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Stereotype Threat: A Proposed Process Model on the Impact of Stereotype Threat on Self-Efficacy and Minority Performance

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CERTIFICATE OF APPROVAL

Clinical Research Project

This is to certify that the Clinical Research Project of

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has been approved by the
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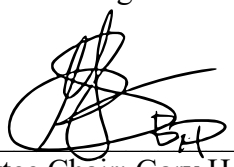
Examining Committee:



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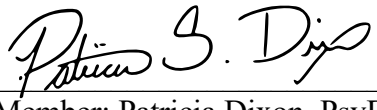

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Abstract

Kingdon and Cassen (2010) indicated that historically there has been concern about the educational achievement of minority individuals. There is a need for research about the psychological mechanisms that play a part in the minority achievement gap. This document explored how stereotype threat impacts self-efficacy and minority academic performance and implications for cultural mistrust, imposter phenomenon, and self-fulfilling prophecies. All these factors have the propensity to place minority individuals at risk for low performance, leading to gaps in education. The population of focus for this review consisted of African Americans, Latinx individuals, and women. There has been limited research about how stereotype threat can induce cultural mistrust, imposter phenomenon, and self-fulfilling prophecies, which can impact minority academic functioning. This document proposed a process model outlining the events preceding low achievement and the factors contributing to decreased educational success in minority individuals.

STEREOTYPE THREAT: A PROPOSED PROCESS MODEL ON THE IMPACT OF STEREOTYPE THREAT ON SELF-EFFICACY AND MINORITY PERFORMANCE

DEDICATION

I dedicate my clinical research project work to my family. My parents, Maurice and Cheryl Stewart, have been so influential in my life and have always propelled me to pursue my dreams. They have always had the utmost faith in me, even when I did not have it in myself; for that I am forever grateful to them. To my mother, Cheryl Stewart, I do not have enough words to thank you for your friendship, love, and support every day. I will never be able to express the amount of respect and gratitude that I have for you. Thank you for nurturing me and always having faith in me.

To my family, my tribe: You have constantly been behind me through every hardship and obstacle in life and provided me with the warmth and support that I needed. I will always be thankful for that. I also want to acknowledge my grandmother, Evelyn Jones, who has and always will be my strength and inspiration. I feel her spirit with me every day and I thank her for never leaving my side. I am truly grateful for my family's support throughout this journey. To my sister, Vikea Stewart, I love and miss you.

I also would like to dedicate this work to Dr. Gary Howell and Dr. Patricia Dixon, who have been extremely supportive during my most difficult times in this program. Your support and encouragement will continue to fuel my commitment to making my mark within this field.

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CHAPTER I: INTRODUCTION AND HISTORY

Self-Efficacy

An individual's ability to be competent and successful in life is strongly contingent upon the way a person views themselves. As Bandura developed the concept of self-efficacy, he came to argue that behavior and personality were closely related to individuals' beliefs about themselves, beliefs that were not necessarily formed through social learning (Spence et al., 2016). Bandura (1977) described self-efficacy as the ability to orchestrate and apply existing skills toward the execution of a behavior. Merolla (2017) referred to self-efficacy as an individual's outlook regarding the ability to shape their own life through their actions. Bandura (1977) and Merolla (2017) suggested that a person's perceived self-efficacy strongly impacts their success throughout life.

Higgins et al. (1985) posited that inconsistencies between the actual self (i.e., the representation of attributes that individuals or perceivers believe an individual possesses) and the ought self (i.e., the representation of attributes that one believes they should possess) result in either the absence of positive outcomes or the presence of negative outcomes, generating either depression or anxiety/agitation respectively. The presence of negative outcomes could be represented in situations where stereotype threat is present. Members of gender and ethnic minorities often experience this idea of self-discrepancy and cognitive dissonance, which can cause general emotional distress. During stereotype threat, the individual is at risk of experiencing dissonance or imbalances between their actual self and ought self. When this imbalance happens, the individual has the potential to perform worse in academic settings.

When we explore the concept of self-efficacy, it is important to note that the way skills evolve and are perceived may vary for members of different demographic groups (Ali et al., 2005; Schwartz et al., 2005; Ungar, 2015). Bandura (1977) stated that minority individuals,

many of whom face discrimination, are often confronted with contradictory goals that require both flexibility and a strong sense of agency with respect to one's own self-governance, managing social relationships, and independent learning. This concept is also true for ethnic and gender minorities. Armenta's (2010) study is consistent with Turner et al.'s (1987) investigation of self-categorization theory. Their research posits that when an individual is high in their ethnic identity, their performance is increased in situations where stereotype threat is present. An individual who is high in their ethnic identity feels a positive connection to their ethnic group. Armenta (2010) further suggested that group identification moderates the impact of stereotype boost and provides evidence that converges with existing research that gender identification facilitates the stereotype threat among women.

Stereotype Threat

Stereotype threat is a factor impacting a person's perceived self-efficacy. Steele and Aronson (1995) suggested that stereotype threat refers to the concern or worry one feels when one is at risk of confirming, as self-characteristic, a negative stereotype about one's group. Steele's (1988) research assumed that stereotype threat is the product of heightened concern about being negatively evaluated in the same way a negative group stereotype may occur. They speculated that it denotes a situational threat that can potentially diminish one's performance, which originates from a negative stereotype about an individual's own social group. Spencer et al. (2016) suggested that every individual is potentially vulnerable to stereotype threat because every individual has at least one social identity targeted by a negative stereotype in some given situation.

Stereotype boost is believed to result from a process in which the mere thought of an action, even if only at a nonconscious level, increases the tendency to engage in that action (Dijksterhuis et al., 2001; Wheeler & Petty, 2001). Throughout this document, we see that there

are data that confirm that the salience of stereotype threat impacts self-efficacy, therefore affecting performance. Armenta (2010) stated "simply being a member of a stereotyped group can affect performance on stereotype-relevant tasks (i.e., tasks for which the stereotype might apply)." Rydell et al. (2009) suggested that the accessibility of a competing social identity associated with positive stereotypes about a person's ability can preserve working memory, which then improves performance in cognitively demanding activities. These findings indicated that the activation of social identities with consistency between concepts of the self, group, and ability are a powerful weapon in combating the detrimental consequences of stereotype threat.

The most researched effect is the underperformance of threatened group members on ability tests, thereby ironically confirming the stereotype prophecy (Schmader & Beilock, 2012). Stereotype threat research has shown that the situation—namely, performing in a domain that can confirm or disconfirm a negative stereotype about one's group—contributes to group differences on tasks as diverse as intelligence tests (e.g., Steele & Aronson, 1995), memory tests (e.g., Levy, 1996), mental rotation tasks (e.g., Wraga et al., 2006), and mathematics tests (e.g., Beilock et al., 2007; Spencer et al., 1999). Steele and Aronson (1995) concluded that stereotype threat caused an inefficiency of processing much like that caused by other evaluative pressures. Stereotype-threatened participants spent more time doing fewer items more inaccurately—probably because of alternating their attention between trying to answer the items and trying to assess the self-significance of their frustration. This form of debilitation—reduced speed and accuracy—has been shown as a reaction to evaluation apprehension (e.g., Geen, 1985); test anxiety (e.g., Sarason, 1972; Wine, 1971); the presence of an audience (e.g., Bond, 1982); and competition (Baumeister, 1984). Several findings suggest that stereotype-threatened participants were both motivated and simultaneously inefficient.

Clark and colleagues (2009) suggested that there is the possibility that negative stereotypes can affect the certainty that individuals have in their performance-related perceptions, causing a decline in performance. This situational stress can promote an excess of cognitive and affective responses. The cognitive and affective responses that become present can become debilitating, therefore decreasing an individual's confidence in their abilities. When stereotype threat causes one to be unsure that they can competently perform a task, their anxiety levels increase and their ability to focus on that task weaken. Johns et al. (2008) proposed that being the target of a negative stereotype can hurt performance because regulating one's anxious response to the situation seizes the executive resources necessary for performing well in such domains. In other words, the anxiety caused by stereotype threat becomes a cognitive and affective distraction from certain tasks, which reduces efficacy. Ihme and Mòller's (2015) research supported that notion by proposing that stereotype threat lowers school achievement and learning. It also weakens the identification with the affected ethnic domain or group.

The Self-fulfilling Prophecy

When considering stereotype threat, we know it influences the individual's cognitive and emotional functioning, causing internal and mental distress. Minority individuals in the presence of an identity threat can be at risk of fulfilling the negative stereotype by reflecting behaviors consistent with the negative notions. Merton (1948) described a self-fulfilling prophecy as "an individual's false belief that influences the person's treatment of a target, resulting in the shaping of the target's behavior." According to Rosenthal (1973), The self-fulfilling process is a three-step event. First, the individual must hold an incorrect belief about a target. For instance, when a teacher underestimates a student's true academic potential. The second step involves the individual treating the target in a way that falls in line with the false belief. For instance, the previously mentioned teacher presents easier material to a student who they believe to be low

expectancy. Last, the target must then confirm the original incorrect belief, which in this case, the low-expectancy student underachieves.

Developing a positive identity and a strong sense of agency can be quite challenging, especially for members of ethnic/racial groups, who are more prone to face discrimination (Burt et al., 2012; Cabrera, 2013). Heightened levels of stereotype threat can lead to greater impacts of the self-fulfilling prophecy. The self-fulfilling prophecy is a false definition of a situation, evoking a new behavior that makes the originally false conception come true (Merton, 1948). Thus, the process consists of three steps. First, a perceiver must hold a false belief about a target, as when a teacher underestimates a student's true potential. Second, the perceiver must treat the target in a manner that is consistent with the false belief, such as if a teacher presents easier material to low-expectancy students (Rosenthal, 1973). Finally, the target must confirm the originally false belief, as when a low-expectancy student underperforms. In educational settings, it is suggested that self-fulfilling prophecy implies that students with high self-efficacy persevere and perform well, while those with low self-efficacy give up and disengage (Schunk & Pajares, 2002). Situations of stereotype threat can evoke an anxious response, causing minority students to have decreased self-efficacy and become victims of the imposter phenomenon.

Imposter Phenomenon

The term *impostor phenomenon* was developed by Clance and Imes (1978) to designate an internal experience of intellectual phoniness. Research has shown that individuals who are not connected to their identity are at risk for the imposter phenomenon. The imposter phenomenon refers to an internal feeling of intellectual phoniness. This phenomenon is often experienced by high achievers and can occur among minority individuals (Clance & Imes, 1978; Ewing et al., 1996). Individuals who experience the imposter phenomenon often believe that they have deceived others into overemphasizing their intelligence. Additionally, these individuals are likely

to attach academic success to external factors, such as luck or physical attractiveness, and fear that they will be discovered as frauds (Harvey & Katz, 1985). Strong feelings of the imposter phenomenon can impede academic success, by causing individuals to disengage from their academic endeavors (e.g., attending class, limiting campus activities). They may also tend to avoid situations where they know they will be evaluated, have constant feelings of inadequacy, and exhibit an unhealthy pressure to succeed (Ross et al., 2001).

Clance and Imes (1978) speculated that despite outstanding academic and professional accomplishments, women who experience the imposter phenomenon persist in believing that they are unintelligent and have misled anyone who may believe otherwise. This phenomenon is also present among women, African Americans, and Latinx individuals in the academic setting. People experiencing high levels of the imposter phenomenon often attribute their achievements to external factors (e.g., good social contacts, luck) rather than internal abilities. Stereotype threat is a factor that can exacerbate feelings associated with imposter syndrome. Regardless of accomplishments, advanced degrees, or professional status, individuals high in the imposter phenomenon believe that they have deceived others regarding their intellect and continually fear others discovering their perceived lack of ability (Clance & Imes, 1978). The effects of the imposter phenomenon are highly apparent within minority populations and can lead to a decrease in perceived self-efficacy.

Cultural Mistrust

Cultural mistrust is also a factor influencing how stereotyped threat can impact minority performance. A response to the historical experiences of racial discrimination in the United States is the tendency of members from ethnic minority groups to distrust White Americans, particularly those in positions of authority, and to distrust the institutional, personal, and/or social contexts that are controlled by the dominant society (Irving & Hudley, 2005). This construct is

termed *cultural mistrust* (Terrell & Terrell, 1981) and has significant implications for the educational experiences of individuals of color. The most profound concerns are seen when cultural mistrust obstructs academic progress and educational outcomes for African American students. For example, Terrell and Terrell (1983) established that for some African American students, higher levels of mistrust are associated with underperformance on standardized and intelligence tests. Research findings suggest that students who report more cultural mistrust are more likely to disengage from academic tasks and devalue education (Irving & Hudley, 2005).

The notion that African Americans have developed paranoid-like behaviors due to historical and contemporary experiences with racism and oppression was first supported by Grier and Cobbs (1968). Since they introduced the notion of "healthy cultural paranoia" in their book *Black Rage* (Grier & Cobbs, 1968), several clinicians and researchers have argued that the African American experience in the United States has caused cultural paranoia (Maultsby, 1982; Newhill, 1990; Ridley, 1984; Terrell & Terrell, 1981; Whaley, 1998). The impact of cultural trauma and mistrust becomes clear in settings where ethnic minorities are confronted with White privilege. For instance, research has shown that individuals with increased levels of cultural mistrust are less likely to seek aid from law enforcement or continue with mental health services (Whaley, 2001), both institutions that have been historically associated with White privilege. Situations where White privilege is more prominent tend to heighten anxiety levels and weaken the trust the minority individuals have for White individuals in authority. Irving and Hudley (2005) and Caldwell and Obasi (2010) have demonstrated an inverse relationship between cultural mistrust and grade point average among Black American undergraduate students. The biases that minority individuals perceive in their teachers may lead them to believe that the educational system will not reward them fairly in the long term.

Studies have suggested that the mistrust of White counselors, regardless of community or college settings, has contributed to African American clients' underutilization of counseling services, misdiagnoses, and lowered expectations (Austin et al., 1990; Watkins & Terrell, 1988). Research also supports that clients with high cultural mistrust of White individuals were less willing to self-disclose to White counselors (Thompson et al., 1994). Thus, it is quite plausible that African American clients or patients exhibit paranoid-like behaviors during interracial therapeutic encounters. Ridley (1984) pointed out that low self-disclosure, interpreted traditionally as a manifestation of psychopathology, may be due to cultural mistrust or adaptive paranoia. Thus, a healthy response to a racist society may be misinterpreted as a pathology by mental health professionals.

Statement of Problem

Individuals who belong to a negatively stereotyped or otherwise devalued group are at risk of experiencing a cognitive imbalance between their self-efficacy, their group membership, and their perceived abilities (Appel & Kronberger, 2012). There is a need for research to understand psychological mechanisms that may contribute to the racial/ethnic academic achievement gap (Bali & Alvarez, 2004; Brown-Jeffy, 2009; Fletcher & Tienda, 2010). Stereotype threat is a situation that can evoke several cognitive responses that are responsible for a decrease in minority performance. Although there are cognitive, affective, and behavioral factors that may contribute to the academic hardships experienced by minorities, one potential cause of poor performance and adjustment is the imposter phenomenon (Clance & Imes, 1978; Ewing et al., 1996). Imposter syndrome has the propensity to lower levels of self-efficacy in situations of stereotype threat, leading to lower performance. Cultural mistrust and the self-fulfilling prophecy are also factors that can contribute to low performance and lower self-efficacy. Kingdon and Cassen (2010) indicated that historically there has been concern about the

achievement of African American and Latin students, which is still relatively lower on average, though improving.

Purpose of the Literature Review

Stereotype threat has had the propensity to increase the degree to which members from minority groups were certain that they had performed poorly on a task. Self-efficacy is a factor that has influenced how stereotype threat impacts performance in minorities. This critical review of the literature explored the impact that stereotype threat has on self-efficacy in the context of minority performance. This review also explored cultural mistrust and implications for self-efficacy. Research has suggested that a strong minority identity can serve as a protective factor against stereotype threat. This literature review evaluated the impact of minority identity on stereotype threat and its implications for imposter phenomenon. Last, the review explored how stereotype threat influences minority performance and its implications for the self-fulfilling prophecy. This project focused on African American, Latinx individuals, and women.

Research Questions

The questions below guided this project and examined the implications of stereotype threat on minoritized populations.

1. What are the implications of discrimination on self-efficacy among African Americans, Latinx individuals, and women?
2. What is the impact of minority identity on stereotype threat?
3. How does stereotype threat influence minority performance?

Research Procedure

This project focused on African Americans, Latinx individuals, and women in the academic setting. Examining minority performance across all ages and multiple settings allows for a more comprehensive and inclusive look at the effects of stereotype threat on minority

performance and self-efficacy. To more thoroughly evaluate the research, articles from 1948 through 2023 were reviewed and assessed to determine the degree of the impact of stereotype threat on self-efficacy in minority academic performance.

