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## **Relationship Between Race, United States Nativity, Perceived Discrimination, and Acculturation Stress**

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**Relationship Between Race, United States Nativity, Perceived Discrimination,  
and Acculturation Stress**

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### **Abstract**

Acculturation has been defined as “changes that take place as a result of contact with culturally dissimilar people, groups, and social influences” (Gibson, 2001). This experience can cause stress for those experiencing it, especially when the individual is having a hard time adjusting to a new culture (Kim, 2019). One’s nativity, a person’s native-born status in their environment, and racial/ethnic group can also contribute to their experience of acculturation due to personal differences that these demographic variables create (Bondy et al., 2017; Hall & Carter, 2006). Studying race, nativity, perceived discrimination, and acculturation are essential for understanding the experiences of people of color (POC; i.e., Asian American, African American, Latinx, Native Americans). The current study examined the relationships between perceived discrimination and acculturation stress. Two hundred forty individuals participated in the study, consisting of major POC racial/ethnic groups in the United States: Latinx, Non-Hispanic Black, and Asian Americans. The study aimed to explore the relationship between perceived discrimination and acculturation, and to explore if racial/ethnic group and nativity were significant factors in that relationship. It was hypothesized that higher levels of perceived discrimination would account for a significant amount of variance in acculturation stress, indicating that perceived discrimination may influence the level of stress experienced. Additionally, it was hypothesized that acculturation would be further affected by racial/ethnic groups and nativity status (i.e., foreign- vs. U.S-born). The results found that race and sex were significant demographic variables, and that race and discrimination stress significantly contributed to the experience of different types of acculturation stress.

*Keywords:* acculturation stress, perceived discrimination, nativity, race

**Relationship Between Race, U.S. Nativity, Perceived Discrimination,  
and Acculturation Stress**

Discrimination is something that people of color (POC; i.e., Asian American, African American, Latinx, and Native American populations) in the United States experience in numerous aspects of life, and it has detrimental effects on mental health and identity (Flores et al., 2008; Hall et al., 2015; Hazell, 2014). Discrimination has a particularly negative impact on those who report stress with the process of adjusting to a new culture, either having immigrated themselves or as the children of immigrants, leading to further increased stress and difficulties with acculturation when compared to those who report less of this stress (D'Anna-Hernandez et al., 2015; Torres et al., 2013). Studies have been conducted to determine the relationship between discrimination and cultural adjustment (D'Anna-Hernandez et al., 2015; Haugen & Kunst, 2017; Torres et al., 2013). However, the relationship between racial/ethnic group, immigration status, and discrimination and cultural adjustment remains unclear. Therefore, the purpose of this study is to explore further the ways that one's racial/ethnic group and nativity status play a role in the relationship between levels of perceived discrimination and acculturation stress.

To substantiate the reasoning for this study, it is important to understand the size and scope of the population affected by these issues. The population of POC in the U.S. has continued to increase over the last decade (Frey, 2020), with almost 40% of the total U.S. population being non-White as of 2019 (U.S. Census Bureau, 2019). Furthermore, the report from Harvard's T. H. Chan School of Public Health (2018) found that 60% of POC in North America feel that their racial group experiences discrimination. While not mutually exclusive populations, many POC in America are either immigrants or children of immigrants. As of 2013,

first-generation Americans made up 13% of the U.S. population and second-generation Americans constituted a further 12% (U.S. Census Bureau, 2013), indicating that up to 25% of the U.S. population are potentially affected by stress related to cultural adjustment. These data reveal that racial discrimination and the process of cultural adjustment have the potential to affect large numbers of people and a significant portion of the U.S. population; therefore, it warrants further investigation.

Despite the significance of POC population in the United States, there is an underrepresentation of POC in academic research, especially in psychology. Mazzula et al. (2017) conducted a large-scale study to examine the inclusion of race and culture in psychology publications across journals in sub-specialty fields. The researchers found that POC are grossly underrepresented in research, and even when included, definitions of race and ethnicity are inconsistent (Mazzula et al., 2017). Because of this lack of POC research, issues relevant to POC—such as racial discrimination and acculturation—are also understudied (Hartmann et al., 2013). Although the body of research has grown over time, it is essential to continue providing representation for POC in research. The current study aims to contribute to this body of research focused on POC.

