

SELF-PERCEPTION AND POSITIVE STEREOTYPE ENDORSEMENT

By

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## **Abstract**

The origin and reasoning behind the use of racial stereotypes has been a point of interest for researchers over the years. Many different theories have been proposed including those related to cognitive, evolutionary, and motivational explanations. However, most of these theories and the research backing them primarily focus on negative stereotyping. The origin of positive stereotyping, which also has negative implications associated with their use, has not been evaluated fully. Previous research has suggested that the motive to preserve self-worth and positive self-concept may play a role in stereotype endorsement. Two studies were conducted with the purpose of investigating whether one's perception of their self-concept affects stereotype endorsement, with particular interest in positive stereotype endorsement. The first study examined if lower perceived self-concept is associated with higher levels of stereotype endorsement toward out-groups both generally and more specifically. Results showed a positive relationship between White participant's self-concept score of positive Hispanic and endorsement of positive Hispanic stereotypes. Additionally, Black participants that were more conservative or high in social dominance showed the same positive relationship between self-concept of Hispanic positive traits and positive stereotype endorsement of Hispanic stereotypes. For the specific traits, results showed a positive relationship between the self-concept item "I am honest" and endorsement of the stereotype "Hispanic individuals are honest" for both White and Black Participants. Another positive relationship was found between the self-concept item "I am hard working" and the endorsement of the stereotype "Hispanic individuals are hardworking" for White participants. In the second study, bogus measures were used to control participants perceptions of self-concept, specifically related to intelligence and work ethic. Individuals were assigned to either a low or high group for either intelligence or work ethic. Endorsement levels

of stereotypes related to intelligence and work ethic were compared between high and low groups. Results showed no significant differences between high or low conditions for both intelligence and work ethic.

## **Dedication**

To my family, who have no idea how much they assisted in making this possible. To my parents, for always believing in me when I doubted myself and for supporting me through every peak and valley. To my sister, for being my confidant, my biggest cheerleader, and for talking me down when I started to spiral. To my aunts and cousins, for keeping me grounded and for valuing who I am as a person, outside of my work. And lastly to my grandparents, whose lives have inspired me to be resilient, to work hard, and to aspire for more. All of you mean the absolute world to me. LYB.

## Table of Contents

ABSTRACT .....	iii
DEDICATION .....	v
TABLE OF CONTENTS .....	vi
LIST OF TABLES .....	ix
LIST OF FIGURES .....	xi
CHAPTER 1: INTRODUCTION.....	1
CHAPTER 2: LITERATURE REVIEW.....	3
Negative Stereotype Implications.....	3
Positive Stereotype Implications .....	8
Theoretical Perspectives on Stereotyping .....	11
Positive Stereotypes and Existing Theory .....	12
Self-Esteem.....	13
Self-Concept .....	16
Self-Esteem and Self-Concept in Stereotyping .....	20
CHAPTER 3: CURRENT RESEARCH .....	24
CHAPTER 4: METHODS .....	30
Study One .....	30
Participants .....	30
Procedure .....	30
Study Two .....	34
Participants .....	35
Procedure .....	36

CHAPTER 5: RESULTS .....	41
Study One .....	41
RQ1 Overall Self-Concept and Stereotype Endorsement .....	41
RQ1a Mediation Analyses – State Self-Esteem .....	44
Moderation Analyses.....	48
RQ2 Specific Self-Concept and Stereotype Endorsement – Black Participants .....	61
RQ2 Specific Self-Concept and Stereotype Endorsement – White Participants.....	63
RQ2a Mediation Analyses – State Self-Esteem .....	64
Moderation Analyses.....	69
Study Two .....	86
Research Question One .....	86
RQ1a Mediation Analysis – State Self-Esteem.....	87
Moderation Analyses.....	87
Research Question Two.....	88
RQ2a Mediation Analysis – State Self-Esteem.....	89
Moderation Analyses.....	90
CHAPTER 6: DISCUSSION .....	92
Study One .....	92
Study Two .....	97
Limitations and Future Directions.....	101
Conclusion.....	104
APPENDIX A .....	107
APPENDIX B.....	109

APPENDIX C.....	110
APPENDIX D .....	112
APPENDIX E.....	113
APPENDIX F .....	114
APPENDIX G .....	116
APPENDIX H .....	125
APPENDIX I.....	127
APPENDIX J.....	130
APPENDIX K .....	131
REFERENCES .....	153
CURRICULUM VITAE .....	167



## List of Tables

TABLE 1: Positive characteristics and stereotypes for each racial group .....	132
TABLE 2: Negative characteristics and stereotypes for each racial group.....	133
TABLE 3: Summary of study one multiple regressions examining the potential mediator of state self-esteem on the relationship between overall self-concept and overall stereotype endorsement for Black and White participants.....	134
TABLE 4: Summary of study one multiple regressions examining the potential mediator of state self-esteem on the relationship between specific self-concept items and the matching stereotype endorsement items for Black and White participants.....	138
TABLE 5: Summary of study one Hierarchical regressions examining the potential moderator of social beliefs and opinions for the relationship between specific self-concept characteristics and the endorsement of the matching stereotype in Black participants .....	139
TABLE 6: Summary of study one Hierarchical regressions examining the potential moderator of social beliefs and opinions for the relationship between specific self-concept characteristics and the endorsement of the matching stereotype in White participants.....	142
TABLE 7: Summary of study one Hierarchical regressions examining the potential moderator of social dominance for the relationship between specific self-concept characteristics and the endorsement of the matching stereotype in Black participants .....	144
TABLE 8: Summary of study one Hierarchical regressions examining the potential moderator of social dominance for the relationship between specific self-concept characteristics and the endorsement of the matching stereotype in White participants.....	147

TABLE 9: Summary of study one Hierarchical regressions examining the potential moderator of social desirability for the relationship between specific self-concept characteristics and the endorsement of the matching stereotype in Black participants ..... 151

TABLE 10: Summary of study one Hierarchical regressions examining the potential moderator of social desirability for the relationship between specific self-concept characteristics and the endorsement of the matching stereotype in White participants..... 153

## List of Figures

FIGURE 1: Social beliefs and opinions moderator for Hispanic positive self-concept and Hispanic positive stereotype endorsement for Black participants.....	135
FIGURE 2: Social beliefs and opinions moderator for Asian positive self-concept and Asian positive stereotype endorsement for Black participants .....	136
FIGURE 3: Social dominance moderator for Hispanic positive self-concept and Hispanic positive stereotype endorsement for Black participants .....	137
FIGURE 4: Social beliefs and opinions moderator for diligent and industrious self-concept and endorsement of “Asian individuals are diligent and industrious” for Black Participants .....	141
FIGURE 5: Social dominance moderator for successful self-concept and endorsement of “Asian individuals are successful” for Black Participants .....	145
FIGURE 6: Social dominance moderator for self-discipline self-concept and endorsement of “Asian individuals are self-discipline” for Black Participants .....	146
FIGURE 7: Social dominance moderator for helpful and cooperative self-concept and endorsement of “Black individuals are helpful and cooperative” for White Participants.....	149
FIGURE 8: Social dominance moderator for honest self-concept and endorsement of “Hispanic individuals are honest” for White Participants .....	150
FIGURE 9: Social desirability moderator for diligent and industrious self-concept and endorsement of “Asian individuals are diligent and industrious” for Black Participants .....	152

## Chapter 1: Introduction

More recent research regarding stereotype endorsement has acknowledged the existence of two different types of stereotypes – negative and positive (Czopp, 2008; Czopp, Kay, & Cheryan, 2015; Siy & Cheryan, 2016). This research has also attempted to show the distinction between the two, particularly how both types of stereotypes function differently and can have different negative implications to the targets of these stereotypes (Czopp, 2008; Czopp, Kay, & Cheryan, 2015; Siy & Cheryan, 2016). With this new trend of creating distinction between negative and positive stereotypes, the importance of investigating the possible differences in origins and reasonings for the use of each type of stereotype has increased. In addition, previous theory that has been proposed to explain the use of stereotypes has focused almost entirely on negative stereotype use. These theories either neglect to investigate positive stereotypes in the research or are only applicable to negative stereotype use. This has left a significant gap in the research regarding positive stereotype theoretical origins in which this dissertation aims to address.

One theoretical framework that may practically explain both the use of negative and positive stereotypes is the notion that perceptions of the self are related to how one perceives others. Research suggests that if self-esteem is threatened, individuals are more likely to apply negative stereotypes to others (Hugenberg & Sacco, 2008) and this act of negative stereotype use has been shown to be effective in increasing one's self-esteem (Fein & Spencer, 1997). Positive stereotypes may be a little different, in that they are complimentary in nature and may relate to a more upward comparison model (Morse & Gergen, 1970). Morse and Gergen (1970) suggest that when one compares themselves to others with high proficiency in something (i.e., an upward comparison), the comparison can generate a negative affect within the individual (Morse &

Gergen, 1970). In order to combat negative affect, individuals are driven to use different strategies to maintain their self-perception (Baumeister, Tice, & Hutton, 1989; VanDellen, Campbell, Hoyle, & Bradfield, 2011). One particular strategy that this dissertation will investigate is the use of positive stereotypes in order to protect one's self-perception and justify one's lack of skill in that stereotypical domain. A similar strategy has been observed in research on upward-comparison when one is being compared to another that is indisputably better than them (Alicke et al., 1997). This research has shown that when one cannot dispute being outperformed, individuals will over-exaggerate the ability of the other person in order to preserve self-esteem (Alicke et al., 1997). It seems that positive stereotype endorsement could be used in the same way – to overexaggerate the stereotypical ability of an out-group to maintain a positive self-perception. In doing this, individuals can somewhat mitigate the others proficiency, insinuating that the other person is only good in the domain because of their group membership.

The following literature review will give an overview of stereotypes and the implications for both negative and positive stereotype use. This is with the intent to highlight the importance of both constructs independently and demonstrate the significance of studying the origins of both in the literature. Additionally, a brief review of self-esteem and self-concept literature will be mentioned, with the last section discussing how these two constructs may relate to negative and positive stereotype endorsement.

## **Chapter 2: Literature Review**

Stereotypes are cognitive representations associated with different social groups that are applied to individual members of that group. These cognitive representations of groups encompass the beliefs and expectations that an individual has about group characteristics (Allport, 1954; MacKie, 1973; Secord & Backman, 1974). Stereotypes can include both negative and positive beliefs. Negative stereotypes represent more hostile beliefs. Some examples of negative racial stereotype content include, “Asians are unsociable” (Lin, Kwan, Cheung, & Fiske, 2005), “Black people are aggressive or violent” (Wittenbrink, Judd, & Park, 1997) and “White women are shallow” (Conley, 2013). Positive stereotypes represent more complimentary beliefs about groups (Czopp, 2008; Czopp, Kay, & Cheryan, 2015). Some examples of positive racial stereotype content include, “Asians are intelligent” (Lin, Kwan, Cheung, & Fiske, 2005), “Black people are athletic” (Madon, Guyll, Aboufadel, Montiel, Smith, Palumbo, & Jussim, 2001), and “White people are ambitious” (Wittenbrink, Judd, & Park, 1997). It is important to note the many different negative implications for the use and endorsement of both negative and positive stereotypes. Negative stereotypes are most commonly associated with negative outcomes such as prejudice and discrimination while positive stereotypes are often perceived as less hostile toward members of groups. However, positive stereotypes have also been associated with multiple negative outcomes, particularly for those targeted by the stereotypes (Czopp, 2008; Czopp, Kay, & Cheryan, 2015; Siy & Cheryan, 2016). Both types of stereotypes are often grouped together as a singular construct, but more recent research regarding differences in how they impact groups suggests a conceptual distinction between the two.

### **Negative Stereotype Implications**

Research suggests that negative racial stereotyping has numerous negative implications, including contributing to the use of microaggressions (Wong et al., 2014) and stereotype threat (Spencer et al., 2016; Steele & Aronson, 1995) which can greatly affect members of targeted groups. Negative stereotypes also contribute to higher levels of implicit bias (Amodio & Devine, 2006; Kahn & Davies, 2011), prejudice, and discrimination (Chang & Demyan, 2007; Smith & Albert, 2007; Sommers, 2007).

A more discreet way negative stereotypes can affect targeted group members is through stereotype threat. Stereotype threat is defined as an experience in which stigmatized group members are put in a situation where they are at risk for confirming negative stereotypes of their group (Spencer et al., 2016; Steele & Aronson, 1995). This threat can provoke a cognitive disruptive state within the individual that can cause decreased performance (Spencer et al., 2016). Stereotype threat can be particularly damaging when the negative stereotype relates to intellectual ability, which can produce significant deficits in intellectual performance (Steele & Aronson, 1995). One mechanism that is suggested to contribute to stereotype threat effects is increased pressure to perform (Spencer et al., 2016). When this pressure is provoked, targeted individuals become motivated to avoid confirming negative stereotypes, which in turn can result in distraction and decreased performances (Spencer et al., 2016). Research also shows that stereotype threat effects may be mediated by the depletion of working memory and cognitive resources (Spencer et al., 2016; Schmader & Johns 2003; Pennington et al., 2016). Various cognitive distractions (i.e., anxiety, negative thoughts, and mind wandering) can take up working memory resources. With less resources, performances on assessments that rely heavily on cognitive processes can be negatively affected (Pennington et al., 2016). Additionally, group identification can also affect stereotype threat and performance. Individuals with high group

identification are more likely to experience decreased performance with group-based threats, while those with low group identification are most affected by self-based threats.

Another more subtle implication for the use of stereotypes is microaggressions. Although many have observed a decline in more explicit racism, according to research this subtle form of discrimination is prominent today (Williams, 2021; Wong et al., 2014). Microaggressions are defined as put-downs, insults, or degradations related to one's membership with a particular social group. These can be expressed verbally, behaviorally, or visually and are oftentimes unconsciously communicated. Three different subtypes of racial microaggressions have been identified. *Microassaults* are used to degrade an individual's racial background (e.g., stereotypes related to group intelligence, deviance, inferiority). *Microinsults* are used to intentionally hurt the individual (e.g., purposeful avoidance, derogatory name-calling, etc.). *Microinvalidations* invalidate lived experiences (e.g., denying the existence of racism) (Wong et al., 2014). Much of our knowledge on microaggressions has come from qualitative responses from target group members. Through this research, it has become apparent that the content of microaggressions can often differ based on specific racial group and the stereotypes associated with them. For example, African American individuals disclose feeling more police presence and vigilance toward them, implying that they were being perceived based on the negative stereotype of African American's being deviant or criminal (Solorzano et al. 2000). Asian Americans experience microaggressions related to stereotypes of their foreign status, denial of experiences with racism, exotic sexualization of Asian women, invisibility, and assumption of high intellectual ability (Sue et al. 2007). For Native Americans, experiences with microaggressions were related to denying that racism toward this group exists, denial of their separate tribal sovereignty, perceptions of non-existence in today's society, and perceptions of being overly



sensitive to media or mascot depictions of their group (Clark et al., 2011). Latinx individuals also reported microaggressions related to lower expectations, poorer service toward them, being mistaken for workers or servers, and being seen as foreigners (Huynh, 2012). This research suggests that microaggressions are commonly experienced in many different groups where negative stereotypes are used to degrade and insult individuals based on their group membership.

Stereotypes have consistently been associated with increases in unconscious biases, which can negatively impact behaviors toward out-group members. Two different types of implicit bias cognition have been observed – implicit attitudes and implicit stereotyping (Greenwald & Krieger, 2006). Implicit attitudes are defined as unconscious indications of favor or disfavor toward an object of thought, such as a member of a group. Implicit stereotyping refers to the unconscious associations made between group members and certain traits or characteristics. Both implicit attitudes and implicit stereotypes can contribute to unconscious discriminatory bias and judgements of different groups. Implicit evaluations, but not implicit stereotyping, was related to affect toward another group, such as social distance. Implicit stereotyping but not implicit evaluation was predictive of stereotypical judgements and expectations, such as African American intellectual ability and performance (Amodio & Devine, 2006). Implicit bias, driven by stereotypical beliefs, have been observed to affect different occupational behaviors. Bias in shoot/no shoot scenarios (Kahn & Davies, 2011) suggest that policing behavior may be significantly affected by pervasive stereotypes of certain racial group association with crime which can feed into the implicit bias of law enforcement officers. Implicit assessments measuring bias in guilt perception showed that Black faces were significantly associated with guilt than White faces, showing that most of the sample cognitively associate Black people with being guilty (Levinson, Cai, & Young, 2010). This tendency, coupled with the

high-stress, threat, and uncertainty of law enforcement jobs may make it easier to make misattributions using the common racial stereotypes of criminality associated with Black and Hispanic populations, leading to more stops, arrests, and brutality toward those specific racial groups (Anderson et al., 2021; Spencer, Charbonneau, & Glaser, 2016). Implicit bias has also been shown to affect healthcare workers and their behavior toward non-White patients. These professionals tend to have the same level of implicit bias as the general population. Additionally, higher implicit bias in healthcare workers is related to lower quality of health care (FitzGerald & Hurst, 2017). Overall, stereotypes are inherently related to implicit associations and bias. These implicit associations have been shown lead to serious negative implications in real world scenarios where they can increase discriminatory behaviors toward target groups.

Negative stereotyping is often associated with explicit forms of prejudicial attitudes and discriminatory behavior toward different racial group members in society. For example, stereotypes particularly related to criminality may have a significant impact on the criminal justice system, specifically in relation to policing and juror decision making (Smith & Albert, 2007; Sommers, 2007). Black and Hispanic individuals experience being stopped by police disproportionately more than other racial groups. These groups are also more likely to be searched and arrested after these traffic stops as well as receive harsher treatment and punishments during traffic stops, resulting in more citations as well as higher fines (Smith & Alpert, 2007). Some research has also concluded that White jurors in mock trial experiments often deliver harsher decisions and judgments of racial out-group defendants (Sommers, 2007). Racial bias and stereotyping have also been found in the area of education (Chang & Demyan, 2007). Research has shown that stereotypes and endorsement of them in educators is prevalent (Chang & Demyan, 2007). Additionally, endorsement of these stereotypes can affect teacher behavior and

lead to negative outcomes for students. For example, Okonofua & Eberhardt (2015) found that Black students are more likely than students of other races to be labeled as a “trouble-maker” by educators. These educators are more likely to apply harsher punishments after an initial behavioral infraction toward Black students compared to other students while rewarding and favoring students of Asian and Caucasian descent in the classroom (Okonofua & Eberhardt, 2015). Stereotypes have also been found to contribute to racial bias in the workplace. Research suggests that employers favor and prefer White workers over other racial groups, especially in hiring practices. This can be seen, for example, in the study done by Bertrand & Mullainathan (2002) that showed individuals were more willing to hire people with White sounding names over Black sounding names when looking over resumes that indicated the same qualifications and education (Bertrand & Mullainathan, 2002).

### **Positive Stereotype Implications**

Without taking away from the importance of negative stereotyping implications, it is also critical to acknowledge the growing research highlighting the negative implications of positive stereotype endorsement (Czopp, 2008; Czopp, Kay, & Cheryan, 2015; Moon et al., 2021; Siy & Cheryan, 2016). Although positive stereotypes are often perceived as complimentary and harmless, much of the literature examining them have found that they can be just as detrimental to targeted group members as negative stereotypes. One example of this is positive stereotypes effecting cognitive performance. Based on the research suggesting that negative stereotypes can lead to stereotype threat (Spencer et al., 2016; Steele & Aronson, 1995), it seems conceivable to think that if making a negative stereotype salient creates decreased performance in the targeted group, possibly making a positive stereotype salient might illicit the opposite effect increasing performance in the targeted group. Unfortunately, this is not what the research has found.

Cheryan & Bodenhausen (2000) conducted a study investigating if saliency of a positive stereotype would affect the intellectual performance of Asian women. Specifically, they made salient the high-performance expectancy associated with the positive stereotype that Asians are intelligent. The results of the study suggested that the salience of the positive stereotype and the expectancy associated with the stereotype led to decreased concentration and impaired intellectual performance (Cheryan & Bodenhausen, 2000). These results suggest that positive stereotypes, although complimentary in nature, can lead to increased pressure to perform which can actually decrease performance outcomes. More research is needed to examine the underlying cognitive mechanisms that may be driving this effect.

Positive stereotypes, like negative stereotypes, can contribute to a loss of individuality for those targeted by these stereotypes (Siy, & Cheryan, 2013). Siy and Cheryan (2013) ran multiple studies examining how individuals reacted to being positively stereotyped. Specifically, they measured participants feelings of depersonalizations, their cultural self-independence, and the negative evaluations of the person endorsing the stereotype. Results showed that both Asian American and female participants reacted negatively to being positively stereotyped and evaluated the endorser negatively. The research also found that feelings of depersonalization or the loss of their own individuality separate from their social group mediated the relationship between being positively stereotyped and negative reactions, suggesting that this loss of individuality is what may influence target group negative reactions to positive stereotypes. This effect was particularly relevant with participants in individualist cultures (e.g., Americans) that value independence and individuality (Siy & Cheryan, 2013). Therefore, although positive, these stereotypes lead to a loss of self, where targeted individuals feel that they are only being seen in terms of their group membership rather than as an individual with unique characteristics.

Positive stereotype endorsement can also significantly affect intergroup relations, including contributing to distrust and avoidance from those targeted by them. Czopp (2008) conducted two different studies measuring Black participant reactions and evaluations of White individuals endorsing positive stereotypes associated with Black people. In study one, Black participants observed a White individual endorsing the stereotype that Black people are athletic. Results showed that the participants evaluated the White person negatively. In the second study, both Black and White participants observed an interaction between a White and Black person where the White person, again, endorsed and expressed positive stereotypes associated with Black people. Results of this study showed that Black participants evaluated the White actor and evaluated the interaction in general more negatively than White participants (Czopp, 2008). In addition to the negative evaluation of individuals endorsing positive stereotypes, those that are targeted by positive stereotypes are also more likely to view the endorsers of positive stereotypes as also endorsers of negative stereotypes (Siy & Cheryan, 2016). These negative reactions and perceptions that targeted groups have toward positive stereotype endorsers could possibly lead to higher distrust and avoidance of other racial groups, ultimately affecting intergroup relations in a negative way (Czopp, 2008).

Positive stereotypes may also be related to higher levels of prejudice, negative stereotypes, and harmful beliefs toward targeted groups. While measuring and validating scales for positive stereotypes and prejudice against Black individuals, Czopp and Monteith (2006) found that participants with high levels of prejudice toward Black individuals also scored high on the measurement of positive stereotype endorsement of Black stereotypes. These results suggest that although positive stereotypes are complimentary, the endorsement of these stereotypes may also be associated with negative attitudes and prejudice toward the same group members.

Another series of studies conducted by Kay, Day, Zanna, and Nussbaum (2013) supported these results. In a series of studies, different individuals were exposed to positive stereotypes of African Americans. In addition to this exposure, various constructs related to intergroup relations were measured. Some of the main findings suggest that positive stereotype exposure is more likely to increase negative stereotype endorsement toward the same group and increased beliefs in biological differences between Black and White racial groups. Positive stereotype exposure is also less likely to generate skepticism of stereotype accuracy (Kay, Day, Zanna, & Nussbaum, 2013) contributing to their maintenance. The research regarding positive stereotypes and their negative effects is a new line of research that is still very limited. However, from what has been found, it is clear that positive stereotypes are not as harmless as what was once commonly believed. These negative outcomes associated with both negative and positive stereotypes convey the importance of stereotype research, particularly in understanding the mechanisms that drive stereotype use and endorsement.

### **Theoretical Perspectives on Stereotyping**

Researchers from various disciplines and perspectives have contemplated the origins of stereotypes and reasons for their use. Social categorization and identity theorists suggest that stereotypes are byproducts of our natural categorization of others and the group distinctions that we create (Kawakami et al., 2017; Turner, & Reynolds, 2001). Categorization and stereotyping are seen as cognitive heuristics that can preserve cognitive resources in everyday interactions (Gilbert and Hixson, 1991; Sherman, Macrae, & Bodenhausen, 2000). Stereotypes have also been linked to system justification (Ndobo et al., 2018) evolutionary (Faulkner, Schaller, Park, & Duncan, 2004), and self-esteem maintaining motives. System justification theory suggests that stereotypes are formed in order to justify and uphold existing social hierarchies. Stereotypes are

used to distinguish high- and low-status groups in such a way that inequitable practices seem normal and appropriate (Jost, Banaji, & Nosek, 2004). Evolutionary psychologists have found that out-group members illicit the same disgust and avoidance response as cues of disease, suggesting that stereotyping is possibly an evolved response in order to protect the local groups from unfamiliar pathogens that unfamiliar groups may carry (Navarrete & Fessler, 2006; Faulkner, Schaller, Park, & Duncan, 2004). Researchers have also suggested that the act of stereotyping others is due to the motivation to maintain one's self-esteem (Ndobu et al., 2018; Sinclair & Kunda, 2000).

### ***Positive Stereotypes and Existing Theory***

Although these theories claim to explain the reasons one may use stereotypes when making judgements on others, much of the research does not focus on positive stereotypes when providing evidence for these perspectives. For example, it is conceivable that both negative stereotypes and positive stereotypes may be used to alleviate cognitive load (Macrae, Milne, and Bodenhausen (1994) and may be automatically activated in situations where group membership is salient (Jones and Fazio, 2010). System justification may also play a role in positive stereotype use by ascribing complimentary traits to specific groups in order to justify and maintain systems that favor one group's dominance over another in society (Kay & Jost, 2003). However, much of the empirical research conducted and used as evidence for these theories have not included positive stereotypes in their methodology, therefore these results cannot be definitively tied to positive stereotype use. Additionally, some theories that are widely applicable to negative stereotype use cannot adequately be used as reasoning for positive stereotypes. Evolutionary theory, for example, suggest that stereotypes may be used in relation to survival in order to avoid unfamiliar infectious disease (Faulkner et al., 2004). Positive stereotypes, or more

complimentary stereotypical characteristics of other groups, do not seem to align with this reasoning. Overall, positive stereotype use does not seem to have been the primary focus in determining the origins and reasoning for stereotype endorsement, possibly because it has been assumed that these types of stereotypes are harmless. With more research suggesting positive stereotypes can be harmful, it is important to address this lack of explanation of the origins of positive stereotyping in order to fully understand stereotype use as a whole.

In the current research, the aim is to investigate the theory of self-esteem and self-concept maintenance in the use of positive stereotypes. This is the idea that the motive to maintain a favorable view of the self can affect the stereotypes that one uses regarding out-group members. Like many of the other theories, previous research investigating aspects of the self and stereotypes have mainly focused on negative stereotyping. For example, research suggests that if one is in a situation that threatens self-esteem or worth, they are more likely to categorize out-group social groups and apply negative stereotypes in hopes to elevate one's position over other groups and individuals, therefore restoring self-esteem (Hugenberg & Sacco, 2008). However, there is also some suggestion that positive stereotype endorsement may assist in maintaining a positive view of the self, especially if one can use positive stereotypes to justify their own lack of ability in a certain domain. Positive stereotypes may give individuals a way to deflect a threat to their self-worth.

### **Self-Esteem**

William James (1890) first described self-esteem as capturing a sense of positive self-regard combining one's view and evaluation of the self. More recent research substantiates this definition, stating that self-esteem is the "evaluative aspect of self-knowledge that reflects the extent to which people like themselves and believe that they are competent" (Zeigler-Hill, 2013).



Higher self-esteem refers to a highly favorable view of oneself while low self-esteem indicates a more unfavorable view. Research related to self-esteem has suggested that there are many different outcomes associated with self-esteem levels related to mental health, physical health, and social relationships, indicating the importance of the construct in the real world (Forthofer, Janz, Dodge, & Clark, 2001; Pruessner, Hellhammer, & Kirschbaum, 1999; Seeman, Berkman, Gulanski, & Robbins, 1995; Trzesniewski et al., 2006). The research in this area also delves into the underlying reasons and motivation to feel good about oneself while also investigating the strategies that one may take to regulate feelings of self-worth (Baumeister Tice, & Hutton, 1989; VanDellen, Campbell, Hoyle, & Bradfield, 2011). Self-esteem maintenance strategies are particularly relevant to the current study hypothesizing that stereotypes may be used in order to preserve self-worth.