Key terms used in the search procedure included: *stereotype, stereotype threat, self-efficacy, cultural mistrust, self-fulfilling prophecy,* and *imposter phenomenon.*

CHAPTER II: THE IMPLICATIONS OF DISCRIMINATION ON SELF-EFFICACY AMONG AFRICAN AMERICANS, LATINX INDIVIDUALS, AND WOMEN

Stereotypes can often be rooted in discriminatory ideas about a given population. Research demonstrated that individuals can act in discriminatory ways even in the absence of prejudiced motivations. Stereotypes about leadership ability, for example, might cause an employer to discriminate against women and minority applicants for a management position, even though the employer harbors no ill will toward these groups (Madva & Brownstein, 2018). This research suggested that stereotypes can elicit discriminatory actions toward an individual, even if they are unconscious.

Understanding the implications of discrimination on self-efficacy is essential in exploring the impact of stereotype threat on self-efficacy and minority performance. Negative stereotypes can affect individuals' confidence in their performance-related perceptions, causing a decline in performance (Clark et al., 2009). This is evidence that stereotype threat can directly impact a person's perceived self-efficacy, causing poor performance even if the individual is competent in that task. Discrimination has several components and can generally impact how an individual perceives their ability to succeed. This chapter explores the effects of discrimination among minorities on a broader level, followed by a breakdown of the effects of discrimination on minority self-efficacy. This chapter then discusses the implications of cultural mistrust and its impact on self-efficacy.

Exploring the Effects of Discrimination Among Minorities

We can understand racial discrimination as the unequal and unfair restriction by judgment or action of individuals due to their race (Krieger, 1999). Discrimination does not need to occur due to a person's race. It can occur against individuals who identify as a gender minority as well. Regrettably, discrimination is prevalent in the lives of individuals of color and for

gender minorities. These experiences are negative and challenging and cause feelings of inadequacy, which affect academic persistence (García-Coll et al., 1996). Additionally, individuals who experience discrimination may have lower self-efficacy beliefs (e.g., Bandura, 1977), which can lead to disengagement from schooling. This can have a detrimental impact on an individual's academic and mental capabilities.

Discrimination causes disparities in multiple areas that impact the lives of minority individuals. For instance, the workplace and academia are the most common settings for discrimination to take place; however, disparities exist in many other domains. Disparities are found in housing, loaning, and residential segregation (Shapiro et al., 2013); employment (Smith et al., 2011); education (Gregory et al., 2010); health care (Pascoe & Smart Richman, 2009; Smedley & Smedley, 2005); and the criminal justice system (Stevenson, 2011). Minority individuals are often at the bottom of the societal totem pole when it comes to access to resources. These discrepancies in resources greatly impact the lives of those affected.

Various forms of discrimination can be suppressed and internalized, causing increased levels of anxiety, maladaptive and/or risky behaviors, poor patient-provider communication, increased blood pressure, or weight gain among stigmatized groups (Bleich et al., 2019). Chronic stress from everyday discrimination can also lead to long-term changes in psychological and physiological responses. It has contributed to persistent disparities across a range of health outcomes, such as life expectancy and diet-related disease (e.g., obesity), as well as the quality of care received in the health care system. Substance use has also been found to be affected by experiences of perceived discrimination (Borrell et al., 2007; Gibbons et al., 2004). In addition, a negative association with belief in one's academic competence has also been substantiated (Wong et al., 2003). Prior studies employing biological markers reveal that the brain's biological

response to repeated acts of discrimination and racism—whether real or perceived—raises an individual's cortisol levels (Krieger, 2012), which can increase inflammation that causes heart disease, diabetes, infection, and obesity.

Chronic stress, a substantial consequence of discrimination exposure, produces depressive symptoms and disrupts components of the body's physiological response to stress (Ehlert et al., 2001; Tafet & Bernardini, 2003; Vyas et al., 2004). For instance, stress exposure has been shown to lead to hyperactivity of the amygdala and the hypothalamic-pituitary-adrenal axis and to increase secretion of cortisol and corticotrophin-releasing hormone, all of which are components of the physiological stress system that have been individually associated with depression (Chrousos & Gold, 1992; Drevets, 2001; Tafet & Bernardini, 2003). This biological component gives support to the notion that heightened levels of discrimination lead to high stress and negatively impact an individual's physiological well-being.

Brondolo et al. (2018) proposed a theoretical framework highlighting the social cognitive processes linking racial discrimination and health outcomes. This framework suggests that discrimination on all levels (e.g., communication, institutional policies and practices, interpersonal practices) impacts schemas, threat appraisal, and cognitive processes. Schemas are "mental structures composed of networks of linked thought, feelings, and attitudes" (Brondolo et al., 2018, p. 222) that influence individual interpretation and processing of new experiences. Individuals develop schemas about themselves, their peers, and the world via life and educational experiences. Individuals living in environments where they perceive frequent discrimination develop schemas that heighten perceptions of racism. These schemas may be associated with the threat appraisal process, influencing how individuals evaluate circumstances that could be perceived as threats. Thus, schemas developed in social environments reflecting

prevalent discrimination may influence the threat appraisal process, potentially amplifying threat perception (Brondolo et al., 2005; Outlaw, 1993). This amplified threat perception may adversely impact academic performance, productivity, and mental health.

African Americans experience discrimination on multiple levels, including interpersonal (i.e., discriminatory interactions between individuals), institutional (i.e., discrimination in employment, housing, or health care), and cultural (i.e., widespread acceptance of stereotypes) (Harrell, 2000; Jones, 2000; Krieger, 1999). Discrimination toward African Americans is an issue that challenges the core principles of fairness and equality of opportunities in the United States. It also produces health consequences and explains a broad proportion of the health gap. African Americans have been disproportionally subjected to both institutional racism (i.e., institutions, policies, and practices that perpetuate barriers to opportunities and racial disparities, such as through residential and educational segregation) and interpersonal racial discrimination (i.e., directly perceived discriminatory interactions between individuals such as racial slurs or microaggressions). These acts are linked to major physical and mental health consequences, including mortality, hypertension, depression, anxiety, and psychological distress (Bleich et al., 2019). African Americans continue to face considerable barriers to equal treatment across public institutions, particularly with the police and health care, which harmfully impacts health and safety.

Discrimination carries major health consequences for Latinos in the United States. It also carries significant outcomes for Latinos' opportunities for fair treatment in education, occupations, wages, medical care, and public safety. Additional research has found that persistent and recurrent discrimination produces substantial challenges with health over time. This is typically due to gradual wear and tear on the body's systems. Findling et al. (2019) found

that irrespective of socioeconomic status, Latinos reported undergoing discrimination at significantly higher levels than Whites in health care and several other social institutions. This includes participating in clinical encounters and avoiding seeking health care due to anticipated discrimination. Discriminatory encounters with colleagues or students intensify the sense of marginalization, not belonging, and hypervigilance in Latino individuals (Chávez, 2011; Griffin et al., 2011; Zambrana et al., 2017b). The daily stress caused by discriminatory experiences diminishes physical and mental resources. They expend high levels of emotional labor (Harvey-Wingfield, 2010), often termed *racial battle fatigue* (Smith, 2008). Additionally, it reduces opportunities to engage in the intellectual labor required to advance careers (Harvey-Wingfield & Alston, 2014; Rodríguez et al., 2014, 2015). Enduring structural factors of embedded discriminatory practices in the workplace increase vocational strain, role overload, and susceptibility to physical and depressive symptomology (Brondolo et al., 2018; Burgard & Lin, 2013),

Gender inequalities are especially evident in the workplace. For instance, on average, women are more likely to work part-time, be employed in low-paid jobs and not take on management positions (Verniers & Vala, 2018). There is evidence that gender inequalities in the workplace stem, at least in part, from the discrimination directed against women. Some examples of how workplace discrimination negatively affects women's earnings and opportunities are the gender wage gap (e.g., Peterson & Morgan, 1995), the absence of women in leadership (Eagly & Carli, 2007), and the longer time required for women to advance in their careers compared to men (Blau & DeVaro, 2007). In other words, workplace discrimination impacts women's lower socioeconomic status. Both the objective disadvantages of lower pay, status, and opportunities at work, and the subjective experiences of being stigmatized, affect women's psychological and

physical stress, mental and physical health (Adler et al., 2000; Borrel et al., 2010; Goldenhar et al., 1998; Schmader et al., 2008), job satisfaction and organizational commitment (Hicks-Clarke & Iles, 2000), and ultimately, their performance (Cohen-Charash & Spector, 2001).

Exploring Self-Efficacy

If we refer to the social cognitive theory, we see that self-efficacy beliefs assist in determining human motivations for engaging in actions that lead to goal accomplishment (Urban & Pajares, 2006). This is relevant because Burt et al. (2012) speculated that a strong sense of self-efficacy can help individuals facing discrimination and hardship make choices that offer protection against risk and can enable them to take advantage of key opportunities. Self-efficacy beliefs have been positively linked to academic achievement, performance expectancies, self-perceptions of competence, and possessing positive attitudes toward subject matter (Reid, 2013). Merolla's (2017) research suggested that self-efficacy is linked to educational achievement because students with higher levels of self-efficacy are more likely to engage in behaviors conducive to high achievement. This research suggests that when students have confidence that they can perform a task and are high in self-efficacy, they are often more likely to challenge themselves. Reid's (2013) data supported this by showing that students with a heightened sense of self-efficacy also tend to take more challenging courses and are better at solving conceptual problems.

Integrating personal functioning and self with professional knowledge, values, and identity (Collins, 1993) is critical to developing competence in academic and work settings. Research about masculine self-perception suggested that boys learn to expect that violations of masculine norms result in negative social consequences (Fuchs & Thelen, 1988; Zeman & Garber, 1996), including social condemnation and negative psychological consequences (Rummell & Levant, 2014). This internal stress can lead to lower levels of self-efficacy and poor

performance due to cognitive and emotional strain. Rice et al. (2013) suggested that perfectionistic self-criticism for students pursuing academic degrees seemed beneficial, but with gender subtly placed into awareness, self-critical perfectionism became problematic. Berke et al. (2017) found that men exposed to gender-threatening feedback demonstrated more aggression-related emotion activation than those receiving non-threatening feedback. Their findings support that gender-threatened men demonstrated greater tolerance, suggesting that this behavior serves as a socially expressive function (i.e., appearing tough and, by extension, appearing masculine). This research supports the idea that when individuals are in situations where stereotype threat is present, their attitudes and behaviors are affected.

Effects of Discrimination on African Americans' Self-efficacy

Minorities, many of whom face discrimination, are often confronted with conflicting goals that require flexibility and a strong sense of agency regarding self-governance, managing social relationships, and independent learning (Bandura, 1977). For African Americans, the definition of self and contributions to society are largely based on being a person of color and coping with experiences unique to being a person of color (e.g., García-Coll et al., 1996).

Beliefs about one's competency are also referred to as self-concept of ability, and they play key roles in achievement (Eccles, 1994; Eccles & Wigfield, 2002; Wang & Degol, 2013). Emotions that a student experiences about education are intricately woven with self-esteem, self-concept, and feelings of self-efficacy. For African American students, it is not uncommon for self-efficacy to be diminished within the classroom environment. Self-efficacy is predictive of task value, and these beliefs play a role in achievement over time (Denissen et al., 2007; Jacobs et al., 2002; Meece et al., 1990; Watt, 2006). Unfortunately, a student who lacks confidence in their ability to succeed has low self-efficacy, which can be the case for many African American students. This makes the student prone to withdraw effort, leading to poor performance. This

approach protects self-esteem because the student can attribute failure to a lack of effort rather than low ability (Thompson et al., 1994). The best way to avoid that is for students to develop the academic skills and abilities that lead to success when the effort is put forth.

Teacher discrimination has the tendency to sever bonds of students to school and to schooling, undermining the belonging, trust, and connectedness that foster positive academic outcomes and student well-being (Benner et al., 2015; Eccles & Roeser, 2011). Consequently, teachers' racially discriminatory behaviors may diminish students' academic beliefs, values and achievement (e.g., Eccles & Roeser, 2011; Wang & Degol, 2013). Negative school racial climates are characterized by higher rates of teacher discrimination. This has been associated with lower levels of academic beliefs and performance among students of color (Benner & Graham, 2013; Byrd & Chavous, 2011; Chavous et al., 2008; Green et al., 1988; Ryan & Patrick, 2001). Further, earlier work has observed that more positive school racial climates (in this case, school-level aggregated perceptions of climate) were associated with increases in academic self-efficacy among African American students (Green et al., 1988). African American students may disengage from or be less active in classrooms where they witness teacher differential treatment (e.g., teachers calling on African American students less often, disciplining African American students more harshly)—to avoid being the target of teachers' differential treatment themselves (McGee & Martin, 2011; Milner, 2006). This anticipatory behavior on the part of students may minimize reports of teachers' differential treatment, in that students learn to minimize situations where teachers could discriminate against them.

Smalls et al. (2007) found that experiences with discrimination were associated with African American students endorsing higher public oppositional academic identity attitudes (e.g., "I feel that I must act less intelligent than I am so other students will not make fun of me") and

lower academic persistence. This body of work highlighted the damaging consequences of racial discrimination on African American students' academic performance and beliefs. Fordham and Ogbu's (1986) well-known cultural-ecological theory posits that African Americans tend to see academic pursuits as useless due to perceived racial barriers in academic and occupational fields. Consequently, they come to devalue academic orientations and behaviors relevant to school success and occupational mobility. Consequently, this pattern of behaviors can translate into adulthood, creating barriers between the student and academic success. Psychological frameworks suggest that academic dis-identification occurs when African Americans disconnect their personal identity from domains in which they experience stigma or discrimination (such as the academic domain). Doing so allows them to protect their general self-concept, but it harms their academic success (Crocker & Major, 1989; Osborne, 1997; Steele, 1997).

Higher education among African Americans has also been shown to be associated with increased exposure to racial discrimination (Dailey et al., 2010). Those of high socioeconomic position may also be more likely to experience discrimination given that some higher educational environments or workplaces associated with higher socioeconomic position may lack diversity and social support for minorities (Hagan et al., 2005; Mays et al., 1996; Pager & Shepherd, 2008; Seaton & Yip, 2009; Stainback & Irvin, 2012; Whittaker et al., 2015; Zhang & Hong, 2013). In these higher socioeconomic position environments, minorities exposed to discrimination may be more likely to engage in effortful coping (James et al., 1983; Zhang & Hong, 2013). The concept of effortful coping is defined as the spending of high levels of effort to overcome barriers to achievement, such as discrimination, typically faced by disadvantaged populations (James et al., 1983). This strategy of expending enormous amounts of effort to overcome one's disadvantaged position in society often has unfavorable impacts on one's physical and mental health (James et

al., 1983). For example, the effort required to achieve high educational attainment in the face of high discrimination may have damaging physiological and psychological costs. This results in a stronger association between discrimination and mental health among highly educated minority individuals (Zhang & Hong, 2013). Cross-sectional data with African American college students indicated that students who reported greater levels of racial discrimination distress were more likely to worry about their academic workload, study skills, and time management (Chao et al., 2012). These factors give support to the stress that is accompanied with being an African American in academia and workspaces.

Effects of Discrimination on Latinx Individuals' Self-efficacy

Latinx individuals experience a great deal of prejudice and discrimination. This discrimination operates in several areas from limited employment opportunities (Carvajal, 2004; Pager, 2007) to increasing mistreatment in the criminal justice system (Bottoms et al., 2004; Lee, 2007). In the case of Latinx individuals, the cultural threat they represent partly derives from perceptions of them as un-American and criminals. There are many other harmful stereotypes of Latinx individuals, such as being lazy and unintelligent, which indefinitely influence the way they are treated in America. One of the main causes of discrimination against Latinx individuals is the perception that they are un-American, meaning they do not embrace or behave in line with American values. Many non-Latinos view Latinx individuals as not wanting to adapt to American culture, which is problematic given that, in general, dominant society members prefer that nondominant members desire assimilation (Berry, 1992). Historically, African Americans have been associated with crime, but recent data have shown that this association now also applies to Latinx individuals as well. One of the most prominent stereotypes of Latinx individuals is that they are criminals (Niemann et al., 1994; Takaki, 1993). Supporting the notion that they are viewed as criminals is research showing that American respondents reported feeling

property, trust, and safety threats in reference to Latinx individuals (Cottrell & Neuberg, 2005). The emphasis on enforcement in our current immigration policies also serves to heighten the association between Latinx individuals and crime. Many of these policies, and the language used in them, depict Latinx individuals, particularly immigrants, as criminals. These outward acts of discrimination can be internalized, causing adverse effects on mental health.