### **Discrimination**

The general public understands discrimination as an action or event in which someone is treated unfairly, which can occur on the basis of many different personal traits (e.g., skin color, sex, sexuality; Plous, 2003). Scholars note that the academic study of discrimination is more ambiguous than its simple colloquial understanding may imply. Major and Sawyer (2009) suggest that challenges to discrimination research may be due to a lack of an objective standard regarding what makes an action or event discriminatory in nature. Further, discrimination is a

broad term that encompasses various individual experiences such as being stereotyped, experiencing effects of discriminatory policies, and many others (Plous, 2003). The study of discrimination can be further complicated by attempting to consider the perpetrator's intention, which is difficult to establish, thus making it difficult to measure the ensuing effect (Gardiner & Ryan, 2017). Additionally, discrimination can take many forms (Plous, 2003) from individual to systemic levels (Carter et al., 2017) and it can have varying levels of perceived effect on the victim (Gardiner & Ryan, 2017).

Racial discrimination, which is discrimination that occurs specifically on the basis of the victim's race (Pager & Shepherd, 2008), are among the most dominant forms of oppression in the U.S. (Carter et al., 2017). Racial discrimination, specifically, has been the subject of a substantial body of academic research spanning several different fields, such as healthcare (Feagin & Bennefield, 2014; Miller & Peck, 2019), economics (e.g., Arrow, 1998), and sociology (e.g., Pager & Shepherd, 2008). This breadth of research demonstrates how discrimination affects many aspects of daily life for POC, such as employment, housing, and schooling (T. H. Chan School of Public Health, 2018). Systemic discrimination and microaggressions are two specific forms of discrimination that have received significant research attention (Carter et al., 2017; Nadal et al., 2014; Sue et al., 2007).

Racial discrimination at the systemic level is built into law and society in the U.S. (Carter et al., 2017). According to the U.S. Equal Employment Opportunity Commission (EEOC), systemic discrimination involves patterns, policies, or a common practice where "alleged discrimination has a broad impact on an industry, profession, company, or geographic location" (Silverman et al., 2006). Even though overt, blatant discrimination is less frequent now than it has been in the past, systemic discrimination persists in employment, housing, and other social

domains (Pager & Shepherd, 2008). For example, the EEOC reported that 47.3% of workplace discrimination charges processed in 2019 were on the basis of “race,” “national origin,” or “color” (EEOC, 2019).

A meta-analysis of 119 studies consistently found that experiencing discrimination in any domain can influence a person’s behavior and thought patterns. This can further result in potentially negative physical and mental health consequences, such as an increased risk of substance use and adverse physical consequences, as well as worse overall health (Carter et al., 2017). Additionally, limited access to mental and physical health services due to systemic racial discrimination in healthcare leads to fewer resources available for POC, which only further increases healthcare disparities (Carter et al., 2017; Feagin & Bennefield, 2014). Systemic discrimination can affect many areas of life for POC and has significant damaging effects.

A growing body of research focuses on microaggressions as more nuanced experiences of discrimination (Allen, Scott, & Lewis, 2013; Nadal et al., 2014a; Sue et al., 2007; et al., 2009). Microaggressions are instances in which racial bias and stereotypes underlie the actions or words of a White person to a POC, which can often be subconscious or seem insignificant on the surface but are damaging to those who experience it (Nadal et al., 2014b; Sue et al., 2007). Scholars argue that microaggressions are challenging to study because they are often subtle, leaving the perpetrator unaware of their misdoings and the victim doubting their perception of the situation (Sue et al., 2007). Microaggressions affect people across age ranges, such as K-12 students (Allen et al., 2013), college students (Nadal et al., 2014b), and adults (Nadal et al., 2014a), and across environmental settings like school (Allen et al., 2013), work (Hunter, 2011) and healthcare situations (Miller & Peck, 2019). Such experiences are a part of everyday life for POC (Sue et al., 2007). Similar to systemic discrimination, experiencing

