.
33. You're so beautiful, you look like Pocahontas.
34. Your skin color is so exotic.

## **Appendix I**

### **Manipulation Check**

1. What kind of club was recruiting new members?

- a. Sociology Club
- b. Social Work Club
- c. Psychology Club
- d. I don't know
- e. I prefer not to respond

2. How many people were representing the club?

- a. 1
- b. 2
- c. 3
- d. I don't know
- e. I prefer not to respond

1. How many students approached the club table?

- a. 1
- b. 2
- c. 3
- d. I don't know
- e. I prefer not to respond

2. The psychology club meets weekly.

- a. True
- b. False

- c. I don't know
  - d. I prefer not to respond
- 3. The psychology club brings in guest speakers.
  - a. True
  - b. False
  - c. I don't know
  - d. I prefer not to respond
- 4. The psychology club conducts research studies.
  - a. True
  - b. False
  - c. I don't know
  - d. I prefer not to respond
- 5. The psychology club helps students learn about careers in psychology.
  - a. True
  - b. False
  - c. I don't know
  - d. I prefer not to respond
- 6. The psychology club is only for sophomore psychology majors.
  - a. True
  - b. False
  - c. I don't know
  - d. I prefer not to respond

7. What was the race of the psychology club representative? [Study 1]
- a. White
  - b. Black
  - c. Asian
  - d. I don't know
  - e. I prefer not to respond
8. What was the psychology club member's role in the club? [Study 2]
- a. Undergraduate student representative
  - b. Faculty advisor
  - c. I don't know
  - d. I prefer not to respond
9. Did the psychology club member apologize to one of the students? [Study 3]
- a. No
  - b. Yes
  - c. I don't know
  - d. I prefer not to respond



## Appendix J

### Perceptions and Attributions

Recall the psychology club representative interacted with the three students. Please consider their interaction with the last student as you answer the following questions.

1. During the interaction with the last student, do you think the psychology club representative **asked good questions?**

1 = Not good at all                      2      3      4      5      6                      7 = Very good

2. During the interaction with the last student, do you think the psychology club representative **was prejudiced?**

1 = Not prejudiced at all                      2      3      4      5      6                      7 = Very prejudiced

3. During the interaction with the last student, do you think the psychology club representative **was biased?**

1 = Not biased at all                      2      3      4      5      6                      7 = Very biased

4. During the interaction with the last student, do you think the psychology club representative **was helpful?**

1 = Not helpful at all                      2      3      4      5      6                      7 = Very helpful

5. During the interaction with the last student, do you think the psychology club representative **was offensive?**

1 = Not offensive at all                      2      3      4      5      6                      7 = Very offensive

6. During the interaction with the last student, do you think the psychology club representative **was welcoming?**

1 = Not welcoming at all      2      3      4      5      6      7 = Very welcoming

7. During the interaction with the last student, do you think the psychology club

representative **was rude**?

1 = Not rude at all      2      3      4      5      6      7 = Very rude

8. During the interaction with the last student, do you think the psychology club

representative **was insensitive about the last student's cultural group**?

1 = Not insensitive at all      2      3      4      5      6      7 = Very insensitive

9. During the interaction with the last student, do you think the psychology club

representative **was unaware of the realities of race and racism**?

1 = Not unaware at all      2      3      4      5      6      7 = Very unaware

10. During the interaction with the last student, do you think the psychology club

representative **was nice**?

1 = Not nice at all      2      3      4      5      6      7 = Very nice

11. During the interaction with the last student, do you think the psychology club

representative **was inclusive**?

1 = Not inclusive at all      2      3      4      5      6      7 = Very inclusive

12. During the interaction with the last student, do you think the psychology club

representative **was inappropriate**?

1 = Not inappropriate at all      2      3      4      5      6      7 = Very inappropriate

**13.** During the interaction with the last student, do you think the psychology club representative **was friendly**?

1 = Not friendly at all      2      3      4      5      6      7 = Very friendly

**14.** During the interaction with the last student, do you think the psychology club representative **was mean**?

1 = Not mean at all      2      3      4      5      6      7 = Very mean

## Appendix K

### Outcomes of Interaction

1 = Not likely at all	2 = Slightly likely	3 = Moderately likely	4 = Very likely	5 = Extremely likely
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1. During the interaction with the psychology club representative, do you think the last student **felt excluded**?
2. During the interaction with the psychology club representative, do you think the last student **felt accepted**?
3. During the interaction with the psychology club representative, do you think the last student **felt a strong sense of belonging**?
4. Do you think the last student **will attend the next Psychology Club meeting**?
5. Do you think the last student **would feel welcomed at the next Psychology Club meeting**?