Perceived discrimination has been associated with a variety of adverse physical and mental health outcomes among racial/ethnic minorities, including Latinx individuals (for meta-analyses and meta-analytic reviews, see Carter et al., 2019; Lee & Ahn, 2012; Paradies et al., 2015; Pascoe & Smart Richman, 2009; Priest et al., 2013; Schmitt et al., 2014). However, perceived discrimination's link to academic functioning has received relatively less attention. A meta-analysis that focused exclusively on Latinx samples showed that most studies examined anxiety and depression as outcomes relative to perceived discrimination, and only a handful included academic variables, most of which were cross-sectional, and all involved schoolchildren or adolescents rather than college samples (Lee & Ahn, 2012). This lack of research on Latinx college samples is notable, given that related research (not specifically focused on perceived discrimination) indicates that Latinx college students have reported experiences of being made to feel academically inferior to other racial/ethnic groups (Keels et al., 2017) and feeling a lack of fit in academic spaces (Cerezo et al., 2013). As such, Latinx students may be vulnerable to academic distress in the context of perceived discrimination.

Although empirical studies have not investigated the connection between perceived discrimination and academic distress among Latinx college students, a study (Keels et al., 2017) assessed the longitudinal effect of academic inferiority microaggressions (defined as experiences of being made to feel academically inferior because of one's race/ethnicity) on grade point

average among Latinx and African American college students. This study was unsuccessful in finding a significant longitudinal link. It should be noted that the absence of longitudinal findings in Keels et al.'s (2017) study does not prevent the existence of a longitudinal effect between perceived discrimination and academic distress for the following reasons. First, Keels et al. focused solely on academic inferiority microaggressions occurring in a school/campus context. Although school/campus-based and academically related microaggressions are an integral part of Latinx students' experience with racism, a sole focus on these types of experiences does not consider the prevalent and accumulative nature of racism (Carter, 2007). This information further suggests that there is an overall absence of literature that discusses Latinx individuals' academic performance and how it is linked to discrimination and self-efficacy.

Perceived discrimination may heighten Latinx students' distress around academic matters (e.g., "I am unable to keep up with schoolwork," "It is hard to stay motivated for my classes," as measured by CCAPS-62; Locke et al., 2011). This research suggested that self-efficacy in Latinx students is a highly relevant topic. High self-efficacy is a component that has been identified as facilitative (e.g., Portes & Rumbaut, 2001). It has been associated with positive outcomes emotionally and academically for students across the board. Regardless of growing college enrollment, Latinx students continue to face biased and discriminatory treatment related to their racial/ethnic minority status (Pérez et al., 2008). Higher education may relate to increased opportunities for exposure to racism and discrimination as Latinx individuals navigate higher educational or work environments where they may lack social support as a minority. Individuals with higher levels of education may be more likely to live or work in environments dominated by non-Latino Whites. This environment can potentially increase exposure to or awareness of discrimination.

Latinx individuals can sometimes live in a state of constant vigilance due to their membership in multiple disadvantaged social categories, such as having a lower socioeconomic position, being an immigrant, working in lower-income occupations with little opportunity for upward mobility, and simply being an ethnic minority (Flores et al., 2008; Slavin et al., 1991). Association in multiple disadvantaged categories can lead Latinx individuals to experience discrimination on multiple fronts, and this sustained stress exposure may result in poor mental health outcomes. The Latinx community faces significant socioeconomic disparities in the United States, with lower overall educational attainment, higher high school dropout rates, lower individual income, and a smaller proportion of insured individuals than other racial/ethnic groups (Motel & Patten, 2013). In addition, compared to other minority groups, many Latinx individuals experience unique cultural stressors that are closely tied to the experience of discrimination, such as the immigration process, issues with legal status, language differences, and acculturative stress (Cervantes & Castro, 1985). Mental health status is especially susceptible to the negative effects of discrimination as a consequence of diminished self-efficacy and increased chronic stress (Dion et al., 1992). Discrimination may block the ability to achieve one's goals, and psychological distress can result from discord between one's ambitions and the capacity to fulfill these goals (Dressler, 1988; James, 1994; Neighbors et al., 1996; Sellers & Shelton, 2003). Discrimination produces a layer of chronic stress additional to typical college student life demands (i.e., minority stress; Carter, 2007) to influence Latinx students' academic distress, therefore involving difficulties with concentration or motivation.

Effects of Discrimination on Women's Self-efficacy

Bandura (1997) and Schwarzer (1992) found that a strong sense of personal efficacy is related to better health, higher achievement and better social integration. Perceived self-efficacy has an influence on preparing action because self-related thoughts are a key component in the

motivation process. People with high self-efficacy choose to achieve more challenging tasks (Bandura, 1977). They set high goals for themselves and stick to them. Actions are pre-shaped in thought, and people expect either optimistic or pessimistic consequences in line with their level of perceived self-efficacy. Once an action has been taken, highly self-efficacious people invest more effort and persist longer than those low in self-efficacy such that, when there is a setback or an impediment to achieving their goals, individuals with high self-efficacy recover more quickly and maintain commitment to these goals. High self-efficacy also allows people to select challenging settings, explore their environment, or create new ones.

We know self-efficacy influences people's goal choices, the effort to reach those goals, and perseverance and determination to reach the goal when obstacles arise (Bandura, 1997; Pajares, 2005). Self-efficacy is a significant predictor of the level of motivation and, ultimately, task performance (Bandura & Locke, 2003). Higher self-efficacy is related to accepting more challenging goals and greater commitment to those goals. Moreover, self-efficacy influences whether discrepancies between performance and goals are motivating or discouraging. For example, a student's goal grade for her mathematics test was an A, and she earned a B. If she had high self-efficacy, she would attribute her shortcoming to insufficient effort, "If I had studied more, I could have earned an A. Next time I will work harder." However, if she has low mathematics self-efficacy, she will attribute her shortcoming to a lack of ability, "I just do not get this material; I am not capable of getting an A in this course" (Zimmerman, 2000). This research is important to consider because it highlights the importance of having high levels of self-efficacy to achieve goals.

Weisgram and Bigler (2007) demonstrated that a role model's effect on young women's science, technology, engineering, and mathematics (STEM) self-efficacy was increased when the

role model addressed gender discrimination in STEM fields. Young women who attended sessions about gender discrimination in scientific fields endorsed considerably higher levels of science self-efficacy than those who did not. The gender discrimination presentation contained instances about ways that gender discrimination impacts female scientists today, as well as the biographies of well-known female scientists who faced gender discrimination throughout their careers. Weisgram and Bigler (2007) proposed that the gender discrimination sessions may have positively affected girls' self-efficacy because it led them to reframe past negative feedback about their own and females' performance in science to discrimination rather than a lack of ability. This research suggests that knowledge about gender discrimination in STEM fields can serve as adaptive. The knowledge about discrimination in this instance is positive because self-efficacy is increased when women acknowledge that discrimination in STEM is more related to gender than actual ability. This research is conflictual with racial discrimination data because larger bodies of research provide support that ethnic discrimination lowers self-efficacy.

Hackett and Betz (1981) hypothesized that, largely because of socialization experiences, women tend to have fewer expectations of self-efficacy relative to traditionally male occupations. Hackett and Betz (1981) also suggested that this may impact women's systematic underrepresentation in the so-called male professions and trades and to withstanding occupational segregation. However, the number of women earning college and advanced degrees is now higher than men, and more than 50% of middle management positions in organizations are occupied by women (U.S. Bureau of Labor Statistics, 2010). On average, women only earn about 75% of men's wages and are still underrepresented in higher leadership positions (U.S. Bureau of Labor Statistics, 2010). This information highlights reasons women may have lower levels of perceived self-efficacy. Perceived self-efficacy (Machida & Schaubroeck, 2011) plays a

significant role in women's career advancement and confidence in their ability to function effectively in leadership roles.

Traditionally, women are viewed as independent from their male colleagues particularly about instinctive personality makeup and gender socialization (Greer & Greene, 2003). Previous research indicates that adult women are more likely to reject entrepreneurial ventures and to limit their ultimate career choices because of diminished confidence in relevant skills (Bandura, 1977). In examining gender differences, empirical evidence advocates that women are likely to have lower outlooks for success in a wide range of occupations (Eccles, 1994) than men, particularly in careers that have been seen in the past as non-traditional for women (Bandura et al., 2001). For instance, women's representation in athletic administration has shown a steady increase; however, the representation of women heading athletic departments (i.e., athletic directors) has not significantly increased for the past three decades; in 1980, the number was 20.0%, while in 2011, it was 20.3% (Acosta & Carpenter, 2012).

Exploring Cultural Mistrust

Cultural mistrust extensively impacts the help-seeking behaviors of African American individuals. Attitudes toward seeking professional psychological help, or help-seeking attitudes, are defined as the tendency to seek or resist professional psychological aid during crises or after prolonged psychological discomfort (Fischer & Farina, 1995; Fischer & Turner, 1970). Many African American clients approach mental health treatment and counseling differently than White clients. African American clients are more likely to receive mental health treatment under emergency conditions and under coerced and mandated conditions rather than under the preferred conditions (e.g., voluntary, self-referred) that White clients receive treatment (Hu et al., 1991; Takeuchi & Cheung, 1998). This is largely due to the stigma within the Black community that mental health is not necessary and is inaccessible and the lack of representation within the

field. Cultural mistrust results in African Americans believing that White individuals do not create a safe and trusting environment. Once in counseling, some African American clients may view White counselors as racially biased representatives with motives that reject the client's cultural values and may perceive the counseling process as an instrument of oppression (Sue & Sue, 2003). Individuals within the Black community are constantly oppressed in various fields, and the mental health field has a racist past as well.

Experiences with racial discrimination and feelings of cultural mistrust may influence an individual's perceptions about whether earning an education leads to upward social mobility (Irving & Hudley, 2005). Researchers have stated that racial discrimination may influence values toward education by making individuals pessimistic about the opportunities for them in the labor market (Perreira et al., 2013). Because ethnic minority males are more likely to experience racism and/or respond to racism differently than female students, they may be more likely to mistrust members of other racial and ethnic groups than their female counterparts. Ethnic minority male adolescents reported more cultural mistrust than female students (Benner & Graham, 2011). Given that cultural mistrust is related to academic outcomes, as described previously, cultural mistrust in education may have a greater influence on the academic achievement of Latino male youth relative to their Latina counterparts. The reports of greater perceived racial discrimination among males may negatively influence how they perceive and/or value education. For Latinos, experiencing racial discrimination may make them harbor more cultural mistrust, leading them to perceive that education has fewer economic benefits. The awareness of the negative attitudes and stigma associated with being a Latino individual in broader society may make Latino individuals more susceptible to the negative influences of racial discrimination.

The associations of cultural mistrust with several negative psychosocial outcomes have also been studied. High levels of cultural mistrust in minority students have been found to be associated with poorer IQ test performance with a White examiner versus a minority examiner (Terrell & Terrell, 1983; Terrell et al., 1981). Individuals with high cultural mistrust scores also have lower occupational expectations (Terrell et al., 1993) and are more prone to antisocial behavior (Biafora et al., 1993). These adverse outcomes are inconsistent with the belief that cultural mistrust represents an adaptive or beneficial strategy in the context of a racially oppressive society. Previous research indicates that cultural mistrust negatively influences academic attitudes and achievement. In a study of African American undergraduate students, more cultural mistrust significantly predicted lower expectations for the value of education and lower grade point average (Caldwell & Obasi, 2010). Irving and Hudley (2005) found that more cultural mistrust among African American high school students was associated with increased oppositional attitudes toward education, low value of education, and lower expectations for the role of education in career advancement and upward mobility. Perceived limitations of education may reflect actual race and gender disparities in education. For instance, the lifetime earnings of Latinx individuals are lower compared with White individuals at every level of educational attainment (Carnevale et al., 2011). Also, Mickelson (1990) found that while African American high school seniors perceived more economic benefits of education compared with White students, they also perceived more economic limitations toward education. Thus, it is likely that ethnic minority students' encounters with discrimination and cultural mistrust in education would impact their perceptions of the economic limitations of education.

How Cultural Mistrust Impacts Self-efficacy

We know that cultural mistrust is a construct that can impact a minority individual's help-seeking behaviors and outlook on services. There is conflicting research that suggests that cultural mistrust can be an adaptive factor or a maladaptive factor.

African Americans' social status as a visible minority may cause them to have a heightened sense of public self-consciousness (Kramer, 1998). Public self-consciousness reflects the individual's perception of self as a social object (Fenigstein et al., 1975). Indeed, research suggests a positive correlation between public self-consciousness and paranoia (Bodner & Mikulincer, 1998; Fenigstein & Vanable, 1992; Kramer, 1994). Bodner and Mikulincer found that greater self-focused attention after personal failure resulted in depressive-like responses, whereas greater other-focused attention under the same circumstances produced paranoid-like responses. These findings are consistent with research on patients with clinical paranoia who are similar to patients with depression in terms of negative self-relevant information but differ in that they make external attributions or blame others for their personal failings (Bentall et al., 1994). This relationship between self-consciousness and paranoia may explain the finding of high self-esteem and low personal efficacy in African Americans (Hughes & Demo, 1989). African Americans may attribute their lack of personal efficacy to socio-structural barriers instead of dispositional factors.

Although there is solid evidence that minority individuals have diminished self-efficacy when in situations of discrimination, evidence suggests otherwise. Whaley and Smyer (1998) found that cultural mistrust decreased African American adolescents' perceptions of job competence and of global self-worth, thus adding to the perception that schooling does not improve the chances of getting a job in an unjust society. This research supports the idea that cultural mistrust leads minority individuals to believe that existing in a White society weakens

self-value and competence. Conversely, research suggests that African Americans who experience higher levels of discrimination report greater self-efficacy. For instance, Rollins (2000) found that African American adolescents who reported a higher degree of discrimination against their ethnic group also reported greater self-efficacy for various career decision-making tasks. Another study found that African American students reported significantly higher career decision-making self-efficacy than those from other ethnic backgrounds, including Native American, Asian American, and Caucasian American students (Chaney et al., 2007). This research is supportive of the notion that discrimination can serve as an adaptive factor by allowing cultural mistrust to be a motivating factor toward success.

Paranoia may also serve as a self-protective function against racially based threats to self-esteem for African Americans, but it may be misinterpreted as pathology by clinicians, leading to the misdiagnosis of schizophrenia (Ridley, 1984). The cultural norms of African American clients and White clinicians relevant to paranoid behaviors are markedly different. Insensitivity to cultural aspects of paranoia may be further complicated by the fact that lack of trust in African Americans is more likely to be associated with depression than with schizophrenia (Whaley, 1997); however, clinicians tend to overlook symptoms of depression in African Americans and over-diagnose schizophrenia (Strakowski et al., 1997). Consistent with Zigler and Glick's (1988) hypothesis, cases of paranoid schizophrenia may really be "camouflaged depression" in African Americans. Clinical symptoms of depression can manifest as a lack of motivation, diminished effort in task completion, and lower self-esteem. These factors can often lead to lower self-efficacy and poorer performance on tasks. Overdiagnosis of schizophrenia reflects, in part, a lack of awareness on the part of clinicians of the heightened public self-consciousness associated with culturally based mistrust that is more likely to conceal an underlying depression in African

Americans—if there is a mental health problem at all. When an individual has heightened self-consciousness, they tend to perform worse, fearing that others can see right through them. This phenomenon of imposter syndrome is discussed in the next chapter.

Chapter II Limitations

Butler-Barnes et al.'s (2013) work added to research on discrimination and academic persistence. Their research contributes to the field by supporting the importance of students' perceptions of their academic environments. Their study involved socioeconomically diverse African American students, and their research also provides salience for their self-efficacy and self-acceptance beliefs. The researchers indicated how increased levels of racial pride and self-acceptance could potentially increase academic performance and educational attainment rates. While the research supported the importance of how students perceive their academic environment, the study had limitations. The data were cross-sectional, limiting the researchers' ability to make interpretations about the relationships found in this study. By utilizing longitudinal examinations of how these factors function over time, the researchers could have provided information on how cultural resources operate in the lives of African American students. Last, data from their study were self-reported. Data utilizing self-report measures tend to be at risk for issues of reporting bias.

Ward et al. (2019) examined the connection between perceived discrimination and depressive symptoms. The researchers also explored the role of education among a population of Mexican-origin individuals. While their investigation added to the research on the Mexican-origin population, their study did not add to the research on the general Latinx population. Their research also did not discuss how perceived discrimination and depressive symptoms impact academic performance.

Aelenei et al. (2020) posited that self-enhancement values are associated with a high level of academic success. For instance, a “highly competitive” program is often presented as a way to propose that the program is of high quality. Applying to a “highly competitive” program shows a display of self-enhancement values but could also prevent female students from taking full advantage of their academic opportunities, which the researchers have suggested. While their research added to the literature, they have not fully addressed the direct relationship between the selection practices of the school programs and the students’ perceptions of the academic culture based on self-enhancement values. For instance, the link between self-enhancement values and academic success is stronger when the type of evaluation in the course is based on relative performance as opposed to personal improvement (Smeding et al., 2013).