microaggressions is shown to be related to a variety of negative mental health symptoms (e.g., Depression and negative affect (Nadal et al., 2014a); lower self-esteem (Nadal et al., 2014b)) and negative impacts to one's sense of self and how one understands oneself as a racial being (Allen et al., 2013). Racial discrimination in its many forms— whether broad and systemic or as nuanced microaggressions— is pervasive in POC experiences and can lead to severe negative mental health outcomes.

### ***Racial Discrimination and Psychological Outcomes***

The effects of discrimination on mental health are widely documented, including lower self-esteem (Nadal et al., 2014b), increased depressive symptoms (Tummala-Nara & Claudius, 2013), and increased trauma symptoms (Carter et al., 2020; Flores et al., 2010). Scholars have found effects of discrimination evidenced in academic performance (Allen et al., 2013; Bondy et al., 2017), job performance (Hunter, 2011), and physical health (Carter et al., 2017; Halim et al., 2013). The effects of discrimination on areas outside of mental health can also contribute to mental health symptoms due to the impact on one's life. For example, a decline in work or academic performance may not be considered a mental health outcome, but this decline in performance can result in increased negative mental health symptoms (Allen et al., 2013).

Research has found variance in results when looking at the effects of discrimination based on different personal characteristics. For example, the impact of racial discrimination can vary by sex (Dengechi et al., 2018; Hall et al., 2015; Tummala-Nara & Claudius, 2013), ethnicity (Flores et al., 2008; Iwamoto & Liu, 2010), immigration status (Iwamoto & Liu, 2010), and broader racial categories (Sellers et al., 2003). Racial discrimination has many different contributing factors and effects across other research areas, making it a complicated issue to study.



**Measuring Discrimination.** Studying discrimination is already challenging due to its varying forms, but the challenge is further compounded by the individual factors that can influence the experience. Discrimination can lead to a wide variety of experiences depending on the individual. In research, scholars have attempted to measure discrimination in varying ways. One way to conceptualize discrimination is from the perspective of the person who commits the discriminatory act (Hartung and Renner, 2013). Another method of measuring discrimination is via tangible outcomes (e.g., salary differences in the workplace; Frieze et al., 1990), which is useful in situations regarding discrimination that does not originate from one specific individual. Both of these methods are considered measures of “actual discrimination” because they do not depend on the perception of the person who experiences it.

Despite its usefulness in some fields, measuring “actual discrimination” for studies on psychological effects on the victim can present methodological challenges (Smith, 2002). Official institutional reports of discrimination used for analysis may be affected by bias or provide an incomplete account of all relevant factors when it comes to the way the victim feels they were affected (Smith, 2002). Additionally, the level of actual discrimination as captured by a measure of perpetrator’s intention and the intensity of impact on the victim do not always correlate with each other, as some people are affected by similar experiences more or less than others (Hartung & Renner, 2013).

Some researchers aim to study the effects of discrimination on the individual by recording the victim’s perception of the event, rather than the actual event, known as “perceived discrimination.” By definition, perceived discrimination is “the subjective experience of being treated unfairly relative to others in everyday experience” (Flores et al., 2008), instead of the actual act of discrimination itself. The perception of the event is useful for measurement because

it captures the experience as it relates to the person, regardless of how it may be captured by an objective report of the situation or a report from the discriminatory individual (Hartung & Renner, 2013). Scholars were able to study the effects of discrimination and find relationships with social, mental, and physical health repercussions in POC communities by using perceived discrimination as the main construct of interest (Flores et al., 2008; Hall et al., 2015; Hazell, 2014).