High self-esteem has been associated with multiple different positive real-world implications including higher levels of happiness (Furnham & Cheng, 2000) and overall life satisfaction (Diener & Diener, 2009; Orth & Robins, 2022). Alternatively, low self-esteem has been linked to various negative outcomes. Although there is a clear link between low self-esteem and psychopathology, the reason for this connection remains unclear. The most popular explanation for this association is the vulnerability model of low self-esteem, which suggests that low self-esteem serves as a risk factor for various forms of psychopathology. Low self-esteem may increase the probability of poor psychological adjustment in the wake of stressful experiences because of its relation to cortisol reactivity following stress (Seeman, Berkman, Gulanski, & Robbins, 1995), failure (Pruessner, Hellhammer, & Kirschbaum, 1999), and rejection. Low self-esteem is a psychological risk factor that leaves individuals vulnerable to health problems or concerns, whereas high self-esteem is a psychological resource that protects

individuals from these potential problems and supports good health. Low levels of self-esteem have also been shown to be associated with several indicators of poor physical health, including higher body mass (Trzesniewski et al., 2006), cardiovascular problems (Forthofer, Janz, Dodge, & Clark, 2001), smoking (Yang & Schaninger, 2010), and negative consequences of alcohol consumption (Zeigler--Hill, Madson, & Ricedorf, 2012). Both the benefits of high self-esteem and the negative consequences of low self-esteem contribute to the motive to maintain high perceived self-worth.

Research has shown that the human motivation to maintain high self-esteem is quite strong (Leary & Downs, 1995; Sedikides, Gaertner, & Cai, 2015). Human motives that are particularly relevant to self-worth are the *valuation motives* of self-protection and self-enhancement (Sedikides & Skowronski, 2000). Humans have a survival need to protect oneself, and this includes protecting the self from low self-worth and the consequences that come with it. This motive aims to disaffirm any unfavorable information directed toward the self (Sedikides & Skowronski, 2000). Additionally, people tend to naturally gravitate toward self-enhancement, perceiving themselves as better than they actually are. The self-enhancement motive aims to affirm and magnify favorable information directed toward the self (Sedikides & Skowronski, 2000). These motivations seem to be generally universal. From their work investigating culture and self-esteem, Sedikides and colleagues (2015) found that although there are some slight differences in the types of self-esteem reported, generally, self-enhancement, self-protection, and self-esteem were found to be fundamental human motives that are present regardless of collective or individualistic cultural ideology.

The motive to maintain self-worth may drive individuals to adopt strategies that regulate their feelings of self-worth when threatened. Those with high self-esteem are more likely to

focus their efforts on further increasing their feelings of self-worth. Those with low self-esteem are more likely to employ self-protective strategies (Baumeister, Tice, & Hutton, 1989).

VanDellen and colleagues (2011) suggest that there are three different ways that people react to self-esteem threat – breaking, resistance, and compensation. *Breaking* is the act of lowering expectations of the self and accepting the threat to self-esteem as valid. For example, if a person receives negative feedback about their performance at their job, if they break, they may conclude that they are not good at their job. This could result in negative feelings and lower self-esteem. *Resistance* can include both passive strategies and active strategies to resist self-esteem threatening information. Passively, individuals may simply ignore the existence or relevance of the threat. Actively, individuals may respond to threats in a way that restores their self-worth to the desired level. For example, deflecting attention to their more positive traits. *Compensation* aims to change the interpretation of the information that is threatening. For example, minimizing the significance of negative information about the self or derogating the person providing the sources of self-esteem threat (VanDellen, Campbell, Hoyle, & Bradfield, 2011). These strategies suggest that individuals are reactive to threats aimed at self-worth, which may be relevant in the relationship between self-esteem and stereotype endorsement.

### **Self-Concept**

One way in which an individual may draw evaluations of themselves is through their perception and view of themselves. Self-concept is a related but distinct construct from self-esteem in that it refers to one's identity rather than their self-evaluations (Gecas, 1982). Gecas (1982) refers to it as a concept that the individual has of oneself, "...as a physical, social, and spiritual or moral being." Rosenberg (1979) emphasized that self-concept focuses on the self as an object rather than a subject and defined it as, "the totality of the individual's thoughts and

feelings having reference to himself as an object.” Furthermore, he states that the construct of self-concept requires an individual to detach oneself in order to objectively react to the self as an object of observation (Rosenberg, 1979). More recent definitions have acknowledged that self-concept is more multifaceted and malleable than previous definitions have implied (Oyserman et al., 2012; Wehrle & Fasbender, 2019). Oyserman and colleagues (2012) suggest that there are both consistent and inconsistent aspects of the self-concept that exist. To the person itself, self-concept seems stable and consistent overtime most likely because an idea of the self has always been and will always be present. However, the actual content of the self-concept is ever changing and adapting based on experience, context, and self-views or evaluations (Wehrle & Fasbender, 2019). For example, one’s idea of their athletic ability may change based on an experience of being outperformed by another. It may also be altered by changing context, going from being the best on a junior varsity team to being more mediocre on a varsity team. Additionally, the role of external influences is also made apparent where the self-concept can be impacted by social expectations and power dynamics present in one’s environment (Wehrle & Fasbender, 2019).

In addition to the definition of self-concept, researchers have provided many examples of the content of self-concept. In a further attempt to explain self-concept, Rosenberg (1979) also provides three broad regions including the *extant self* (how one perceived themselves), the *desired self* (how one wants to perceive themselves), and the *presenting self* (how one shows themselves to others). The extant self, or how an individual sees themselves objectively (Rosenberg, 1979), is the portion of self-concept that will be focused on in this study in order to connect one’s self-perceptions and self-esteem to their stereotypical beliefs. Rosenberg (1979) suggests that the content of the self-concept includes social identity, dispositions, and physical characteristics. He posits that social identity contains the social groups, categories, and positions

that one belongs to. Race, sex, religion, political ideology, family or occupational status are all examples of the social identity portion of self-concept. Dispositions refer to the tendencies of response. This denotes to the more abstract concepts in which one can view themselves. Examples of dispositions include traits (generosity, extroversion), attitudes (liberalism), values (belief in democracy), abilities (intelligence, rhythmic), habits (working five days a week), and preferences (enjoying chocolate). Lastly, in addition to one's ideas of their social identity and inner dispositions, individuals also have a view of their various physical characteristics. These include objective facts about the physical self, including height, weight, and build (Rosenberg, 1979). Self-concept in recent research has become more focused to specific domains and their relation to achievement. Some examples of these more specific types of self-concept in the literature today include academic self-concept, math self-concept, and verbal self-concept (Marsh & Martin, 2011). Similar to the definition of general self-concept, these more specialized constructs have to do with one's identity and ability in relation to the domain. For the current research, self-concept will be defined more broadly, as the measurement used includes the individual's view of their own various personality traits, characteristics, abilities, etc.

Based on previous research, self-concept not only relates to constructs of the self, but also relates to how individuals perceive others (Dunning & Hayes, 1996; Mussweiler & Bodenhausen, 2002; Sebastian et al., 2008). In discussing the development of self-concept, Sebastian and colleagues (2008) suggest that as adolescents begins to know themselves more, they also begin to use the self as the basis for making judgements on others. This is consistent with research conducted by Dunning and Hayes (1996), the first study in which, participants read a passage about another person and rated the other individual on personality dimensions and evaluative reactions while disclosing their process for making such decisions. The study found

that a majority of the participants (71%) disclosed using their own behaviors to compare other's behavior in the process of making judgments. Additional studies were conducted to replicate the first study with added measurements. In study 2, methods from the first study were replicated, and participants were also told to rate their own behavior on the same trait domains. In study 3, participants either asked to judge a target groups behavior (a replication of study one and two) or to judge if the sentences in the written passage were correct before being asked to describe their own behavior. This was to make sure that the results were not due to priming effects. Participants were found to be faster at providing self-descriptions after judging another person's behavior and this was not due to a general effect of priming. These results suggests that self-concept is cognitively activated and used when perceiving and judging others (Dunning and Hayes, 1996). Furthermore, Mussweiler and Bodenhausen (2002) found that the group membership of the perceiver and the target in judgement-making scenarios may also play a role. Their six different studies examined how comparisons with in-group and out-group members can affect self-evaluations. The researchers found that when judging an out-group member, categorical self-knowledge (based on their own group membership) was rendered more accessible. However, when judging an in-group member individual self-knowledge (based on individuating characteristics) becomes more accessible. These states can lead to changes in how one perceives themselves. For example, when a male participant judged a female target on how caring she was, they are more likely to see themselves in terms of their gender and rated themselves as less caring which is consistent with stereotypical gender norms (Mussweiler & Bodenhausen, 2002). Therefore, the type of self-concept (e.g. group-based versus individual-based) that becomes cognitively accessible depends largely on the social circumstance. Taken together, these studies suggest a relation between one's self-perception and the other individuals around them.

## **Self-Esteem and Self-Concept in Stereotyping**

Maintaining a positive self-image is a strong motive that can play a role in intergroup stereotyping, prejudice, and discrimination. Believing that persons from other groups are inferior can help individuals feel better about themselves. One construct in line with this notion is the social comparison theory. This perspective proposed that two types of comparisons are used to compare oneself to an out-group member – downward comparison and upward comparison (Gerber, Wheeler, Suls, 2018). Downward comparison is defined as when one compares themselves to another that is perceived as being inferior in the relevant domain. Theory detailing downward comparison suggests that when self-perception is threatened, individuals use a downward comparison to reestablish positive self-perception. Upward comparison occurs when one compares themselves with another person that is perceived as being superior in the relevant domain. In order to still maintain positive self-perception in upward comparison, individuals use construal strategies to interpret any differences between them and the better person as slight or negligible (Gerber, Wheeler, & Suls, 2018). It is suggested that this effect is driven by individual's motivation to maintain a positive distinction of their own group over any other group that they themselves are not a part of (Turner, 1975). Motivation to protect one's own self-esteem is an important element used in category selection and stereotype application. If one is in a situation that threatens self-perception or worth, they are more likely to categorize out-groups and apply negative stereotypes in hopes to elevate one's position over other groups and individuals, therefore restoring self-image (Hugenberg & Sacco, 2008).

Self-perception and self-image are particularly threatened when one is receiving negative feedback. Therefore, receiving this type of feedback can trigger negative stereotyping in an effort to maintain self-image by negating the other individual's competence. Research suggests that

activation of negative stereotypes is observed when the out-group category is salient and when perceivers had received negative feedback by the out-group member which threatens self-image (Kosic, Mannetti, Livi, 2014, Spencer et al., 1998, Sinclair & Kunda, 2000). For example, Sinclair and Kunda (1999) examined motivational stereotyping toward Black professionals. Results showed that when criticized by a Black manager, participants were motivated to make a more negative impression of the Black manager, activating the negative Black stereotype of incompetence. However, when praised by a Black manager, they were motivated to think highly of the manager, resulting in inhibition of the incompetence stereotype. In both instances, the participant is driven by self-serving motives to maintain a positive self-image – either to discredit the person who criticized them, or to enhance the competence of the person who praised them. Relatedly, Oakes and Turner (1980) also found a link between intergroup discrimination and self-esteem through their research using the minimal group paradigm. In the study, minimal groups were made salient while engagement in allocating resources was manipulated (i.e., one group participated in allocating or withholding points and one group did not engage in this task). Immediately after the task, all participants were given a measure of self-esteem. The results showed that individuals in the group that engaged in out-group discrimination (i.e., withholding points to minimal out-group members) had higher levels of self-esteem than individuals that did not engage in the task (Oakes & Turner, 1980). This suggests that the mere act of making group distinctions and discriminating against a distinctive out-group may contribute to increases in self-esteem.

Although the relation between negative stereotyping and self-perception has been adequately researched and explained, little is known if positive stereotyping is related to the protection and maintenance of self-perception in anyway. It is possible that positive stereotypes



of another group may be endorsed in order to protect one's self-esteem and justify one's lack of skill in that stereotypical domain. For example, if an individual notices their lack of skill in athletics, they may be more inclined to endorse the stereotype that Black individuals are athletic, effectively protecting their perceptions of themselves. Consistent with this reasoning, research on upward and downward social comparisons suggest that when one compares themselves to others with high proficiency in something (i.e., an upward comparison), the comparison can generate a negative affect and lower self-evaluation within the individual (Morse & Gergen, 1970) which could lead one to endorse a positive stereotype in order to mitigate the other person's proficiency, insinuating that the other person is only good in the domain because of their group membership.

Alicke and colleagues (1997) research regarding over exaggerations of ability after an upward comparison also provides support for this notion. The researchers conducted three studies examining how individuals protect their self-esteem in the presences of unfavorable social comparisons that they cannot adequately deny or rationalize. They hypothesized that when in such circumstances, individuals will exaggerate or inflate the ability of another that undeniably outperforms them. In this way they can maintain perceptions of self-worth while also recognizing another's proficiency. In the first study, participants were put into three person sessions with an observer, a subject, and a study confederate of the same gender. The subject and confederate completed an assessment that they were told tested perceptual intelligence. The confederate was told the answers ahead of time. The observer witnessed the subject and confederate from behind a one-way mirror. Both the subject and the observer were given the results of the assessments – in which the confederate significantly outperformed the subject – and then were asked to rate the perceptual intelligence of the subject and the confederate. Results

showed that there were no differences in subject and observer ratings of the subject's perceptual intelligence, but that subjects rated the confederate's perceptual intelligence more highly than observers. The second study's method was similar but aimed to increase the privacy of the conditions, where the subject and confederate took the tests one at a time and the perceptual intelligence ratings of the subject and the observer were made in separate rooms. The study yielded the same results as the first, suggesting that even in private, subjects continued to exaggerate the confederate's ability significantly higher than the observer. In the third study, the methods were again similar to the first study, but the researchers varied whether or not the participants who were outperformed directly evaluated with the outperformer. The idea was if the participants overexaggerate the outperformer's ability, the participant is able to discount the comparison as a whole and provide a defense against their perception of their own competencies. Results showed an increase in perceived intelligence of the self for those that evaluated the outperformer than those who did not have that opportunity (Alicke et al., 1997). These studies may be relevant to how individuals can endorse positive stereotypes of other groups as a way to maintain a positive self-perception even when their group is stereotypically underperforming in those domains. It could be argued that positive stereotypes are over-exaggerations of a favorable characteristic of a group, and their development relates to explaining away one's lack of skill or proficiency in an area, and to avoid the negative affect of an upward comparison with an out-group member.

### Chapter 3: Current Research

This dissertation will discuss two studies conducted in attempt to explain how self-perception relates to stereotype endorsement. If stereotype endorsement is affected by self-perception, then it can be assumed that as perception of self-concept and ability decreases the person will endorse more positive stereotypes in order to justify their lack of proficiency and protect one's view of themselves. This is consistent with some previous research suggesting that when one upwardly compares to someone else, this can generate negative affect (Morse & Gergen, 1970) that one feels motivated to address through various strategies (Baumister, Tice, & Hutton, 1989). Additionally, research suggests that one strategy used when individuals experience upward comparison that cannot be adequately denied is to over-exaggerate or inflate the ability of the other that outperforms (Alicke et al., 1997). It is possible that positive stereotypes may be a result of over-exaggeration and over-endorsement of stereotypical characteristics of other groups to avoid negative affect of upward comparison.

The first study addresses two research questions regarding disclosed self-concept and stereotype endorsement with additional sub-questions related to potential mediating and moderating variables for the relationships. The first research question examines the relationship between generalized self-concept and general out-group stereotype endorsement, specifically the question reads:

**RQ1:** Does a lower composite score of perceived self-concept for positive stereotypical out-group traits lead to a higher composite score of positive out-group stereotype endorsement?

An additional sub-question was included regarding state self-esteem as a possible mediator for the relationship examined in RQ1 between general self-concept and outgroup stereotype endorsement. Specifically, the question reads:

**RQ1a:** Does the composite score of perceived self-concept affect the composite score of positive out-group stereotype endorsement through its influence on state self-esteem?

Three other sub-questions were included to examine three different moderating variables for the relationship investigated in RQ1 between general self-concept and stereotype endorsement. The first research sub-question examined conservative ideology as a moderator, specifically the question reads:

**RQ1b:** Does the relationship between the composite score of perceived self-concept and the composite score of positive out-group stereotype endorsement change for participants high in conservative ideology?

The second sub-question for moderating variables examined the relationship between general self-concept and general positive stereotype endorsement with social dominance as a moderator with the question reading:

**RQ1c:** Does the relationship between the composite score of perceived self-concept and the composite score of positive out-group stereotype endorsement change for participants high in social dominance orientation?

The last sub-question for RQ1 examined social desirability as a potential moderator for the relationship between general self-concept and positive stereotype endorsement, with the question reading:

**RQ1d:** Does the relationship between the composite score of perceived self-concept and the composite score of positive out-group stereotype endorsement change for participants high in social desirability?

The second research question for the first study addresses the same relationship between self-concept and stereotype endorsement, but in a more specified and targeted way by investigating individual self-concept items and stereotype endorsement items that match. The question proposed reads:

**RQ2:** Does lower perceived self-concept in one specific stereotypical domain lead to higher levels of endorsement of the outgroup positive stereotype in the same domain?

An additional sub-question was included regarding state self-esteem as a possible mediator for the relationship examined in RQ2 between specific self-concept and outgroup stereotype endorsement. Specifically, the question reads:

**RQ2a:** Does self-concept in one specific stereotypical domain affect the levels of positive out-group stereotype endorsement in the same domain through its influence on state self-esteem?

Three other sub-questions were included to examine three different moderating variables for the relationship investigated in RQ2 between specific self-concept and stereotype endorsement. The first research sub-question examined conservative ideology as a moderator, specifically the question reads:

**RQ2b:** Does the relationship between self-concept in one specific stereotypical domain and endorsement of the outgroup positive stereotype in the same domain change for participants high in conservative ideology?

The second sub-question for moderating variables examined the relationship between specific self-concept and positive stereotype endorsement with social dominance as a moderator with the question reading:

**RQ2c:** Does the relationship between self-concept in one specific stereotypical domain and endorsement of the outgroup positive stereotype in the same domain change for participants high in social dominance orientation?

The last sub-question for RQ1 examined social desirability as a potential moderator for the relationship between specific self-concept and positive stereotype endorsement, with the question reading:

**RQ2d:** Does the relationship between self-concept in one specific stereotypical domain and endorsement of the outgroup positive stereotype in the same domain change for participants high in social desirability?

Although self-disclosure and survey measures can give good insight into participant's self-perceptions, the drawback is that the disclosed information can be intentionally or unintentionally distorted and susceptible to social desirability (Krumpal, 2013). To address this effect, I examined the same relationship as the first study while controlling self-concept. Bogus tests for intelligence and hardworking personality will be used to control self-concept and will be matched with the stereotypes that Asian individuals are intelligent and that Hispanic individuals are hardworking. Two research questions were proposed to examine these relationships, with additional sub-questions for potential mediating and moderating variables. The first research question addresses the intelligence bogus test and the Asian stereotype, specifically:

**RQ1:** Does lower perceived self-concept of intelligence based on bogus intelligence test scores lead to higher endorsement of the positive stereotype that Asian individuals are intelligent?

A sub-question was included regarding state self-esteem as a possible mediator for the relationship examined in RQ1 between self-concept of intelligence and endorsement of the stereotype “Asian individuals are intelligent”. Specifically, the question reads:

**RQ1a:** Does the perceived self-concept of intelligence based on bogus intelligence test scores affect endorsement of the positive stereotype “Asian individuals are intelligent” through its influence on state self-esteem?

Another sub-question was included to examine conservative ideology as a moderating variable for the relationship investigated in RQ1 between intelligence self-concept and endorsement of the stereotype, “Asian individuals are intelligent”. Specifically the question reads:

**RQ1b:** Does the relationship between the perceived self-concept of intelligence based on bogus intelligence test scores and endorsement of the positive stereotype “Asian individuals are intelligent” change for participants high in conservative ideology?

The last sub-question examined the relationship between intelligence self-concept and endorsement of the stereotype, “Asian individuals are intelligent” with social desirability as a moderator with the question reading:

**RQ1c:** Does the relationship between the perceived self-concept of intelligence based on bogus intelligence test scores and endorsement of the positive stereotype “Asian individuals are intelligent” change for participants high in social desirability?

The second research question addresses the hardworking bogus test and Hispanic stereotype. The questions posed is:

**RQ2:** Does lower perceived self-concept of hardworking personality based on bogus work ethic test scores lead to higher endorsement of the positive stereotype that Hispanics are hardworking?

A sub-question was included regarding state self-esteem as a possible mediator for the relationship examined in RQ2 between self-concept of work ethic and endorsement of the stereotype “Hispanic individuals are hardworking”. Specifically, the question reads:

**RQ2a:** Does the perceived self-concept of work ethic based on bogus intelligence test scores affect endorsement of the positive stereotype “Hispanic individuals are hardworking” through its influence on state self-esteem?

Another sub-question was included to examine conservative ideology as a moderating variable for the relationship investigated in RQ2 between work ethic self-concept and endorsement of the stereotype, “Hispanic individuals are hardworking”. Specifically the question reads:

**RQ2b:** Does the relationship between the perceived self-concept of work ethic based on bogus intelligence test scores and endorsement of the positive stereotype “Hispanic individuals are hardworking” change for participants high in conservative ideology?

The last sub-question examined the relationship between work ethic self-concept and endorsement of the stereotype, “Hispanic individuals are hardworking” with social desirability as a moderator with the question reading:

**RQ2c:** Does the relationship between the perceived self-concept of work ethic based on bogus intelligence test scores and endorsement of the positive stereotype “Hispanic individuals are hardworking” change for participants high in social desirability?



## Chapter 4: Methods

### Study One

#### *Participants*

According to a G\*Power for a linear regression analysis with an alpha level of .05 and power of .95 and an effect size of  $f^2 = .20$ , 81 participants will be required. G\*Power for a two-tailed bivariate correlation with a correlation  $\rho$  H1 of .3 (a moderate coefficient), an alpha level of .05, and power of .95, 138 participants were required. To allow for attrition and investigation of ethnic differences, 301 participants were recruited from Prolific, an online survey distribution platform. Participants were recruited on a voluntary basis and offered monetary compensation in exchange for participation. Using the ethnicity filter on Prolific, two racial groups were recruited to participate and allow for comparison, White and Black participants. Of the study participants, 48.8% identified as White and 48.8% identified as Black or African American, with 2.3% identifying as other or multiracial. One hundred forty-seven males (48.8%), one hundred and forty-eight females (49.2%), and six participants that specified their gender as other (2%). The average age was 37 (SD = 12.928) with ages ranging from 19 to 92 years.

#### *Procedure*

The study was administered entirely online. Participants were first informed that the purpose of the study was to better understand the relationship between attitudes toward different groups and one's perceptions about society. The participants then were informed that to study this relationship, they would be required to answer questions regarding their demographics, their attitudes toward different groups, and opinions on societal issues. After consenting to participate in the study, participants were given the first portion of the survey. This measure included

questions regarding general demographics. The questions comprised of participant age, race, gender, socio-economic status, and political orientation.

**Stereotype endorsement measure.** Then participants were given a quantitative measure of positive and negative stereotype endorsement. The measure required participants to indicate their agreement with ten stereotypical statements about each of the three racial groups (Hispanic, Black, and Asian) on a 7-point rating scale with endpoints of 1 (*strongly disagree*) and 7 (*strongly agree*). Both negative and positive stereotypical statements will be used in the measure. Examples of Hispanic stereotypical statements included “Hispanics individuals are hardworking” and “Hispanics are less-educated”. Examples of Black stereotypical statements included, “Black people are more athletic than others” and “Black individuals are aggressive.” Examples of Asian stereotypical statements included, “Asian individuals are intelligent” and “Asian individuals are condescending”. This measure was created for this study and contains common stereotypical traits and qualities associated with Hispanic, Black, and Asian individuals according to previous research (Devine & Elliot, 1995; Fairchild & Cozens, 1981; Lin, Kwan, Cheung, Fiske, 2005; Marin, 1984; Niemann et al., 1994; Jackson, 1995; Jackson & Rose, 2013; Jones, 2010; Ward, 2004; Wittenbrink, Judd, & Park, 1997; Yen, 2000). The order of all the statements was randomized. Composite scores were obtained by summing the responses for each racial group’s positive stereotypical statements and for each group’s negative stereotypical statements. The items for this measure are included in Appendix A.

**Perceived Self-Concept.** Participants were then asked to disclose their perceptions of their own abilities. They were presented with statements about themselves (e.g. “I am hardworking”, “I am athletic”, or “I am intelligent”) that match each of the positive and negative stereotypes of each group taken from the stereotype endorsement measure previously mentioned.

Participants then rated their agreement with the statements on a 7-point rating scale ranging from 1 (*strongly disagree*) and 7 (*strongly agree*). Statements were presented in random order. The presentation of this measure was counterbalanced with the stereotype endorsement measure and was either presented at the beginning or end of the survey. Responses were summed to create a composite self-concept variable, with both the composite variable and individual items being used in analysis. The items for this measure are included in Appendix B.

**Other Measures.** In addition to addressing the main research questions, four variables were examined: self-esteem, social beliefs and opinions, social dominance, and social desirability. The other scales of the survey were presented in random order between the stereotype endorsement measure and self-concept measure.

Self-esteem is the only potential mediator variable that was examined. Self-esteem is defined as an individual's general opinion of themselves (James, 1890; Zeigler-Hill, 2013). One's general self-esteem may relate to both one's perception of their abilities (Greenwald, Bellezza, & Banaji, 1988; Manning, Bear, & Minke, 2006) and their endorsement of stereotypes toward other groups (Fein & Spencer, 1997; Hugenberg & Sacco, 2008). Therefore, if a significant relationship between self-concept and stereotype endorsement is found, it is possible that general self-esteem may mediate this relationship. For the self-esteem measure, Heatherton and Polivy's State Self-Esteem Scale (Heatherton & Polivy, 1991) was used. Participants rated their agreement with statements regarding their opinion about themselves. Examples of the items include, "I feel confident about my abilities" and "I am worried about whether I am regarded as a success or failure" (reverse scored) and "I feel satisfied with the way my body looks right now". Participants rated their agreement with statements using a 5-point rating scale with endpoints ranging from 1 (*not at all*) and 5 (*extremely*). Statements were presented in

random order and items were summed to create a composite score for state self-esteem. The items for this measure are included in Appendix C.

Conservative ideologies was examined as a potential moderator as it has been linked to higher levels of prejudice in previous research (Hiel & Mervielde, 2002). Therefore, it seems possible that more conservative individuals would hold more stereotypic beliefs which may affect the relationship between self-concept and stereotype endorsement that is being investigated. To measure liberal and conservative ideologies, the Social Beliefs and Opinions Inventory (Todd, Bodenhausen, & Galinsky, 2012) was used. Participants were asked to rank how much they agree or disagree with the 14 items (presented in random order) using a 7-point Likert-type rating scale, with endpoints of 1 (*strongly disagree*) to 7 (*strongly agree*). Example of items included “High taxes on the wealthy punish them for their success” and “Too many Black people still lose out on jobs because of their skin color” and “The U.S. government should provide free health care to all its citizens”. Items were summed to create a composite score, with higher scores associated with more liberal ideology and lower scores associated with more conservative ideology. The items for this scale are included in Appendix D.

Social dominance was also assessed as a potential moderator. It is defined as the attitude orientation preferring hierarchical intergroup relations rather than equal status relations (Pratto, Sidanius, Stallworth, & Malle, 1994). Previous research has found a relationship between social dominance orientation and higher levels of acceptance of social stereotyping (Carter, Hall, Carney, & Rosip, 2005). Therefore, it is possible that level of social dominance could affect the relationship between self-concept and stereotype endorsement that is being investigated. To measure social dominance, the survey included the Social Dominance Orientation – 7 scale (Ho, Sidanius, Kteily, Sheehy-Skeffington, Pratto, Henkel, Foels, & Stewart, 2015). The measure has

two different subgroups including dominance and anti-egalitarianism with questions representing pro-trait and con-trait for both of the subgroups. The participants were asked to rank how much they favor or oppose the 16 items on a 7-point Likert-type rating scale, with endpoints of 1 (*strongly oppose*) to 7 (*strongly favor*). An example of a pro-trait dominance item is, “Some groups of people must be kept in their place”. A con-trait dominance item example is, “Group dominance is a poor principle.” An example of a pro-trait anti-egalitarianism item in the survey is, “We should not push for group equality”. A con-trait anti-egalitarianism item example is, “Group equality should be ideal.” Items were summed to create a composite social dominance variable. The items for this measure are included in Appendix E.