CHAPTER III: EXPLORING MINORITY IDENTITY AND ITS IMPACT ON STEREOTYPE THREAT

To understand how stereotype threat impacts a minority individual's identity, we should first explore what identity entails. Ethnic identity is defined as the significance and meaning individuals attribute to their race (Sellers et al., 1998). Empirical data have suggested that ethnic identity has the power to strengthen self-esteem and can lead to the development of coping responses that can serve as protective factors against experiences of racial discrimination that are often present during stereotype threat (Neblett & Carter, 2012; Neblett et al., 2012; Rowley et al., 1998). Ghavami et al. (2011) speculated that minority individuals who identify more strongly with their minority group report greater psychological well-being.

Identity as a member of a marginalized group includes the experience of various forms of oppression and the interactions of sociopolitical forces, such as the sexism embedded in racism (e.g., Le Espiritu, 2004; West, 2004). This supports the notion that having an affirmed social identity can offset the negative effects of stereotype threat. By exploring the multiple components of identity, we can explore why stereotype threat has such a detrimental impact on minority performance. Identity is a key component of human existence and can serve as a protective factor against the effects of stereotype threat. This chapter discusses what happens when a minority individual's identity is at risk of being threatened. It is pertinent to explore identity in minority individuals, to better understand its role in the effects of stereotype threat. This chapter explores identity on a broader level, followed by a breakdown of various identity models. It is beneficial to explore stages of minority identity because, depending on their stage of identity development, the effects of stereotype threat may fluctuate. This chapter then discusses

how identity affirmation can serve as a protective factor against stereotype threat and its implications for imposter syndrome.

Reviewing Stereotype Threat

Stereotype threat has had the propensity to increase the degree to which members from minority groups were certain they had performed poorly on a task. Self-efficacy is a factor that has influenced how stereotype threat impacts performance in minorities.

Schmader et al. (2008) posited that stereotype threat stems from a cognitive imbalance that appears to happen when an individual's positive sense of self is not consistent with the expectations of their identified social group to which they fail in a given performance task. For example, most women view themselves as capable, competent, and able to achieve. However, there is a pervasive stereotype that women are poor at mathematics (e.g., Beilock, 2008; Beilock et al., 2007; Spencer et al., 1999). This creates a cognitive imbalance in women because, without activation of the female social identity, they expect to be competent in mathematics. Additionally, society pressures women to be competent overall and able to achieve in tasks outside of academia. Women are often expected to display multiple identities gracefully. For instance, women are often socially expected to be academically successful, occupationally competent, domestically proficient, and present as pleasant and feminine. Yet, when the negative stereotype about women and poor mathematics performance is made accessible by activating their female identity (e.g., Schmader, 2002; Shih et al., 1999), this stereotype directly contradicts their positive expectations. The contradictory information about how the self performs in mathematics and how women perform in mathematics sets the stage for stereotype threat. This example supports research implying that making people aware, either blatantly or subtly, of negative stereotypes relevant to a social group to which they belong can impair an individual's performance in the stereotyped domain (Steele, 1997; Steele et al., 2002). As Schmader et al.

(2008) outlined, when the concept of the group (e.g., “I am a woman”), the concept of the self (e.g., “I am a good, intelligent person”), and the concept of the ability domain (e.g., “I am good at mathematics”) are inconsistent because of the predominant stereotype that women are poor at mathematics (i.e., logically, given these propositions, one cannot be both a female and good at mathematics, it sets into motion a surge of psychological processes that impair women’s success with mathematics problems. Research suggests that such imbalances lead to verbal ruminations or worries about performance and worries about confirming the disparaging stereotype, reducing working memory resources required to solve difficult mathematics problems (Beilock et al., 2007; Cadinu et al., 2005). Research has shown that females are impacted by stereotype threat when they are in an evaluative situation in which their gender is made relevant (Nguyen & Ryan, 2008). In this condition, females perform worse in assessing conditions than females in situations where gender identity is not primed, whereas males perform equally in both conditions. However, only females with higher levels of gender identification appear to be affected by stereotype threat (Schmader, 2002). Similarly, females with higher levels of gender identification perform worse on visual search tasks than males when the test is described as a spatial task (Massa et al., 2005). This research supports the notion that when an individual identifies with a certain group, stereotypes about that group affect them more.

Ihme and Mòller (2015) showed that attentiveness and working memory of African American and Latino students weakened after they were reminded of the stereotype of these groups as mentally inferior. In later sections, we see that data have supported the idea that when a minority member is reminded of stereotypes related to the group that they belong to, their self-efficacy is decreased. Additionally, under conditions that reduce psychological threat, Walton and Spencer (2009) showed that stereotyped students performed better than nonstereotyped

students at the same level of past performance. Steele and colleague (Steele, 1997; Steele & Aronson, 1995) further suggested that members of stereotyped groups may face increased stress and tension when placed in circumstances where their behavior and performance could be interpreted as support for the validity of that stereotype. African Americans, for example, may feel especially concerned and anxious in intellectual testing situations because they fear that their performance will be judged in terms of the stereotype that associates their racial identity with poor academic and intellectual ability. These students may have the propensity to spend more time attempting to disconfirm negative stereotypes instead of focusing on the task itself.

McKown and Weinstein (2003) found that the concentration and working memory of African American and Latino students declined after they were reminded of the stereotype of these groups as intellectually inferior. Stereotype threat can arise from mere salience of situational cues that activate social identity, such as the race or gender of other people in the room (Inzlicht & Ben-Zeev, 2000, 2003). So, when these students experience threats to their social identities, they tend to become hyper-focused. Thus, subtle changes in the environment can produce marked changes in performance or confidence. Aronson and Inzlicht's (2004) research concludes that stereotype vulnerability—the tendency to expect and be bothered by prejudice and to be affected by stereotype threat—creates barriers to developing a stable conception of one's academic abilities. Higher levels of stereotype vulnerability make one more sensitive to environmental changes (e.g., Aronson, 2002). Aronson and Inzlicht (2004) articulated that because stereotype-vulnerable African American students may tend to have an absence of clarity about their abilities and due to the fluctuations produced by stereotype threat, such students have erratic and highly variable feelings of self-efficacy. Because of this, they may feel only as intelligent or incompetent as their most recent success or failure. Thus, high marks

on a test or approving gestures from an instructor briefly raise the confidence of a stereotype-vulnerable student higher than that of a nonvulnerable student. In this case, the students' perceived competence and ideas of self-efficacy are contingent upon feedback from teachers and test results. Due to this notion, it would make sense that negative outcomes would reduce their confidence and performance. Aronson and Inzlicht (2004) hypothesized that for African Americans, stereotype vulnerability impairs accurate self-knowledge, and impaired self-knowledge in turn fosters unstable academic efficacy. Since efficacy has been shown to be an important factor in students' achievement—sometimes as important a factor as intellectual ability itself (Bandura, 1977)—instability may create problems of its own.

Exploring Identity and its Implications on Stereotype Threat

Ashmore et al. (2004, p. 82) proposed that identity has two key positions: a cognitive aspect and an affective aspect. Ashmore et al. (2004) indicated that the cognitive aspect of identity involves "a set of cognitive beliefs associated with that group such as stereotypic traits thought to be associated with that group or ideological positions that defines the group's goals" (p. 82). The affective aspect of social identity includes the value and emotional significance one places on group membership along with the "affective commitment and closeness an individual feels to other members of that group" (Ashmore et al., 2004, p. 82).

When we think about minority individuals, we can perceive them as part of a greater collective. When a person is part of a collective group, they develop an identity associated with that group or a collective identity. Simon and Klandermans (2001) defined collective identity as an identity shared with a group of others who have (or are believed to have) some characteristic(s) in common; in the words it is "a place in the social world" (p. 320). This unity may be based on similar characteristics, such as ethnicity or gender (Deaux, 1996; Sedikides & Brewer, 2001; Simon & Klandermans, 2001). Collective identity is associated with a group of

people outside the self, whereas personal identity refers to characteristics of the self that one believes, in isolation or combination, to be unique to the self. Rather than being shared with a specifiable set of others, personal identity sets one apart from all others (see Sedikides & Brewer, 2001; Simon, 1997). Collective identity can also have behavioral implications, which can be perceived as individual actions that are reflective of group membership. For instance, language usage within ethnic identity or church attendance in the case of religious identity is part of what is intended by the meaning of collective identification.

When exploring stereotype threat, Steele and Aronson (1995) depicted it as a situational predicament. When involved in a threatening situation, individuals assume their behaviors could be judged based on negative stereotypes about their group instead of personal accomplishments and competency. We know from previous chapters that when an individual is at risk of being judged negatively, their performance is adversely impacted. Due to this, stereotype threat can also be thought of as a threat to one's social identity. When a minority individual is involved in a situation where their performance is being evaluated, negative stereotypes can strongly impact their sense of social identity and their ability to perform competently on a task. Tajfel (1978) described social identity as "that part of an individual's self-concept which derives from knowledge of their membership of a social group together with the value and emotional significance attached to that membership" (p. 63). Additionally, Thoits and Virshup (1997) described social identity as "socially constructed and socially meaningful categories that are accepted by individuals as descriptive of themselves or their group" (p. 106). Because social identity is attached to self-concept, it makes sense that stereotype threat can be perceived as a threat to a minority individual's identity.

When stereotype threat is present, a minority individual's identity is at risk of being threatened. This happens by bringing awareness to subconscious fears and disrupting an individual from doing as well as they could. As noted in Chapter Two, negative stereotypes can affect the confidence that individuals have in their performance-related perceptions, causing a decline in performance (Clark et al., 2009). For instance, stereotypes appear to affect the academic test performance of African Americans (Steele & Aronson, 1995), mathematics performance of women (Spencer et al., 1999), athletic performance of Caucasians (Stone et al., 1999), driving performance of women (Yeung & von Hippel, 2008), intellectual performance of Latinx individuals (Gonzales et al., 2002), and children of low socioeconomic status (Croizet & Claire, 1998).

Minority Identity Models

Racial/Cultural Identity Development Model

The minority identity development (MID) model was outlined by Atkinson et al. (1979, 1989). The MID addresses cultural identity development issues of many groups of individuals. Sue and Sue (1990) refined and expanded the MID, renaming it the racial/cultural identity development (R/CID) model. This model is best viewed as a "conceptual framework" (Sue & Sue, 1999, p. 128) for understanding the behaviors and attitudes of individuals from numerous cultural and ethnic groups. Each stage in this model entails four attitude or belief processes: (a) attitude about self, (b) attitude toward other members of the same minority group, (c) attitude toward others of different minority groups, and (d) attitude toward dominant group members (Sue & Sue, 1999).

The R/CID model is a five-stage process of development. Sue and Sue (1999) described the process of conformity as the period when one "values the majority culture members and values above his or her own." During the conformity stage, the majority culture (primarily White

culture) symbolizes the presentation desired from those who are culturally different. During conformity, the ethnic or cultural group member seeks ways to fit in. For instance, it is not uncommon for individuals at this stage to attempt to hide their accents or be ashamed or embarrassed by characteristics unique to their culture. A minority individual within the conformity stage may also take on majority culture values and hold everything in the majority culture as superior to their own. During the conformity stage, individuals are not firm within their cultural identity. This puts them at risk for identity depletion, making them vulnerable to the effects of stereotype threat.

Sue and Sue (1999) described movement from this stage to the next, or dissonance, as "a conflict that is felt by the individual or through a more traumatic event that pushes them to reconsider previously held beliefs about their culture." During this stage, it is common for the minority individual to question who they are and question aspects of self that may be undervalued by others. During the dissonance stage, the individual who was previously conforming is now faced with an internal process of imbalance. This imbalance or disagreement occurs between the self-concept and the attitudes of their culture.

The resistance and immersion stage is a complete reversal of the first stage. This stage occurs when the individual completely transitions toward acceptance of their culture, their cultural point of view, and begins to reject the majority culture. The individual may experience reactions that can be strong and emotionally powerful as their racial identity grows. During this stage, it is not uncommon for minority individuals to even limit interactions with the majority culture. Individuals within the resistance and immersion stage may prefer only to socialize with, purchase products and services from, and work with other members of their ethnic group. Sue and Sue (1999) indicated that the individual in this stage is very concerned with acquiring more

knowledge about their cultural legacy. The individual may experience strong feelings that the majority culture is the oppressor and is responsible for any injustices faced by the minority culture.

The fourth stage of the R/CID model is introspection. Here, Sue and Sue (1999) suggested that the individual moves away from group identification and anger toward majority culture. This is a time for more personal reflection to occur. According to Sue and Sue (1999), "The individual begins to discover that this level of intense emotion is psychologically draining and does not permit one to really devote more crucial energies to understanding themselves or to their own racial/cultural group" (p. 135).

The fifth and final stage is integrative awareness. This is a time when the "individual has developed a strong sense of self as an individual and group member" (Sue & Sue, 1999). The minority individual has a well-defined and solid sense of self and can include parts of their culture with the majority culture to comprise their individual identity. Attitudes toward the self have now become self-appreciating while still appreciating their affiliation with their group. This individual can now show "selective trust and liking for members of the dominant group who seek to eliminate oppressive activities of the group" (Sue & Sue, 1999, p. 137). Functioning within this stage is most adaptive for minority individuals. This chapter discusses more about identity affirmation and how it serves as a protective factor against the harmful effects of stereotype threat.

Model of Ethnic Identity Development

Phinney (1990, 1992) proposed a model of ethnic identity development based on general identity models such as Erikson (1968) and Marcia (1980) and other ethnic identity development models such as Atkinson et al. (1979, 1989). According to Evans et al. (1998), "Ethnic identity

develops from the shared culture, religion, geography, and language of individuals who are often connected by strong loyalty and kinship" (pp. 79-80). Phinney, who conducted much of her research with minority youth, found that ethnic identity development was strongly related to the process of resolving conflict. She studied the conflict that existed between (a) the level of prejudice and stereotyping perceived as prevalent from the majority culture and (b) dissonance of values between minority and majority culture. When stereotypes are present, it is not uncommon for a minority individual to experience a sense of withdrawal from their culture because they are in a situation where they are being judged or evaluated, thus triggering feelings of dissonance.

The first stage of Phinney's (1992) model is unexamined ethnic identity. This is a period when the minority individual needs to discover beliefs and attitudes about their own ethnicity. This stage occurs with individuals who have not had exposure to issues regarding ethnic identity. Phinney (1990) suggested that this stage is characterized by a lack of exploration of issues related to ethnicity. If the result of this exploration is to accept what they have heard from others without question, then foreclosure occurs. For instance, some individuals tend to make commitments to ethnicity without taking time to explore their ethnicity on their own. This can occur by absorbing inherited ethnic attitudes from family members or other adults within the culture. However, if they do not see their ethnicity as an important part of who they are as individuals in society, then the result is identity diffusion. Bachay (1998) indicated that minority individuals at the diffused and foreclosed statuses are at risk of accepting and internalizing negative and faulty stereotypes and beliefs. Due to acceptance of these unhealthy beliefs, performance can be hindered.

Ethnic identity search/moratorium is the second stage of Phinney's model. In this stage, individuals become more interested in their ethnic heritage. Individuals here are exploring

processes without making a commitment. They reflect on the values shown by significant others, study information that questions their values, and reflect on what it means to be a member of their ethnic group. During this stage, exploration may require that the individual accepts cultural difference between their culture and the majority culture. It is essential that during this stage, the minority individual takes time to learn more about their culture of origin to help clarify their own perspective about the meaning of their ethnicity. Phinney (1990) indicated that this stage has the propensity to induce intense emotions in the minority individual. This can manifest as the expression of internalized anger toward the majority culture that is now viewed as the oppressor.

The final stage in Phinney's model is ethnic identity achievement. Following the exploration process, the individual makes a firm commitment, indicating that the identity achievement has occurred. This position is characterized by the minority individual experiencing a strong sense of ethnic pride, belonging, and confidence. When the individual has explored what it means to be a member of an ethnic group and is committed to group membership, the result is ethnic identity achievement. A bicultural identity then develops. This is exhibited by achieving a level of comfort with who they are in society. A follow-up study supported the subsequent nature of development and that those at the higher stages of identity development remain stable (Phinney & Chavira, 1992). The importance of ethnicity was also considered in a later study by Phinney and Alipuria (1990). In their study, ethnic identity was rated as equally important as religion and more important than political orientation. Phinney and Alipuria (1990) suggested that an achieved ethnic identity can serve as a buffer against the impact of prejudice and discrimination. We know from the literature that the impacts of stereotype threat that stem from discrimination have detrimental impacts on performance.