**Perceived Racial Discrimination and Mental Health.** One area of research that has significant support for the importance of studying perceived discrimination is that of mental health. For example, researchers found a connection between perceived racial or ethnic discrimination, post-traumatic stress symptoms, and health risk behaviors (Flores et al., 2008). Flores and colleagues' (2008) study consisted of 215 Mexican-origin adults (Age  $M = 47.82$  Male; 44.63 Female) who lived in the U.S. for an extended time (Age when moved to U.S.  $M = 19.82$  Male; 17.78 Female). Flores and colleagues found a correlation between higher levels of perceived discrimination and higher levels of post-traumatic stress. This relationship was further correlated with increased risk behaviors such as drinking, drug use, and fighting. This study developed a scale for measuring perceived discrimination but only focused on Mexican Americans for the results and therefore, its meaning is unclear for other sub-ethnic groups. Additionally, the potential impact of generational status on this relationship between discrimination and mental health is not explored, which some researchers have found relevant (Hall & Carter, 2006; Tummala-Nara & Claudius, 2013).

Hall and colleagues (2015) conducted a study on different factors associated with perceived discrimination and their relationship with mental health. This study examined factors such as skin complexion, ethnic identity, sex, and daily life stressors as related to the way the

participants reported their experience with discrimination. The participants consisted of 172 college students (Age  $M = 21.95$ ; 49.1% Male; 49.7% Female) of Black (45.1%), Hispanic (32.6%), multiracial (1.54%), and “other” (6.8%) origins. The results found a correlation between skin complexion, ethnic identity, and perceived discrimination among college students of Black and Hispanic origin. Among Black and Hispanic participants, there was more reported discrimination if they were of darker skin tones. Additionally, there was a positive correlation between perceived discrimination and increased general stress levels. However, the researchers did not consider the differences between Black and White Hispanics on this relationship, as “Hispanic/Latino/Spaniard” participants were taken as a whole category. Furthermore, country of origin was not considered as a factor in perceived discrimination, which has been a relevant factor in other studies about the effects of discrimination (Hall & Carter, 2006; Tummala-Nara & Claudius, 2013). Hall et al. (2015) emphasized that increased stress in POC communities, often related to discrimination and its effects, can have an adverse effect on mental and physical health (Hall et al., 2015).

An international study focusing on the Manjo ethnic minority of Ethiopia ( $n = 149$ ; 50% Male, 50% Female) found a similar negative correlation between perceived discrimination and psychological well-being (Dengechi et al., 2018). The researchers used a measure of overall psychological well-being to determine a strong negative correlation between perceived discrimination and well-being. The researchers found a negative connection between one’s level of perceived discrimination and feelings of self-acceptance, purpose in life, and autonomy. Additionally, sex was a significant variable in levels of discrimination stress, as female participants showed a higher correlation between perceived discrimination and well-being than their male counterparts (Dengechi et al., 2018). Similar to Flores et al.’s (2008) study on

Mexican-Americans, a limitation of this study is that participants consisted of a specific subgroup population, limiting the generalizability of results to other racial/ethnic groups.

In summary, researchers have found evidence that supports the notion that experiencing discrimination is detrimental to POC mental health (Flores et al., 2008; Hall et al., 2015; Dengechi et al., 2018). Thus, the existing research in the field of discrimination and mental health supports that studying discrimination is key to understanding the mental health and well-being of POC groups. Further analysis also shows that, when sociodemographic factors such as race and country of origin are included, they have a demonstrated influence on the effects of discrimination (Flores et al., 2008; Hall et al., 2015; Dengechi et al., 2018; Iwamoto & Liu, 2010).

**Discrimination and Individual/Demographic Factors.** As previously stated, studies have shown that many different factors can influence the way one experiences discrimination, such as age (Allen et al., 2013), sex (Dengechi et al., 2018; Hall et al., 2015; Tummala-Nara & Claudius, 2013), and ethnicity (Flores et al., 2008; Iwamoto & Liu, 2010). Two such factors that have received significant academic research attention are nativity status (Hall & Carter, 2006; Tummala-Nara & Claudius, 2013) and race (Sellers et al., 2003; Sellers & Shelton, 2003).