Social desirability bias is the last potential moderator to be included in the survey. This type of bias has been defined as a tendency to respond to self-report survey items in a way that presents themselves in a more desirable manner (Holden & Fekken, 1989). Topics regarding the self and stereotypical beliefs of others tend to be sensitive in nature, which can produce higher levels of social desirability bias in self reports (Krumpal, 2011). Therefore, social desirability may affect participant disclosure of self-concept and stereotype endorsement. Social desirability was measured using Crowne and Marlowe’s (1960) the Social-Desirability Scale. The measure included 33 items and asked participants to decide whether the items and 1 (*true*) or 2 (*false*) about themselves. Example of items contained in the scale included “I always try to practice what I preach” and “I have almost never felt the urge to tell someone off”. A sum of the items created a composite variable for social desirability. The items for this measure are included in Appendix F. The four mediator and moderator variable measures were administered in between the self-concept and stereotype endorsement measure and the order was randomized.

## **Study Two**

It is possible that having participants disclose their own perception of self-concept may be an unreliable or less effective way to measure actual self-concept. Additionally, external information about oneself may contribute to one's overall perception of their self-concept. For these reasons and to expand on the results of study one, another study was conducted in order to further investigate the relationship between self-concept and stereotype endorsement by experimentally manipulating self-concept to replace the self-disclosed self-concept measure in the previous study. To do this, bogus tests were used purportedly measuring participant's intelligence and work ethic. Because of limits on feasibility of creating multiple bogus tests and to limit the length of the survey, only these two stereotypes were investigated in relation to self-concept in the same domain. In an attempt to manipulate one's perception of ability in these two areas, participants were either told that they scored high or low in intelligence and hardworking personality at random. These groups will then be compared on levels of stereotype endorsement.

### ***Participants***

According to a G\*Power for a one-way ANOVA with an alpha level of .05 and power of .95 and an effect size of  $f^2 = .20$ , 328 participants was required for both intelligence and work ethic. To allow for attrition, 700 participants were recruited from Prolific, an online survey distribution platform. Participants were recruited on a voluntary basis and offered monetary compensation in exchange for participation. White participants were recruited using the ethnicity filter on Prolific. Of the study participants, 98.6% identified as White and 1.4% identified as another race or multiracial. Three hundred and twenty-eight identified as male (46.9%), three hundred and fifty-five identified as female (50.7%), and seventeen participants specified their gender as other (2.4%). The average age was 39 (SD = 12.831) with ages ranging from 19 to 83 years.

## *Procedure*

The study was administered entirely online. Participants were first informed of that purpose of the study was to better understand the relationship between self-perception, attitudes toward different groups, and one's perceptions about society. The participants were then informed that to study this relationship, they would be required to answer questions regarding their demographics, their characteristics, their attitudes toward different groups, and opinions on societal issues. After consenting to participate in the study, participants were given the first portion of the survey. This measure included questions regarding general demographics. The questions comprised of participant age, race, gender, socio-economic status, and political orientation. After this portion of the survey, participants were randomly put into two different bogus test conditions – an intelligence test or a work ethic test – with two different results – high or low scoring on the given test. Altogether, this created four different conditions.

**Bogus Intelligence Test.** Participants put into the bogus intelligence condition were given a cognitive aptitude task that posed as a test of intelligence. The test used was a variation of the DEVAT Tests (“DEVAT Tests”). Three different sets of questions with 7 items each were presented – vocabulary, pattern recognition, and shapes. For the vocabulary section, participants were asked “Which of the words shown below mean the same as ...?” with a vocabulary word. They were given five options of words in multiple choice format and indicated which of the options answers the question the best. Examples of vocabulary words used included rigid, woo, frolic, and hedonistic. The questions became more difficult throughout the section. For the pattern recognition section, participants were presented with a set of letters, numbers, or words in a pattern sequence and were asked, “What comes next in this series?”. Five multiple choice options were presented, and participants indicated which answer best completes the sequence.

Examples of patterns include, “right light ramp lamp rent ...” or “91786 EBCAD 81769 ABCDE 78961 ...” or “Z N A M Y O B L X P C ...”. Again, question difficulty increased as the participant completed more of the section. The shapes section included items where two shapes were presented, one on the far left and one on the far right. Also presented were five other shapes shown in between the two. Participants were asked, “Which of the shape choices (1-5), when added to the shape on the left, would form the shape on the right?” and indicated the best answer using the multiple-choice options one through five. The questions became more challenging as the participant got further into the section. Please see Appendix G for a visual representation of these items. Participants were given immediate bogus feedback after answering each item in the form of a large green checkmark (correct) or a large red x (incorrect). At random, participants were either told that they were in the top 25% of individuals that take the test, meaning that they are high in intelligence or that they were in the bottom 25% of individuals that take the test, meaning that they are low in intelligence. This is in an attempt to manipulate the participants perceived self-concept in the area of intelligence before judging other groups in the same area. Individuals in the “high intelligence” condition were told that they were correct for 17 out of the 21 items. Individuals in the “low intelligence” condition were told that they were correct for 8 out of 21 items. The items for this measure are included in Appendix G with the examples of the immediate feedback – correct or incorrect – included in Appendix H. The bogus results (for both bogus tests) are included in Appendix J.

**Bogus Hardworking Test.** Participants put in the hardworking condition were given what seemed to be a general personality inventory. The test used the Big Five Personality Trait Short Questionnaire (Morizot, 2014) with five additional items related to hardworking behavior which are revised versions of items taken from the Multidimensional Work Ethic Profile – Short



Form (MWEP-SF) (Meriac, Woehr, Gorman, & Thomas, 2013). Participants were given directions to rate the degree to which they agree or disagree with the statements using a 7-point rating scale with endpoints of 1 (*strongly disagree*) and 7 (*strongly agree*). Some examples of the 50 items in the Big Five Personality Trait Short Questionnaire included: “I see myself as someone who...” “...is original, often has new ideas”, “...likes to talk, expresses their opinion”, “...is helpful and generous with others” “...is a reliable student/worker, who can be counted on” and “...is generally relaxed, handles stress well”. The additional five hardworking items included: “...feels content and fulfilled after a hard day’s work”, “...thinks working hard is the key to being successful”, “...is constantly looking for ways to productively use their time”, “...values their relaxation time (reverse score)”, and “...thinks that more leisure time is good for people (reverse score)”. The order of the items was randomized. After completing the measure, at random participants were told that they are in the top 25% of individuals that take the test, meaning that they are high in hardworking personality or that they were in the bottom 25% of individuals that take the test, meaning that they are low in hardworking personality. This is in an attempt to manipulate the participants perceived self-concept related to being hardworking before judging other groups related to the same characteristic. The items for this measure are included in Appendix I and the bogus results (for both bogus tests) are included in Appendix J.

**Stereotype endorsement measure.** Then participants were given the same quantitative measure of positive and negative stereotype endorsement that was used in the previous study. The measure required participants to indicate their agreement with ten stereotypical statements about each of the three racial groups (Hispanic, Black, and Asian) on a 7-point rating scale with endpoints of 1 (*strongly disagree*) and 7 (*strongly agree*). Both negative and positive stereotypical statements were used in the measure. Again, this measure was created for these

studies. It contains common stereotypical traits and qualities associated with Hispanic, Black, and Asian individuals according to previous research (Devine & Elliot, 1995; Fairchild & Cozens, 1981; Lin, Kwan, Cheug, Fiske, 2005; Marin, 1984; Niemann et al., 1994; Jackson, 1995; Jackson & Rose, 2013; Jones, 2010; Ward, 2004; Wittenbrink, Judd, & Park, 1997; Yen, 2000). The order of the statements was randomized. The items for this measure are included in Appendix A.

**Other Measures.** In addition to addressing the main research question, two possible mediator and moderator variables were examined: self-esteem, social beliefs and opinions, and social desirability. The other scales of the survey were presented at random order after the bogus tests and stereotype endorsement measure. As with the first study, it is possible that one's general self-esteem may possibly affect both one's perception of their abilities and their endorsement of stereotypes toward other groups. Therefore, if a significant relationship between bogus self-concept and stereotype endorsement is found, it is possible that state self-esteem may mediate this relationship. The same self-esteem scale used in the first study - Heatherton and Polivy's State Self-Esteem Scale (Heatherton & Polivy, 1991) - will be used. Participants rated their agreement with statements regarding their opinion about themselves using a 5-point rating scale with endpoints ranging from 1 (*not at all*) and 5 (*extremely*). Statements were presented in random order and items summed to create a composite score for self-esteem. The items for this measure are included in Appendix C.

Conservative ideologies have been linked to higher levels of prejudice in previous research (Hiel & Mervielde, 2002). Therefore, it seems possible that more conservative individuals would hold more stereotypic beliefs which may affect the relationship between bogus self-concept and stereotype endorsement that is being investigated. To measure liberal and

conservative ideologies, the Social Beliefs and Opinions Inventory (Todd, Bodenhausen, & Galinsky, 2012) was used. Participants were asked to rank how much they agree or disagree with the 14 items (presented in random order) using a 7-point Likert-type rating scale, with endpoints of 1 (*strongly disagree*) to 7 (*strongly agree*). Statements were presented in random order. The items for this scale are included and in Appendix D.

A measure of social desirability bias was also included because of the nature of judging the self and others, which may produce higher levels of social desirability bias in this self-report study (Holden & Fekken, 1989; Krumpal, 2013). Social desirability was measured the same way as the previous study, using Crowne and Marlowe's (1960) the Social-Desirability Scale. The measure includes 33 items and asked participants to decide whether the items were 1, *true* or 2, *false* about themselves. Example of items contained in the scale included "I always try to practice what I preach" and "I have almost never felt the urge to tell someone off". The items for this measure are included in Appendix F. The mediator and moderator variable measures were administered in between the bogus measures and stereotype endorsement measure. The order of the measures was randomized.

**Belief in Bogus Results.** At the end of the survey, a question was given to examine whether or not participants believed in the bogus results that were given to them ( $M = 2.375$ ,  $SD = 1.27$ ). The question read, "At the beginning of this survey you completed a work ethic assessment and were given feedback stating that you were either high or low in intelligence/work ethic compared to your peers. On the scale provided below, please rate how much you believed in the feedback you were given." Participants then rated their belief in the results on a five-point scale with endpoints of 1 (*not at all*) to 5 (*completely*).

## Chapter 5: Results

### Study One

Two ethnic groups (White and Black) were recruited for the first study with a small portion of participants identifying as multiracial or other. The two main racial groups including White ( $n = 147$ ) and Black participants ( $n = 147$ ) were analyzed both together and separately to examine racial group differences. The six participants that identified as multiracial or other were included in overall analyses but were excluded from the additional analyses examining racial group differences due to the lack of power.

#### *RQ1 Overall Self-Concept and Stereotype Endorsement*

To address the first research question (RQ1) regarding the relationship between perceived positive self-concept and positive stereotype endorsement, correlations between self-concept and stereotype endorsement composite scores were conducted for each target racial group included in the survey (Black, Hispanic, and Asian). Quantitative responses for self-concept of positive traits stereotypically associated with different racial groups were summed to obtain self-concept scores of Black traits ( $M = 23.041$ ,  $SD = 7.194$ ), Hispanic traits ( $M = 25.408$ ,  $SD = 6.738$ ), and Asian traits ( $M = 27.320$ ,  $SD = 7.303$ ) with higher scores indicating more agreement with the self-concept statements. Quantitative responses for the matching endorsement items were summed to obtain positive endorsement scores for Black stereotypes ( $M = 24.497$ ,  $SD = 5.398$ ), Hispanic stereotypes ( $M = 22.871$ ,  $SD = 4.805$ ), and Asian stereotypes ( $M = 22.694$ ,  $SD = 5.050$ ) with higher numbers indicating more personal endorsement of target group stereotypes. See Appendix K, Table 1 for a table of positive characteristics and stereotypes used in the study.

A bivariate correlation between self-concept of Black positive traits and endorsement of Black positive stereotypes was conducted to address RQ1. Black participants were excluded

from this analysis because the intent was to examine the relationship between self-concept of outgroup traits and positive stereotype endorsement of outgroup traits. No significant relationship was found between self-concept of Black positive traits and endorsement of Black positive stereotypes for White participants ( $n = 147, r = .036, p = .664$ ).

A bivariate correlation between self-concept of Hispanic positive traits and endorsement of Hispanic positive stereotypes was conducted to address RQ1. All participant responses were included in the analyses. A significant relationship was found between self-concept of Hispanic positive traits and endorsement of Hispanic positive stereotypes ( $n = 301, r = .150, p < .05$ ). To examine racial differences, the same correlation was conducted for White and Black participants separately. For White participants, a significant relationship was again found between self-concept of Hispanic positive traits and endorsement of Hispanic positive stereotypes ( $n = 147, r = .238, p < .05$ ). For Black participants however, no significant relationship was found between self-concept of Hispanic positive traits and endorsement of Hispanic positive stereotypes ( $n = 147, r = .073, p = .379$ ).

A bivariate correlation between self-concept of Asian positive traits and endorsement of Asian positive stereotypes was conducted to address RQ1. All participant responses were included in the analyses. No significant relationship was found between self-concept of Asian positive traits and endorsement of Asian positive stereotypes ( $n = 301, r = .037, p = .527$ ). To examine racial differences, the same correlation was conducted for White and Black participants separately. For White participants, no significant relationship was again found between self-concept of Asian positive traits and endorsement of Asian positive stereotypes ( $n = 147, r = .022, p = .792$ ). For Black participants however, again no significant relationship was found

between self-concept of Asian positive traits and endorsement of Asian positive stereotypes ( $n = 147, r = .030, p = .717$ ).

Negative self-concept and negative stereotype endorsement was also examined to allow for investigation of differences between this relationship with positive versus negative traits. Quantitative responses for self-concept of negative traits stereotypically associated with different racial groups were summed to obtain self-concept scores of Black traits ( $M = 12.918, SD = 5.452$ ), Hispanic traits ( $M = 10.870, SD = 4.301$ ), and Asian traits ( $M = 14.177, SD = 5.507$ ) with higher scores indicating more agreement with the self-concept statements. Quantitative responses for the matching endorsement items were summed to obtain negative endorsement scores for Black stereotypes ( $M = 13.646, SD = 6.409$ ), Hispanic stereotypes ( $M = 14.769, SD = 5.915$ ), and Asian stereotypes ( $M = 17.143, SD = 6.159$ ) with higher numbers indicating more personal endorsement of target group stereotypes. See Appendix K, Table 2 for a table of negative characteristics and stereotypes used in the study.

A bivariate correlation between self-concept of Black negative traits and endorsement of Black negative stereotypes was conducted. Black participants were excluded from this analysis because the intent was to examine the relationship between self-concept of outgroup traits and positive stereotype endorsement of outgroup traits. No significant relationship was found between self-concept of Black negative traits and endorsement of Black negative stereotypes for White participants ( $n = 147, r = -.002, p = .984$ ).

A bivariate correlation between self-concept of Hispanic negative traits and endorsement of Hispanic negative stereotypes was conducted. All participant responses were included in the analyses. A significant relationship was found between self-concept of Hispanic negative traits and endorsement of Hispanic negative stereotypes ( $n = 301, r = .119, p < .05$ ). To examine

racial differences, the same correlation was conducted for White and Black participants separately. For White participants, no significant relationship was found between self-concept of Hispanic negative traits and endorsement of Hispanic negative stereotypes ( $n = 147, r = -.028, p = .738$ ). For Black participants however, a significant relationship was found between self-concept of Hispanic negative traits and endorsement of Hispanic negative stereotypes ( $n = 147, r = .224, p < .05$ ).

A bivariate correlation between self-concept of Asian negative traits and endorsement of Asian negative stereotypes was conducted. All participant responses were included in the analyses. A significant relationship was found between self-concept of Asian negative traits and endorsement of Asian negative stereotypes ( $n = 301, r = .273, p < .001$ ). To examine racial differences, the same correlation was conducted for White and Black participants separately. For White participants, a significant relationship was again found between self-concept of Asian negative traits and endorsement of Asian negative stereotypes ( $n = 147, r = .172, p < .05$ ). For Black participants, again a significant relationship was found between self-concept of Asian negative traits and endorsement of Asian negative stereotypes ( $n = 147, r = .387, p < .001$ ).

#### ***RQ1a Mediation Analyses – State Self-Esteem***

A sub-question of the first research question (RQ1a) was included investigating the possibility that state self-esteem mediates the relationship between overall self-concept and overall stereotype endorsement, because of its demonstrated relation to both constructs in previous research (Carter, Hall, Carney, & Rosip, 2005). Multiple regression mediation analyses were conducted to examine if the relationship between overall self-concept and overall stereotype endorsement is mediated by state self-esteem. Each of the two participant groups were

analyzed separately. Both positive and negative relationships were analyzed for each target racial group. Predictors were entered simultaneously using SPSS's PROCESS macro (Hayes, 2013).

**State Self-Esteem – Black Participants.** The mediating role of state self-esteem on the relationship between positive Hispanic self-concept and Hispanic positive stereotype endorsement for Black participants was assessed for RQ1a. The results revealed a significant indirect effect of impact of Hispanic positive self-concept on Hispanic positive stereotype endorsement ( $b = -0.069$ ,  $t = -2.882$ ,  $CI [-0.118, -0.026]$ ). The direct effect of self-concept on endorsement in presence of the mediator was not significant ( $b = 0.121$ ,  $t = 1.946$ ,  $p = .054$ ). Hence, state self-esteem fully mediated the relationship between Hispanic positive self-concept and Hispanic positive stereotype endorsement. Mediation analysis summary is presented in Appendix K, Table 3.

The mediating role of state self-esteem on the relationship between negative Hispanic self-concept and Hispanic negative stereotype endorsement for Black participants was also examined. The results revealed no significant indirect effect of impact of Hispanic negative self-concept on Hispanic negative stereotype endorsement ( $b = 0.072$ ,  $t = 1.127$ ,  $CI [-0.052, 0.201]$ ). This suggests that state self-esteem does not mediate the relationship between negative Hispanic self-concept and Hispanic negative stereotype endorsement. Mediation analysis summary is presented in Appendix K, Table 3.

The mediating role of state self-esteem on the relationship between positive Asian self-concept and Asian positive stereotype endorsement for Black participants was evaluated for RQ1a. The results revealed a significant indirect effect of impact of Asian positive self-concept on Asian positive stereotype endorsement ( $b = -0.139$ ,  $t = -2.808$ ,  $CI [-0.231, -0.037]$ ). The direct effect of self-concept on endorsement in presence of the mediator was also significant ( $b =$



0.160,  $t = 2.194$ ,  $p = .030$ ). Hence, state self-esteem partially mediated the relationship between Asian positive self-concept and Asian positive stereotype endorsement. Mediation analysis summary is presented in Appendix K, Table 3.

The mediating role of state self-esteem on the relationship between negative Asian self-concept and Asian negative stereotype endorsement for Black participants was examined. The results revealed no significant indirect effect of impact of Asian negative self-concept on Asian negative stereotype endorsement ( $b = 0.051$ ,  $t = 0.045$ , CI [-0.010, 0.134]). This suggests that state self-esteem does not mediate the relationship between negative Asian self-concept and Asian negative stereotype endorsement. Mediation analysis summary is presented in Appendix K, Table 3.

**State Self-Esteem – White Participants.** The mediating role of state self-esteem on the relationship between positive Black self-concept and Black positive stereotype endorsement for White participants was also examined for RQ1a. The results revealed no significant indirect effect of impact of Black positive self-concept on Black positive stereotype endorsement ( $b = -0.007$ ,  $t = -0.444$ , CI [-0.045, 0.022]). This suggests that state self-esteem does not mediate the relationship between positive Black self-concept and Black positive stereotype endorsement. Mediation analysis summary is presented in Appendix K, Table 3.

The mediating role of state self-esteem on the relationship between negative Black self-concept and Black negative stereotype endorsement for White participants was also examined. The results revealed no significant indirect effect of impact of Black negative self-concept on Black negative stereotype endorsement ( $b = -0.044$ ,  $t = -0.830$ , CI [-0.152, 0.053]). This suggests that state self-esteem does not mediate the relationship between negative Black self-concept and

Black negative stereotype endorsement. Mediation analysis summary is presented in Appendix K, Table 3.

The mediating role of state self-esteem on the relationship between positive Hispanic self-concept and Hispanic positive stereotype endorsement for White participants was also examined for RQ1a. The results revealed no significant indirect effect of impact of Hispanic positive self-concept on Hispanic positive stereotype endorsement ( $b = -0.021$ ,  $t = -0.963$ ,  $CI [-0.070, 0.015]$ ). This suggests that state self-esteem does not mediate the relationship between positive Hispanic self-concept and Hispanic positive stereotype endorsement. Mediation analysis summary is presented in Appendix K, Table 3.

The mediating role of state self-esteem on the relationship between negative Hispanic self-concept and Hispanic negative stereotype endorsement for White participants was also examined. The results revealed no significant indirect effect of impact of Hispanic negative self-concept on Hispanic negative stereotype endorsement ( $b = -0.031$ ,  $t = -0.462$ ,  $CI [-0.165, 0.101]$ ). This suggests that state self-esteem does not mediate the relationship between negative Hispanic self-concept and Hispanic negative stereotype endorsement. Mediation analysis summary is presented in Appendix K, Table 3.

The mediating role of state self-esteem (RQ1a) on the relationship between positive Asian self-concept and Asian positive stereotype endorsement for White participants was also examined. The results revealed no significant indirect effect of impact of Asian positive self-concept on Asian positive stereotype endorsement ( $b = -0.056$ ,  $t = -1.047$ ,  $CI [-0.167, 0.043]$ ). This suggests that state self-esteem does not mediate the relationship between positive Asian self-concept and Asian positive stereotype endorsement. Mediation analysis summary is presented in Appendix K, Table 3.

The mediating role of state self-esteem on the relationship between negative Asian self-concept and Asian negative stereotype endorsement for White participants was also examined. The results revealed no significant indirect effect of impact of Asian negative self-concept on Asian negative stereotype endorsement ( $b = -0.025$ ,  $t = -0.932$ ,  $CI [-0.077, 0.029]$ ). This suggests that state self-esteem does not mediate the relationship between negative Asian self-concept and Asian negative stereotype endorsement. Mediation analysis summary is presented in Appendix K, Table 3.

### ***Moderation Analyses.***

Three-step multiple regression analyses were conducted to examine the sub-questions RQ1b, RQ1c, and RQ1d regarding whether the association between positive self-concept characteristics and positive stereotype endorsement for each racial group was dependent on different moderating variables. These analyses were done to examine all three measured moderating variables (conservative ideology, social dominance, and social distance). In these models, predictors included self-concept, the moderating variable, and the interaction. Predictors were entered sequentially, with self-concept being entered at stage one of the regression, and the moderating variable entered at stage two. Interaction terms between stereotype endorsement and moderator were entered at stage three. Prior to the conducting of analysis, each self-concept variable and moderating variable was centered. Interaction terms between stereotype endorsement and moderators, introduced in the third stage of the models, were generated via multiplication of the centered variables (Aiken & West, 1991).

**RQ1b Conservative Ideology – Black Participants.** To address RQ1b, four hierarchical multiple regressions were conducted to examine whether the association between self-concept and stereotype endorsement of target groups depends on conservative or liberal ideology for

Black participants (measure by social beliefs and opinions). In the first regression, Hispanic positive self-concept traits, social beliefs and opinions, and the interaction were entered sequentially into the model predicting Hispanic positive stereotype endorsement. At step one, Hispanic positive self-concept was not a significant predictor,  $F(1, 145) = 0.780$ ,  $p > .05$ , and accounted for 0.5% of the variance in Hispanic positive stereotype endorsement. In the second step, the addition of social beliefs and opinions to the model did not produce a significant increase in prediction ( $\Delta R^2 = .014$ ,  $p > .05$ ). In the third step, when the interaction was added to model there was a significant increase in prediction of positive stereotype endorsement toward Hispanic individuals ( $\Delta R^2 = .065$ ,  $p < .01$ ), suggesting that the relationship between Hispanic positive self-concept characteristics and Hispanic positive stereotype endorsement was moderated by social beliefs and opinions.

To probe the significant interaction effect, simple slopes for the association between Hispanic positive self-concept and Hispanic positive stereotype endorsement were tested for low (translates to more conservative ideology) (-1 SD below the mean), moderate (mean), and high (translates to more liberal ideology) (+1 SD above the mean) levels of social beliefs and opinions. Only the simple slope test for more conservative ideology revealed a significant positive association between Hispanic positive self-concept characteristics and Hispanic positive stereotype endorsement ( $b = 0.283$ ,  $SE = 0.087$ ,  $p < .05$ ). For those with moderate ( $b = 0.094$ ,  $SE = 0.062$ ,  $p > .05$ ) or liberal ( $b = -0.096$ ,  $SE = 0.084$ ,  $p > .05$ ) ideologies, the relationship was not significant. See Appendix K, Figure 1.

In the second regression, Hispanic negative self-concept traits, social beliefs and opinions, and the interaction were entered sequentially into the regression model predicting Hispanic negative stereotype endorsement of Black participants. At step one, Hispanic negative

self-concept was a significant predictor,  $F(1, 145) = 7.692$ ,  $p < .05$ , and accounted for 5% of the variance in Hispanic negative stereotype endorsement. In the second step, the addition of social beliefs and opinions to the model produced a significant increase in prediction ( $\Delta R^2 = .070$ ,  $p < .05$ ). In the third step, when the interaction was added to model there was no significant increase in prediction of Hispanic negative stereotype endorsement ( $\Delta R^2 = .002$ ,  $p > .05$ ).

In the third regression addressing RQ1b, Asian positive self-concept traits, social beliefs and opinions, and the interaction were entered sequentially into the regression model predicting Asian positive stereotype endorsement for Black participants. At step one, Asian positive self-concept was not a significant predictor,  $F(1, 145) = 0.132$ ,  $p > .05$ , and accounted for only 0.1% of the variance in Asian positive stereotype endorsement. In the second step, the addition of social beliefs and opinions to the model did not produce a significant increase in prediction ( $\Delta R^2 = .001$ ,  $p > .05$ ). In the third step, when the interaction was added to model there was a significant increase in prediction of Asian positive stereotype endorsement ( $\Delta R^2 = .029$ ,  $p < .05$ ).

To probe the significant interaction effect, simple slopes for the association between Asian positive self-concept and Asian positive stereotype endorsement were tested for low (translates to more conservative ideology) (-1 SD below the mean), moderate (mean), and high (translates to more liberal ideology) (+1 SD above the mean) levels of social beliefs and opinions. The simple slopes tests revealed no significant association between Asian positive self-concept characteristics and Asian positive stereotype endorsement for conservative ( $b = 0.149$ ,  $SE = 0.086$ ,  $t = 1.738$ ,  $p > .05$ ), moderate ( $b = 0.034$ ,  $SE = 0.058$ ,  $t = 0.579$ ,  $p > .05$ ), or liberal ( $b = -0.081$ ,  $SE = 0.075$ ,  $t = -1.088$ ,  $p > .05$ ) ideologies. See Appendix K, Figure 2.

In the fourth regression, Asian negative self-concept traits, social beliefs and opinions, and the interaction were entered sequentially into the regression model predicting Asian negative

stereotype endorsement for Black participants. At step one, Asian negative self-concept was a significant predictor,  $F(1, 145) = 25.542$ ,  $p < .05$ , and accounted for 15% of the variance in Asian negative stereotype endorsement. In the second step, the addition of social beliefs and opinions to the model did not produce a significant increase in prediction ( $\Delta R^2 = .012$ ,  $p > .05$ ). In the third step, when the interaction was added to model there was no significant increase in prediction of Asian negative stereotype endorsement ( $\Delta R^2 = .004$ ,  $p > .05$ ).

**RQ1b Conservative Ideology – White Participants.** Six multiple regression models were also tested to investigate whether the association between self-concept and stereotype endorsement depends on conservative or liberal ideology of White participants (measured with social beliefs and opinions). In the first regression to address RQ1b, Black positive self-concept traits, social beliefs and opinions, and the interaction were entered sequentially into a regression model predicting Black positive stereotype endorsement. At step one, Black positive self-concept was not a significant predictor  $F(1, 144) = 0.183$ ,  $p > .05$ , and accounted for 0.1% of the variance in Black positive stereotype endorsement. In the second step, the addition of social beliefs and opinions to the model did not produce a significant increase in prediction ( $\Delta R^2 = .004$ ,  $p > .05$ ). In the third step, when the interaction was added to model there was no significant increase in prediction of Black positive stereotype endorsement ( $\Delta R^2 = .014$ ,  $p > .05$ ).

In the second regression, Black negative self-concept traits, social beliefs and opinions, and the interaction were entered successively into a regression model predicting Black negative stereotype endorsement of White participants. At step one, Black negative self-concept was not a significant predictor,  $F(1, 144) = 0.004$ ,  $p > .05$ , and did not account for any of the variance in Black negative stereotype endorsement. In the second step, the addition of social beliefs and opinions to the model produced a significant increase in prediction ( $\Delta R^2 = .174$ ,  $p < .001$ ). In the

third step, when the interaction was added to model there was no significant increase in prediction of Black negative stereotype endorsement ( $\Delta R^2 = .000, p > .05$ ).