William Cross's Revised Racial Identity Model

African American psychologists became deeply interested in observing, plotting, and identifying the transformation of identity that accompanied a person's involvement in the Black power movement from 1968 to 1975 (Cross, 1971, 1991, 1995). One such study became the psychology of *nigrescence,* a French word meaning the process of becoming Black, "or rather, the gradual transcendence of Black individuals from a worldview in which African Americans are devalued, and Whites are reified to a worldview characterized by an inner confidence in and appreciation of self and others as racial beings" (Thompson & Carter, 1997, p. 18). Originally, Cross (1971) developed a five-stage model of Black identity development, or nigrescence. Each stage defines the psychological and behavioral characteristics of African Americans based on their experiences with societal oppression (Cross, 1971, 1991, 1995). Cross (1971, 1991, 1995) then revised his theory of nigrescence to consider the cultural, social, psychological, and historical changes that had occurred over the 20 years since he first established the model.

The pre-encounter stage is a period of a self-hatred identity. The African American individual holds highly negative views about Black people and ultimately is anti-Black and self-hating. Pre-encounter self-hatred is believed to be the result of extreme miseducation (Vandiver et al., 2001). Individuals in this stage do not deny being Black. However, they feel that their unmovable characteristics play a role in how people interact with them (Cross, 1995).

The encounter stage involves a situation with discrimination or racism that causes a shift in one's awareness of the world and, therefore, an identity change (Vandiver, 2001). A series of micro assaults or crises causes the individual at this stage to acknowledge that the worldview that is appraised now has flaws and the impact pushes the person toward nigrescence (Cross, 1995). The encounter or situation does not need to be negative to make an impact on the individual.

However, it must be impactful enough to push the person into a state of intense emotionality, such as guilt, shame, anxiety, and anger.

The immersion-emersion stage is the most crucial phase for individuals who are attempting to solidify their Black identity. Instead of conceptualizing this stage as a single identity with two aspects (i.e., pro-Black and anti-White), Cross (1991, 1995) conceptualized it as two separate identities (Vandiver, 2001) under the umbrella of immersion into Blackness. Cross (1995) stated that feelings at the immersion phase are anger, guilt, and pride—anger and guilt for accepting and internalizing a White frame of reference that was mentally and emotionally unhealthy and pride because they are learning about Black heritage. When the individual learns about their heritage, it is affirming and empowering. Once the individual has transitioned into self-actualization, there is a shift into emersion. At this phase, individuals realize that growth is a constant process, and they are willing to encounter the intense emotional phases.

The internalization stage requires inner peace. During this stage, the individual is no longer defensive about their perceptions of Black identity. The cognitive dissonance that was present in the earlier stages has now lessened, and a sense of dissonance resolution is present (Cross, 1995). Individuals here can shift attention to other identity concerns such as gender, sexual orientation, religion, and multiculturalism. The new identity performs three critical functions:

> (a) to defend and protect a person from psychological insults that stem from having to live in a racist society, (b) to provide a sense of belonging and social anchorage, and (c) to provide a foundation or point of departure for carrying out transactions with people, cultures, and human situations beyond the world of Blackness. (Cross, 1995, p. 113)

Cross (1991, 1995), Cross and Vandiver (2001), and Vandiver (2001) stated that the fifth stage, internalization-commitment, is a repetition of activities, behaviors, and attributes of what the individual exhibited in the fourth stage. Individuals within the last two stages have a new identity as a potential protective factor against stereotype threat.

Chicano/Latino Ethnic Identity Model

Ruiz (1990) developed the Chicano/Latinx ethnic identity model. It is grounded on the following four premises:

> (a) that marginality correlates highly with the concept of maladjustment (LeVine & Padilla, 1981); (b) that both marginality and the pressure to assimilate can be destructive to an individual (LeVine & Padilla, 1981); (c) that pride in one's own ethnic identity is conducive to mental health (Bernal et al., 1983); and (d) that during the acculturation process, pride in one's own ethnic identity affords the Hispanic more freedom to choose. (Bernal et al., 1983)

During the causal stage, messages from the individual's environment affirm, ignore, negate, or stigmatize the ethnic heritage of the person. Ruiz (1990) suggested that during this stage, affirmation about one's ethnic identity is lacking, and the person may experience traumatic or humiliating experiences related to ethnicity. This results in failure to identify with Latinx culture. The individual can deal with embarrassment and shame related to their culture during this stage.

During the cognitive stage, three erroneous belief systems about Chicano/Latinx heritage are adopted: (a) the ethnic group membership is associated with poverty and prejudice; (b) assimilation to White society is the only means of escape; and (c) assimilation is the only

possible road to success. These maladaptive beliefs can make individuals within this stage especially vulnerable to effects of discrimination and identity threat.

At the consequence stage, the damages of the ethnic identity become more distinct. Characteristics of ethnic identity such as skin color, name, language, cultural, and customs are denied or perceived as inferior. The unwanted self-image leads to estrangement, withdrawal, and rejection of one's Chicano/Latinx heritage (Ruiz, 1990).

During the working-through stage, Ruiz (1990) posed that two major subtleties are present. First, the person becomes progressively unable to cope with the psychological distress of ethnic identity conflict. Second, the person can no longer be a "pretender" by identifying with a foreign ethnic identity. The person is driven to repossess and reintegrate parts of their ethnic identity that were previously rejected. This is when ethnic consciousness increases.

The last stage is the successful resolution stage. Ruiz (1990) indicated that this stage is characterized by acknowledgment of one's culture and ethnicity. The individual experiences heightened self-esteem and a feeling that their ethnic identity symbolizes a positive and success-promoting resource. The image of one's own ethnic group has more positive qualities and the person's idea of physical beauty is broadened to include a cross-section of their ethnic group members. The person's own ethnic self-image is further enhanced because of this pride in skin color and other distinctive qualities.

Exploring the Benefits of Minority Identity

Many findings have found a connection between ethnic identity and academic achievement within African American and Latinx college samples. Other studies reveal that a strong ethnic identity is positively associated with higher levels of career decidedness among African American first-year college students and intentions to stay in school (Duffy & Klingman, 2009; Mendoza-Denton et al., 2008). Other research has supported that students with strong

ethnic identities had higher grades, academic self-concepts, and psychological functioning (Cokley & Chapman, 2008; Phinney, 1996). In addition, Devos and Torres (2007) found that in a sample of Latinx college students, the more these students identified with their culture (relative to Whites), while endorsing the stereotype of Latinx as low achievers, the less these students identified with academics. This research supports the notion that the way an individual perceives their culture could greatly impact their performance elsewhere.

To study ethnic identity, researchers have measured cognitive and affective aspects of identity. Phinney (1992), Phinney and Kohatsu (1997), and Roberts et al. (1999) developed self-report measures of the cognitive and affective aspects of identity. In this line of work *identity achievement* is used to refer to cognitive processes of exploring and understanding the meaning of one's identity. The term *identity affirmation* refers to the affective process of developing positive feelings and a strong sense of belonging to one's social group. In her discussion of ethnic identity, Phinney (1992) noted "identity affirmation may include ethnic pride, feeling good about one's background, and being happy with one's group membership, as well as feelings of belonging and attachment to the group" (p. 59). Other researchers have also acknowledged the importance of identity affirmation and its special relevance for minority group individuals (e.g., Ashmore et al., 2004; Ellemers et al., 1999; Phinney & Ong, 2007; Sellers et al., 1997; Simon & Klandermans, 2001).

In her classic research, Phinney (1989) found that Asian American, African American, and Latinx adolescents who endorsed greater identity achievement scored considerably higher on self-esteem. Their scores were higher in comparison to individuals with lower ethnic identity achievement. Moreover, this association did not differ between boys and girls. In fact, studies analyzing the correlation between identity achievement and well-being failed to find significant

differences based on gender (e.g., Phinney, 1992; Phinney & Alipuria, 1990; Umaña-Taylor & Updegraff, 2007). In a review of the research on ethnic identity and well-being, Phinney and Kohatsu (1997) determined that individuals who had examined their identity more fully have a more positive self-concept and experienced less psychological distress than individuals who had explored their identity less.

Umaña-Taylor (2003) discovered that self-esteem was higher among Asian American, African American, Latinx, and White high school and college students who scored higher on a measure of affirmation than among those scoring lower on affirmation. Other studies using adults, college students, and adolescents joined in demonstrating that more affirmation of one's minority identity is associated with higher self-esteem, a more positive self-concept, greater academic achievement, and fewer mental health problems (Ashmore et al., 2004; Phinney, 1989, 1992, 1993; Phinney & Alipuria, 1990; Roberts et al., 1999). This research gives support to the importance of having a firm ethnic identity. Being identity confirmed has proven to increase self-esteem, which can serve as a buffer to the effects of stereotype threat.

Identity has multiple components, especially in the realm of ethnic identity. Dual identity is described as double membership in the minority community and the wider society and has advantages for minority individuals (Phalet & Baysu, 2019). Studies on acculturation have recognized the psychological benefits of dual identities for minorities (Makarova & Birman, 2015; Nguyen & Benet-Martínez, 2013; Verkuyten et al., 2019). Not only do they combine social-support networks in both minority and majority groups (Mok et al., & Karakitapoglu-Aygun, 2007), they are adjusted to both minority and majority cultural norms and are better able to steer cross-group relationships (Celeste et al., 2016). Dual identities have also been connected to distinctive cognitive gains, such as improved perspective taking and integrative complexity,

which may bring a competitive advantage in performance situations (Crisp & Turner, 2011). Perspective taking and integrative complexity are strengths that minority individuals within stereotype threat situations can benefit from. Being able to realize how a situation appears to another person and how that person is reacting cognitively and emotionally to a given situation is a skill that can heighten self-esteem and decrease emotional impacts of discrimination.

Exploring Identity Affirmation with Women

Major (2012) stated that the stigma linked to various social identities, such as gender or minority status, can impact individuals' psychological makeup, social behavior, and life outcomes. One area that can be affected by stigma is present in feelings regarding one's achievements and accomplishments. Previous chapters show that stereotype threat is usually assumed to lead to underperformance during an assessment situation in the stereotyped area (Croizet et al., 2001; Steele, 1997; Steele & Aronson, 1995). For instance, women are stereotyped as being inferior to men in mathematics, and when this stereotype is made salient during an evaluation, women perform worse than men on mathematics tests (Spencer et al., 1999). Having individuals reflect on their core values (self-affirmation) can eliminate the negative effects of stereotype threat (Martens et al., 2006; Shapiro et al., 2013).

Previous research has shown that the harmful effects of social identity threat are pervasive and persistent over time. Due to its pervasive nature, this threat can be difficult to combat and alleviate (Schmader & Beilock, 2012; Schmader et al., 2008). Many studies have shown that being aware of one's stigmatized identity can be damaging to psychological well-being (Major & O'Brien, 2005; Miller & Kaiser, 2001). For instance, women who are continually aware of gender bias tend to have lower self-esteem and higher depressive symptoms (Schmitt et al., 2002). Likewise, women who encounter sexist individuals and believe that this gender bias is prevalent (i.e., other people are also sexist) have increased negative affect and

feelings of depression (Schmitt et al., 2002; Stroebe et al., 2009, 2011). These heightened feelings of depression tend to deplete self-esteem and confidence, making individuals especially vulnerable to stereotype threat.

When facing stereotype threat, individuals may experience a sense of threat to their relevant identity. This threat to their identity could lead to identity separation, which serves as a coping method. For instance, separating one's identity as a woman from one's identity as an employee (Spencer et al., 2016; von Hippel et al., 2011). Settles (2004) indicated that when faced with work discrimination, women scientists may separate their threatened female identity from their professional identity. This style of coping may be helpful by reducing the perceived threat by separating the social identity—to which negative stereotypes are attached—from their workplace identity. This tactic can make the female identity less salient, leading to problematic outcomes, such as lower levels of performance and well-being.

Cohen and Sherman (2014) stated that reflecting on one's treasured beliefs or values can provide a sense of adequacy. This sense of adequacy protects self-integrity and can reduce the need to respond defensively in situations of stereotype threat. Research has suggested that the effects of stereotype threat on performance can be reduced by protecting self-integrity through self-affirmation prior to the occurrence of the threat (Critcher et al., 2010; Silverman & Cohen, 2014). For instance, data have indicated that threatened women performed better on a mathematics or mental rotation test if they first explained why a top-ranked value among a list was important for them and gave an example (values-affirmation; Martens et al., 2006). Self-affirmed participants who were later threatened performed similarly to stigmatized people not threatened by a stereotype (Martens et al., 2006; Schimel et al., 2004; Shapiro et al., 2013). This research indicated that self-affirmation allows individuals to expand the content of their working

self-concept and to retrieve self-related cognitions in memory quicker (Voisin et al., 2016; study three). These data are relevant because they support the notion that when more self-related cognitions are available, individuals realize their self-concept is not limited to the threatened domain (Sherman, 2013). In addition, Voisin et al. (2019) found that self-affirmation reduces the impulse to disconfirm the negative stereotype due to the reinforcement of self-integrity. Voisin et al. (2019) posited that when self-affirmation reduces motivation in a stereotype-threat situation, the risk of failure may not represent a threat, and the internalized stereotype may be less relevant to self-integrity. Self-affirmation may have this effect by changing how the task is perceived: self-affirmed individuals can perceive the situation as less threatening to self-integrity and return to a less effortful response.

The aforementioned research has demonstrated that having a strong identity is essential to achievement and competence. When identity is threatened, performance is hindered. This supports the importance of having a strong identity, which can serve as a protective factor against threats to identity (e.g., stereotype threat). Because women are stereotyped as having less capability than men in STEM (Cheryan, 2012; Moss-Racusin et al., 2012), women are particularly vulnerable to increased social identity threat in these domains (Steele et al., 2002). This lack of confidence can lead to decreased belonging and trust, leading to beliefs that women will not be accepted or feel comfortable in STEM (Murphy et al., 2007; Murphy & Taylor, 2011; Purdie-Vaughns et al., 2008). Additionally, social identity threats can trigger stereotype threat concerns. These concerns can include fears that women's behavior will be viewed through the lens of a negative gender stereotype and that they will unintentionally confirm this stereotype (Steele, 1997; Steele & Aronson, 1995).

Exploring the Imposter Phenomenon

Clance and Imes's (1978) classic research explored the imposter phenomenon among women who, regardless of having attained academic and professional successes, reported feelings of unintelligence and fraud. Individuals experiencing the imposter phenomenon tend to have feelings of personal phoniness, and believe that others (e.g., a professor, supervisor, or peer) mistakenly see them as competent, intelligent, and deserving of success. Also, individuals experiencing the imposter phenomenon believe that they must continually perform well to prevent others from discovering their phoniness and incompetence (Clance & Imes, 1978). These individuals live in fear of being found unworthy of their success (Clance & Imes, 1978). Subsequently, impostors impose stress upon themselves to perform well, meet personal expectations, demonstrate that they are deserving of success, and to disconfirm their own negative view of themselves. King and Cooley (1995) stated that higher levels of imposter phenomenon have been linked to higher grade point averages, due to the self-imposed pressure to perform well. Impostors tend to have high expectations and a continuous need to prove themselves and tend to be high in perfectionism (Henning et al., 1998), frustration, and depression, and they tend to suffer from generalized anxiety and lack of self-confidence (Clance & Imes, 1978).

Minority individuals are especially at risk of experiencing the imposter phenomenon. Cokley et al. (2015) indicated that higher levels of the imposter phenomenon are linked to higher grades among females. Females high in gender stigma consciousness are more likely than males to associate negative evaluations with being stereotyped rather than by their ability or competence. Researchers suggest that racially driven experiences (e.g., racial discrimination; token status) may also contribute to feelings of the imposter phenomenon by evoking a sense of "otherness," which may provoke feelings of intellectual incompetence (Lige et al., 2016; Peteet

et al., 2015). To add to this research, Cokley et al. (2013) and McClain et al. (2016) found that minority status stress—an incorporation of unique race-related stressors such as racial discrimination, insensitive or marginalizing comments, and fears of not belonging—was associated with the imposter phenomenon in a sample of 240 self-identified racial minority college students and in a sample of 218 African American college students. Cokley et al. (2017) also found that perceived discrimination had a greater impact on feelings of the imposter phenomenon among African American and Latinx-American students in comparison to Asian American peers. This research indicated that minority individuals are at greater risk for stereotype threat when feelings of the imposter phenomenon were present. The imposter phenomenon can also be perceived as a threat to one's identity by provoking an individual to question their competence and ability.