**Nativity Status.** An individual sociodemographic factor that can add further nuance to the experience of discrimination is that of one's nativity or immigration status. Immigration or nativity status refers to whether the person was born in another country and later moved to the U.S. ("immigrant", "foreign-born" or "first generation"), or if they were born in the U.S. to immigrant parents ("U.S.-born" or "second generation") (Hall & Carter, 2006). Some additionally define later generations by how far removed in time they are from the member of their family that immigrated (Iwamoto & Liu, 2010). In previous study of perceived racial

discrimination, researchers have found nativity status to be a significant factor in one's experience of discrimination (Hall & Carter, 2006; Tummala-Nara & Claudius, 2013).

Tummala-Nara & Claudius (2013) conducted a study researching perceived racial and ethnic discrimination and depressive symptoms in 95 students (Age 13-19, 53.7% Male, 46.3% Female, 51.6% foreign-born) of differing nativity status. The study found that increased perceived racial discrimination both from adults and peers increased the presence of depressive symptoms in U.S.-born POC adolescents. The researchers noted that this relationship was not supported for foreign-born participants, which they hypothesized was due to the foreign-born participants being less identified with American racial dynamics than those born in the U.S. (Tummala-Nara & Claudius, 2013). It is important to note that the study focused on racial minorities and the race of the participants was recorded. However, race was not considered in the relationship between nativity and perceived discrimination. The results did not include any analysis on the influence of the participant's race in their experience with discrimination, which others noted to be a relevant factor (Hall et al., 2015).

***Race and Nativity.*** A 2006 study found that many first-generation Afro Caribbean people try to distance themselves from a Black- or African-American identity and specifically foster their sense of Afro Caribbean culture due to fear of discrimination by White Americans (Hall & Carter, 2006). The sample was of 82 participants (32.9% Male, 63.4% Female; 71% first generation immigrants) living in the U.S. between 2 and 55 years ( $M = 20.52$ ). 82% of the sample self-identified as working class or middle class for their socioeconomic status. Those of the immigrant population more often expressed this fear of discrimination than those who were born in the country. While only briefly mentioned, the authors connect these fears to the study of cultural adjustment patterns in this population by other researchers in the field (Hall & Carter,

2006). This study links the concepts of perceived racial discrimination, cultural adjustment, race/ethnicity, and nativity status. Being able to extend these connections to other racial or ethnic groups outside of Afro Caribbean people could provide a better understanding of the experiences of POC outside of this group.

From the existing research, one can see that individual sociodemographic factors such as race and nativity status are important factors to consider when studying the effects of racial discrimination. Further, researchers have found that the experience of discrimination changes significantly when one's immigration/nativity status is considered (Hall & Carter, 2006; Tummala-Nara & Claudius, 2013). Understanding the influence of such factors can help add further nuance to the academic study of POC and immigrant experiences.

### **Acculturation**

Another highly researched topic shown to have similar sociodemographic influences and a relationship to discrimination (Bondy, Peguero, & Johnson, 2017; Kim et al., 2006; Koneru et al., 2007) is that of acculturation. As previously mentioned, acculturation is the process of change as a person adjusts from one culture to another (Gibson, 2001), generally focusing on those who have permanently settled in a new place with a significantly different culture (Schwartz et al., 2013). Acculturation is a broad term that can include several different behavior patterns (Sam & Berry, 2010). For example, integration is a type of acculturation found to be most adaptive and beneficial to psychological well-being, as it is the successful navigation of both native and new cultures while being engaged in both. Conversely, some experience separation (also known as enculturation), which occurs when one shows favor to their native culture and does not engage with the new culture. Assimilation is when the opposite occurs and one favors their new culture and distances themselves from their native culture. When occurring

in the U.S., assimilation can be referred to as Americanization. Finally, there is marginalization, when people feel like they are outsiders to both of their cultures. Many immigrants go through several different phases of acculturation and change between types over time. Furthermore, people can have different acculturation experiences based on their racial group (Koneru et al., 2007). There is stress involved with the entire process of this change, no matter the specific type of acculturation they are undergoing at the time (Sam & Berry, 2010).