In the third regression addressing RQ1b, Hispanic positive self-concept traits, social beliefs and opinions, and the interaction were also entered into a hierarchical regression model predicting Hispanic positive stereotype endorsement in White participants. At step one, Hispanic positive self-concept was a significant predictor,  $F(1, 144) = 8.876, p < .05$ , and accounted for 5.8% of the variance in Hispanic positive stereotype endorsement. In the second step, the addition of social beliefs and opinions to the model did not produce a significant increase in prediction ( $\Delta R^2 = .000, p > .05$ ). In the third step, when the interaction was added to model there was no significant increase in prediction of Hispanic positive stereotype endorsement ( $\Delta R^2 = .000, p > .05$ ).

For the fourth regression, Hispanic negative self-concept traits, social beliefs and opinions, and the interaction were entered sequentially into a regression model predicting Hispanic negative stereotype endorsement of White participants. At step one, Hispanic negative self-concept was not a significant predictor,  $F(1, 144) = 0.085, p > .05$ , and accounted for only 0.1% of the variance in Hispanic negative stereotype endorsement. In the second step, the addition of social beliefs and opinions to the model produced a significant increase in prediction ( $\Delta R^2 = .110, p < .05$ ). In the third step, when the interaction was added to model there was no significant increase in prediction of Hispanic negative stereotype endorsement ( $\Delta R^2 = .001, p > .05$ ).

In the fifth regression addressing RQ1b, Asian positive self-concept traits, social beliefs and opinions, and the interaction were also entered sequentially into a regression model predicting Asian positive stereotype endorsement for White participants. At step one, Asian

positive self-concept was not a significant predictor,  $F(1, 144) = 0.107, p > .05$ , and accounted for only 0.1% of the variance in Asian positive stereotype endorsement. In the second step, the addition of social beliefs and opinions to the model produced a significant increase in prediction ( $\Delta R^2 = .035, p < .05$ ). In the third step, when the interaction was added to model there was no significant increase in prediction of Asian positive stereotype endorsement ( $\Delta R^2 = .016, p > .05$ ).

Lastly, Asian negative self-concept traits, social beliefs and opinions, and the interaction were entered consecutively into a regression model predicting Asian negative stereotype endorsement of White participants. At step one, Asian negative self-concept was a significant predictor,  $F(1, 144) = 4.419, p < .05$ , and accounted for only 3% of the variance in Asian negative stereotype endorsement. In the second step, the addition of social beliefs and opinions to the model produced a significant increase in prediction ( $\Delta R^2 = .074, p < .001$ ). In the third step, when the interaction was added to model there was no significant increase in prediction of Asian negative stereotype endorsement ( $\Delta R^2 = .000, p > .05$ ).

**RQ1c Social Dominance – Black Participants.** Multiple regression model were tested to investigate RQ1c regarding whether the association between self-concept and stereotype endorsement depends on social dominance orientation for both Black and White participants. For the first regression addressing RQ1c for black participants, Hispanic positive self-concept traits, social dominance, and the interaction were entered sequentially into a regression model predicting Hispanic positive stereotype endorsement. At step one, Hispanic positive self-concept was not found to be a significant predictor,  $F(1, 145) = 0.780, p > .01$ , and accounted for 0.5% of the variance in Hispanic positive stereotype endorsement. In the second step, the addition of social dominance to the model did not produce significant increase in prediction ( $\Delta R^2 = .001, p >$



.05). In the third step, the addition of the interaction to the model produced a significant increase in prediction ( $\Delta R^2 = .028, p < .05$ ), indicating the relationship between Hispanic positive self-concept and stereotype endorsement differs significantly as a function of social dominance levels.

To probe the significant interaction effect, simple slopes for the association between Hispanic positive self-concept and Hispanic positive stereotype endorsement were tested for low (-1 SD below the mean), moderate (mean), and high (+1 SD above the mean) levels of social dominance. Simple slope tests revealed a significant positive association between Hispanic positive self-concept characteristics and Hispanic positive stereotype endorsement ( $b = 0.191, SE = 0.090, t = 1.133, p < .05$ ) for those with high social dominance orientation. For those with moderate ( $b = 0.068, SE = 0.059, t = 1.145, p > .05$ ) or low ( $b = -0.050, SE = 0.077, t = -0.643, p > .05$ ) social dominance orientation, the relationship was not significant. See Appendix K, Figure 3.

For the second regression, Hispanic negative self-concept traits, social dominance orientation, and the interaction were entered sequentially into a regression model predicting Hispanic negative stereotype endorsement of Black participants. At step one, Hispanic negative self-concept was a significant predictor,  $F(1, 145) = 7.692, p < .05$ , and accounted for 5% of the variance in Hispanic negative stereotype endorsement. In the second step, the addition of social dominance to the model produced significant increase in prediction ( $\Delta R^2 = .045, p < .05$ ). In the third step, the addition of the interaction to the model did not produce a significant increase in prediction ( $\Delta R^2 = .010, p > .05$ ).

For the next regression addressing RQ1c regarding the social dominance moderator, Asian positive self-concept traits, social dominance orientation, and the interaction were entered

sequentially into a regression model predicting Asian positive stereotype endorsement for Black participants. At step one, Asian positive self-concept was not a significant predictor,  $F(1, 145) = 0.132, p > .05$ , and accounted for only 0.1% of the variance in Asian positive stereotype endorsement. In the second step, the addition of social dominance to the model did not produce a significant increase in prediction ( $\Delta R^2 = .021, p > .05$ ). In the third step, when the interaction was added to model there was no significant increase in prediction of Asian positive stereotype endorsement ( $\Delta R^2 = .019, p > .05$ ).

Lastly, Asian negative self-concept traits, social dominance, and the interaction were entered into consecutively into a regression model predicting Asian negative stereotype endorsement of Black participants. At step one, Asian negative self-concept was a significant predictor,  $F(1, 145) = 25.542, p < .05$ , and accounted for only 15% of the variance in Asian negative stereotype endorsement. In the second step, the addition of social dominance to the model did not produce a significant increase in prediction ( $\Delta R^2 = .009, p > .05$ ). In the third step, when the interaction was added to model there was no significant increase in prediction of Asian negative stereotype endorsement ( $\Delta R^2 = .004, p > .05$ ).

**RQ1c Social Dominance – White Participants.** Six multiple regression models were also tested to investigate RQ1c regarding whether the association between self-concept and stereotype endorsement depends on social dominance in White participants. First, to address RQ1c, Black positive self-concept traits, social dominance orientation, and the interaction were entered sequentially into a regression model predicting Black positive stereotype endorsement. At step one, Black positive self-concept was not a significant predictor,  $F(1, 145) = 0.189, p > .05$ , and accounted for only 0.1% of the variance in Black positive stereotype endorsement. In the second step, the addition of social dominance to the model did not produce a significant

increase in prediction ( $\Delta R^2 = .001, p > .05$ ). In the third step, when the interaction was added to model there was no significant increase in prediction of Black positive stereotype endorsement ( $\Delta R^2 = .012, p > .05$ ).

In the second regression, Black negative self-concept traits, social dominance orientation, and the interaction were entered into a hierarchical regression model predicting Black negative stereotype endorsement of White participants. At step one, Black negative self-concept was not a significant predictor,  $F(1, 145) = 0.000, p > .05$ , and accounted for 0% of the variance in Black negative stereotype endorsement. In the second step, the addition of social dominance to the model produced a significant increase in prediction ( $\Delta R^2 = .287, p < .001$ ). In the third step, when the interaction was added to model there was no significant increase in prediction of Black negative stereotype endorsement ( $\Delta R^2 = .000, p > .05$ ).

To address RQ1c regarding social dominance as a moderator, Hispanic positive self-concept traits, social dominance orientation, and the interaction were also entered sequentially into a regression model predicting Hispanic positive stereotype endorsement in White participants. At step one, Hispanic positive self-concept was a significant predictor,  $F(1, 145) = 8.741, p < .05$ , and accounted for 5.7% of the variance in Hispanic positive stereotype endorsement. In the second step, the addition of social dominance to the model did not produce a significant increase in prediction ( $\Delta R^2 = .000, p > .05$ ). In the third step, when the interaction was added to model there was no significant increase in prediction of Hispanic positive stereotype endorsement ( $\Delta R^2 = .008, p > .05$ ).

Hispanic negative self-concept traits, social dominance, and the interaction were entered sequentially into a regression model predicting Hispanic negative stereotype endorsement of White participants. At step one, Hispanic negative self-concept was not a significant predictor,

$F(1, 145) = 0.113, p > .05$ , and accounted for only 0.1% of the variance in Hispanic negative stereotype endorsement. In the second step, the addition of social dominance to the model produced a significant increase in prediction ( $\Delta R^2 = .204, p < .05$ ). In the third step, when the interaction was added to model there was no significant increase in prediction of Hispanic negative stereotype endorsement ( $\Delta R^2 = .001, p > .05$ ).

To address RQ1c regarding social dominance as a moderating variable, Asian positive self-concept traits, social dominance orientation, and the interaction were also entered into a hierarchical regression model predicting Asian positive stereotype endorsement for White participants. At step one, Asian positive self-concept was not a significant predictor,  $F(1, 145) = 0.070, p > .05$ , and accounted for 0% of the variance in Asian positive stereotype endorsement. In the second step, the addition of social dominance to the model produced a significant increase in prediction ( $\Delta R^2 = .048, p < .05$ ). In the third step, when the interaction was added to model there was no significant increase in prediction of Asian positive stereotype endorsement ( $\Delta R^2 = .011, p > .05$ ).

Asian negative self-concept traits, social dominance orientation, and the interaction were entered sequentially into a regression model predicting Asian negative stereotype endorsement of White participants. At step one, Asian negative self-concept was a significant predictor,  $F(1, 145) = 4.401, p < .05$ , and accounted for 2.9% of the variance in Asian negative stereotype endorsement. In the second step, the addition of social dominance to the model produced a significant increase in prediction ( $\Delta R^2 = .144, p < .05$ ). In the third step, when the interaction was added to model there was no significant increase in prediction of Asian positive stereotype endorsement ( $\Delta R^2 = .002, p > .05$ ).

**RQ1d Social Desirability – Black Participants.** Four multiple regression models were tested to investigate RQ1d regarding whether the association between self-concept and stereotype endorsement changes with different levels of social desirability for Black participants. For the first regression addressing RQ1d, Hispanic positive self-concept traits, social desirability, and the interaction were entered sequentially into a regression model predicting Hispanic positive stereotype endorsement. At step one, Hispanic positive self-concept was not a significant predictor,  $F(1, 145) = 0.780, p > .05$ , and accounted for 0.5% of the variance in Hispanic positive stereotype endorsement. In the second step, the addition of social desirability to the model did not produce a significant increase in prediction ( $\Delta R^2 = .020, p > .05$ ). In the third step, the addition of the interaction to that model did not produce a significant increase in prediction ( $\Delta R^2 = .014, p < .05$ )

In the second regression, Hispanic negative self-concept traits, social desirability, and the interaction were entered into a hierarchical regression model predicting Hispanic negative stereotype endorsement of Black participants. At step one, Hispanic negative self-concept was a significant predictor,  $F(1, 145) = 7.963, p < .05$ , and accounted for 5% of the variance in Hispanic negative stereotype endorsement. In the second step, the addition of social desirability to the model did not produce a significant increase in prediction ( $\Delta R^2 = .002, p > .05$ ). In the third step, the addition of the interaction to that model did not produce a significant increase in prediction of Hispanic negative stereotype endorsement ( $\Delta R^2 = .002, p < .05$ ).

To address RQ1d regarding social desirability as a moderator, Asian positive self-concept traits, social desirability, and the interaction were entered sequentially into a regression model predicting Asian positive stereotype endorsement for Black participants. At step one, Asian positive self-concept was not a significant predictor,  $F(1, 145) = 0.132, p > .05$ , and accounted

for 0.1% of the variance in Asian positive stereotype endorsement. In the second step, the addition of social desirability to the model did not produce a significant increase in prediction ( $\Delta R^2 = .006, p > .05$ ). In the third step, the addition of the interaction to that model did not produce a significant increase in prediction of Asian positive stereotype endorsement ( $\Delta R^2 = .026, p < .05$ ).

Lastly, Asian negative self-concept traits, social desirability, and the interaction were entered into a hierarchical regression model predicting Asian negative stereotype endorsement of Black participants. At step one, Asian negative self-concept was a significant predictor,  $F(1, 145) = 25.542, p < .05$ , and accounted for 15% of the variance in Asian negative stereotype endorsement. In the second step, the addition of social desirability to the model did not produce a significant increase in prediction ( $\Delta R^2 = .006, p > .05$ ). In the third step, the addition of the interaction to that model did not produce a significant increase in prediction of Asian negative stereotype endorsement ( $\Delta R^2 = .001, p < .05$ ).

**RQ1d Social Desirability – White Participants.** Six multiple regression models were also tested to investigate RQ1d regarding whether the association between self-concept and stereotype endorsement depends on social desirability in White participants. For the first regression addressing RQ1d, Black positive self-concept traits, social desirability, and the interaction were entered sequentially into a regression model predicting Black positive stereotype endorsement. At step one, Black positive self-concept was not a significant predictor,  $F(1, 145) = 0.189, p > .05$ , and accounted for 0.1% of the variance in Black positive stereotype endorsement. In the second step, the addition of social desirability to the model did not produce a significant increase in prediction ( $\Delta R^2 = .020, p > .05$ ). In the third step, the addition of the

interaction to that model also did not produce a significant increase in prediction of Black positive stereotype endorsement ( $\Delta R^2 = .005, p < .05$ ).

Second, Black negative self-concept traits, social desirability, and the interaction were entered into a hierarchical regression model predicting Black negative stereotype endorsement of White participants. At step one, Black negative self-concept was not a significant predictor,  $F(1, 145) = 0.000, p > .05$ , and accounted for 0% of the variance in Black negative stereotype endorsement. In the second step, the addition of social desirability to the model did not produce a significant increase in prediction ( $\Delta R^2 = .007, p > .05$ ). In the third step, the addition of the interaction to that model also did not produce a significant increase in prediction of Black negative stereotype endorsement ( $\Delta R^2 = .001, p < .05$ ).

In the third regression addressing RQ1d regarding social desirability as a moderator, Hispanic positive self-concept traits, social desirability, and the interaction were also entered sequentially into a regression model predicting Hispanic positive stereotype endorsement in White participants. At step one, Hispanic positive self-concept was a significant predictor,  $F(1, 145) = 8.741, p < .05$ , and accounted for 5.7% of the variance in Hispanic positive stereotype endorsement. In the second step, the addition of social desirability to the model did not produce a significant increase in prediction ( $\Delta R^2 = .001, p > .05$ ). In the third step, the addition of the interaction to that model also did not produce a significant increase in prediction of Hispanic positive stereotype endorsement ( $\Delta R^2 = .006, p < .05$ ).

For the fourth regression, Hispanic negative self-concept traits, social desirability, and the interaction were entered sequentially into a regression model predicting Hispanic negative stereotype endorsement of White participants. At step one, Hispanic negative self-concept was not a significant predictor,  $F(1, 145) = 0.113, p > .05$ , and accounted for 0.1% of the variance

in Hispanic negative stereotype endorsement. In the second step, the addition of social desirability to the model did not produce a significant increase in prediction ( $\Delta R^2 = .000, p > .05$ ). In the third step, the addition of the interaction to that model also did not produce a significant increase in prediction of Hispanic negative stereotype endorsement ( $\Delta R^2 = .002, p < .05$ ).

In the fifth regression addressing RQ1d examining social desirability moderator, Asian positive self-concept traits, social desirability, and the interaction were also entered into a hierarchical regression model predicting Asian positive stereotype endorsement for White participants. At step one, Asian positive self-concept was not a significant predictor,  $F(1, 145) = 0.070, p > .05$ , and accounted for 0% of the variance in Asian positive stereotype endorsement. In the second step, the addition of social desirability to the model did not produce a significant increase in prediction ( $\Delta R^2 = .001, p > .05$ ). In the third step, the addition of the interaction to that model also did not produce a significant increase in prediction of Asian positive stereotype endorsement ( $\Delta R^2 = .000, p < .05$ ).

For the sixth regression, Asian negative self-concept traits, social desirability, and the interaction were entered consecutively into a regression model predicting Asian negative stereotype endorsement of White participants. At step one, Asian negative self-concept was a significant predictor,  $F(1, 145) = 4.401, p < .05$ , and accounted for 2.9% of the variance in Asian negative stereotype endorsement. In the second step, the addition of social desirability to the model did not produce a significant increase in prediction ( $\Delta R^2 = .004, p > .05$ ). In the third step, the addition of the interaction to that model also did not produce a significant increase in prediction of Asian negative stereotype endorsement ( $\Delta R^2 = .013, p < .05$ ).

### ***RQ2 Specific Self-Concept and Stereotype Endorsement – Black Participants***



In order to examine racial differences, these analyses were also conducted with Black and White participant responses separately. To address RQ2, one sample t-tests were conducted for each Asian and Hispanic stereotype in the quantitative stereotype endorsement measure to determine the stereotypes most endorsed by Black participants separately. The most highly endorsed Asian stereotypes by Black participants included successful ( $M = 4.946$ ,  $SD = 1.254$ ,  $t = 9.143$ ,  $p < .001$ ), diligent and industrious ( $M = 4.810$ ,  $SD = 1.425$ ,  $t = 16.885$ ,  $p < .001$ ), self-disciplined ( $M = 4.939$ ,  $SD = 1.366$ ,  $t = 8.332$ ,  $p < .001$ ), and traditional ( $M = 4.272$ ,  $SD = 1.537$ ,  $t = 2.146$ ,  $p < .05$ ). The most highly endorsed Hispanic stereotypes by Black participants included family oriented ( $M = 4.592$ ,  $SD = 1.695$ ,  $t = 4.233$ ,  $p < .001$ ), hardworking ( $M = 5.449$ ,  $SD = 1.320$ ,  $t = 13.310$ ,  $p < .001$ ), and honest ( $M = 4.721$ ,  $SD = 1.221$ ,  $t = 7.162$ ,  $p < .001$ ). All negative stereotypes included in the measure had low or neutral endorsement.

Using the most endorsed stereotypes for Black participants, bivariate correlations were conducted between these stereotype items and their matching self-concept items. Asian stereotype and self-concept items did not show significant relationships with one another in Black participants. No significant relationship was found between the endorsement of the stereotype “Asian individuals are successful” and the self-concept item “I am successful” ( $n = 147$ ,  $r = .034$ ,  $p = .685$ ). No significant relationship was found between the endorsement of the stereotype “Asian individuals are diligent and industrious” and the self-concept item “I am diligent and industrious” ( $n = 147$ ,  $r = .070$ ,  $p = .397$ ). No significant relationship was found between the endorsement of the stereotype “Asian individuals are self-disciplined” and the self-concept item “I am self-disciplined” ( $n = 147$ ,  $r = .083$ ,  $p = .319$ ). Hispanic stereotype and self-concept items only showed one significant relationship in Black participants. A significant relationship was found between the endorsement of the stereotype “Hispanic individuals are

honest” and the self-concept item “I am honest” ( $n = 147, r = .266, p < .001$ ). However, no significant relationship was found between the endorsement of the stereotype “Hispanic individuals are family oriented” and the self-concept item “I am family oriented” ( $n = 147, r = .012, p = .890$ ). No significant relationship was found between the endorsement of the stereotype “Hispanic individuals are hardworking” and the self-concept item “I am hardworking” ( $n = 147, r = .146, p = .078$ ).

### ***RQ2 Specific Self-Concept and Stereotype Endorsement – White Participants***

To address RQ2, one sample t-tests were conducted for Black, Asian, and Hispanic stereotypes in the quantitative stereotype endorsement measure to determine the stereotypes most endorsed by White participants separately. The most highly endorsed Black stereotypes by White participants included good dancers ( $M = 4.306, SD = 1.168, t = 3.177, p < .001$ ) and helpful/cooperative ( $M = 4.585, SD = 1.276, t = 5.559, p < .001$ ). The most highly endorsed Asian stereotypes by White participants included successful ( $M = 4.816, SD = 1.110, t = 8.913, p < .001$ ), diligent and industrious ( $M = 4.605, SD = 1.274, t = 5.760, p < .001$ ), and self-disciplined ( $M = 4.762, SD = 1.289, t = 7.165, p < .001$ ). The most highly endorsed Hispanic stereotypes by White participants included family oriented ( $M = 4.422, SD = 1.324, t = 3.863, p < .001$ ), hardworking ( $M = 5.217, SD = 1.168, t = 12.645, p < .001$ ), and honest ( $M = 4.599, SD = 1.151, t = 6.308, p < .001$ ). All negative stereotypes included in the measure had low or neutral endorsement.

Using the most endorsed stereotypes for White participants, bivariate correlations were conducted between these stereotype items and their matching self-concept items. A significant relationship was found between the endorsement of the stereotype “Black individuals are good dancers” and the self-concept item “I am a good dancer” ( $n = 147, r = .177, p < .05$ ). However,

no significant relationship was found between the endorsement of the stereotype “Black individuals are helpful and cooperative” and the self-concept item “I am helpful and cooperative” ( $n = 147, r = .020, p = .807$ ). No significant relationship was found between the endorsement of the stereotype “Asian individuals are successful” and the self-concept item “I am successful” ( $n = 147, r = .152, p = .065$ ). No significant relationship was found between the endorsement of the stereotype “Asian individuals are diligent and industrious” and the self-concept item “I am diligent and industrious” ( $n = 147, r = .150, p = .070$ ). No significant relationship was found between the endorsement of the stereotype “Asian individuals are self-disciplined” and the self-concept item “I am self-disciplined” ( $n = 147, r = -.015, p = .858$ ). A significant relationship was found between the endorsement of the stereotype “Hispanic individuals are honest” and the self-concept item “I am honest” ( $n = 147, r = .292, p < .001$ ). A significant relationship was also found between the endorsement of the stereotype “Hispanic individuals are hardworking” and the self-concept item “I am hardworking” ( $n = 147, r = .193, p < .05$ ). However, no significant relationship was found between the endorsement of the stereotype “Hispanic individuals are family oriented” and the self-concept item “I am family oriented” ( $n = 147, r = .105, p = .207$ ).

### ***RQ2a Mediation Analyses – State Self-Esteem***

Multiple regression mediation analyses were conducted to address RQ2a examining if the relationship between specific self-concept item and the matching stereotype endorsement item is mediated by state self-esteem. Each participant group were analyzed separately. All of the highly endorsed stereotypes and the matching self-concept items were evaluated. Predictors were entered simultaneously using SPSS’s PROCESS macro (Hayes, 2013).

**State Self-Esteem – Black Participants.** The mediating role of state self-esteem on the relationship between family orientation self-concept and endorsement of “Hispanic individuals are family oriented” for Black participants was assessed for RQ2a. The results revealed a significant indirect effect of impacting family orientation self-concept on endorsement of the Hispanic stereotype ( $b = -0.040$ ,  $t = -1.749$ ,  $CI [-0.092, -0.001]$ ). The direct effect of self-concept on endorsement in presence of the mediator was not significant ( $b = 0.051$ ,  $t = 0.663$ ,  $p = 0.509$ ). Hence, state self-esteem fully mediated the relationship between family orientation self-concept and endorsement of “Hispanic individuals are family oriented”. Mediation analysis summary is presented in Appendix K, Table 4.

The mediating role of state self-esteem on the relationship between hardworking self-concept and endorsement of “Hispanic individuals are hardworking” for Black participants was assessed for RQ2a. The results revealed a significant indirect effect of impacting hardworking self-concept on endorsement of the Hispanic stereotype ( $b = -0.079$ ,  $t = -1.875$ ,  $CI [-0.167, -0.002]$ ). The direct effect of self-concept on endorsement in presence of the mediator was significant ( $b = 0.190$ ,  $t = 2.522$ ,  $p = 0.013$ ). This suggests that state self-esteem partially mediated the relationship between hardworking self-concept and endorsement of “Hispanic individuals are hardworking”. Mediation analysis summary is presented in Appendix K, Table 4.

The mediating role of state self-esteem on the relationship between honest self-concept and endorsement of “Hispanic individuals are honest” for Black participants was assessed for RQ2a. The results revealed that the indirect effect of impacting honest self-concept on endorsement of the Hispanic stereotype was not significant ( $b = -0.079$ ,  $t = -1.107$ ,  $CI [-0.093, 0.018]$ ). This suggests that state self-esteem does not mediate the relationship between honest

self-concept and endorsement of “Hispanic individuals are honest”. Mediation analysis summary is presented in Appendix K, Table 4.

The mediating role of state self-esteem on the relationship between successful self-concept and endorsement of “Asian individuals are successful” for Black participants was assessed for RQ2a. The results revealed that the indirect effect of impacting successful self-concept on endorsement of the Asian stereotype was not significant ( $b = -0.031$ ,  $t = -0.981$ ,  $CI [-0.091, 0.034]$ ). This suggests that state self-esteem does not mediate the relationship between successful self-concept and endorsement of “Asian individuals are successful”. Mediation analysis summary is presented in Appendix K, Table 4.

The mediating role of state self-esteem on the relationship between diligent and industrious self-concept and endorsement of “Asian individuals are diligent and industrious” for Black participants was assessed for RQ2a. The results revealed that the indirect effect of impacting diligent and industrious self-concept on endorsement of the Asian stereotype was not significant ( $b = -0.048$ ,  $t = -1.509$ ,  $CI [-0.120, 0.004]$ ). This suggests that state self-esteem does not mediate the relationship between diligent and industrious self-concept and endorsement of “Asian individuals are diligent and industrious”. Mediation analysis summary is presented in Appendix K, Table 4.

The mediating role of state self-esteem on the relationship between self-discipline self-concept and endorsement of “Asian individuals are self-discipline” for Black participants was assessed for RQ2a. The results revealed that the indirect effect of impacting self-discipline self-concept on endorsement of the Asian stereotype was not significant ( $b = -0.065$ ,  $t = -1.680$ ,  $CI [-0.145, 0.005]$ ). This suggests that state self-esteem does not mediate the relationship between

self-discipline self-concept and endorsement of “Asian individuals are self-discipline”.

Mediation analysis summary is presented in Appendix K, Table 4.

**State Self-Esteem – White Participants.** The mediating role of state self-esteem on the relationship between helpful and cooperative self-concept and endorsement of “Black individuals are helpful and cooperative” for White participants was assessed for RQ2a. The results revealed that the indirect effect of impacting helpful and cooperative self-concept on endorsement of the Black stereotype was not significant ( $b = -0.020$ ,  $t = -0.806$ ,  $CI [-0.072, 0.026]$ ). This suggests that state self-esteem does not mediate the relationship between helpful and cooperative self-concept and endorsement of “Black individuals are helpful and cooperative”. Mediation analysis summary is presented in Appendix K, Table 4.

The mediating role of state self-esteem on the relationship between family orientation self-concept and endorsement of “Hispanic individuals are family oriented” for White participants was assessed for RQ2a. The results revealed a that the indirect effect impacting family orientation self-concept on endorsement of the Hispanic stereotype was not significant ( $b = -0.008$ ,  $t = -0.559$ ,  $CI [-0.041, 0.014]$ ). This suggests that state self-esteem does not mediate the relationship between family orientation self-concept and endorsement of “Hispanic individuals are family oriented”. Mediation analysis summary is presented in Appendix K, Table 4.

The mediating role of state self-esteem on the relationship between hardworking self-concept and endorsement of “Hispanic individuals are hardworking” for White participants was assessed for RQ2a. The results revealed a that the indirect effect impacting hard working self-concept on endorsement of the Hispanic stereotype was not significant ( $b = -0.019$ ,  $t = -0.808$ ,  $CI [-0.070, 0.022]$ ). This suggests that state self-esteem does not mediate the relationship between

hardworking self-concept and endorsement of “Hispanic individuals are hardworking”.

Mediation analysis summary is presented in Appendix K, Table 4.

The mediating role of state self-esteem on the relationship between honest self-concept and endorsement of “Hispanic individuals are honest” for White participants was assessed for RQ2a. The results revealed that the indirect effect of impacting honest self-concept on endorsement of the Hispanic stereotype was not significant ( $b = -0.031$ ,  $t = -1.984$ ,  $CI [-0.086, 0.019]$ ). This suggests that state self-esteem does not mediate the relationship between honest self-concept and endorsement of “Hispanic individuals are honest”. Mediation analysis summary is presented in Appendix K, Table 4.