Minority individuals account for a large portion of first-generation college students. Studies suggest that first-generation college students, especially those of ethnic minority status and low socioeconomic status tend to endorse lower self-esteem (McGregor et al., 1991), lower academic self-efficacy (Heilman, 1996), greater anxiety (Terenzini et al., 1994) and fear of academic failure. Additionally, academic self-efficacy is highly important to academic success and is a significant predictor of academic expectations and performance (Majer, 2009; Ramos-Sanchez & Nichols, 2007). First-generation college students tend to experience distress (e.g., feelings of pressure, loss, disconnection) due to balancing high expectations of success from self and family, navigating through conflict caused by their peers who may feel the student is being disloyal pursuing higher education (Inman & Mayes, 1999; London, 1992). This is difficult for the minority individual because they may feel unsupported in the college atmosphere (Hurtado, 1994; McGregor et al., 1991). Peteet et al. (2015) suggested that these issues prompt first-

generation students to experience higher levels of the imposter phenomenon. First-generation college students are often treading new waters, so they are particularly vulnerable to experiencing the imposter phenomenon. These higher levels of the imposter phenomenon can cause them to confirm negative stereotypes about themselves, causing detrimental impacts to psychological well-being.

Additionally, African American students at predominantly White colleges and universities may be more confronted with unconscious cognitive processes such as the imposter phenomenon. This can manifest as a fear that they will be subject to implicit bias whereby professor's judgment is influenced by non-academic-related qualities. In this case, the student may inflict their own stereotype threat on themselves. Ewing et al. (1996) found that the more African American graduate or professional students endorse an Afrocentric worldview (i.e., believing in the connectedness of all that exists in nature) and maintain a positive academic self-concept (e.g., how one feels about their academic ability), the less likely they are to experience the imposter phenomenon. This research further confirms the aforementioned notions that high identity affirmation leads to increased self-esteem, which offsets the impact of stereotype threat.

Chapter III Limitations

Within the literature, there are some themes on limitations. The research lacks generalizability beyond the given samples. For instance, some samples do not utilize enough minority participants to make concrete conclusions. Overall, the research is also dated and under-researched when discussing women identity achievement or affirmation.

Bernard et al. (2018) investigated the connection between racial discrimination and the impostor phenomenon, and the influence of racial identity on this relationship. Their findings were consistent with literature suggesting that having a positive image toward oneself and one's ethnic group can decrease the development and internalization of feelings and messages of

inferiority fueled by discriminatory encounters (Mandara et al., 2009; Sellers et al., 2006; Tynes et al., 2012). Their results revealed that racial discrimination experiences were predictive of increased feelings of intellectual incompetence. A limitation of this study was that their population focused primarily on African American female college students attending a predominantly White institution. Due to this limitation, their research may not be generalizable beyond their sample. To assess for imposter phenomenon, they utilized Clance's Impostor Scale (Clance & Imes, 1978). Another limitation is that this scale may not have been an adequate measure to assess the unique experiences of African American young-adult college students.

Baysu and Phalet (2019) assessed dual identity as dual commitments to (combined) minority and majority cultures. They concluded that dual identities can be psychologically beneficial or costly for minorities depending on the presence or absence of identity threat in the intergroup context. Baysu and Phalet (2019) replicated the interaction of stereotype threat with the dual identities of minorities using two distinct measures of dual identity. A limitation of their study was their method of randomly assigning schools rather than students to conditions. This method may have accounted for confounded experimental effects with other school characteristics. An additional methodological limitation was the utilization of single indicators and a two-item composite to assess dual identities (Baysu & Phalet, 2019). Although the hypothesized interaction with stereotype threat was strong across different measures, more specific composite measures of dual identities would be required to assess whether the findings generalized to other dimensions of dual identity.

Peteet et al. (2015) examined the predictors of the imposter phenomenon in a sample of high achieving underrepresented rational/ethnic minority undergraduates. The authors found that generation status was related to imposter phenomenon scores. While correlated, it was not a

significant predictor of the imposter phenomenon, which may indicate the existence of other mediating factors. This study advances knowledge in several ways (Peteet et al., 2015). For instance, this research is among the first to examine predictors of the imposter phenomenon among high achieving underrepresented minorities, an underserved and under-researched population. Peteet et al. (2015) also addressed the need for studies on the psychological predictors of the imposter phenomenon that might strengthen the educational channel into advanced degrees through a better understanding of the psychological health of minority students. While this study made several contributions to the literature, there were limitations. This study did not seek to conceptualize achievement. Instead, Peteet et al. (2015) identified participants based on traditional measures of academic performance (e.g., grade point average). Their study may have also lacked generalizability. Their use of a sample of underrepresented minority students at a PWI may not have extended to students at historically Black universities or in other geographic areas.

Ghavami et al. (2011) proposed that the association between identity achievement and psychological well-being is mediated by identity affirmation. Their results suggested that exploring and understanding one's minority identity can be essential for developing positive feelings toward and an enhanced sense of attachment to their group, which can result in psychological benefits for minority individuals. Ghavami et al.'s (2011) research also provided consistent support for a model of how two aspects of minority identity—identity achievement and identity affirmation—work together to predict psychological well-being. Their results suggest that identity achievement is psychologically beneficial because it results in the affirmation of one's minority identity. While Ghavami et al.'s (2011) research made contributions to the field by adding data on identity processing and well-being, there were

limitations. Their population of a gay and lesbian sample was not inclusive, in that the number of ethnic minorities in their sample was not large enough to allow them to test the model among ethnic minority lesbians and gay men.

Inzlicht and Kang (2010) examined whether taking a threatening mathematics test could lead women to respond aggressively. Their research was explored over four studies. In study two, they investigated whether coping with a threatening mathematics test could lead women to indulge themselves with unhealthy food later. In study three, they investigated whether vividly remembering an experience of social identity threat results in risky decision making. Last, in study four, Inzlicht and Kang (2010) analyzed whether coping with threat would influence attentional control and whether the effect was executed by ineffective performance monitoring. Inzlicht and Kang (2010) showed that stereotype threat can spill over and impact self-control in a diverse array of nonstereotyped domains. These results revealed the strength of stereotype threat and that its effects may be more widespread. While their research highlighted self-control and stereotype threat, their research was missing direct evidence that spillover effects are due to limited self-regulatory resources.

CHAPTER IV: THE IMPACT OF STEREOTYPE THREAT ON MINORITY PERFORMANCE AND THE SELF-FULFILLING PROPHECY

As we know from previous chapters, minority individuals can be particularly susceptible to the effects of stereotype threat. Stereotype threat has the propensity to impact the way that an individual perceives themselves and their abilities, creating decreases in performance. Inzlicht and Schmader (2012) stated that students who are targets of stereotype threat are particularly at risk. When they worry about confirming negative stereotypes, anxiety weakens their performance. Literature has shown that minority individuals are especially impacted in the areas of academics and occupational performance when stereotype threat is present.

From the previous chapter, we have learned that stereotype threat is a danger to one's identity that can cause a reduction in confidence and performance. Literature suggests that this threat to identity can also induce a self-fulfilling prophecy, whereby a person comes to reflect the reputation of their stereotype, living up or down to social expectations. Merton (1948) outlined the self-fulfilling prophecy as a false definition of a situation that triggers a new behavior. This results in the behavior making an initially false concept true.

Self-fulfilling prophecies can have long-term and negative influences on the outcomes of individuals who are susceptible to stereotypes, ultimately widening the gap between advantaged and disadvantaged groups (Madon et al., 2006; Rist, 1970). This supports the importance of exploring the effects of the self-fulfilling prophecy and its implication for minority individuals. The self-fulfilling prophecy is also capable of producing large-scale social problems in areas such as hiring, education, wages, and health care (Merton, 1948; Ross et al., 2010; Snyder & Haugen, 1995). This chapter discusses how stereotype threat impacts minority performance, followed by a discussion of the self-fulfilling prophecy and its effects on minority individuals.

The Impact of Stereotype Threat on Minority Performance

In their classic research, Steele and Aronson (1995) demonstrated that individuals from numerous groups tend to perform more poorly on cognitively demanding tasks when they fear their behavior will be interpreted through the lens of negative social stereotypes. For instance, data have continually shown that informing individuals that a test will measure intellectual ability can cause stereotyped individuals to lack that ability (e.g., Brown & Day, 2006; Croizet & Claire, 1998; Hess et al., 2003; Spencer et al., 1999). Steele and colleague (Steele, 1997; Steele & Aronson, 1995) indicated that members of stereotyped groups tend to experience additional pressure when placed in situations where their behavior could be interpreted as evidence for the validity of that stereotype. This research points out that minority individuals are already under pressure from the need to perform well and adding a stereotype threat component can be equally detrimental to performance. As noted in previous chapters, belonging to a stereotyped group and expecting not to perform well adds an extra layer of anxiety that reduces self-efficacy. For instance, African Americans who feel concerned about their performance in intellectual testing situations fear that their performance will be judged based on stereotypes that suggest that African Americans are not academically capable. Stereotypes about African Americans can hold that they typically perform poorly in academic tasks or lack intellectual ability overall. The fear related to confirming this stereotype disrupts performance and produces a stereotype-consistent outcome, in this case, low test performance.

We know that stereotype threat has the propensity to induce affective or emotional responses such as heightened anxiety and concern, as well as performance reductions. The pressure to perform can cause an emotional response that can serve as a cognitive distraction. Research indicated that stereotype threat could also cause minority individuals to produce physiological responses. Marx and Stapel (2006) and Spencer et al. (1999) showed that

individuals report feeling more apprehensive and anxious in stereotype-threat situations, which can also affect the body physically. Data have indicated that even if minority individuals do not specifically report feelings of anxiety, they tend to show nonverbal signs of discomfort and nervousness (Bosson et al., 2004). Smith (2004) proposed that although self-report measures of anxiety have produced varied results, consistent evidence has been found for the physiological components of stress and anxiety. Data have found physiological responses such as increased blood pressure (Blascovich et al., 2001), skin conductance (Murphy et al., 2007), general arousal (O'Brien & Crandall, 2003), and physiological response patterns associated with threat appraisals (Vick et al., 2008). When considering lowered performance, how heightened arousal is interpreted appears important (Ben-Zeev et al., 2005). For instance, when targets of negative stereotypes misinterpret their arousal to an external source, they fail to show the typical pattern of underperformance (Ben-Zeev et al., 2005; Johns et al., 2005). Schmader et al. (2008) proposed that although arousal alone could have a direct negative effect on performance, their results suggest that the cognitions associated with anxious arousal also play a significant role in undermining performance. Their research supports the notion that how stereotyped groups perceive the threatening situation can produce higher anxiety levels than just the threat alone.

Research has also described the cognitive aspect of stereotype threat. Studies on the effects of emotion regulation have consistently shown that trying to control the expression of negative feelings can exact a measurable toll on cognitive functioning (e.g., Baumeister et al., 1998; Richards & Gross, 2000). Schmeichel (2007) has shown that regulating the expression of emotions reduces subsequent performance on the same dual-task measure Schmader and Johns (2003) used in their studies of stereotype threat and working memory. Thus, if emotion regulation depletes the executive resources needed for high-order cognitive functioning and

stereotype threat elicits emotion regulation tendencies, then emotion regulation could play a role in creating group differences in performance. In addition, data have suggested that stereotype threat appears to make stereotypic thoughts accessible to the minority individual (Davies et al., 2002; Inzlicht et al., 2006; Steele & Aronson, 1995) and can increase the prevalence of negative thoughts (Cadinu et al., 2005). This causes more anxiety due to self-doubt and performance anxiety. Quinn and Spencer (2001) posited that stereotype threat can also weaken the cognitive processes needed to perform well on intellectual tasks. As reported previously, stereotype threat takes up a great deal of cognitive space, resulting in the individual focusing more on the present threat, resulting in a decrease in performance. Schmader and Johns (2003) found that performance declines happen because of a reduction in working memory capacity—a limited cognitive resource similar to executive attention (Engle, 2002; Feldman Barrett et al., 2004). Additional studies have provided replications of this result. Beilock et al.'s (2007) findings supported that negative stereotypes hurt performance by increasing mental workload (Croizet et al., 2004) and exhausting executive control capacity (Inzlicht et al., 2006). Importantly, Schmader et al. (2008) proposed that threat-induced performance impairments could stem from minority individuals' efforts to manage their negative emotions during a challenging cognitive task.

Minority performance can be impacted when they feel uncertain about how others are perceiving them, which can induce an identity threat. We know that an individual's actual perception of anxiety prior to a stressful situation has a significant impact on performance. For instance, high anxiety is linked to recurrent negative thoughts, which can be perceived to be distressing, intrusive, and difficult to control (Glass & Arnkoff, 1994; Kent & Jambunathan, 1989; Sarason & Sarason, 1990). Due to the distraction of negative and intrusive thoughts, task

performance weakens. (Sarason et al., 1996). In the context of an exam, for example, high levels of cognitive interference are likely to impair concentration during preparatory study and exam performance. Therefore, rising levels of anxiety should be perceived as likely to harm performance. Many minority individuals experience this phenomenon when they know that their performance will be evaluated and/or compared with others. Appraisal-based models of stress and coping (e.g., Lazarus, 1991) propose that situations that create uncertainty and present a potential threat to self-integrity motivate people to suppress or regulate the negative thoughts and feelings they experience (Avero et al., 2003; Skinner & Brewer, 2002). Again, this strategy of coping can be maladaptive and can serve as more of a distraction. Given that the fear of stereotype confirmation is, by definition, an ego-threatening experience that can increase doubt (Steele & Aronson, 1995), stress and coping research would suggest that it could also elicit spontaneous attempts to suppress negative feelings that may arise such as anxiety.

Matheson and Cole (2004) showed an association between experiencing stress due to social identity threat and a tendency to down-regulate negative emotions. Thinking about the process of down-regulation, it refers to an internal method of suppressing a response to a stimulus. This process can be distracting as it diverts the individual's attention to the task at hand. Considering that stereotype threat can induce a general focus on avoiding negative outcomes (Seibt & Förster, 2004; Smith, 2004), the tendency to adopt a suppression strategy might be further encouraged by the perception that anxiety hurts performance on difficult intellectual tasks (e.g., Smith et al., 1982). Croizet et al.'s research (2004) showed that the measure of heart rate variability as an indicator of mental workload could capture an individual's effort expended to regulate anxiety (Applehans & Luecken, 2006). These findings suggest that

emotion regulation appears to be a natural reaction to the threat of confirming a negative stereotype that is relevant to the target's identity.

An Integrated Process Model of Stereotype Threat

Steele (1988) indicated that stereotype threat is provoked by situations that are threatening to an individual's self-integrity. Schmader et al. (2008) suggested that the threat to self-integrity during performance of a task elicits a series of processes that can interrupt optimal performance on a variation of tasks. The objective of the researcher's model was to develop an integrated mediational model of stereotype threat. Their model considered both the nature of the predictor (i.e., how do situations trigger stereotype threat?) and the outcome (i.e., what kind of performance is impaired?).

To start, Schmader et al. (2008) summarized the psychological process that they believed influences stereotype threat. They also outlined how situational cues and person characteristics merge to trigger stereotype threat. Schmader et al. (2008) suggested that stereotype threat weakens performance on cognitive and social tasks that require controlled processing. The researchers identified working memory as the general executive resource. Schmader et al. (2008) suggested that working memory is related to efficient performance on a wide range of cognitive and social tasks, which require coordinated information processing while controlling interference and distractions.

After the researchers identified working memory as a core cognitive factor associated with stereotype threat, they then considered the processes that are possibly involved in threatening situations that could disrupt working memory. These processes involve a heightened physiological stress response and an increased monitoring of cues. Monitoring environmental cues helps to make clear the meaning that the situation implies about the individual and/or group.

Schmader and colleagues (2008) emphasized that stereotype threat creates increased monitoring, heightened physiological arousal, and a state of cognitive imbalance. These factors can lead individuals to evaluate their experience in a biased way, which can elicit negative thoughts and feelings. In addition, targets of stereotype threat attempt to avoid confirming stereotypes by performing well. In doing this, they are actively suppressing stereotypical and anxious thoughts that conflict with their task goals.

Last, within these processes lie three fundamental reasons why task performance may be impaired. Schmader and colleagues (2008) outlined these reasons as:

> (a) a direct physiological impairment of prefrontal processing caused by activation of the hypothalamic-pituitary-adrenal axis (b) increased vigilance toward endogenous or exogenous cues to assess the self within the situation, and (c) active efforts to suppress or push out of mind stereotypic thoughts and anxious feelings. (p. 338)

Exploring the Self-fulfilling Prophecy

Over time, the self-fulfilling prophecy has been associated with social difficulties by creating feelings of social inequality and incompetence. This can decrease academic achievement of minority students and fuel discrimination (e.g., Merton, 1948; Rosenthal & Jacobson, 1968; Weinstein et al., 2004). Although relevant, Merton's empirical tests of the self-fulfilling prophecy did not gain significance until 20 years later when Rosenthal and Jacobson (1968) published results of a groundbreaking experiment showing that teachers' expectations had self-fulfilling effects on students' IQs. Rosenthal and Jacobson (1968) theorized that disadvantaged students may perform worse in school compared to their advantaged peers because this is what their teachers expect of them. They also considered that disadvantaged students may perform better if their teachers expected them to make academic improvements. To test this, they informed elementary school teachers that Harvard researchers designed an IQ test that could

detect “intellectual blooming.” They then pointed out which students had been identified as “late bloomers” by the test. They also identified which students would have significant increases in their IQs throughout the school year. There was no actual test to measure intellectual blooming. Instead, the students had only been given an IQ test, and randomly assigned to groups that would be labeled as late bloomers. Because the late bloomers were chosen at random, they were no different from any other students, other than their teachers’ expectations for their academic performance. Consequently, Rosenthal and Jacobson (1968) found that any distinction in IQ scores at the end of the school year was credited to a self-fulfilling prophecy. By the end of the school year, the late bloomers had significantly greater IQ gains than other students.