Acculturation stress is the term used to encapsulate the social and psychological stresses that are associated with the process of acculturation, particularly when people face adjustment difficulties or cultural conflicts (Kim, 2019). It is important to note that acculturation and acculturation stress are related to each other but are distinct, as acculturation is the process and acculturation stress is a potential effect of that process. Acculturation stress has been found to be independent of the actual level of acculturation (Caplan, 2007; D'Anna-Hernandez et al., 2015). Acculturation stress is still regarded as a prevalent problem and when people experience significant acculturation stress levels, there are marked negative psychosocial outcomes (Hazell, 2014; Koneru et al., 2007).

### ***Acculturation and Mental Health***

Negative experiences with acculturation have been linked to mental health issues and identity conflicts. A 2003 study of Asian-American participants (n = 319; Age M = 15.88; 47.6% Male, 52.3% Female) showed that acculturation and cultural adjustment difficulties were significant predictors of increased general mental health symptoms (Yeh & Yoshino, 2003). This study focused specifically on recent Asian immigrants and found that age and specific Asian ethnicity, but not sex, were significant predictors of mental health symptoms. They also found that those who aligned more with an American identity rather than an Asian identity had fewer

mental health symptoms. The authors postulated that English proficiency and the resulting increased ability to assimilate played a part in the relationship between American identity and mental health. They also noted that more than half of each major ethnic group (Chinese, Japanese, and Korean) chose to complete the survey in their native language rather than English (Yeh & Yoshino, 2003). The results of this mirror the justification gleaned from the studies on discrimination—demographic variables affect the experience of acculturation and are linked to mental health outcomes. This study reports that even specific ethnicities within a larger racial group show different trends, but it is unclear whether larger racial/ethnic categories would do the same when compared to each other. Additionally, the authors specify that their population was recent immigrants, but it would be interesting to see how it compares to people born in the U.S.

A study that differentiated between the different types of acculturation found that maladaptive acculturation strategies have been shown to lead to identity confusion and a feeling of being disoriented—not belonging with either a cultural community nor a national community, which is an isolating and damaging experience for immigrant minority youth (Berry et al., 2006). The sample was an international study of youth ( $n = 7,997$ ; Male 47.9%, Female 52.1%) aged 13-18 ( $M = 15$ ) in 13 different societies. For this study, the researchers called the maladaptive strategy a “diffuse” profile, referring to those who show inconsistent results with any of the generally established acculturation methods, indicating personal uncertainty of place. Conversely, the healthier acculturation strategies had better psychological and sociocultural outcomes (Berry et al., 2006). Berry et al. demonstrated how important it is to study acculturation due to its relationship with the mental health and well-being of minority communities, especially new immigrants. They also support the importance of studying several



types of acculturation, since they showed that the different acculturative methods have different effects on the individual.

Koneru et al. (2007) conducted a meta-analysis of 227 studies related to acculturation, acculturative stress, and mental health. The authors highlighted that in their literature research on mental health and acculturation, they found extremely contradictory results. They suggested that this may be because acculturation is often considered a set of several processes and that each process may have a differing effect on mental health outcomes. Universally, acculturative stress was linked to increased substance use/abuse but, aside from that finding, most results were inconsistent due to lack of clarity for the construct of acculturation (Koneru et al., 2007). The researchers also noted that while studies exist for many different racial and ethnic groups, most individual studies focused on one group at a time (Koneru et al., 2007). Koneru and colleagues' (2007) meta-analysis shows support for measuring acculturation as both Americanization and enculturation in the current study. Previous research has not made a consistent distinction between them, which has led to inconsistent results for the body of research as a whole. Additionally, the findings indicate a gap in the research when it comes to the study of different racial and/or ethnic groups as compared to each other in one study. Koneru et al. (2007) also note that, to date, acculturation research is generally focused on immigrants and few researchers compare immigrants to those of later generational statuses.