The mediating role of state self-esteem on the relationship between successful self-concept and endorsement of “Asian individuals are successful” for White participants was assessed for RQ2a. The results revealed that the indirect effect of impacting successful self-concept on endorsement of the Asian stereotype was not significant ( $b = -0.014$ ,  $t = -0.424$ ,  $CI [-0.079, 0.049]$ ). This suggests that state self-esteem does not mediate the relationship between successful self-concept and endorsement of “Asian individuals are successful”. Mediation analysis summary is presented in Appendix K, Table 4.

The mediating role of state self-esteem on the relationship between diligent and industrious self-concept and endorsement of “Asian individuals are diligent and industrious” for Black participants was assessed for RQ2a. The results revealed that the indirect effect of impacting diligent and industrious self-concept on endorsement of the Asian stereotype was not significant ( $b = 0.003$ ,  $t = 0.090$ ,  $CI [-0.068, 0.067]$ ). This suggests that state self-esteem does not mediate the relationship between diligent and industrious self-concept and endorsement of

“Asian individuals are diligent and industrious”. Mediation analysis summary is presented in Appendix K, Table 4.

The mediating role of state self-esteem on the relationship between self-discipline self-concept and endorsement of “Asian individuals are self-discipline” for White participants was assessed for RQ2a. The results revealed a significant indirect effect impacting self-discipline self-concept on endorsement of the Asian stereotype ( $b = -0.075$ ,  $t = -2.257$ ,  $CI [-0.146, -0.016]$ ). The direct effect of self-concept on endorsement in presence of the mediator was not significant ( $b = 0.064$ ,  $t = 0.887$ ,  $p = 0.377$ ). Hence, state self-esteem fully mediated the relationship between self-discipline self-concept and endorsement of “Asian individuals are self-discipline”. Mediation analysis summary is presented in Appendix K, Table 4.

### ***Moderator Analyses***

Three-step multiple regression analyses were conducted to examine the sub-questions RQ2b, RQ2c, and RQ2d regarding whether the association between each specific positive self-concept characteristic and positive stereotype for each target racial group was dependent on different moderating variables. Additional and separate multiple regression analyses were conducted to examine association between each specific negative self-concept characteristic and negative stereotype endorsement for each target group dependent on moderating variables. These analyses were done to examine all three measured moderating variables (conservative ideology, social dominance, and social distance). In these models, predictors included self-concept, the moderating variable, and the interaction. Each variable was entered into the model sequentially. Prior to the conducting of analysis, each self-concept variable and moderating variable was centered. Interaction terms between self-concept characteristics and moderators were generated via multiplication of the centered variables (Aiken & West, 1991). The moderation analyses



were conducted for the Black participants with Hispanic and Asian target groups and for White participants with Black, Hispanic, and Asian target groups.

**RQ2b Conservative Ideology – Black Participants.** Three step hierarchical regression models were tested to investigate RQ2b regarding whether the association between specific self-concept characteristics and the endorsement of the matching stereotypes depends on conservative ideology (measured by social beliefs and opinions) in Black participants (see Appendix K, Table 5 for a summary of each hierarchical regression). First, family orientation self-concept, social beliefs and opinions, and the interaction were entered sequentially into a regression model predicting endorsement of the stereotype “Hispanic individuals are family oriented” for Black participants. At step one, family orientation self-concept was not a significant predictor, and accounted for only 1.9% of the variance in the endorsement of the Hispanic stereotype. In the second step, the addition of social beliefs and opinions to the model did not produce a significant increase in prediction. In the third step, the addition of the interaction to that model also did not produce a significant increase in prediction.

To address RQ2b regarding the conservative ideology moderator, hardworking self-concept, social beliefs and opinions, and the interaction were entered sequentially into a regression model predicting Black participants’ endorsement of the stereotype “Hispanic individuals are hardworking”. At step one, hardworking self-concept was not a significant predictor, and accounted for 2.1% of the variance in the endorsement of the Hispanic stereotype. In the second step, the addition of social beliefs and opinions to the model did produce a significant increase in prediction, accounting for an additional 8.8% of the variance in endorsement. However, in the third step, the addition of the interaction to that model did not produce a significant increase in prediction.

To address RQ2b regarding the conservative ideology moderator, honesty self-concept, social beliefs and opinions, and the interaction were entered consecutively into a regression model predicting Black participants' endorsement of the stereotype "Hispanic individuals are honest". At step one, honest self-concept was a significant predictor, and accounted for 7.1% of the variance in the endorsement of the matching Hispanic stereotype. In the second step, the addition of social beliefs and opinions to the model produced a significant increase in prediction, accounting for an additional 2.6% of the variance in endorsement. However, in the third step, the addition of the interaction to that model did not produce a significant increase in prediction.

To address RQ2b regarding conservative ideology as a moderator, Successful self-concept, social beliefs and opinions, and the interaction were entered into a hierarchical regression model predicting Black endorsement of the stereotype "Asian individuals are successful". At step one, successful self-concept was not a significant predictor, and accounted for only 0.1% of the variance in the endorsement of the matching Asian stereotype. In the second step, the addition of social beliefs and opinions to the model did not produce a significant increase in prediction. In the third step, the addition of the interaction to that model also did not produce a significant increase in prediction.

To address RQ2b regarding the conservative ideology moderator, Diligent and industrious self-concept, social beliefs and opinions, and the interaction were entered consecutively into a regression model predicting Black participants' endorsement of the stereotype "Asian individuals are diligent and industrious". At step one, diligent and industrious self-concept was not a significant predictor, and accounted for only 0.5% of the variance in the endorsement of the matching Asian stereotype. In the second step, the addition of social beliefs and opinions to the model did not produce a significant increase in prediction. However, in the

third step, the addition of the interaction to that model did produce a significant increase in prediction, accounting for an additional 5.1% of the variance in endorsement. This suggests that the relationship between this specific self-concept characteristic and the endorsement of the matching Asian positive stereotype is moderated by social beliefs and opinions.

Simple slopes for the association between this specific self-concept characteristic and the endorsement of the matching Asian positive stereotype were tested for low (translates to more conservative ideology) (-1 SD below the mean), moderate (mean), and high (translates to more liberal ideology) (+1 SD above the mean) levels of social beliefs and opinions. Only the simple slope test for more conservative ideology revealed a significant positive association between this specific self-concept characteristic and the endorsement of the matching Asian positive stereotype ( $b = 0.256$ ,  $SE = 0.102$ ,  $t = 2.515$ ,  $p < .05$ ). For those with moderate ( $b = 0.083$ ,  $SE = 0.071$ ,  $t = 1.168$ ,  $p > .05$ ) or liberal ( $b = -0.089$ ,  $SE = 0.087$ ,  $t = -1.022$ ,  $p > .05$ ) ideologies, the relationship was not significant. See Appendix K, Figure 4.

To address RQ2b regarding conservative ideology as a moderator, self-discipline self-concept, social beliefs and opinions, and the interaction were entered into a simultaneous regression model predicting Black individuals' endorsement of the stereotype "Asian individuals are self-discipline". At step one, self-discipline self-concept was not a significant predictor, and accounted for only 0.7% of the variance in the endorsement of the matching Asian stereotype. In the second step, the addition of social beliefs and opinions to the model did not produce a significant increase in prediction. In the third step, the addition of the interaction to that model also did not produce a significant increase in prediction.

**RQ2b Conservative Ideology – White Participants.** Multiple regression models were also tested to investigate RQ2b regarding whether the association between specific self-concept

characteristics and the endorsement of the matching stereotypes depends on conservative ideology (measured by social beliefs and opinions) in White participants (see Appendix K, Table 6 for a summary of each hierarchical regression). First, helpful and cooperative self-concept, social beliefs and opinions, and the interaction were entered into a hierarchical regression model predicting White individuals' endorsement of the stereotype "Black people are helpful or cooperative". At step one, helpful and cooperative self-concept was not a significant predictor, and accounted for only 1.5% of the variance in the endorsement of the matching Black stereotype. In the second step, the addition of social beliefs and opinions to the model did not produce a significant increase in prediction. In the third step, the addition of the interaction to that model also did not produce a significant increase in prediction.

To address RQ2b regarding conservative ideology as a moderator, family orientation self-concept, social beliefs and opinions, and the interaction were sequentially entered into a regression model predicting endorsement of the stereotype "Hispanic individuals are family oriented". At step one, family orientation self-concept was not a significant predictor, and accounted for only 1.5% of the variance in the endorsement of the matching Hispanic stereotype. In the second step, the addition of social beliefs and opinions to the model did not produce a significant increase in prediction. In the third step, the addition of the interaction to the model also did not produce a significant increase in prediction.

To address RQ2b regarding the conservative ideology moderator, hardworking self-concept, social beliefs and opinions, and the interaction were entered into a hierarchical regression model predicting White individuals' endorsement of the stereotype "Hispanic individuals are hardworking". At step one, hardworking self-concept was a significant predictor, and accounted for 3.7% of the variance in the endorsement of the matching Hispanic stereotype.

In the second step, the addition of social beliefs and opinions to the model did not produce a significant increase in prediction. In the third step, the addition of the interaction to the model also did not yield a significant increase in prediction.

To address RQ2b regarding conservative ideology as a moderator, honesty self-concept, social beliefs and opinions, and the interaction were consecutively entered into a regression model predicting White endorsement of the stereotype, “Hispanic individuals are honest”. At step one, honest self-concept was a significant predictor, and accounted for 8.6% of the variance in the endorsement of the matching Hispanic stereotype. In the second step, the addition of social beliefs and opinions to the model did not produce a significant increase in prediction. In the third step, the addition of the interaction to the model also did not yield a significant increase in prediction.

To address RQ2b regarding the conservative ideology moderator, successful self-concept, social beliefs and opinions, and the interaction were entered into a hierarchical regression model predicting White individuals’ endorsement of the stereotype “Asian individuals are successful”. At step one, successful self-concept was a significant predictor, and accounted for 2.9% of the variance in the endorsement of the matching Asian stereotype. In the second step, the addition of social beliefs and opinions to the model did not produce a significant increase in prediction. In the third step, the addition of the interaction to that model also did not yield a significant increase in prediction.

To address RQ2b regarding the conservative ideology moderator, diligent and industrious self-concept, social beliefs and opinions, and the interaction were sequentially entered into a regression model predicting White endorsement of the stereotype “Asian individuals are diligent and industrious.”. At step one, diligent and industrious self-concept was not a significant

predictor, and accounted for 2.5% of the variance in the endorsement of the matching Asian stereotype. In the second step, the addition of social beliefs and opinions to the model did not produce a significant increase in prediction. In the third step, the addition of the interaction to that model also did not yield a significant increase in prediction.

To address RQ2b regarding the conservative ideology moderator, self-discipline self-concept, social beliefs and opinions, and the interaction were entered into a simultaneous regression model predicting endorsement of the stereotype “Asian individuals are self-discipline”. At step one, self-discipline self-concept was not a significant predictor, and accounted for 0% of the variance in the endorsement of the matching Asian stereotype. In the second step, the addition of social beliefs and opinions to the model did not produce a significant increase in prediction. In the third step, the addition of the interaction to the model also did not yield a significant increase in prediction.

**RQ2c Social dominance – Black Participants.** Hierarchical multiple regression models were tested to investigate RQ2c regarding whether the association between specific self-concept characteristics and stereotype endorsement changes with different levels of social dominance. Three step multiple regression models were also tested to investigate whether the association between specific self-concept characteristics and the endorsement of the matching stereotypes depends on social dominance in Black participants (see Appendix K, Table 7 for a summary of each hierarchical regression). First, family orientation self-concept, social dominance, and the interaction were entered sequentially into a regression model predicting Black individuals’ endorsement of the stereotype “Hispanic individuals are family oriented”. At step one, family orientation self-concept was not a significant predictor, and accounted for 0% of the variance in the endorsement of the matching Hispanic stereotype. In the second step, the addition of social

dominance to the model did not produce a significant increase in prediction. In the third step, the addition of the interaction to that model also did not yield a significant increase in prediction.

To address RQ2c regarding the social dominance moderator, hardworking self-concept, social dominance, and the interaction were entered sequentially into a regression model predicting Black individuals' endorsement of the stereotype "Hispanic individuals are hardworking". At step one, hardworking self-concept was not a significant predictor, and accounted for 2.1% of the variance in the endorsement of the matching Hispanic stereotype. In the second step, the addition of social dominance to the model did not produce a significant increase in prediction. In the third step, the addition of the interaction to that model did not yield a significant increase in prediction.

To address RQ2c regarding social dominance as a moderator, honesty self-concept, social dominance, and the interaction were entered consecutively into a regression model predicting Black endorsement of the stereotype "Hispanic individuals are honest". At step one, honest self-concept was a significant predictor, and accounted for 7.1% of the variance in the endorsement of the matching Hispanic stereotype. In the second step, however, the addition of social dominance to the model did not produce a significant increase in prediction. In the third step, the addition of the interaction to that model also did not yield a significant increase in prediction.

To address RQ2c regarding social dominance as a moderator, successful self-concept, social dominance, and the interaction were entered sequentially into a regression model predicting endorsement of the stereotype "Asian individuals are successful". At step one, successful self-concept was not a significant predictor, and accounted for 0.1% of the variance in the endorsement of the matching Asian stereotype. In the second step, the addition of social dominance to the model also did not produce a significant increase in prediction. However, in the

third step, the addition of the interaction to that model yielded a significant increase in prediction, accounting for an additional 3.7% of the variance.

Simple slopes for the association between successful self-concept characteristic and the endorsement of the matching Asian positive stereotype were tested for low (-1 SD below the mean), moderate (mean), and high (+1 SD above the mean) levels of social dominance. Only the simple slope test for high social dominance revealed a significant positive association between this specific self-concept characteristic and the endorsement of the matching Asian positive stereotype ( $b = 0.160$ ,  $SE = 0.077$ ,  $t = 2.084$ ,  $p < .05$ ). For those with moderate ( $b = 0.037$ ,  $SE = 0.050$ ,  $t = 0.736$ ,  $p > .05$ ) or low ( $b = -0.080$ ,  $SE = 0.071$ ,  $t = -1.123$ ,  $p > .05$ ) social dominance, the relationship was not significant. See Appendix K, Figure 5.

To address RQ2c regarding social dominance as a moderator, diligent and industrious self-concept, social dominance, and the interaction were entered into a hierarchical regression model predicting endorsement of the stereotype “Asian individuals are diligent and industrious”. At step one, diligent and industrious self-concept was not a significant predictor, and accounted for 0.5% of the variance in the endorsement of the matching Asian stereotype. In the second step, the addition of social dominance to the model did not produce a significant increase in prediction. In the third step, the addition of the interaction to that model also did not yield a significant increase in prediction.

To address RQ2c regarding social dominance as a moderator, self-discipline self-concept, social dominance, and the interaction were entered sequentially into a regression model predicting endorsement of the stereotype “Asian individuals are self-discipline” for Black participants. At step one, self-discipline self-concept was not a significant predictor, and accounted for 0.7% of the variance in the endorsement of the matching Asian stereotype. In the



second step, the addition of social dominance to the model produced a significant increase in prediction, accounting for an additional 4.1% of the variance. In the third step, the addition of the interaction to that model also yielded a significant increase in prediction, accounting for an additional 3.6% of the variance.

Simple slopes for the association between self-discipline self-concept characteristic and the endorsement of the matching Asian positive stereotype were tested for low (-1 SD below the mean), moderate (mean), and high (+1 SD above the mean) levels of social dominance. Only the simple slope test for high social dominance revealed a significant positive association between this specific self-concept characteristic and the endorsement of the matching Asian positive stereotype ( $b = 0.235$ ,  $SE = 0.095$ ,  $t = 2.490$ ,  $p < .05$ ). For those with moderate ( $b = 0.087$ ,  $SE = 0.059$ ,  $t = 1.472$ ,  $p > .05$ ) or low ( $b = -0.054$ ,  $SE = 0.075$ ,  $t = -0.721$ ,  $p > .05$ ) social dominance, the relationship was not significant. See Appendix K, Figure 6.

**RQ2c Social Dominance – White Participants.** Multiple regression models were tested to investigate RQ2c regarding whether the association between specific self-concept characteristics and the endorsement of the matching stereotypes depends on social dominance in White participants (see Appendix K, Table 8 for a summary of each hierarchical regression). First, helpful or cooperative self-concept, social dominance, and the interaction were entered into a hierarchical regression model predicting endorsement of the stereotype “Black people are helpful or cooperative”. At step one, helpful and cooperative self-concept was not a significant predictor, and accounted for 0% of the variance in the endorsement of the matching Black stereotype. In the second step, the addition of social dominance to the model produced a significant increase in prediction, accounting for 6.4% of the variance. In the third step, the

addition of the interaction to that model also yielded a significant increase in prediction, accounting for an additional 2.7% of the variance.

Simple slopes for the association between helpful and cooperative self-concept characteristic and the endorsement of the matching Black positive stereotype were tested for low (-1 SD below the mean), moderate (mean), and high (+1 SD above the mean) levels of social dominance. Investigation of the simple slope test showed that high ( $b = -0.150$ ,  $SE = 0.119$ ,  $t = 1.506$ ,  $p > .05$ ), moderate ( $b = 0.015$ ,  $SE = 0.080$ ,  $t = 0.185$ ,  $p > .05$ ), and low ( $b = 0.180$ ,  $SE = 0.119$ ,  $t = 1.506$ ,  $p > .05$ ) social dominance, all revealed no significant positive association between this specific self-concept characteristic and the endorsement of the matching Black stereotype. See Appendix K, Figure 7.

To address RQ2c regarding social dominance as a moderator, family orientation self-concept, social dominance, and the interaction were entered into a simultaneous regression model predicting endorsement of the stereotype “Hispanic individuals are family oriented” for White participants. At step one, family orientation self-concept was not a significant predictor, and accounted for 1.1% of the variance in the endorsement of the matching Hispanic stereotype. In the second step, the addition of social dominance to the model did not produce a significant increase in prediction. In the third step, the addition of the interaction to that model also did not yield a significant increase in prediction.

To address RQ2c regarding social dominance as a moderator, hardworking self-concept, social dominance, and the interaction were entered into a simultaneous regression model predicting White individuals’ endorsement of the stereotype “Hispanic individuals are hardworking”. At step one, hardworking self-concept was a significant predictor, and accounted for 3.7% of the variance in the endorsement of the matching Hispanic stereotype. In the second

step, the addition of social dominance to the model did not produce a significant increase in prediction. In the third step, the addition of the interaction to that model also did not yield a significant increase in prediction.

To address RQ2c regarding the social dominance moderator, honesty self-concept, social dominance, and the interaction were entered into a hierarchical regression model predicting endorsement of the stereotype “Hispanic individuals are honest” for White individuals. At step one, honest self-concept was a significant predictor, and accounted for 8.5% of the variance in the endorsement of the matching Hispanic stereotype. In the second step, the addition of social dominance to the model produced a significant increase in prediction, accounting for 3.3% of the variance. In the third step, the addition of the interaction to that model also yielded a significant increase in prediction, accounting for an additional 8.1% of the variance.

Simple slopes for the association between honest self-concept characteristic and the endorsement of the matching Hispanic positive stereotype were tested for low (-1 SD below the mean), moderate (mean), and high (+1 SD above the mean) levels of social dominance. The simple slope test for low ( $b = 0.541$ ,  $SE = 0.098$ ,  $t = 5.543$ ,  $p < .05$ ) and moderate ( $b = 0.293$ ,  $SE = 0.069$ ,  $t = 4.240$ ,  $p < .05$ ) social dominance revealed a significant positive association between this specific self-concept characteristic and the endorsement of the matching Hispanic positive stereotype. For those with high ( $b = 0.044$ ,  $SE = 0.092$ ,  $t = 0.479$ ,  $p > .05$ ) social dominance, the relationship was not significant. See Appendix K, Figure 8.

To address RQ2c regarding social dominance as a moderator, successful self-concept, social dominance, and the interaction were entered sequentially into a regression model predicting endorsement of the stereotype “Asian individuals are successful”. At step one, successful self-concept was not a significant predictor, and accounted for 2.3% of the variance in

the endorsement of the matching Asian stereotype. In the second step, the addition of social dominance to the model did not produce a significant increase in prediction. In the third step, the addition of the interaction to that model also did not yield a significant increase in prediction.

To address RQ2c regarding social dominance as a moderator, diligent and industrious self-concept, social dominance, and the interaction were entered into a hierarchical multiple regression model predicting endorsement of the stereotype “Asian individuals are diligent and industrious.”. At step one, diligent and industrious self-concept was not a significant predictor, and accounted for 2.2% of the variance in the endorsement of the matching Asian stereotype. In the second step, the addition of social dominance to the model did not produce a significant increase in prediction. In the third step, the addition of the interaction to that model also did not yield a significant increase in prediction.

To address RQ2c regarding social dominance as a moderator, self-discipline self-concept, social dominance, and the interaction were entered sequentially into a regression model predicting endorsement of the stereotype “Asian individuals are self-discipline”. At step one, self-discipline self-concept was not a significant predictor, and accounted for 0% of the variance in the endorsement of the matching Asian stereotype. In the second step, the addition of social dominance to the model did not produce a significant increase in prediction. In the third step, the addition of the interaction to that model also did not yield a significant increase in prediction.

**RQ2d Social desirability – Black Participants.** Hierarchical multiple regression models were tested to investigate RQ2d regarding whether the association between specific self-concept characteristics and the endorsement of the matching stereotypes depends on social desirability in Black participants (see Appendix K, Table 9 for a summary of each hierarchical regression). First, family orientation self-concept, social desirability, and the interaction were entered

sequentially into a regression model predicting endorsement of the stereotype “Hispanic individuals are family oriented”. At step one, family orientation self-concept was not a significant predictor, and accounted for 0% of the variance in the endorsement of the matching Hispanic stereotype. In the second step, the addition of social desirability to the model did not produce a significant increase in prediction. In the third step, the addition of the interaction to that model also did not yield a significant increase in prediction.

To address RQ2d regarding social desirability as a moderator, hardworking self-concept, social desirability, and the interaction were entered into a hierarchical regression model predicting endorsement of the stereotype “Hispanic individuals are hardworking”. At step one, hardworking self-concept was not a significant predictor, and accounted for 2.1% of the variance in the endorsement of the matching Hispanic stereotype. In the second step, the addition of social desirability to the model did not produce a significant increase in prediction. In the third step, the addition of the interaction to that model also did not yield a significant increase in prediction.

To address RQ2d regarding social desirability as a moderator, honesty self-concept, social desirability, and the interaction were entered consecutively into a regression model predicting endorsement of the stereotype “Hispanic individuals are honest”. At step one, honest self-concept was a significant predictor, and accounted for 7.1% of the variance in the endorsement of the matching Hispanic stereotype. In the second step, the addition of social desirability to the model did not produce a significant increase in prediction. In the third step, the addition of the interaction to that model also did not yield a significant increase in prediction.

To address RQ2d regarding social desirability as a moderator, successful self-concept, social desirability, and the interaction were entered sequentially into a multiple regression model predicting endorsement of the stereotype “Asian individuals are successful”. At step one,

successful self-concept was not a significant predictor, and accounted for 0.1% of the variance in the endorsement of the matching Asian stereotype. In the second step, the addition of social desirability to the model did not produce a significant increase in prediction. In the third step, the addition of the interaction to that model also did not yield a significant increase in prediction.

To address RQ2d regarding social desirability as a moderator, diligent and industrious self-concept, social desirability, and the interaction were entered into a hierarchical regression model predicting endorsement of the stereotype “Asian individuals are diligent and industrious”. At step one, diligent and industrious self-concept was not a significant predictor, and accounted for 0.5% of the variance in the endorsement of the matching Asian stereotype. In the second step, the addition of social desirability to the model did not produce a significant increase in prediction. In the third step, however, the addition of the interaction to that model yielded a significant increase in prediction and accounted for an additional 4.5% of the variance.

Simple slopes for the association between this specific self-concept characteristic and the endorsement of the matching Asian positive stereotype were tested for low (-1 SD below the mean), moderate (mean), and high (+1 SD above the mean) levels of social desirability. The simple slope test for high ( $b = 0.237$ ,  $SE = 0.098$ ,  $t = 2.424$ ,  $p < .05$ ) social desirability revealed a significant positive association between this specific self-concept characteristic and the endorsement of the matching Asian positive stereotype. For those with low ( $b = -0.120$ ,  $SE = 0.098$ ,  $t = -1.227$ ,  $p > .05$ ) and moderate ( $b = 0.058$ ,  $SE = 0.070$ ,  $t = 0.833$ ,  $p > .05$ ) social desirability, the relationship was not significant. See Appendix K, Figure 9.

To address RQ2d regarding social desirability as a moderator, self-discipline self-concept, social desirability, and the interaction were entered sequentially into a regression model predicting endorsement of the stereotype “Asian individuals are self-discipline”. At step one,

self-discipline self-concept was not a significant predictor, and accounted for 0.7% of the variance in the endorsement of the matching Asian stereotype. In the second step, the addition of social desirability to the model did not produce a significant increase in prediction. In the third step, the addition of the interaction to that model also did not yield a significant increase in prediction.

**RQ2d Social Desirability – White Participants.** Hierarchical regression models were also tested to investigate RQ2d regarding whether the association between specific self-concept characteristics and the endorsement of the matching stereotypes depends on social desirability in White participants see (Appendix K, Table 10 for a summary of each hierarchical regression). First, helpful and cooperative self-concept, social desirability, and the interaction were entered sequentially into a regression model predicting endorsement of the stereotype “Black people are helpful or cooperative”. At step one, helpful and cooperative self-concept was not a significant predictor, and accounted for 0% of the variance in the endorsement of the matching Black stereotype. In the second step, the addition of social desirability to the model did not produce a significant increase in prediction. In the third step, the addition of the interaction to that model also did not yield a significant increase in prediction.

To address RQ2d regarding social desirability as a moderator, family orientation self-concept, social desirability, and the interaction were entered into a hierarchical regression model predicting endorsement of the stereotype “Hispanic individuals are family oriented”. At step one, family orientation self-concept was not a significant predictor, and accounted for 1.1% of the variance in the endorsement of the matching Hispanic stereotype. In the second step, the addition of social desirability to the model did not produce a significant increase in prediction. In the third

step, the addition of the interaction to the model also did not yield a significant increase in prediction.

To address RQ2d regarding social desirability as a moderator, hardworking self-concept, social desirability, and the interaction were entered consecutively into a regression model predicting endorsement of the stereotype “Hispanic individuals are hard working.”. At step one, hardworking self-concept was a significant predictor, and accounted for 3.7% of the variance in the endorsement of the matching Hispanic stereotype. In the second step, the addition of social desirability to the model did not produce a significant increase in prediction. In the third step, the addition of the interaction to the model also did not yield a significant increase in prediction.

To address RQ2d regarding social desirability as a moderator, honest self-concept, social desirability, and the interaction were entered into a hierarchical regression model predicting endorsement of the stereotype “Hispanic individuals are honest”. At step one, honest self-concept was a significant predictor, and accounted for 8.5% of the variance in the endorsement of the matching Hispanic stereotype. In the second step, the addition of social desirability to the model did not produce a significant increase in prediction. In the third step, the addition of the interaction to that model also did not yield a significant increase in prediction.

To address RQ2d regarding social desirability as a moderator, successful self-concept, social desirability, and the interaction were entered sequentially into a simultaneous regression model predicting endorsement of the stereotype “Asian individuals are successful”. At step one, successful self-concept was not a significant predictor, and accounted for 2.3% of the variance in the endorsement of the matching Asian stereotype. In the second step, the addition of social desirability to the model did not produce a significant increase in prediction. In the third step, the addition of the interaction to the model also did not yield a significant increase in prediction.



To address RQ2d regarding social desirability as a moderator, diligent and industrious self-concept, social desirability, and the interaction were entered into a hierarchical regression model predicting endorsement of the stereotype “Asian individuals are diligent and industrious”. At step one, diligent and industrious self-concept was not a significant predictor, and accounted for 2.2% of the variance in the endorsement of the matching Asian stereotype. In the second step, the addition of social desirability to the model did not produce a significant increase in prediction. In the third step, the addition of the interaction to that model also did not yield a significant increase in prediction.

To address RQ2d regarding social desirability as a moderator, self-discipline self-concept, social desirability, and the interaction were entered sequentially into a multiple regression model predicting endorsement of the stereotype “Asian individuals are self-discipline”. At step one, self-discipline self-concept was not a significant predictor, and accounted for 0% of the variance in the endorsement of the matching Asian stereotype. In the second step, the addition of social desirability to the model did not produce a significant increase in prediction. In the third step, the addition of the interaction to that model also did not yield a significant increase in prediction.