Madon et al. (1997, 2003) found that overall, positive expectations tend to yield greater self-fulfilling effects on targets’ behaviors than negative expectations and some targets are more vulnerable or sensitive to self-fulfilling prophecies than others. Vulnerable targets can include individuals with low levels of self-efficacy (Willard et al., 2008) and unclear self-views (Swann & Ely, 1984), as well as those who are stigmatized due to their membership in stereotyped groups (Jussim et al., 1996; Madon et al., 1997; Smith et al., 1998). Targets are also more vulnerable to self-fulfilling prophecies when they are motivated to get along with perceivers (Snyder & Haugen, 1995), want to affiliate with perceivers (Sinclair et al., 2005), behave deferentially when interacting with perceivers (Smith et al., 1997), desire to make a good impression on perceivers (Zanna & Pack, 1975), and perceivers control resources they want (von Baeyer et al., 1981). This is absolutely the case with many minority individuals because in most academic cases, they tend to behave differently, or code switch, to protect their perceivers’ views of them. They may also believe maintaining a good impression will benefit them more by producing better academic results.

The Self-fulfilling Prophecy and its Implications on African American Individuals

Research on self-fulfilling prophecies and its implications for African Americans appear to be significantly dated and under-researched. Much of the research centered around self-fulfilling prophecies seem to be centered around Latinx individuals and women. This gap in the research highlights the need for data that include the African American population, especially because there is a surplus of data and research surrounding the effects of stereotype threat on African Americans and there is evidence that stereotype threat can induce a self-fulfilling prophecy.

Merton suggested that the self-fulfilling prophecy could create large-scale social problems that involved many people. Early in the 20th century, Merton described how African Americans were prohibited from joining labor unions on grounds that they were strikebreakers. Strikebreakers are individuals who were not employed by a company before the trade union dispute but hired after or during a strike to keep the organization operating. As a result of this practice, African American workers had little opportunities to work. This condition forced them to accept any chance to work, including work that became available when White union laborers went on strike. Therefore, Merton concluded that the shared belief that African Americans were strikebreakers caused them to become strike breakers out of necessity, resulting in a self-fulfilling prophecy.

Often, it is asserted that teachers use information related to a multitude of individual student characteristics to form their expectations of students (e.g., Bandura, 1997; Keogh, 2000; Muller et al., 1999). Many individual student characteristics can influence teacher beliefs about their students. There has been a great deal of research that analyzes the implications of these characteristics for student learning (e.g., Baron et al., 1985; Obiakor, 1999; Solomon et al.,

1996). Characteristics can include gender, ethnicity, social class, stereotypes, diagnostic labels, physical attractiveness, language style, the age of the student, personality and social skills, the relationship between teacher and student background, names, other siblings and one parent background. Many of these characteristics are unique to the student and can be influenced by the individual's background, upbringing, and beliefs, which can include ethnicity and environmental factors.

Wigfield et al.'s (1999) research found that teachers' expectations for White students were significantly more positive than for their African American students. Data showed that teachers rated African American children lower on academic scales than White students. The teachers also rated the ability of the African American students to make friends and their own enjoyment in working with them lower than their ratings for White students. While these data show that teachers' expectations for student performance can depend on ethnicity, these data do not support that African American students were more susceptible to self-fulfilling prophecies. Entwisle and Alexander (1988) found in their study of 825 first-year students that the African American students started school with slightly higher standardized test results in reading than their White peers. Due to this and other students' variables that were considered, the researchers predicted that the African American students would achieve better grades on their first reports than the White students would. However, the opposite happened. Entwisle and Alexander (1988) found a small difference in reading grades, which favored the White students. By the end of the year, this had transformed into a significant difference, which was also shown in the reading test results. This led the researchers to assume that the teachers' expectations, which were reflected in their grades, had a significant effect on the educational achievement of the students. Even

though this research did not specifically highlight and define a self-fulfilling prophecy, it showed that teacher expectations of students have an impact on student performance.

The Self-fulfilling Prophecy and its Implications on Latinx Individuals

This section discusses how the self-fulfilling prophecy impacts Latinx individuals and other factors that can induce the self-fulfilling prophecy. Guyll et al. (2010) analyzed the correlation between acculturation, ethnic identity, and educational outcomes in Latinx individuals. They hypothesized that self-fulfilling prophecies, stigma consciousness, and stereotype threat play a significant role in educational outcomes. These factors could greatly impact an individual's performance due to the internal processes and stress that can cause decreases in performance. Self-fulfilling prophecies, stigma consciousness, and stereotype threat should be considered because each highlight how beliefs and expectations influence an individual's behavior and performance in educational settings. The factors mentioned are important to Latinx individuals because they bring their own culturally influenced norms, attitudes, and behaviors to the academic environment.

Stigma consciousness is "the extent to which people are self-conscious about being a member of a stereotyped group and expect to be stereotyped by others" (Brown & Pinel, 2003, p. 627). Individuals who endorse higher levels of stigma consciousness have the tendency to perceive greater levels of discrimination against themselves and other members of their group. They also are prone to beliefs that their group membership impacts their social interactions and experiences, leading them to perceive negative and ambiguous feedback as discriminatory (Major et al., 2003). Overall, stigma consciousness has been shown to be associated with lower academic performance and disengagement from school (Brown & Lee, 2005; Pinel et al., 2005).

Guyll et al.'s (2010) goal was to study how acculturation variables and ethnic identity could induce self-fulfilling prophecies, stigma consciousness, and stereotype threat and influence Latinx individuals' academic outcomes. Like research regarding impacts on African American performance in the presence of stereotype threat, the researchers found that when a Latinx individual has knowledge about social roles and stereotypes, it has an impact on the individual's behavior in ways that can impact academic performance. Additionally, Guyll et al. (2010) found that Latinx students who have previously experienced discrimination may experience stigma consciousness. They found that these individuals may also be prone to stereotype threat because they have become aware of their group's stigmatized status. This research is relevant because we have learned from previous chapters that minority individuals are especially vulnerable to stereotype threat and tend to display differences in behavior when it is present. These shifts in behavior have the tendency to hinder and impact performance, resulting in a self-fulfilling prophecy.

Prior to this research, Tenenbaum and Ruck (2007) carried out a meta-analysis that found that teachers tend to have lower expectations for Latinx students in comparison to Euro-American students. However, their research does not support or disconfirm whether self-fulfilling prophecies influence the academic performance of Latinx individuals. Hill and Torres (2010) indicated that cultural differences can promote negative beliefs from teachers. This notion gives support to the idea that factors related to acculturation and ethnic identity could cause teachers to develop negative beliefs about Latinx students' academic abilities, which can lead to the onset of self-fulfilling processes. Guyll et al. (2010) suggested that acculturation status and ethnic identity could lead perceivers to develop false beliefs about Latinx students that are either target based or stereotype based. Holding beliefs about an individual that are stereotype based

can result in the perceiver shifting their actions toward the individual, which can also induce a self-fulfilling prophecy. Acculturation-related variables may cause perceivers to develop false target-based beliefs about Latinx students. For example, low English proficiency impedes on the ability to understand the curriculum, causing poor performance. However, it is not uncommon for teachers to falsely attribute poor performance to lower intelligence or motivation (Ross, 1977). This erroneous notion can provoke a self-fulfilling prophecy in which students are given fewer challenging instructions, fewer opportunities, and less information about academic and career paths.

Acculturation may also influence Latinx students' academic outcomes by way of parent and teacher interactions. For instance, Hill and Torres (2010) stated that Latinx parents who are less acculturated tend to view parental involvement in school-related matters as an insult to the teacher's authority. As a result, their lower engagement may be understood as a lack of concern about their child's learning. When cultural differences are present, it is thought that teachers tend to make less effort to involve parents in academic matters. This can cause teachers to perceive those parents to value education less (Epstein & Dauber, 1991), which in turn is associated with perceiving the children to be less intelligent (Hauser-Cram et al., 2003; Hill & Craft, 2003). Consequently, this is suggesting that low acculturation can cause misinterpretations of parental roles and negative beliefs about children's academic ability, which could activate a self-fulfilling prophecy.

It is likely that stereotyping does not induce a self-fulfilling prophecy immediately, but it leads teachers and administrators to estimate a Latinx student's performance in a subjective or biased way. For instance, teachers who judge their Latinx students' performance based on stereotypes or biases may assign grades that are lower than the student's actual achievement.

Jussim (1991) stated that in this situation, grades do not suggest a self-fulfilling process. This is because they are not related to an actual decrease in achievement, but in a false assessment. The false assessment then becomes part of the student's educational record, which could lead perceivers to develop false beliefs about the student. This could lead to biased or differential treatment toward the student and self-fulfilling prophecies later in life. For instance, poor grades that the student did not deserve can decrease later educational opportunities. All the aforementioned factors can then lead to a self-fulfilling process. First, one perceiver has provided false information, and the next perceiver presumes that previously given information to be accurate. The next perceiver then uses it to make decisions that can reduce the student's opportunities for educational success.

The Self-fulfilling Prophecy and its Implications on Women

Research suggests women are also susceptible to stereotype threat, which puts them at risk for experiencing self-fulfilling prophecies. One way that women are susceptible to the self-fulfilling prophecy is being involved in social gender roles. Kollmayer et al. (2016) suggested that the school setting can reflect several systems that an individual can be confronted with in the real world or in society. Those systems can include gender relations, social gender roles, and even gender stereotypes. Ashmore and Del Boca (1979) described gender roles as "complex sets of beliefs about individual characteristics, including competences, abilities, interests, and roles performed by women and men" (p. 220). Research has indicated that women and men are considerably different in terms of social and achievement-oriented characteristics. Common stereotypes posit that men tend to be independent, aggressive, and decision-makers.

Conversely, women are thought of as kind, helpful, and considerate toward others (Kite et al., 2017). These social stereotypes are not always adaptive because it can cause cognitive

dissonance when the individual does not fit into the social box they were assigned to. When we reflect on differences between women and men, stereotypes propose that masculinity is often related to agency and instrumentality, while femininity is associated with communion and expressivity (Kachel et al., 2016).

Burgess and Borgida (1999) pointed out that stereotypical beliefs can lead members of society to believe that females and males lack the necessary qualities to succeed in areas occupied by the opposite gender. For instance, others may believe men are not meant to be emotional or nurturing because that is a woman's place or role. Women who are independent and confident are thought to exude masculine energy. These social concepts can be very harmful to the individual who does not fit into one social category. Research has revealed that stereotype-based expectations can have self-fulfilling effects on targets' behavior (e.g., Anderson & Bem, 1981; Buchanan & Hughes, 2009). For instance, Snyder et al.'s (1977) research on the attractiveness stereotype showed that men looked for more sociable behavior from women they falsely believed were attractive than from women they falsely believed were unattractive. Within this study, the women's behavior shifted because of how men treated them. Expectedly, the men were more friendly toward the women they falsely believed were attractive than toward the women they falsely believed were unattractive. This study further supported the notion that how a perceiver feels about someone can dictate how they treat them. The women who were treated in a warm and friendly manner were more social and friendly than those who were not treated in that manner. The findings of this study showed how stereotypic beliefs can have self-fulfilling effects on targets' behaviors. There is limited research on the impact of stereotype threat and women's vulnerability to self-fulfilling effects.

Does Stereotype Threat Induce the Self-fulfilling Prophecy?

A stereotype situation can provoke a self-fulfilling prophecy. When a group is labeled negatively, this can cause the individuals within the group to ultimately act the way they are expected to, which confirms those stereotypes. When others do not treat the stereotyped group as equal to another group, this can cause stereotypes to provoke self-fulfilling prophecies. Consider a minority group perceived as incapable of understanding technical information. Due to the perceiver thinking that they have low comprehension, they may not be given the proper technical training. This results in the minority group lacking the necessary skills to be employed in technical occupations or settings. The lack of employment in the technical field for the minority group is a misrepresentation used as confirmation that the stereotype was correct, evoking a self-fulfilling prophecy.

Research has found that under naturalistic conditions, expectations lead to more powerful self-fulfilling prophecies when they are negative than when they are positive (e.g., Brophy, 1983; Brophy & Good, 1974; Eccles & Wigfield, 1985). This process has been named the Golem effect. When considering why negative expectations may be more powerful than positive ones, data have shown that people often consider negative information more useful than positive information (e.g., Kanouse & Hanson, 1971; Skowronski & Carlston, 1989; Taylor, 1991). Individuals tend to react more strongly to negative feedback than to positive feedback (Coleman et al., 1987) and often consider losses more heavily than rewards when making decisions (Kahneman & Miller, 1986). This research suggests that people may contemplate the effects of losing or failing more than they consider the effects of success, which can cause shifts in behavior and performance. The inclination for people to emphasize and be more motivated by negative versus positive information suggests that negative expectations may create stronger

self-fulfilling prophecies than positive expectations. Further, Steele (1997) proposed that repetitive encounters with stereotype threat can lead to learned helplessness. Learned helplessness is a coping process in which a person decreases their efforts due to fear of incompetence when attempting to master tasks. When an individual displays learned helplessness, this can be perceived as a self-fulfilling prophecy. When an individual is in a situation of stereotype threat, it is possible that they learn to decrease efforts to self-preserve against feelings of incompetence. This can lead to decreased performance, which can be perceived as incompetence or lack of ability.

Chapter IV Limitations

Madon et al. (2018) sought to explore if the self-fulfilling effect of stereotypes can accumulate across perceivers. Madon and colleagues showed that the self-fulfilling effects of parents' expectations on their adolescents' alcohol use accumulate across mothers and fathers (Madon et al., 2004), and over time among adolescents (Madon et al., 2006). Even though our results showed that stereotypes can have cumulative self-fulfilling effects, we demonstrated this effect with social groups about whom people feel relatively comfortable expressing negative attitudes (e.g., Haines et al., 2016; Leskinen et al., 2015; Puhl & Heuer, 2009). As such, our procedures might have increased the chances that participants would treat targets in line with their stereotypes, a necessary step in the self-fulfilling prophecy process. This raises the possibility that perceivers may be less inclined to apply their stereotypes to groups with greater protected status (Madon et al., 2005), such as those associated with race or military service, in which case a stereotype's cumulative self-fulfilling effect may be mitigated or even preempted.

Schmader et al. (2008) tested the idea that targets of stereotype threat try to regulate their emotions and that this regulation depletes executive resources, resulting in underperformance.

Across four experiments, they provided converging evidence that targets of stereotype threat spontaneously attempt to control their expression of anxiety and that such emotion regulation depletes executive resources needed to perform well on cognitive ability tests. They also demonstrated that providing threatened individuals with a means to effectively cope with negative emotions—by reappraising the situation or the meaning of their anxiety—could restore executive resources and improve test performance. While these researchers gave evidence to the cognitive effects of stereotype threat, their study did not answer directly what motivation leads targets of stereotype threat to regulate their negative emotions. Telling threatened participants their anxiety was being measured merely allowed them to exhibit the regulation strategy they were employing. Theoretically, it seems plausible that targets experiencing stereotype threat would be motivated to suppress public expression and their private experience of anxiety. Thus, we cannot rule out the possibility that motivation to suppress their emotional experience fueled their efforts to avoid expressing these emotions to others.

Rubie-Davies et al. (2006) sought to compare teacher expectations and judgments with actual student achievement. Their study provided evidence for the high-expectation student groups of the Galatea effect (positive self-fulfilling prophecy) identified by Babad et al. (1982). While Rubie-Davies et al. (2006) provided a means of quantitatively assessing teachers' expectations and judgments and comparing these with student achievement, their study had limitations. One limitation was that the role of the ethnicity of students as a factor in teachers' expectations was one objective of the paper and so other potential factors that may better explain the differential expectations of teachers and rates of progress of students were not explored. For example, social class was not a covariate in the analyses and may have been a factor. Future research could more closely consider variables alongside teacher expectations (e.g., student

and/or home factors) that may account for the differential achievement found in the current study. Second, the ethnicity of teachers was not considered as a variable that could have influenced their expectations. There was a range of teacher ethnicities in both low and high socioeconomic schools making such an analysis problematic. However, it is of note that all three Pacific Island teachers in the current study were in schools with larger numbers of Māori and Pacific Island students. It is possible that they may have had higher expectations for the students from similar backgrounds to themselves and that this could have influenced the finding of more positive expectations and achievement for Pacific Island students when compared with Māori.

Whaley (2020) analyzed traditional stereotype threat hypotheses. The research involved psychosocial outcomes of cognitive functioning, academic disidentification, and a sense of mastery or generalized self-efficacy (see Spencer et al., 2016; Steele, 1997; Steele et al., 2002). Their study was consistent with Steele et al.'s (2002) idea that race prime together with diagnostic condition is very likely to lead to stereotype threat activation. Their research also assumed that stereotype threat is more relevant to the individual or target. Their study failed to display evidence of generalizability at the general population level. This shows that broad applications of stereotype threat theory to education, health, criminal justice, and other spheres of African American life may be less developed and need further research.

CHAPTER V: PROPOSED MODEL AND CLINICAL IMPLICATIONS

There is a significant need for research to understand psychological mechanisms that may contribute to the racial/ethnic and gender academic achievement gap (Bali & Alvarez, 2004; Brown-Jeffy, 2009; Fletcher & Tienda, 2010). Kingdon and Cassen (2010) indicated that historically there has been concern about the achievement of African American and Latinx students, which is still relatively lower on average, though improving. Stereotype threat can produce several psychological processes within minority individuals that can negatively impact educational performance. Steele and Aronson (1995) suggested that stereotype threat refers to the concern or worry one feels when one is at risk of confirming, as self-characteristic, a negative stereotype about one's group. This research is classic and relevant in that it highlights the anxiety one feels about being a part of a group that holds a negative stereotype.

This document outlined how discrimination fuels stereotypes and how those stereotypes put minority individuals at risk for unfair treatment in many contexts. Being aware of the stereotype about one's group has detrimental effects. We know that it can impact one's self-efficacy, which is essential to effective task performance. When an individual has low self-efficacy, this is reflected in their performance overall. Low self-efficacy has been shown to produce the imposter phenomenon, which also has a significant impact on performance. Due to a history of racism and gender discrimination, many minority individuals have experienced cultural mistrust, which has an impact on how they perceive education. Having a solid sense of identity as a minority is critical to self-efficacy. Individuals who have a strong sense of their minority identity can use this as a protective factor against the effects of stereotype threat and discrimination and can increase self-efficacy.

Although there is a need to discuss the processes that can impact minority performance, the current literature is limited and dated. Limitations on the current research have been discussed and a process model of the impact of stereotype threat on self-efficacy and minority performance has been proposed in an attempt to fill in the gaps in literature.

Limitations of Integrated Process Model of Stereotype Threat

Schmader et al.'s (2008) model accounts for a variety of occurrences. The model explains why minority individuals and women tend to underperform in some academic areas. The model also accounts for why many interracial interactions can often be experienced as uncomfortable or awkward. Their model is strong, in that it combines physiological, affective, cognitive, and self-regulation processes to clarify challenges that are linked with situational stigma. While Schmader et al.'s (2008) model adds to the literature on stereotype threat, it does not include specific factors that could be present within the minority individual during the threatening situation. For instance, the researchers do not add information on how cultural mistrust can impact stereotype threat and how stereotype threat can elicit phenomena such as imposter syndrome and the self-fulfilling prophecy. These factors are important to consider because they are specifically impacted by stereotype threat.

Process Model: Impact of Stereotype Threat on Self-Efficacy and Minority Performance

Bandura (1977) described self-efficacy as the ability to orchestrate and apply existing skills toward the execution of a behavior. This document explored how self-efficacy can be hindered by factors such as stereotype threat, imposter phenomenon, cultural mistrust, and self-fulfilling prophecy. When self-efficacy is hindered, we tend to see a decrease in academic performance, which can somewhat account for the minority education gap. The objective of the proposed model was to outline the process of the impact of stereotype threat on self-efficacy and

minority performance. This model targets minority populations, such as African Americans, Latinx individuals, and women.

The first stage (a) in this process happens when the minority individual is made aware of negative stereotypes about their identified group. We know that making people aware, either blatantly or subtly, of negative stereotypes relevant to a social group to which they belong can impair performance (Steele, 1997; Steele et al., 2002). Clark et al. (2009) also suggested that there is the possibility that being aware of negative stereotypes can affect the certainty that individuals have in their performance-related perceptions, causing a decline in performance. When the individual is made aware of the negative stereotype in any capacity, the individual begins to become concerned about being evaluated negatively. This is when stereotype threat arises.

The second stage (b) involves stereotype threat being present. Steele et al.'s (2002) research assumed that stereotype threat is the product of heightened concern about being negatively evaluated. This step follows the awareness of negative stereotypes because as Steele and Aronson (1995) suggested, stereotype threat involves concern or worry one feels when at risk of confirming a negative stereotype about one's group. When a minority individual is made aware of their belonging to a negatively perceived group, it is plausible that stereotype threat can arise, causing increased worry. Stereotype threat can promote excessive cognitive and affective responses. These responses can become draining, therefore decreasing an individual's confidence in their abilities.

One response to stereotype threat is addressed in the third stage (c) in this process, which occurs when cultural mistrust arises. Terrell and Terrell (1981) recognized that for some minority students, higher levels of mistrust are linked with underperformance on standardized and

intelligence tests. Research further suggested that students who report higher levels of cultural mistrust are more likely to disengage from academic tasks and devalue education (Irving & Hudley, 2005). For instance, Benner and Graham (2011) found that cultural mistrust may have a greater influence on the academic achievement of Latinx male students. Whaley and Smyer (1998) also found that cultural mistrust decreased African American students' perceptions of job competence and of global self-worth. When cultural mistrust is present, the minority individual is prone to distrust individuals outside of their race, especially if that individual is evaluating the minority person. After the minority individual experiences stereotype threat and cultural mistrust, this is thought to provoke an anxious response.

When stereotype threat causes one to be unsure that they can competently perform a task, their anxiety levels increase and their ability to focus on that task weakens. This brings us to the fourth stage (d) within this process model. Johns et al. (2008) proposed that being the target of a negative stereotype can hurt performance because regulating one's anxious response to the situation seizes the executive resources necessary for performing well in such domains. The anxious response that is present during this stage can manifest as physical, emotional, and/or cognitive depletion. During this anxious response, it is likely that the minority individual is now doubting their ability to perform well at the given task. This is demonstrated as the imposter phenomenon.

The fifth stage (e) discusses ruminations/negative thoughts. The anxious response that was previously mentioned can induce the imposter phenomenon, which can also lead to ruminations and a cycle of negative thoughts. High anxiety is linked to recurrent negative thoughts, which can be perceived to be distressing, intrusive, and difficult to control (Glass & Arnkoff, 1994; Kent & Jambunathan, 1989; Sarason & Sarason, 1990). This is relevant during

task performance. When a minority individual is performing an academic task, it is difficult to be successful at that task when negative thoughts are present. Stereotype threat also makes stereotypic thoughts accessible to the minority individual (Davies et al., 2002; Inzlicht et al., 2006; Steele & Aronson, 1995) and can increase the prevalence of negative thoughts (Cadinu et al., 2005). Due to the distraction of negative and intrusive thoughts, task performance weakens.

The next stage (f) of this process occurs when the imposter phenomenon happens. When a minority individual is experiencing the imposter phenomenon, they fear being found unworthy of their success (Clance & Imes, 1978). Subsequently, impostors impose stress upon themselves to perform well, meet personal expectations, demonstrate that they are deserving of success, and to disconfirm their own negative view of themselves. Strong feelings of the imposter phenomenon can impede academic success, by causing individuals to disengage from their academic endeavors. They may also tend to avoid situations where they know they will be evaluated, have constant feelings of inadequacy, and exhibit an unhealthy pressure to succeed (Ross et al., 2001). Research suggested that such factors lead to verbal ruminations or worries about performance and worries about confirming the disparaging stereotype, reducing working memory resources required to solve difficult problems (Beilock et al., 2007; Cadinu et al., 2005).

The effects of the imposter phenomenon are highly apparent within minority populations and can lead to a decrease in perceived self-efficacy, which highlights the seventh stage (g) of the process model. Research has indicated that students with high self-efficacy persevere and perform well, while those with low self-efficacy give up and disengage (Schunk & Pajares, 2002). Self-efficacy beliefs have been positively linked to academic achievement, performance expectancies, self-perceptions of competence, and possessing positive attitudes toward subject matter (Reid, 2013). Merolla (2017) suggested that self-efficacy is linked to educational

achievement because students who have higher levels of self-efficacy are more likely to engage in behaviors that are conducive to high achievement. Internal stress, such as imposter phenomenon and cultural mistrust, can lead to lower levels of self-efficacy and poor performance due to cognitive and emotional strain. Having at least average levels of self-efficacy is essential to student task performance because it can serve as a motivational factor to do well on given tasks.

While the minority individual is experiencing ruminations and/or negative thoughts, they tend to spend more time attempting to disconfirm the negative stereotype about their group. This is the eighth step (h) within this process model. Minority individuals tend to spend more time attempting to disconfirm negative stereotypes instead of focusing on the task itself. This can cause decreased performance due to focusing more on the anxiety that has been induced, rather than performing well at the given task. The concept of effortful coping is defined as the spending of high levels of effort to overcome barriers to achievement, such as discrimination, typically faced by disadvantaged populations (James et al., 1983). This strategy of expending enormous amounts of effort to overcome one's disadvantaged position in society often has unfavorable impacts on one's physical and mental health (James et al., 1983). Effortful coping can lead to burnout due to an excessive amount of energy being distributed.

Expending substantial amounts of effort can be extremely draining, physically, mentally, and emotionally. Such exhaustion can lead to a minority individual's executive resources being depleted, which is the ninth stage (i) of this model. Executive resources are needed for high-order cognitive functioning. Schmader and Johns (2003) found that performance declines happen because of a reduction in working memory capacity—a limited cognitive resource similar to executive attention (Engle, 2002; Feldman Barrett et al., 2004). Beilock et al.'s (2007) findings

supported that negative stereotypes hurt performance by increasing mental workload (Croizet et al., 2004) and exhausting executive control capacity (Inzlicht et al., 2006). Schmader et al. (2008) provided evidence that emotion regulation depletes executive resources needed to perform well on tests of cognitive ability.

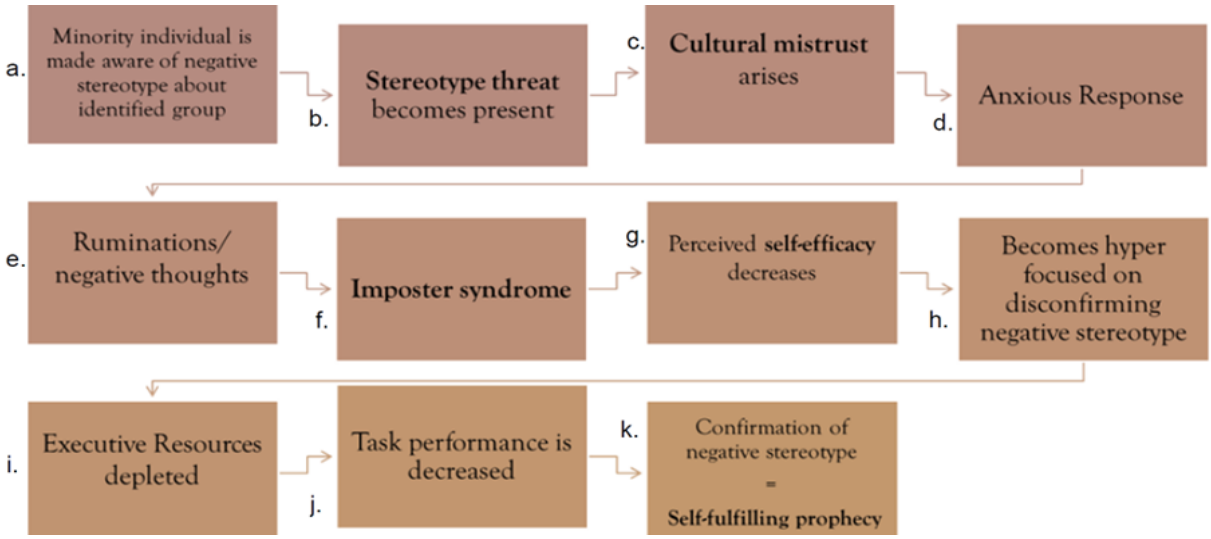
When the executive resources have been depleted, the 10th step (j) suggests that task performance is decreased. When task performance is decreased, the minority individual tends to display lower academic performance. Decreased interest in doing well or completing that task may also occur. For instance, Steele (1997) proposed that repetitive encounters of stereotype threat can lead to learned helplessness. Learned helplessness is a coping process in which a person decreases their efforts due to fear of incompetence when attempting to master tasks. Decreased effort can then lead to poorer academic performance, which can also account for education gaps within minority individuals.

The final step (k) within this model occurs when the task performance is decreased, confirming the negative stereotype from step one. This activates a self-fulfilling prophecy. Self-fulfilling prophecies do not always mean that an individual is not competent in a task. However, it suggests that the way that others evaluate them can impact how they evaluate themselves, leading to decreased performance. For instance, teachers who judge their Latinx students' performance based on stereotypes or biases may assign grades that are lower than the student's actual achievement. Jussim (1991) stated that in this situation, grades do not suggest a self-fulfilling process. This is because they are not related to an actual decrease in achievement, but to a false assessment. Rosenthal and Jacobson (1968) theorized that disadvantaged students may perform worse in school compared to their advantaged peers because this is what their teachers expect of them. The final step of this model relates to the first step because when the individual

is aware of the stereotype, they work harder to disconfirm the stereotype. This creates internal responses that decrease task performance, which in turn fulfills the self-fulfilling prophecy.

Figure 1

Process Model of the Impact of Stereotype Threat on Self-Efficacy and Minority Performance



Case Example

The model's first step (a) happens when the individual is made aware of the stereotype. Rhoda is on an internship and is asked to give a presentation on any topic that she chooses. She is the only Black intern in her cohort and decides to present on African American help-seeking behaviors. Rhoda became aware that she was the only Black intern on the Zoom call of about 40-45 other people and immediately thought to herself, "They probably think that I am not smart because I'm Black." This takes us to the next step (b), where the stereotype threat becomes present. Rhoda is now aware that every person on the call is evaluating her presentation and how well she can convey her message. The third step (c) occurs when cultural mistrust arises. She becomes nervous about how her White colleagues and supervisors perceive her, which triggers an anxious response (d). Rhoda then begins to have ruminations (e) about how terribly she must be doing during this presentation and how everyone must think that she is an unintelligent Black

girl. Rhoda then begins to experience the next step of imposter syndrome (f). She begins to feel like a fraud, as if she does not belong on the internship, and that she has not worked as hard as her White colleagues to be on the internship. Her self-efficacy then decreases (g), and she begins to feel like a failure. Rhoda becomes hyper-focused on the negative stereotype (h), working extra hard to sound more intelligent and suppress her anxiety. Because Rhoda was experiencing so much internally, she did not do her best on her presentation because her executive resources were depleted (i). She stuttered, missed important points, and spoke too fast. Even though she knows so much about African American help-seeking behaviors firsthand, she did not present at her full potential. Now that she has not performed the task at its best (j), Rhoda thinks that she has confirmed the initial stereotype that Black women are not smart, which resulted in a self-fulfilling prophecy (k).

Clinical Implications and Future Directions

Future research could focus on gaps in literature surrounding the effects of stereotype threat in minority individuals and how it impacts performance. Self-efficacy is a component that is greatly impacted by stereotype threat, and it is essential to understand this concept in an attempt to account for differences in minority performance. Low self-efficacy can produce other internal processes that are also under-researched for minority individuals. Future research can focus on how these processes work together and how collectively they can hinder the effectiveness of academic performance.

Clinical implications of the proposed model could be used as a way to increase cultural competency when working with minority individuals. Clinicians and professionals within this field should be aware of the process and the significant impact of stereotype threat. Not only does stereotype threat impact performance, but it also hinders an individual's identity, leading to mental distress. Clinicians could use this model to understand the internal processes that occur

and that impact executive resources, such as working memory. These factors are essential to understanding components that hinder minority individuals within the context of education. Having knowledge about stereotype threat and the processes that it triggers can assist clinicians in understanding the difficulties of simultaneous emotion regulation and task performance.

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Appendix A:

Process Model of The Impact of Stereotype Threat on Self-Efficacy and Minority Performance

Figure A1

Process Model