## **Study Two**

### ***Research Question One***

To address the first research question (RQ1) regarding self-concept based on a bogus intelligence test would affect the endorsement of the stereotype “Asian individuals are intelligent”, a one-way between subjects analysis of variance (ANOVA) was calculated to compare the two conditions (low intelligence or high intelligence) on the endorsement of the

stereotype. No significant differences were found in endorsement of the stereotype “Asian individuals are intelligence” for the two conditions,  $F(1, 336) = 0.510, p > .05$ .

It is possible that some of the participants did not believe in the bogus test results that they received. Therefore, a one-way analysis of covariance (ANCOVA) was conducted to determine if there was a statistically significant difference between conditions on the endorsement of the stereotype “Asian individuals are intelligent” controlling for belief in bogus test results. No significant differences were found in endorsement of the stereotype for the conditions after controlling for belief in bogus results,  $F(1, 335) = 2.372, p > .05$ .

### ***RQ1a Mediation Analysis – State Self-Esteem***

Regression analysis was used to investigate the prediction that state self-esteem mediates the effect of bogus intelligence condition on endorsement of the stereotype “Asian individuals are intelligent”. Results indicated that condition was a significant predictor of state self-esteem,  $B = -4.686, SE = 1.877, t = -2.497, 95\%CI[-8.378, -0.995], p < .05$ , but that state self-esteem was not a significant predictor for endorsement of the stereotype “Asian individuals are intelligent”,  $B = -0.005, SE = .005, t = -1.169, 95\%CI[-0.014, 0.004], p > .05$ . These results do not support the mediational hypothesis. Condition was also not a significant predictor of endorsement of the Asian positive stereotype,  $B = 0.087, SE = 0.159, t = .550, 95\%CI[-0.225, 0.400], p > .05$ . Only 0.5% of the variance in endorsement of the stereotype was accounted for by the predictors ( $R^2 = .005$ ).

### ***Moderating Analyses***

Hierarchical multiple regression analyses were conducted to examine the research sub-questions (RQ1b and RQ1c) regarding whether the association between bogus intelligence condition and endorsement of the stereotype “Asian individuals are intelligent” is dependent on

different moderating variables. These analyses were done to examine two different measured moderating variables – conservative ideology and social desirability. In these models, predictors included condition, the moderating variable, and the interaction. Prior to the conducting of analysis, each variable and moderating variable was centered. Interaction terms between condition and moderators were generated via multiplication of the centered variables (Aiken & West, 1991).

**RQ1b Conservative Ideology.** To address RQ1b regarding conservative ideology as a moderator, condition, social beliefs and opinions, and the interaction were entered sequentially into a regression model predicting endorsement of the stereotype “Asian individuals are intelligent.”. At step one, condition was not a significant predictor and accounted for 0.2% of the variance in endorsement of the Asian stereotype. In the second step, the addition of social beliefs and opinions to the model produced a significant increase in prediction ( $\Delta R^2 = .057, p < .001$ ). In the third step, the addition of the interaction term to the model did not produce a significant increase in prediction ( $\Delta R^2 = .000, p > .05$ ).

**RQ1b Social Desirability.** To address RQ1c regarding social desirability as a potential moderator, condition, social desirability, and the interaction were entered sequentially into a regression model predicting endorsement of the stereotype “Asian individuals are intelligent.”. Condition produced the same results as above in step one of the regression. In the second step, the addition of social desirability to the model did not produce a significant increase in prediction ( $\Delta R^2 = .002, p > .05$ ). In the third step, the addition of the interaction term to the model did not produce a significant increase in prediction ( $\Delta R^2 = .000, p > .05$ ).

### ***Research Question Two***

To address the second research question (RQ2) regarding self-concept based on a bogus work ethic test would affect the endorsement of the stereotype “Hispanic individuals are hardworking”, a one-way between subjects analysis of variance (ANOVA) was calculated to compare the two conditions (low work ethic or high work ethic) on the endorsement of the stereotype. No significant differences were found in endorsement of the stereotype “Hispanic individuals are hardworking” for the two conditions,  $F(1, 359) = 0.012, p > .05$ .

Again, it is possible that some of the participants did not believe in the bogus test results that they received. Therefore, a one-way analysis of covariance (ANCOVA) was conducted to determine if there was a statistically significant difference between conditions on the endorsement of the stereotype “Hispanic individuals are hardworking” controlling for belief in bogus test results. No significant differences were found in endorsement of the stereotype for the conditions after controlling for belief in bogus results,  $F(1, 357) = 0.360, p > .05$ .

#### ***RQ2a Mediation Analysis – State Self-Esteem***

Regression analysis was used to investigate RQ2a suggesting that state self-esteem mediates the effect of bogus work ethic condition on endorsement of the stereotype “Hispanic individuals are hardworking”. Results indicated that condition was not significant predictor of state self-esteem,  $B = 0.226, SE = 1.658, t = .136, 95\% CI[-3.035, 3.488], p > .05$ , and that state self-esteem was also not a significant predictor for endorsement of the stereotype “Hispanic individuals are hardworking”,  $B = 0.005, SE = .004, t = 1.240, 95\% CI[-0.003, 0.013], p > .05$ . These results do not support the mediational prediction. Condition was also not a significant predictor of endorsement of the Asian positive stereotype,  $B = 0.013, SE = 0.127, t = .100, 95\% CI[-0.238, 0.263], p > .05$ . Only 0.01% of the variance in endorsement of the stereotype was accounted for by the predictors ( $R^2 = .0001$ ).

### ***Moderating Analyses***

Hierarchical multiple regression analyses were conducted to examine the research sub-questions (RQ2b and RQ2c) regarding whether the association between bogus work ethic condition and endorsement of the stereotype “Hispanic individuals are hardworking” is dependent on different moderating variables. These analyses were done to examine two different measured moderating variables - social beliefs and opinions and social desirability. In these models, predictors included condition, the moderating variable, and the interaction. Prior to the conducting of analysis, each variable and moderating variable was centered. Interaction terms between condition and moderators were generated via multiplication of the centered variables (Aiken & West, 1991).

**RQ2b Conservative Ideology.** To address RQ2b regarding conservative ideology as a moderator, condition, social beliefs and opinions, and the interaction were entered sequentially into a regression model predicting endorsement of the stereotype “Hispanic individuals are hardworking.”. At step one, condition was not a significant predictor  $F(1, 358) = 0.020, p > .05$  and accounted for 0% of the variance in endorsement of the Hispanic stereotype. In the second step, the addition of social beliefs and opinions to the model produced a significant increase in prediction ( $\Delta R^2 = .011, p < .05$ ). In the third step, the addition of the interaction term to the model did not produce a significant increase in prediction ( $\Delta R^2 = .001, p > .05$ ).

**RQ2c Social Desirability.** To address RQ2b regarding social desirability as a moderator, condition, social desirability, and the interaction were entered sequentially into a regression model predicting endorsement of the stereotype “Hispanic individuals are hardworking”. At step one, condition was not a significant predictor  $F(1, 359) = 0.012, p > .05$  and accounted for 0% of the variance in endorsement of the Hispanic stereotype. In the second step, the addition of

social desirability to the model did not produce a significant increase in prediction ( $\Delta R^2 = .005, p > .05$ ). In the third step, the addition of the interaction term to the model did not produce a significant increase in prediction ( $\Delta R^2 = .005, p > .05$ ).

## **Chapter 6: Discussion**

Two studies were conducted to examine how self-perception relates to the endorsement of outgroup stereotypes. The first study examined this relationship through self-reported measures and the second study attempted to examine it experimentally. Based on previous research suggesting that individuals are motivated to address the negative affect generated by upward comparisons (Morse & Gergen, 1970; Baumister, Tice, & Gergen, 1970) possibly through over exaggeration or inflation of others' abilities (Alicke et al., 1997), four different research questions were proposed. The questions proposed for the first study asked whether or not individuals that perceived themselves as less proficient in certain areas would translate to higher levels of endorsement of outgroup stereotypes in the same areas, both more generally and more specifically.

### **Study One**

Results showed a positive relationship was found between White participant's self-concept composite score of positive Hispanic traits and endorsement of positive Hispanic stereotypes. This suggests that the more the White participants generally associated themselves with stereotypically Hispanic positive stereotypes, the more they endorse the Hispanic positive stereotypes of the same domain. Additionally, Black participants that were more conservative or high in social dominance showed the same positive relationship between self-concept of Hispanic positive traits and positive stereotype endorsement of Hispanic stereotypes. This does differ from the original research question which suggested a possible negative relationship between self-concept and stereotype endorsement. Although, the results showed a different directionality, it is possible that protection of the self may still play a role in this relationship. Specifically, high endorsement or belief in a positive stereotype of another group may relate to

individuals rating themselves higher in the same domain as the stereotype in order to protect their perception of themselves which has been threatened by the stereotype creating an upward comparison. Low endorsement or belief in a stereotype could relate to lower self-concept scores because there is less need to protect the self because of the absence of an upward comparison. This would be consistent with previous research suggesting that individuals use construal strategies to interpret any differences between them and the better person as slight or negligible when trying to maintain positive self-perception in upward comparison (Gerber, Wheeler, & Suls, 2018). Additionally, Liu, Elliot, and Li's (2021) research examining the relation between social comparison and trait competitiveness may align with the current study's findings. In the study, social comparison orientation-ability (SCO-ability) was defined as the tendency to compare one's ability and performance to another's ability. Trait competitiveness (TC) was described as a desire to do better than others. The study found that SCO-ability predicts TC, which may support the results in the current study where social comparison, facilitated by belief of stereotypes, may lead one to rank themselves higher in the stereotypical domains because of their desire to do better than the individuals in the target out-groups (Liu, Elliot, & Li, 2021).

Because these results are correlational and causal inferences cannot be confirmed, it was thought that an alternative explanation for the relationship found could be that more confidence in self-concept traits may lead to higher stereotype endorsement. Specifically, it's possible that self-confidence in certain traits may lead to comfortability in stereotyping others as having the same abilities. Confidence and self-esteem have been associated with one another in previous research (Baumeister et al., 2003; Leary et al., 1995; Shipman & Mumford, 2011). Wirkkala's (2019) research regarding self-esteem and judgments of others found that individuals with higher self-esteem made more positive judgments of others. This would be consistent with the findings



of the current study which found state self-esteem to be a significant mediator for the relationship between self-concept and stereotype endorsement. However, this mediator was only significant for Black participants, suggesting that self-esteem and confidence explains this relationship, but only for some racial groups.

The results suggesting a positive relationship between self-concept and stereotype endorsement are pointedly different from the previous research which suggesting a negative relationship between the two. It was thought that this was due to the nature of positive stereotype use. Specifically, positive stereotype endorsement is heterogenous in nature where these stereotypes are either heavily endorsed because there are often times seen as less harmful and generally acceptable to use, or they are not endorsed entirely, where individuals believe it is not acceptable to endorse these or negative stereotypes at all. This is generally unique to positive stereotyping, where negative stereotyping is less heterogenous in nature. It seems possible that this heterogeneity of positive stereotype endorsement may influence the relationship between self-concept and positive stereotype endorsement perhaps contributing to the positive directionality. However, when this relationship was investigated for negative stereotype endorsement, a similar relationship was found. More research may be needed to investigate the heterogeneity of endorsement and its possible influence on this relationship and other research questions related to positive stereotype endorsement.

The relation between general negative self-concept and general negative stereotype endorsement interestingly found that only Black participant showed a significant relationship between the two variables. A positive relationship was found between Asian negative self-concept traits and endorsement of Asian negative stereotypes for Black participants. Additionally, a positive relationship was found between Hispanic negative self-concept traits and

endorsement of Hispanic negative stereotype for Black participants. This relationship may also relate to protection of the self. If one ascribes negative traits to themselves, it seems likely that a strategy must be implemented in order to protect one from threats to the self. Stereotyping other groups with negative traits as well may be a strategy used for this purpose. Therefore, individuals can feel better about themselves by suggesting that it's not just them and their group that have these negative traits, but other groups also have these traits. Consistent with this logic, Fein and Spencer found that the act of negatively stereotyping others can make one feel better about themselves (Fein & Spencer, 1997), suggesting that this is an effective strategy for protecting the self. White participants did not show this significant relationship between negative self-concept and negative stereotype endorsement. White individuals are possibly less likely to need to protect the self in this way because of their dominant position in society in contrast to Black individuals. It is possible that Black and White individuals use different strategies to cope with the negative affect that comes with seeing the self in a negative way. Black individuals may be more likely to use stereotypes as a way to protect the self, while White individuals may use another approach. Future research should attempt to replicate these findings and investigate the racial differences in self-protection strategies more thoroughly.

For the second research question, the relationship between self-concept and stereotype endorsement was also examined at a more specific level. Results showed a positive relationship between the self-concept item "I am honest" and endorsement of the stereotype "Hispanic individuals are honest" for both White and Black Participants. Another positive relationship was found between the self-concept item "I am hard working" and the endorsement of the stereotype "Hispanic individuals are hardworking" for White participants. Similar to the previous main results, this relationship was only shown for these specific traits of the Hispanic target group, and

not for Black and Asian groups. Perhaps the characteristics of honesty and hard work may be more universally perceived as desirable for individuals than other characteristics. Consistent with this reasoning, two studies were conducted to measure likeability of words that described people. Anderson (1968) conducted the first study of its kind and found honesty to be the second most likable word out of 555 words. Diligence (a synonym of hard-working) (Merriam-Webster, n.d.) was found to be in the top 125 for likeability (Anderson, 1968). Dumas, Johnson & Lynch (2002) replicated the study and found honesty to be the fourth most likeable word in their list of 844 words. It is possible that because these traits are high in likeability, the need to protect the self when another group is associated with these traits is high. Therefore, believing that Hispanics are more honest and hardworking may lead individuals to rate themselves higher in those areas as well, in order to protect their view of themselves. Future research may investigate how universal favorability or desirability of the stereotypical characteristics factor into this relationship.

The inclusion of moderating variables found additional significant relationships. White participants that were low or moderate in social dominance showed a significant positive relationship between self-concept and stereotype endorsement associated with Hispanic honesty. Black participants high in conservative ideology and high in social desirability showed a significant positive relationship between self-concept and stereotype endorsement associated with Asian diligence and industriousness. Black participants that were high in social dominance showed a significant positive relationship between self-concept and stereotype endorsement associated with Asian self-discipline. Because conservatism and social dominance orientation have been linked to higher levels of stereotyping and prejudice (Carter, Hall, Carney, & Rosip, 2005; Whitley, 1999) it was expected that higher levels of these characteristics in participants

would affect the relationship between specific self-concept areas and stereotype endorsement. Black participants were consistent with this prediction; however, White participants showed the opposite for social dominance orientation where lower and moderate levels affected the relationship. This may suggest that both racial identity and one's preference to hierarchical or more equitable intergroup relations can change the way self-concept relates to stereotype endorsement.

## **Study Two**

Study two aimed to examine the relation between self-concept and stereotype endorsement experimentally by controlling self-concept through bogus tests. This would help to investigate if the relationship between self-concept and stereotype endorsement is causal in nature. The first research question was in regard to intelligence and the stereotype, "Asian individuals are intelligent". A one-way analysis of variance compared the two conditions of the bogus intelligence test (low or high intelligence) on the endorsement of the Asian stereotype. Results showed no significant differences between the conditions. Additionally, when controlling for the covariate of belief in the results of the bogus test, there were still no significant differences found between conditions.

The second research question aimed to control work ethic and the stereotype, "Hispanic individuals are hardworking". Another one-way analysis of variance compared the two conditions of the bogus work ethic test (low or high work ethic) on the endorsement of the Hispanic stereotype. Results of the ANOVA showed no significant differences between the two conditions on endorsement. When the covariate of belief in the bogus results was controlled for, again there was no significant differences found between conditions.

There are a couple of different reasons why there were no significant results found in this study. The first reason may be related to directionality of the causal relationship. Originally it was suspected that high or low self-concept in a specific area would predict stereotype endorsement levels in the same area towards members of an outgroup. This was due to the previous literature broadly suggesting a negative relationship between the variables. The negative relationship being that lower self-concept may lead to higher levels of stereotype endorsement in order to rationalize lack of ability (Alicke et al., 1997; Baumeister, Tice, & Hutton, 1989; Morse & Gergen, 1970; VanDellen, Campbell, Hoyle, & Bradfield, 2011). However, the first study showed that the relationship between the variables was actually positive in nature, where higher self-concept was associated with higher stereotype endorsement. As stated above, it is possible that protection of the self still played a role in this relationship. Specifically, when one believes that another group is proficient or better in a certain area it may compel them to rate themselves higher in that same area in order to protect their perception of themselves. This allows individuals to perceive the differences between them and individuals in the other group as minor or insignificant (Gerber, Wheeler, & Suls, 2018). Therefore, the causal relationship between these two variables may be directionally different than expected, where endorsement causes differences in perceived self-concept.

The first study also made it apparent that the relation between self-concept and stereotype endorsement is dependent on the target group and specific stereotype being investigated. It is possible that the reason no significant results were found in this study was due to investigation into the wrong target groups or stereotypes. Significant results may be yielded for other stereotypical traits and endorsement, such as Hispanic honesty. Additionally, these results may have been affected by the tests that were used as bogus intelligence and work ethic tests. There

was limited access to well-known and vetted intelligence tests such as the Wechsler Adult Intelligence Scale (WAIS) because of the permission or licensure requirements. Therefore, the lesser known and less vetted measure DEVAT test was used and may be less valid than other forms of intelligence measures. The work ethic test was a measure created for use in this study, and it used personality measures from the Big Five Personality Trait Short Questionnaire (Morizot, 2014) with five additional items related to hardworking behavior which are revised versions of items taken from the Multidimensional Work Ethic Profile – Short Form (MWEP-SF) (Meriac, Woehr, Gorman, & Thomas, 2013). It was a self-report style measure as opposed to a scenario-based measure and therefore may not have been the best way to measure work ethic, which is perceived as a more behavioral based trait.

The influence of two possible moderating variables on the relationship between controlled self-concept and stereotype endorsement for both research questions were also examined. The two moderating variables include social beliefs and opinions and social desirability. For the first research question, no significant interaction was found between intelligence condition and social beliefs and opinions predicting endorsement of the stereotype “Asian individuals are intelligent”. For the second research question, again no significant interaction was found between work ethic condition and social beliefs and opinions predicting endorsement of the stereotype “Hispanic individuals are hardworking”. Social beliefs and opinions was included as a potential moderator because conservative ideology has been linked to stereotype endorsement (Carter, Hall, Carney, & Rosip, 2005). However, the results suggests that participant ideology (i.e. conservative, liberal, or moderate) does not affect the relationship between the main variables in any way.

For the first research question, no significant interaction was found between intelligence condition and social desirability predicting endorsement of the stereotype “Asian individuals are intelligent”. For the second research question, again no significant interaction was found between work ethic condition and social desirability predicting endorsement of the stereotype “Hispanic individuals are hardworking”. Social desirability was initially included as a potential moderator because it has been shown to affect stereotype endorsement and self-perception (Krumpal, 2011), but these results suggest that high, low, or moderate levels of social desirability one has does not affect the relationship between the main variables in any way.

Additionally, state self-esteem was investigated as a potential mediating variable for the relationship between controlled self-concept and stereotype endorsement for the two research questions. This variable was included because of research suggesting that self-esteem is related to self-concept, and it can affect the way one perceives other individuals (Carter, Hall, Carney, & Rosip, 2005). For the first research question, no significant correlation between the state self-esteem and intelligence condition was found. Similarly, no significant correlation was found between state self-esteem and endorsement of the stereotype “Asian individuals are intelligent”. For the second research question, no significant correlation between the state self-esteem and work ethic condition was found. Likewise, no significant correlation was found between state self-esteem and endorsement of the stereotype “Hispanic individuals are hardworking”. These absence of significant mediator and moderator results are interesting, especially because these variables were found to significantly affect the relationship between self-concept and stereotype endorsement in study one. It should be acknowledged, however, that the significant mediators and moderators found in study one were mostly associated with Black participants. Study two included only White participants. Therefore this further suggests that the mediating effect of

confidence and moderating effects, particularly for conservative ideology and social dominance, are dependent on the racial identity of the perceiver.

### **Limitations and Future Directions**

The current studies do have a number of potential limitations. Sample limitations were present in both studies. Due to funding and time constraints that affected recruiting strategies, both studies lacked diversity in the ethnicities represented by the participants. The first study was limited to recruiting only two racial groups to compare, White and Black participants. There were an additional seven participants who identified as “other”, but there was not enough power to include these individuals in separate analyses. Study two required more participants to ensure enough power for analysis. Therefore, recruitment was limited to only one ethnic group, White participants. There were significant differences found in the White and Black participant responses for study one, suggesting that ethnic differences are present and are important to examine further. Future replication of this research should aim to recruit more participants of different ethnic identities to examine these differences.

Additionally, there were many different analyses conducted to address each of the research questions and their sub-questions for the two studies. These included multiple correlations, analyses of variances, and regressions. It should be acknowledged that the large number of analyses conducted in the current research could contribute to elevated risk for type one error, or when the true null hypothesis is incorrectly rejected leading to false significant results. Therefore, the results of these studies should be interpreted cautiously pending further research that either controls for type one error or specifically investigates a smaller portion of the relationships included in these studies. Perhaps future replication studies could be conducted investigating some of the strong relationships found in the current research, such as the



relationship between honest self-concept and stereotype endorsement regarding Hispanic honesty.

Both study samples were collected using Prolific as the sole platform for recruiting and distribution. There is a possibility that the samples are completely representative of the intended population. Individuals that sign up to participate in surveys on online platforms such as prolific may differ from the general population which may affect the results themselves and generalizability of results. Investigation of the measured demographics show fairly reasonable frequencies for gender, age, relationships status, and sexual orientation. However, there seemed to be a disproportionately large number of participants in study one and two that identified as liberal (43.9%) or very liberal (15.6%) as opposed to those who identified as conservative (10.3%) or very conservative (2.7%). This could be a product of online survey participation or due to another factor entirely. Nevertheless, investigation of social beliefs and opinions suggested that political ideology may change the relationship between self-concept and stereotype endorsement. Therefore, the results found in this study could possibly differ if the sample represented a more conservative population. Future replications of the research may aim to collect from other samples, including more conservative populations.

Another future direction may include research assessing self-concept and stereotype endorsement associated with other non-white ethnic groups. Although study one collected responses targeted at three large BIPOC groups, there is a possibility to expand this research in the future to investigate these variables associated with other underrepresented ethnic target groups such as Native American or Pacific Islander groups. Study two was limited to having only two bogus tests used to manipulate self-concept of intelligence and hard work because of the length of the survey. This means that only manipulated perceived intelligence and

hardworking personality and their influence on stereotype endorsement of the statements “Asians are intelligent” and “Hispanics are hardworking” were investigated. There are many other self-concept and stereotypical traits that may also be explored, but because of our limitation in survey length this will have to be explored in future research.

The main aim of this research was to investigate protection of the self as a potential origin of positive stereotype use. Results show that this may play a role in stereotype endorsement for some specific stereotypes and possibly dependent on the ethnic identity of the perceiver. However, there may be other potential origins of positive stereotype use that can be investigated, including system justification. Research suggests that stereotypes are used to distinguish high- and low-status groups in such a way that inequitable practices seem normal and appropriate (Jost, Banaji, & Nosek, 2004). When inequitable societal systems are justified in this way, dominant social groups can continue to maintain their status over others in these systems and consequently have better access to valuable resources. The system-justifying effects of stereotype use has been demonstrated in a hand full of studies. For example, Hoffman & Hurst (1990) studied stereotype formation related to system justification in fictional groups. Participants rated the traits of two fictional groups with differing occupations – one group was listed as “child raisers” and the other was listed as “city workers”. The research found that stereotypes of the groups emerged that seemed to justify the occupational roles, where child raisers were seen as patient and city workers were seen as self-confident. Stereotyping was also increased if participants were asked to explain why there were occupational differences between groups, suggesting that individuals create stereotypes of groups in order to explain existing social arrangements. Additionally, Ndobu et al. (2018) has found that native-born candidates were more likely to be considered for prestigious jobs over immigrants, while immigrant candidates

were more likely to be considered for non-prestigious jobs over native-born candidates. These hiring practices are consistent with ethnic occupational stereotypical beliefs, associating native-born with competence and immigrants with incompetence, which justifies workforce discrimination favoring dominant groups for prestigious jobs. This effect may also help maintain hierarchies by rewarding individuals that conform to stereotypical roles (i.e., hiring immigrants that apply for non-prestigious roles), while penalizing those that violate the stereotypical roles (i.e., declining immigrants that apply for prestigious roles). Future research can investigate how positive racial stereotypes may be endorsed and used to justify existing oppressive societal systems.

## **Conclusion**

Although there is extensive research suggesting multiple negative implications for the use of positive stereotypes, little attention has been given to the origin of positive stereotyping or the reason for their use. Previous research suggests that the motivation to maintain positive self-perception may affect person perception, including the positive stereotyping of outgroup members. This dissertation aimed to investigate whether one's perception of their self-concept affects stereotype endorsement. Results showed a positive relationship between White participant's self-concept score of positive Hispanic and endorsement of positive Hispanic stereotypes. Additionally, Black participants that were more conservative or high in social dominance showed the same positive relationship between self-concept of Hispanic positive traits and positive stereotype endorsement of Hispanic stereotypes. For the specific traits, results showed a positive relationship between the self-concept item "I am honest" and endorsement of the stereotype "Hispanic individuals are honest" for both White and Black Participants. Another positive relationship was found between the self-concept item "I am hard working" and the

endorsement of the stereotype “Hispanic individuals are hardworking” for White participants. These results may suggest that high endorsement of a positive stereotype of another group may cause one to rate themselves higher in the same area as to maintain a favorable perception of themselves. Additionally, low endorsement could lead to lower self-concept scores because there is less needed to protect the self. However, the second study results showed no significant differences between high or low conditions for both intelligence and work ethic when examining these relations experimentally. More research is necessary to examine if and when self-perception is a factor in positive stereotype endorsement. Although this research does contribute significantly to the limited research regarding the origins of positive stereotyping, more research is needed to examine other possible explanations and reasonings for their use. More research in this area would contribute to our understanding of why these stereotypical beliefs are constructed and how they may persist in society.

## Appendix A

### Stereotype Endorsement Measure – Quantitative

Please indicate the degree to which you *personally* agree or disagree with the following statements.

#### Hispanic Stereotypical Statements:

Hispanics are aggressive and/or physically violent.

Hispanics are less educated.

Hispanics are illegal immigrants or products of illegal immigration.

Hispanics refuse to learn English.

Hispanic individuals are poor.

Hispanic individuals are more family oriented than others.

Hispanics are hardworking.

Hispanic individuals are more religious and faithful than others.

Hispanics are honest people.

Hispanics are traditional and old-fashioned.

#### Black Stereotypical Statements:

Black individuals are lazy.

Black people commit more crimes.

Black individuals are aggressive.

Black individuals are less educated than others.

Black people are poor.

Black people are helpful and cooperative.

Black people are great dancers.

Black individuals have better rhythm than others.

Black people are more social than others.

Black people are more athletic than others.

Asian stereotypical statements:

Asian individuals are overly competitive.

Asian individuals are condescending.

Asian individuals are materialistic.

Asian individuals are close-minded.

Asian people are unsociable.

Asian people are self-disciplined.

Asian people are more intelligent than others.

Asian individuals are successful.

Asian individuals are traditional and old-fashioned.

Asian individuals are diligent and industrious.

## Appendix B

### Self-Concept Measure

This portion of the survey is meant to learn more about you as a person. You will be presented with both positive and negative statements about yourself. Please indicate the degree to which you agree or disagree with these statements.

I am family oriented.

I have good rhythm.

I am religious.

I am successful.

I am honest.

I am confident.

I am diligent and industrious.

I am helpful and cooperative.

I am social.

I am a good dancer.

I am self-disciplined.

I am traditional and old-fashioned.

I am athletic.

I am intelligent.

I am hardworking.

I am condescending.

I am an illegal immigrant or a product of illegal immigration.

I am aggressive.

I have poor English language skills.

I am lazy.

I am less educated than others.

I am poor.

I am unsociable.

I am close-minded.

I have committed crimes.

I am materialistic.

I am overly competitive



## Appendix C

### State Self-Esteem Scale

This is a questionnaire designed to measure what you are thinking at this moment. There is, of course, no right answer for any statement. The best answer is what you feel is true of yourself at the moment. Be sure to answer all of the items, even if you are not certain of the best answer.

Again, answer these questions as they are true for you RIGHT NOW.

1. I feel confident about my abilities.
2. I am worried about whether I am regarded as a success or failure. (R)
3. I feel satisfied with the way my body looks right now.
4. I feel frustrated or rattled about my performance. (R)
5. I feel that I am having trouble understanding things that I read. (R)
6. I feel that others respect and admire me.
7. I am dissatisfied with my weight. (R)
8. I feel self-conscious. (R)
9. I feel as smart as others.
10. I feel displeased with myself. (R)
11. I feel good about myself.
12. I am pleased with my appearance right now.
13. I am worried about what other people think of me. (R)
14. I feel confident that I understand things.
15. I feel inferior to others at this moment. (R)
16. I feel unattractive. (R)

17. I feel concerned about the impression I am making. (R)
18. I feel that I have less scholastic ability right now than others. (R)
19. I feel like I'm not doing well. (R)
20. I am worried about looking foolish. (R)

## Appendix D

### Social Beliefs and Opinions Inventory

Please read each statement carefully and indicate the extent to which you agree or disagree with it using the following scale. Again, please keep in mind that there are no right or wrong answers.

We're only interested in your honest opinions.

Too many black people still lose out on jobs because of their skin color.

Too much governmental regulation of business restricts economic enterprise.

The government should be restricted in the search and seizure of criminal evidence.

The government's need for law and order takes precedence over civil liberties.

The government should institute programs to ensure against the poverty of its citizens.

It should be illegal for two individuals of the same sex to be married.

Society has reached a point where black and white people have equal opportunities.

High taxes on the wealthy punish them for their success.

The government should not restrict sexual activity between consenting adults.

Gay men and lesbians should be restricted from serving in the armed forces.

Government should leave decisions about pregnancy to individuals.

It is the duty of the government to protect its citizens from terrorist attacks by whatever means necessary.

Recreational drugs should be illegal in the U.S.

The U.S. government should provide free health care to all its citizens.

## Appendix E

### Social Dominance Orientation – 7 scale

Please indicate the degree to which you favor or oppose the following statements.

It's probably a good thing that certain groups are at the top and other groups are at the bottom.

Group equality should be our ideal.

We shouldn't try to guarantee that every group has the same quality of life.

No matter how much effort it takes, we ought to strive to ensure that all groups have the same chance in life.

Group equality should not be our primary goal.

We should work to give all groups an equal chance to succeed.

Groups at the bottom should not have to stay in their place.

Group dominance is a poor principle.

We should do what we can to equalize conditions for different groups.

It is unjust to try to make groups equal.

No one group should dominate in society.

An ideal society requires some groups to be on top and others to be on the bottom.

We should not push for group equality.

Some groups of people must be kept in their place.

Some groups of people are simply inferior to other groups.

Groups at the bottom are just as deserving as groups at the top.

## Appendix F

### Crowne & Marlowe's Social Desirability Scale

Please read each item and decide whether the statement is true or false for you.

Before voting I thoroughly investigate the qualifications of all the candidates.

I never hesitate to go out of my way to help someone in trouble.

It is sometimes hard for me to go on with my work if I am not encouraged.

I have never intensely disliked anyone.

On occasions I have had doubts about my ability to succeed in life.

I sometimes feel resentful when I don't get my way.

I am always careful about my manner of dress.

My table manners at home are as good as when I eat out in a restaurant.

If I could get into a movie without paying and be sure I was not seen, I would probably do it.

On a few occasions, I have given up something because I thought too little of my ability.

I like to gossip at times.

There have been times when I felt like reeling against people in authority even though I knew they were right.

No matter who I'm talking to, I'm always a good listener.

I can remember "playing sick" to get out of something.

There have been occasions when I have taken advantage of someone.

I'm always willing to admit it when I make a mistake.

I always try to practice what I preach.

I don't find it particularly difficult to get along with loudmouthed, obnoxious people.

I sometimes try to get even rather than forgive and forget.

When I don't know something I don't mind at all admitting it.

I am always courteous, even to people who are disagreeable.

As times I have really insisted on having things my own way.

there have been occasions when I felt like smashing things.

I would never think of letting someone else be punished for my wrong-doings.

I never resent being asked to return a favor.

I have never been irked when people expressed ideas very different from my own.

I never make a long trip without checking the safety of my car.

There have been times when I was quite jealous of the good fortune of others.

I have almost never felt the urge to tell someone off.

I am sometimes irritated by people who ask favors of me.

I have never felt that I was punished without cause.

I sometimes think when people have a misfortune they only got what they deserved.

I have never deliberately said sometime that hurt someone's feelings.

## Appendix G

Q1 Which of the words shown below mean the same as "rigid"?

- correct
- majestic
- rough
- wealthy
- stiff

Q2 Which of the words shown below mean the same as "woo"?

- speak
- court
- please
- chat
- engage

Q3 Which of the words shown below mean the same as "random"?

- indirect
- frantic
- arbitrary
- specific
- chance

Q4 Which of the words shown below mean the same as "hew"?

- post
- tone

- lift
- cut
- push

Q5 Which of the words shown below mean the same as "frolic"?

- run
- cavort
- eccentric
- fluid
- impulsive

Q6 Which of the words shown below mean the same as "wheedle"?

- presume
- cajole
- induce
- search
- dictate

Q7 Which of the words shown below mean the same as "hedonistic"?

- chaotic
- incompatible
- decadent
- unwavering
- favorable



Q1 right light ramp lamp rent ...  
What comes next in the series?

- tent
- sight
- sent
- bent
- lent

Q2 1 2 14 28 27 54 40 ...  
What comes next in the series?

- 39
- 80
- 41
- 53
- 20

Q3 human manage agent ...  
What comes next in the series?

- entice
- humble
- ageism
- manic
- maintain

Q4 winter cold bold catch net met only sole ...  
What comes next in the series?

- one

mole

role

fish

pole

Q5 stoned stone tone one ...

What comes next in the series?

o

ton

ne

on

so

Q6 91786 EBCAD 81769 ABCDE 78961 ...

What comes next in the series?

23456

CAEDB

FGHIJ

DBCEA

17698

Q7 Z N A M Y O B L X P C ...

What comes next in the series?

K

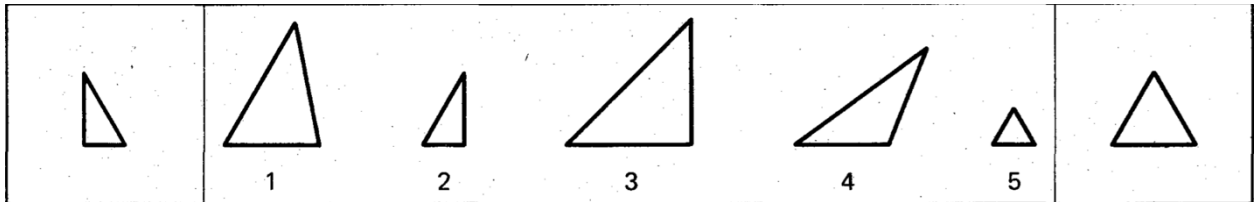
W

Q

J

D

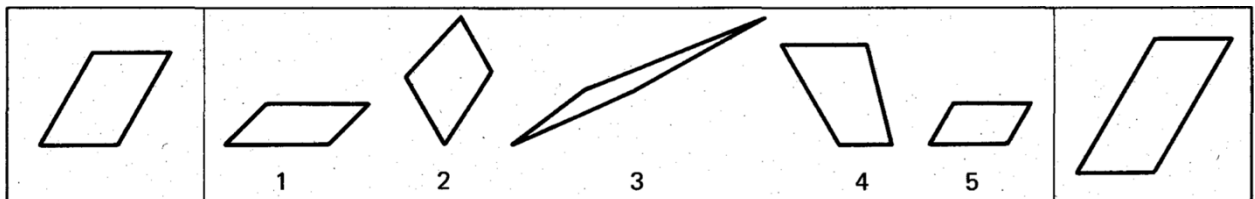
Q1



Which of the shape choices (1 - 5), when added to the shape on the far left, would form the shape on the far right?

- 1
- 2
- 3
- 4
- 5

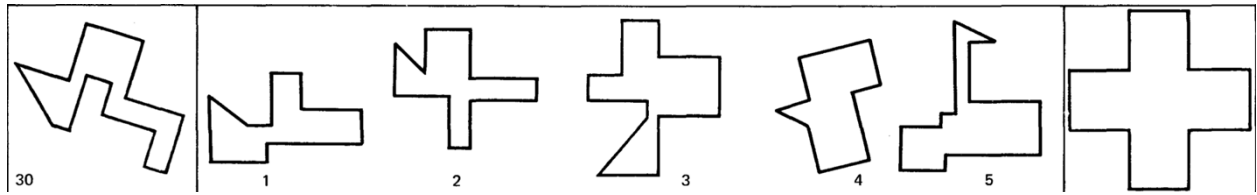
Q2



Which of the shape choices (1 - 5), when added to the shape on the far left, would form the shape on the far right?

- 1
- 2
- 3
- 4
- 5

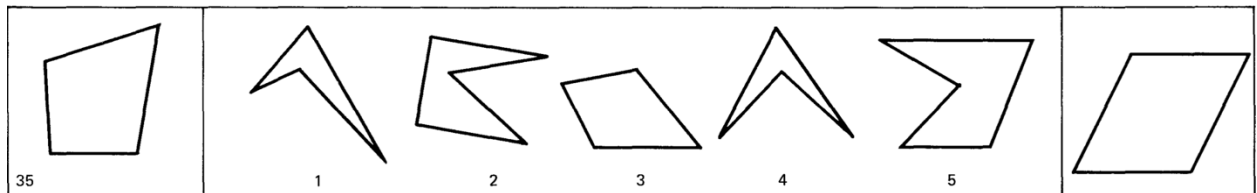
Q3



Which of the shape choices (1 - 5), when added to the shape on the far left, would form the shape on the far right?

- 1
- 2
- 3
- 4
- 5

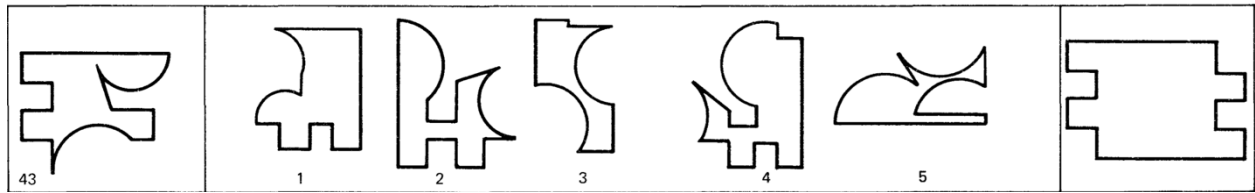
Q4



Which of the shape choices (1 - 5), when added to the shape on the far left, would form the shape on the far right?

- 1
- 2
- 3
- 4
- 5

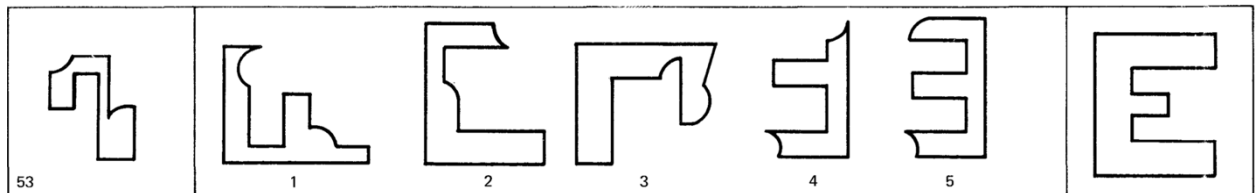
Q5



Which of the shape choices (1 - 5), when added to the shape on the far left, would form the shape on the far right?

- 1
- 2
- 3
- 4
- 5

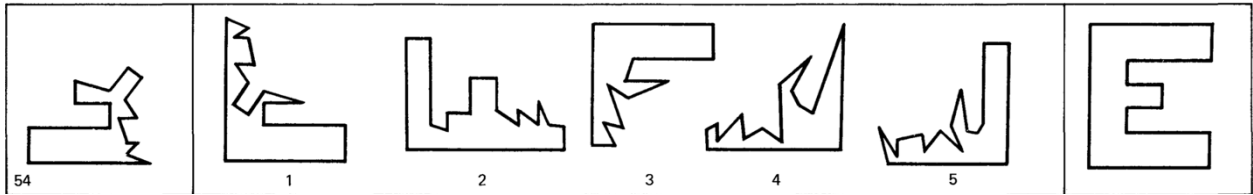
Q6



Which of the shape choices (1 - 5), when added to the shape on the far left, would form the shape on the far right?

- 1
- 2
- 3
- 4
- 5

Q7



Which of the shape choices (1 - 5), when added to the shape on the far left, would form the shape on the far right?

- 1
- 2
- 3
- 4
- 5

**CORRECT**





**INCORRECT**



## Appendix I

The next task is meant to learn more about you and your unique characteristics. Please disclose the degree to which you disagree or agree with the statements presented using the rating scale provided.

I see myself as someone who...

Has a tendency to laugh and have fun easily.

Likes to talk, express their opinion.

Can be tense, stressed out.

Is rather quiet, does not talk a lot.

Feels content and fulfilled after a hard day's work.

Has a tendency to criticize others.

Is a leader, capable of convincing others.

Has a tendency to be easily irritated.

Can be a little careless and negligent.

Values their relaxation time.

Has few artistic interests.

Is reserved or shy, has difficulty approaching others.

Thinks working hard is the key to being successful.

Is easily distracted, has difficulty remaining attentive.

Likes to reflect, tries to understand complex things.

Likes to cooperate with others.

Has a tendency to be disorganized, messy.

Likes exciting activities, which provide thrills.

Has a tendency to feel inferior to others.

Can sometimes be rude or mean towards others.

Can be moody.

Perseveres until the task at hand is completed.

Does things efficiently, works well and quickly.

Can easily become nervous.

Is a reliable student/worker, who can be counted on.

Is emotionally stable, not easily upset.

Is original, often has new ideas.

Thinks that more leisure time is good for people.

Is extraverted, sociable.

Is inventive, creative.

Stays calm in tense or stressful situations.

Can be distant and cold towards others.

Is sophisticated when it comes to art, music, or literature.

Has a tendency to be lazy.

Likes artistic or aesthetic experiences.

Worries a lot about many things.

Is timid, shy.

Is ingenious, reflects a lot.

Is generally relaxed, handles stress well.

Works conscientiously, does the things they have to do well.

Can do things impulsively without thinking about the consequences.

Plans things that need to be done and follows through the plans.

Is helpful and generous with others.

Shows self-confidence, is able to assert themself.

Has a tendency to be easily depressed, sad.

Is not really interested in different cultures, their customs and values.

Generally trust others.

Is considerate and kind to almost everyone.

Is full of energy, likes to always be active.

Is lenient, forgives easily.

Has a lot of imagination.

Is curious about many different things.

Is constantly looking for ways to productively use their time.

Can deceive and manipulate people to get what they want.

## Appendix J

### Bogus Test Results

#### Intelligence:

Intelligence Test: HIGH

You are in the top 25% of your peers in intelligence.

or

Intelligence Test: LOW

You are in the bottom 25% of your peers in intelligence.

#### Work Ethic:

Work Ethic Test: HIGH

You are in the top 25% of your peers in work ethic.

or

Work Ethic Test: LOW

You are in the bottom 25% of your peers in work ethic.

## Appendix K

### Tables and Figures

Table 1. Positive characteristics and stereotypes for each racial group.

Ethnic Group	Characteristics / Stereotypes
Black	Athletic Sociable Rhythmic Musical Charming
Hispanic	Family oriented Hardworking Religious Traditional Friendly
Asian	Competent Traditional Diligent Self-disciplined Industrious

Note. The same traits were used for both self-concept and stereotype endorsement measures.

Table 2. Negative characteristics and stereotypes for each racial group.

Ethnic Group	Characteristics / Stereotypes
Black	Aggressive Less Educated Criminal Lazy Poor
Hispanic	Aggressive Less Educated Illegal Immigration Poor English Poor
Asian	Unsociable Condescending Overly Competitive Close-Minded Materialistic

Note. The same traits were used for both self-concept and stereotype endorsement measures.

Table 3. Summary of study one multiple regressions examining the potential mediator of state self-esteem on the relationship between overall self-concept and overall stereotype endorsement for Black and White participants.

Relationship	Direct Effect	Indirect Effect	Confidence Interval		t	Conclusion
			Lower Bound	Upper Bound		
<b>Black Participants</b>						
SC Hisp Pos - Hisp Pos Ster	0.121	-0.069*	-0.118	-0.026	-2.882	Full Mediation
SC Hisp Neg - Hisp Neg Ster	0.237	0.072	-0.052	0.201	1.127	No Mediation
SC As Pos - Asian Pos Ster	0.160*	-0.139*	-0.231	-0.037	-2.808	Partial Mediation
SC As Neg -Asian Neg Ster	0.090	0.051	-0.010	0.134	0.045	No Mediation
<b>White Participants</b>						
SC Bla Pos - Black Pos Ster	0.039	-0.007	-0.045	0.022	-0.444	No Mediation
SC Bla Neg - Black Neg Ster	0.042	-0.044	-0.152	0.053	-0.830	No Mediation
SC Hisp Pos - Hisp Pos Ster	0.204	-0.021	-0.070	0.015	-0.963	No Mediation
SC Hisp Neg - Hisp Neg Ster	-0.014	-0.031	-0.165	0.101	-0.462	No Mediation
SC As Pos - Asian Pos Ster	0.075	-0.056	-0.167	0.043	-1.047	No Mediation
SC As Neg -Asian Neg Ster	0.224	-0.025	-0.077	0.029	-0.932	No Mediation



Figure 1: Social beliefs and opinions moderator for Hispanic positive self-concept and Hispanic positive stereotype endorsement for Black participants.

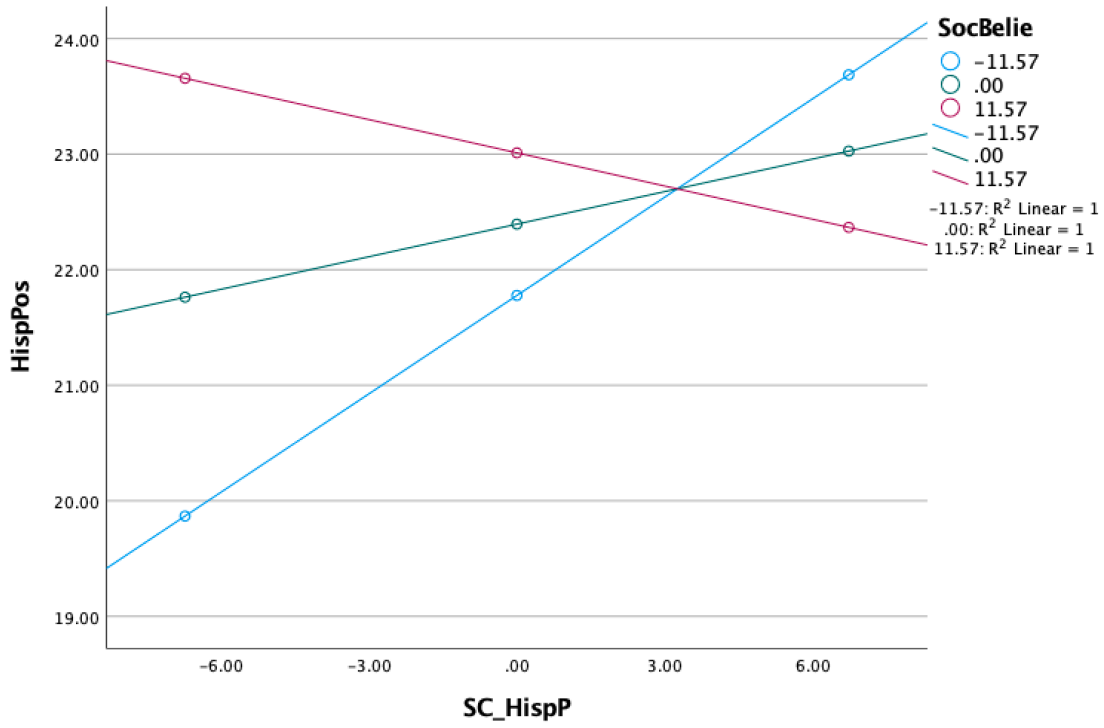


Figure 2: Social beliefs and opinions moderator for Asian positive self-concept and Asian positive stereotype endorsement for Black Participants.

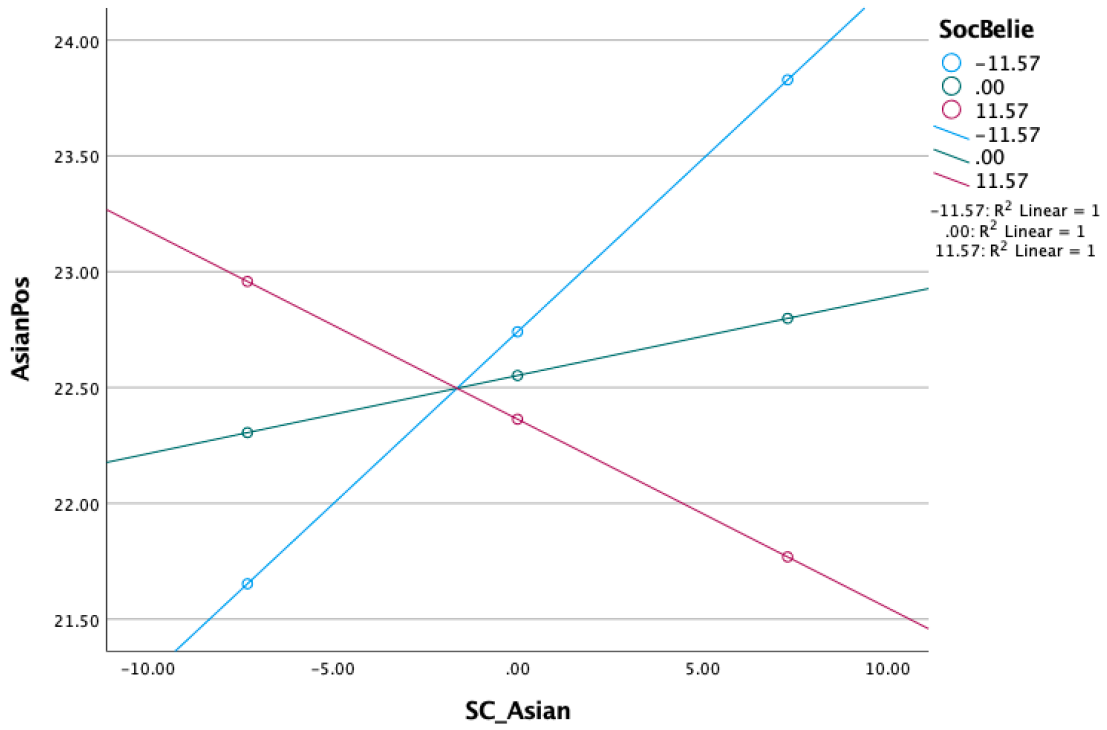


Figure 3: Social dominance moderator for Hispanic positive self-concept and Hispanic positive stereotype endorsement for Black Participants.

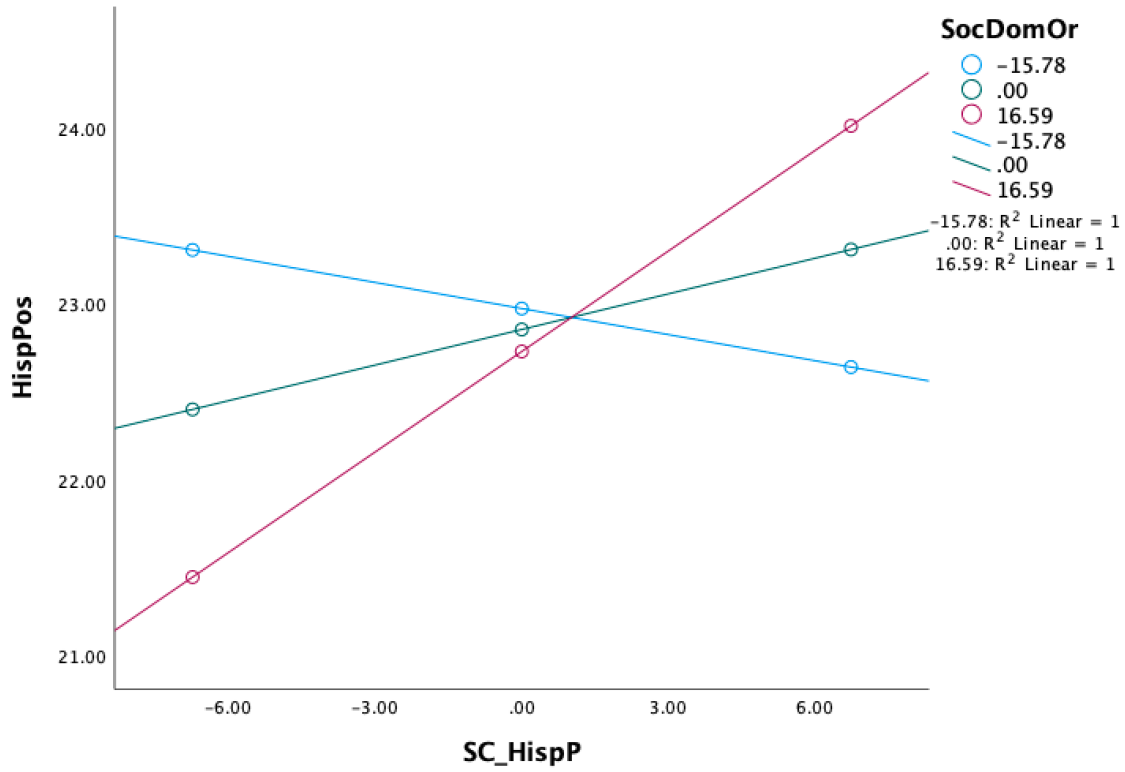


Table 4. Summary of study one multiple regressions examining the potential mediator of state self-esteem on the relationship between specific self-concept items and the matching stereotype endorsement items for Black and White participants.

Relationship	Direct Effect	Indirect Effect	Confidence Interval		t	Conclusion
			Lower Bound	Upper Bound		
<b>Black Participants</b>						
Hispanic Family Orientation	0.051	-0.040*	-0.092	-0.001	--	Full Mediation
Hispanic Hardworking	0.190*	-0.079*	-0.167	-0.002	-1.875	Partial Mediation
Hispanic Honest	0.248*	-0.031	-0.093	0.018	-1.107	No Mediation
Asian Successful	0.052	-0.031	-0.091	0.034	-0.981	No Mediation
Asian Diligent/Industrious	0.108	-0.048	-0.120	0.004	-1.509	No Mediation
Asian Self-Discipline	0.124	-0.065	-0.145	0.005	-1.680	No Mediation
<b>White Participants</b>						
Black Helpful/Cooperative	0.040	-0.020	-0.072	0.026	-0.806	No Mediation
Hispanic Family Orientation	0.080	-0.008	-0.041	0.014	-0.559	No Mediation
Hispanic Hardworking	0.168	-0.019	-0.070	0.022	-0.808	No Mediation
Hispanic Honest	0.300	-0.031	-0.086	0.019	-1.984	No Mediation
Asian Successful	0.129	-0.014	-0.079	0.049	-0.424	No Mediation
Asian Diligent/Industrious	0.149	0.003	-0.068	0.067	0.090	No Mediation
Asian Self-Discipline	0.064	-0.075*	-0.146	-0.016	-2.257	Full Mediation

Table 5. Summary of study one Hierarchical regressions examining the potential moderator of social beliefs and opinions for the relationship between specific self-concept characteristics and the endorsement of the matching stereotype in Black participants.

Dependent Variable	Model	$\Delta R^2$	<i>F</i> Change	<i>df</i> 1	<i>df</i> 2
Hispanic Family Orientation	1	.000	.019	1	145
	2	.006	.852	1	144
	3	.011	.977	1	143
Hispanic Hard Work	1	.021	3.140	1	145
	2	.088**	14.311	1	144
	3	.001	.143	1	143
Hispanic Honest	1	.071**	11.038	1	145
	2	.026*	4.138	1	144
	3	.002	.348	1	143
Asian Successful	1	.001	.166	1	145
	2	.001	.127	1	144
	3	.013	1.926	1	143
Asian Diligent and Industrious	1	.005	.722	1	145
	2	.003	.408	1	144
	3	.051*	7.678	1	143
Asian Self-Discipline	1	.007	.999	1	145
	2	.000	.011	1	144
	3	.001	.196	1	143

*Note.* Model 1 predictors include matching self-concept item. Model 2 predictors include matching self-concept item and moderator. Model 3 predictors include matching self-concept item, moderator, and interaction.

\* $p < .05$ .

\*\* $p < .001$ .

Figure 4: Social beliefs and opinions moderator for diligent and industrious self-concept and endorsement of “Asian individuals are diligent and industrious” for Black Participants.

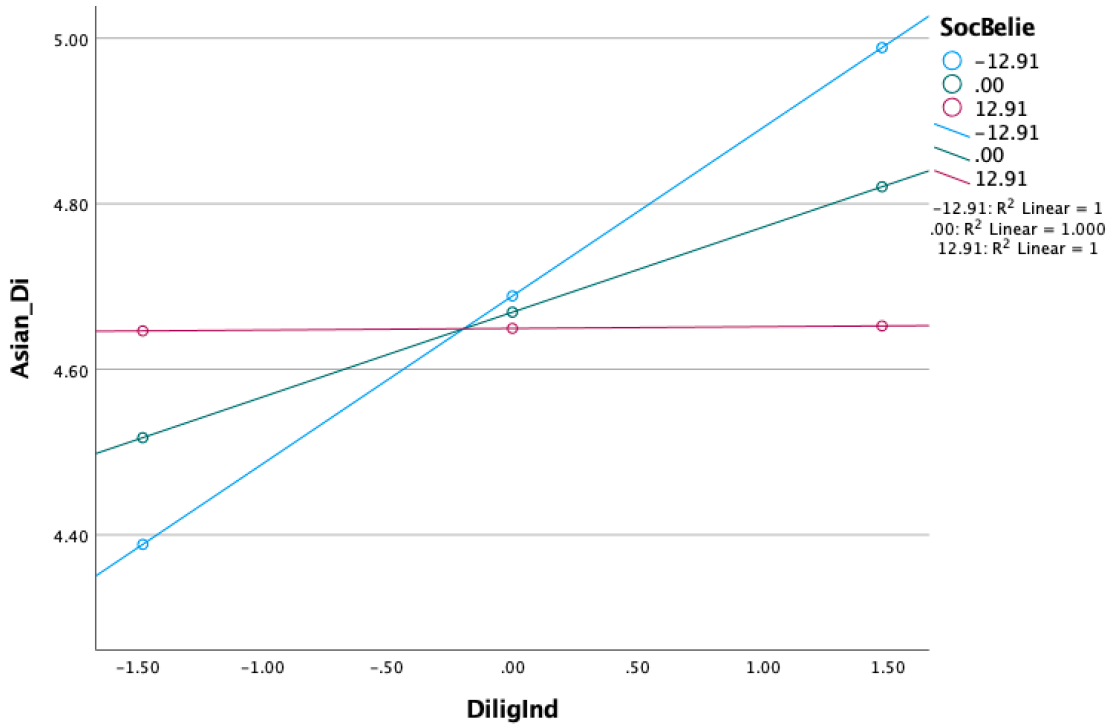


Table 6. Summary of study one Hierarchical regressions examining the potential moderator of social beliefs and opinions for the relationship between specific self-concept characteristics and the endorsement of the matching stereotype in White participants.

Dependent Variable	Model	$\Delta R^2$	F Change	df1	df2
Black Helpful and Cooperative	1	.015	2.251	1	144
	2	.022	3.245	1	143
	3	.007	.977	1	142
Hispanic Family Orientation	1	.015	2.251	1	144
	2	.022	3.245	1	143
	3	.007	.977	1	142
Hispanic Hard Work	1	.037*	5.578	1	144
	2	.000	.041	1	143
	3	.001	.152	1	142
Hispanic Honest	1	.086**	13.497	1	144
	2	.024	3.794	1	143
	3	.011	1.746	1	142
Asian Successful	1	.029*	4.276	1	144
	2	.000	.007	1	143
	3	.001	.132	1	142
Asian Diligent and Industrious	1	.025	3.633	1	144
	2	.001	.090	1	143
	3	.000	.001	1	142
Asian Self-Discipline	1	.000	.052	1	144
	2	.004	.610	1	143
	3	.010	1.489	1	142

*Note.* Model 1 predictors include matching self-concept item. Model 2 predictors include matching self-concept item and moderator. Model 3 predictors include matching self-concept item, moderator, and interaction.

\* $p < .05$ .

**\*\* $p < .001$ .**



Table 7. Summary of study one Hierarchical regressions examining the potential moderator of social dominance for the relationship between specific self-concept characteristics and the endorsement of the matching stereotype in Black participants.

Dependent Variable	Model	$\Delta R^2$	<i>F</i> Change	<i>df</i> 1	<i>df</i> 2
Hispanic Family Orientation	1	.000	.019	1	145
	2	.000	.007	1	144
	3	.006	.820	1	143
Hispanic Hard Work	1	.021	3.140	1	145
	2	.023	3.505	1	144
	3	.012	1.765	1	143
Hispanic Honest	1	.071**	11.038	1	145
	2	.003	.491	1	144
	3	.002	.344	1	143
Asian Successful	1	.001	.166	1	145
	2	.026	3.844	1	144
	3	.032*	4.907	1	143
Asian Diligent and Industrious	1	.005	.722	1	145
	2	.017	2.459	1	144
	3	.015	2.257	1	143
Asian Self-Discipline	1	.007	.999	1	145
	2	.041*	6.183	1	144
	3	.036*	5.651	1	143

*Note.* Model 1 predictors include matching self-concept item. Model 2 predictors include matching self-concept item and moderator. Model 3 predictors include matching self-concept item, moderator, and interaction.

\* $p < .05$ .

\*\* $p < .001$ .

Figure 5: Social dominance moderator for successful self-concept and endorsement of “Asian individuals are successful” for Black Participants.

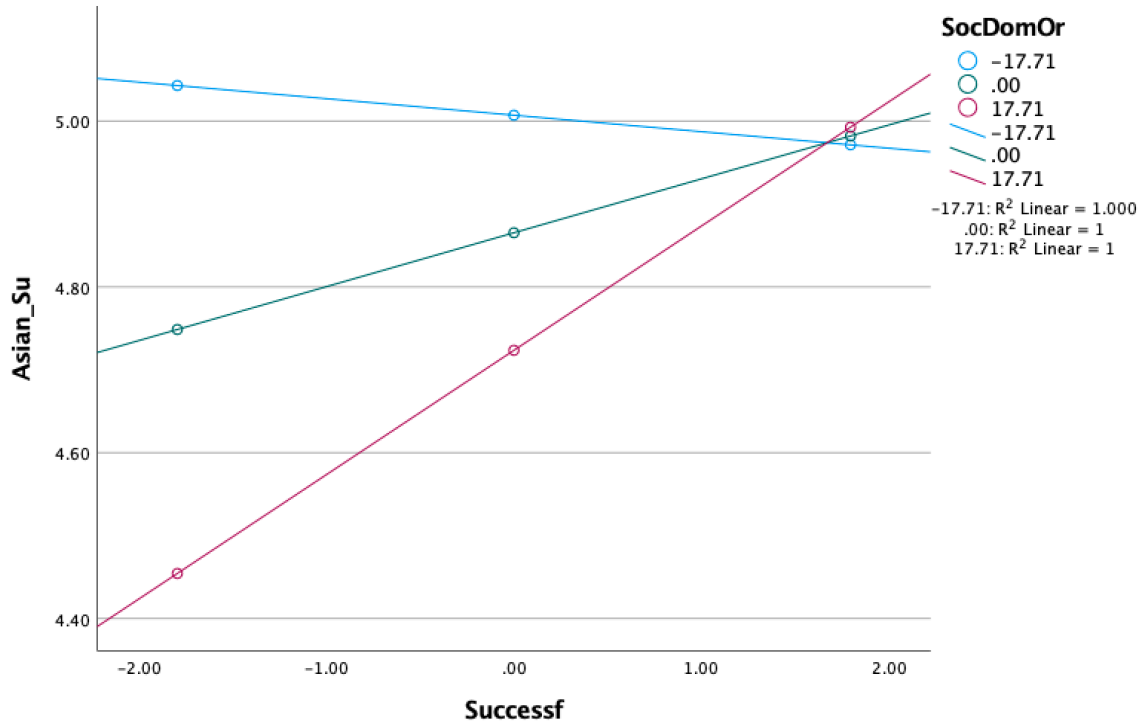


Figure 6: Social dominance moderator for self-discipline self-concept and endorsement of “Asian individuals are self-discipline” for Black Participants.

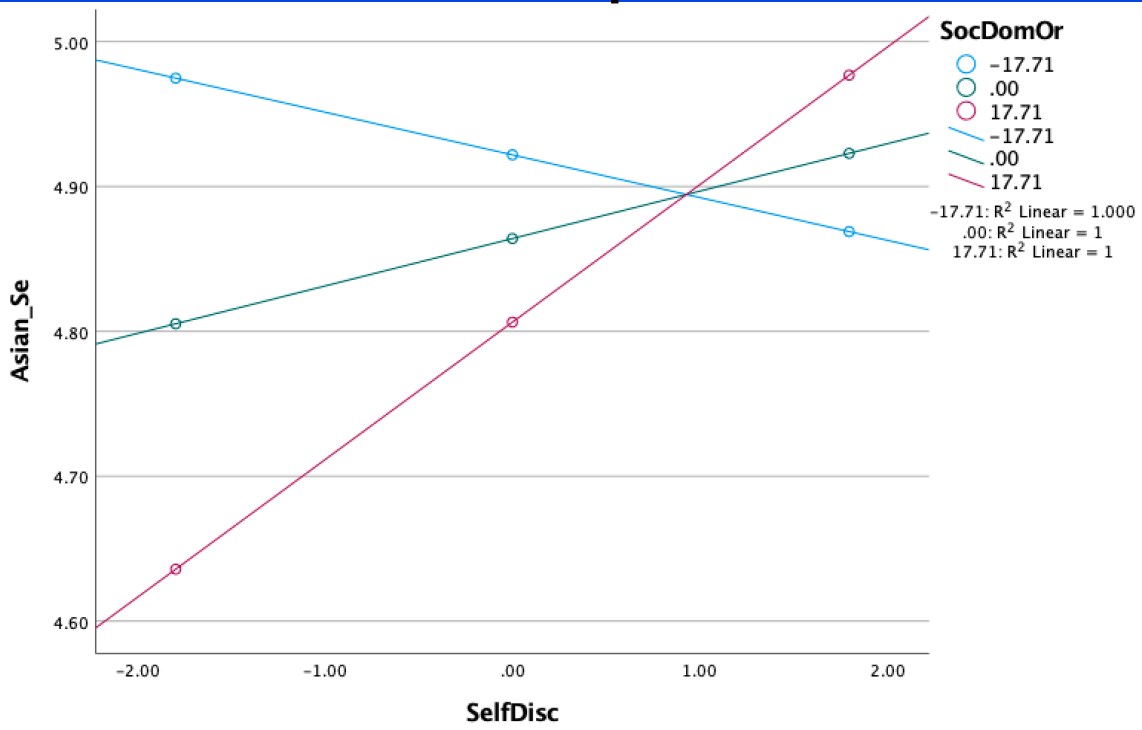


Table 8. Summary of study one Hierarchical regressions examining the potential moderator of social dominance for the relationship between specific self-concept characteristics and the endorsement of the matching stereotype in White participants.

Dependent Variable	Model	$\Delta R^2$	F Change	df1	df2
Black Helpful and Cooperative	1	.000	.060	1	145
	2	.064*	9.929	1	144
	3	.027*	4.239	1	143
Hispanic Family Orientation	1	.011	1.608	1	145
	2	.015	2.161	1	144
	3	.001	.084	1	143
Hispanic Hard Work	1	.037*	5.594	1	145
	2	.000	.000	1	144
	3	.013	1.954	1	143
Hispanic Honest	1	.085**	13.556	1	145
	2	.033*	5.385	1	144
	3	.081**	14.522	1	143
Asian Successful	1	.023	3.448	1	145
	2	.003	.415	1	144
	3	.000	.018	1	143
Asian Diligent and Industrious	1	.022	3.332	1	145
	2	.000	.036	1	144
	3	.001	.168	1	143
Asian Self-Discipline	1	.000	.032	1	145
	2	.017	2.479	1	144
	3	.007	.973	1	143

*Note.* Model 1 predictors include matching self-concept item. Model 2 predictors include matching self-concept item and moderator. Model 3 predictors include matching self-concept item, moderator, and interaction.

\* $p < .05$ .

**\*\*** $p < .001$ .

Figure 7: Social dominance moderator for helpful and cooperative self-concept and endorsement of “Black individuals are helpful and cooperative” for White Participants.

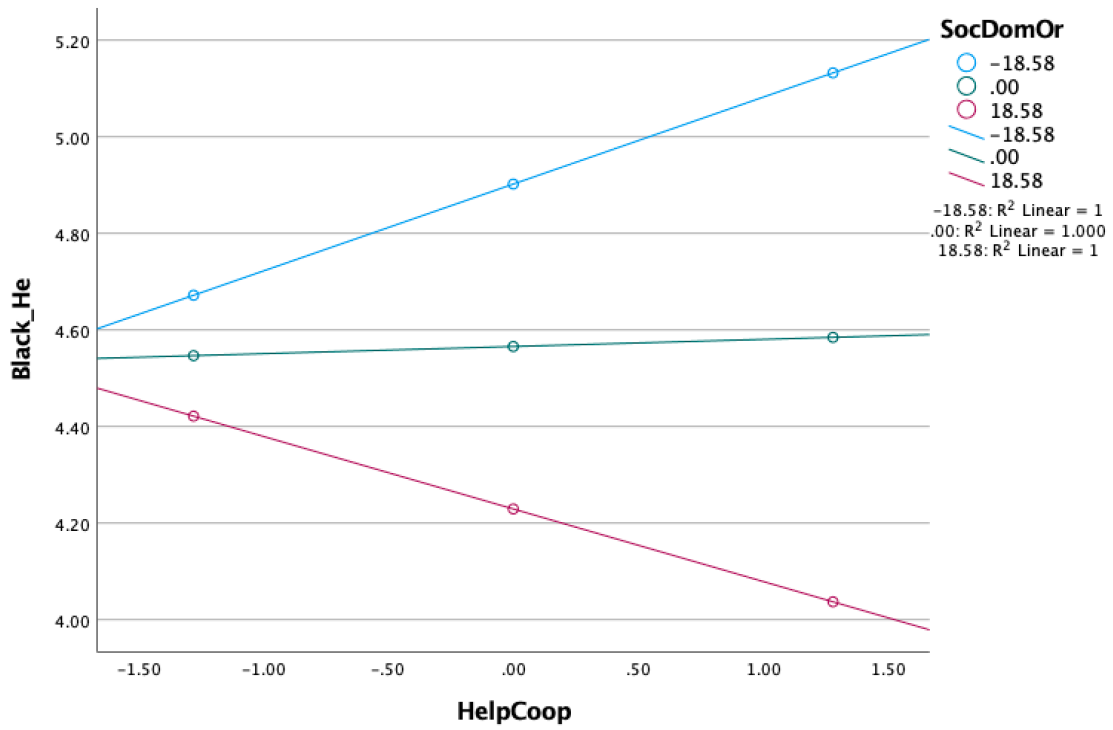


Figure 8: Social dominance moderator for honest self-concept and endorsement of “Hispanic individuals are honest” for White Participants.

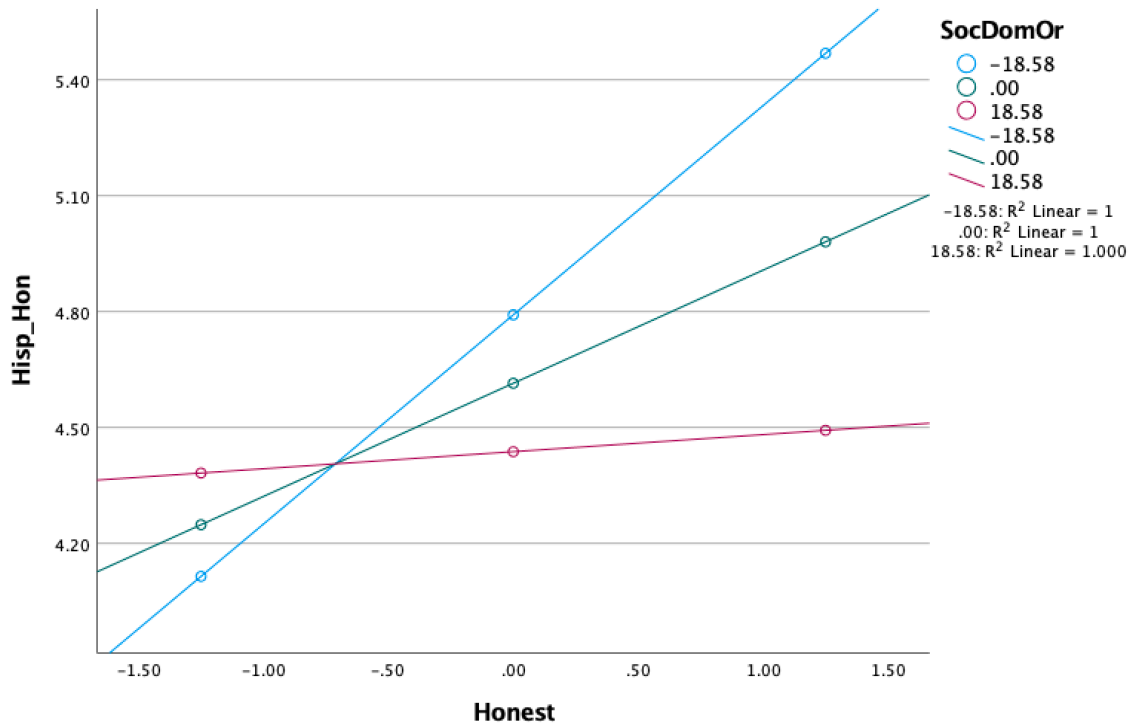


Table 9. Summary of study one Hierarchical regressions examining the potential moderator of social desirability for the relationship between specific self-concept characteristics and the endorsement of the matching stereotype in Black participants.

Dependent Variable	Model	$\Delta R^2$	<i>F</i> Change	<i>df</i> 1	<i>df</i> 2
Hispanic Family Orientation	1	.000	.019	1	145
	2	.016	2.298	1	144
	3	.004	.625	1	143
Hispanic Hard Work	1	.021	3.140	1	145
	2	.000	.000	1	144
	3	.000	.015	1	143
Hispanic Honest	1	.071**	11.038	1	145
	2	.010	1.575	1	144
	3	.000	.013	1	143
Asian Successful	1	.001	.166	1	145
	2	.000	.000	1	144
	3	.026	3.778	1	143
Asian Diligent and Industrious	1	.005	.722	1	145
	2	.001	.078	1	144
	3	.045*	6.801	1	143
Asian Self-Discipline	1	.007	.999	1	145
	2	.001	.103	1	144
	3	.002	.261	1	143

*Note.* Model 1 predictors include matching self-concept item. Model 2 predictors include matching self-concept item and moderator. Model 3 predictors include matching self-concept item, moderator, and interaction.

\* $p < .05$ .

\*\* $p < .001$ .



Figure 9: Social desirability moderator for diligent and industrious self-concept and endorsement of “Asian individuals are diligent and industrious” for Black Participants.

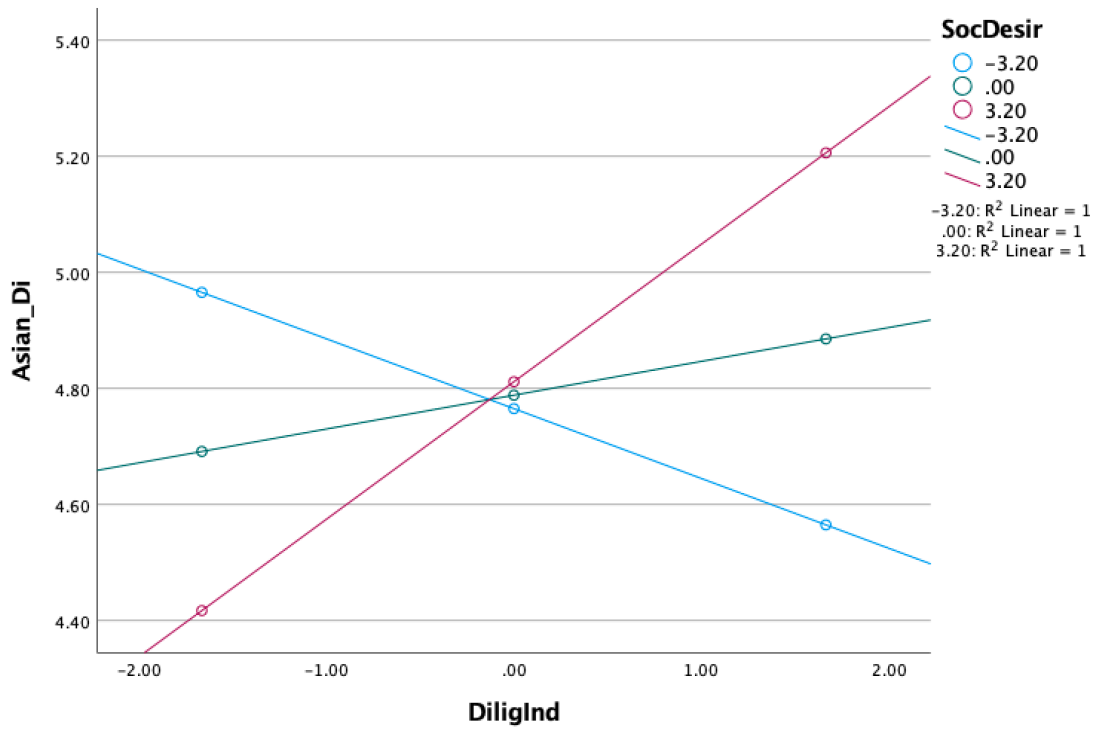


Table 10. Summary of study one Hierarchical regressions examining the potential moderator of social desirability for the relationship between specific self-concept characteristics and the endorsement of the matching stereotype in White participants.

Dependent Variable	Model	$\Delta R^2$	<i>F</i> Change	<i>df</i> 1	<i>df</i> 2
Black Helpful and Cooperative	1	.000	.060	1	145
	2	.012	1.799	1	144
	3	.004	.523	1	143
Hispanic Family Orientation	1	.011	1.608	1	145
	2	.008	1.142	1	144
	3	.007	.966	1	143
Hispanic Hard Work	1	.037*	5.594	1	145
	2	.004	.642	1	144
	3	.002	.323	1	143
Hispanic Honest	1	.085**	13.556	1	145
	2	.003	.471	1	144
	3	.001	.137	1	143
Asian Successful	1	.023	3.448	1	145
	2	.001	.199	1	144
	3	.000	.009	1	143
Asian Diligent and Industrious	1	.022	3.332	1	145
	2	.002	.362	1	144
	3	.000	.010	1	143
Asian Self-Discipline	1	.000	.032	1	145
	2	.000	.048	1	144
	3	.003	.418	1	143

*Note.* Model 1 predictors include matching self-concept item. Model 2 predictors include matching self-concept item and moderator. Model 3 predictors include matching self-concept item, moderator, and interaction.

\* $p < .05$ .

**\*\*** $p < .001$ .

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## Curriculum Vitae

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### *Education*

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Experimental Psychology: Quantitative
- M.S. University of Nevada, Las Vegas, 2020  
Experimental Psychology: Quantitative
- B.A. Saint Martin's University, 2016  
Psychology, *Cum Laude*  
Minor: Sociology

### *Research Interest*

Stereotyping • Prejudice • Diversity • Minority Group Experience •  
Racism • Sexism • Racial Identity

### *Publications*

- Millar, M., Fink-Armold, A., & Lovitt, A. (2019). Disease salience effects on desire for affiliation with in-group and outgroup members: Cognitive and affective mediators. *Evolutionary psychology*.
- Westfall, R., Millar, M., & Lovitt, A. (2018). The influence of physical attractiveness on belief in a just world. *Psychological reports*.
- Millar, M., Westfall, R., & Lovitt, A. (2018). The influence of mate value on women's desire for long and short-term mates: Implicit responses. *Personality and individual differences*.

### *Manuscripts Submitted or in Preparation*

Lovitt, A., Millar, M. (2023) The relation between positive stereotypes, negative stereotypes, and discriminatory behaviors. Manuscript in preparation.

Lovitt, A., Bolanos, K., & Millar, M. (2023) Differences in perceptions of in-group and out-group stereotype favorability. Manuscript in preparation.

Lovitt, A., & Millar, M. (2023) Perceptions, assumptions, and stereotypes of white, black, and hispanic/lantinx individuals: A qualitative investigation. Manuscript in preparation.

### ***Poster Presentations***

Lovitt, A., Bolanos, K., & Millar, M. (May 2020) *Perceptions of in-group vs. out-group stereotypes*. Poster presented at the UNLV Undergraduate Research Forum, Las Vegas, NV.

Lovitt, A., Bolanos, K., & Millar, M. (February 2020) *Perceptions of in-group vs. out-group stereotypes*. Poster to be presented at the Society for Personality and Social Psychology Conference, New Orleans, LA.

Lovitt, A., John, J., & Millar, M. (February 2019) *The impact of positive assessments on interpersonal behavior*. Poster presented at the 21<sup>st</sup> Annual Graduate and Professional Student Research Forum, UNLV, Las Vegas, NV.

Lovitt, A., John, J., & Millar, M. (February 2019) *The impact of positive assessments on interpersonal behavior*. Poster presented at the Society for Personality and Social Psychology Conference, Portland, OR.

Lovitt, A., & Artime, T. (April 2016) *Parenting and emotional styles: Comparing military and civilian parents*. Poster presented at the Western Psychological Association, Long Beach, CA.

Lovitt, A., San Agustin, J., Rickard, B., & Newton, J. (April 2016) *Relationships related to the attachment style created by parental marital status*. Poster presented at the Western Psychological Association, Long Beach, CA.

### ***Honors and Awards***

2016 - 2024      Barrick Gold Western Shoshone Education Scholarship

2016 - 2024      Wells Band Council Te-Moak of Western Shoshone Scholarship

2020 - 2023      American Indian Graduate Center Special Higher Education Program Scholarship

2021 - 2022      UNLV Patricia Sastaunik Scholarship

2021	UNLV Summer Doctoral Fellowship
2020 - 2021	UNLV Patricia Sastaunik Scholarship
2020	UNLV Summer Doctoral Fellowship
2019 - 2020	American Indian Graduate Center Special Higher Education Program Scholarship
2019 - 2020	UNLV Patricia Sastaunik Scholarship
2019	UNLV Summer Doctoral Fellowship
2019	Graduate and Professional Student Research Forum 2019 Outstanding Presentation Award – Social Science Poster Session; 2 <sup>nd</sup> Place
2018	College of Liberal Arts Ph.D. Student Summer Research Stipend
2015 - 2016	Western Shoshone Educational Trust Fund Scholarship
2014 - 2015	National Fastpitch Coaches Association Division II All-American Scholar-Athlete

### ***Teaching***

Spring 2021	<i>Instructor of Record</i> , PSY 360: Social Psychology Two sections University of Nevada, Las Vegas
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***Professional Development***

- 2020 Graduate College Mentorship Certification, University of Nevada, Las Vegas
- 2019 Todd Little's Stats Camp: R Programming for Data Science  
Albuquerque, NM
- 2018 Todd Little's Stats Camp: Multilevel Modeling  
Albuquerque, NM

***Service***

- 2020 *Graduate Student Panel Member*, Saint Martin's University, Psychology Club – panel discussing graduate school application and experience
- 2019 - 2020 *Graduate Student Mentor*, Graduate College Rebel Research and Mentorship Program - for undergraduates interested in graduate school  
University of Nevada, Las Vegas
- 2019 - 2020 *Applicant Housing Liaison*, Experimental Student Committee University of Nevada, Las Vegas
- 2018 - 2019 *Applicant Transportation Liaison*, Experimental Student Committee, University of Nevada, Las Vegas
- 2018 - 2019 *Applicant Housing Liaison*, Experimental Student Committee University of Nevada, Las Vegas
- 2017 - 2018 *Quantitative/Experimental Emphasis Representative*, Experimental Student Committee,  
University of Nevada, Las Vegas
- 2016 - 2017 *First Year Cohort Representative*, Experimental Student Committee, University of Nevada, Las Vegas
- 2016 - 2017 *Graduate Student Mentor*, Outreach Undergraduate Mentoring Program; for undergraduates in underserved populations applying to graduate school  
University of Nevada, Las Vegas

***Professional Memberships***

Society for Personality and Social Psychology

Association for Psychological Science

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***Research Experience***

2016 - Present     *Graduate Student*, University of Nevada, Las Vegas,  
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