Bondy, Peguero, and Johnson (2017) attempted to examine U.S. students' sense of academic self-efficacy as impacted by their racial identity and immigration status. The researchers used results from a large survey, giving them information on 9,870 public school students (50% Male, 50% Female) in the U.S. The sample consisted of Black (n = 1,490), Latinx (n = 1,630), Asian (n = 1,130) and White (n = 5,620) U.S. American students of first (n = 1,170),

second (n = 1,540), and third-plus (n = 7,160) generational status. Other characteristics such as educational achievement, family characteristics, and geographic location were collected for the study. The focus of the paper is academic self-efficacy; however, the researchers were able to make a secondary connection between racial identity and acculturation. They found that the interaction between generational status, race, ethnicity, and sex leads to differences in feeling capable of academic success, which in turn creates different experiences of acculturation. One weakness of the study was that the researchers tested for gender only by asking participants for their biological sex, then recoding that response into a “gender” variable, which may not accurately represent the participants’ identities. The results demonstrated that the relationship between academic self-efficacy and assimilation had different trends based on the individual’s gender, race, and ethnicity. For example, first- and second-generation “Latina/o American” students had the lowest level of academic self-efficacy in the study. The researchers suggested that attending school in the U.S. is a stage in the process of assimilation and a student’s sense of self-efficacy could aid in the process of cultural adaptation (Bondy et al., 2017). Bondy et al.’s study compares different racial groups to each other and includes consideration of immigration status and its interaction with race on the experience of acculturation.

**Acculturation and Nativity Status.** Acculturation is found to be a different experience based on a person’s U.S. nativity status. A study of Korean Americans (n = 192; 77 Male, 115 Female; Age 15-24) found distinct differences in concepts related to acculturation between first- (born in Korea and moved to America) and second-generation (born in America to native Korean parents) participants. An individual’s tendencies in ethnic and national identity show patterns based on their generational status, with foreign-born Korean Americans showing preferences for the Korean identity and culture, while U.S.-born Korean Americans showed a more neutral

attitude (Kim et al., 2006). Arbona et al. (2010) studied acculturative stress in “Latino” immigrants, focusing on the differences between documented and undocumented immigrants. They found that documented and undocumented immigrants differed in their stress levels related to conflict with traditionality, family, and language. However, both groups reported similar fear of deportation as a primary stressor (Arbona et al., 2010). Although the legal status of a person’s immigration is not included in the current study, Arbona et al.’s (2010) study lends support to the idea that the process of immigration affects one’s acculturative experience.

Some have extended the concept of acculturation outside of immigration entirely, as the world’s trend towards globalization has resulted in consistent exposure to other cultures without relocation (Chen et al., 2008). This view of globalization and acculturation suggests that even people several generations removed from their family’s immigration to a new country can have their own experiences with acculturation, so issues of acculturation are not limited to recent immigrants. As a whole, previous research indicates that one’s U.S. nativity or generational status within a culture can have a powerful effect on how they experience acculturation.

### **Contextually Relevant Factors**

#### ***Race and Racial Identity***

While the current study does not explore racial identity, many studies that focus on race and discrimination have also used racial identity as a key variable in their research. Discussing racial identity is not explicitly relevant to the current study but provides context for much of the existing body of research on the topic. In the study of perceived racial discrimination, scholars conducted research that specifies discrimination based on one’s racial identity. In short, one’s sense of racial identity is how much one self-identifies with their racial category (Sellers & Shelton, 2003). Racial identity is related to race as a demographic variable but is distinct in that

it focuses on the internalization of one's race into their personal sense of self (Sellers & Shelton, 2003). Furthermore, some focus more specifically on ethnic identity, which refers to one's identification with their ethnicity and specific culture rather than their race (e.g., Chinese, rather than Asian; Iwamoto & Liu, 2010). Racial identity is tied to the study of racial discrimination and mental health because it is related to both the experience of racial discrimination and the way that one views themselves as a result, which has serious mental health implications (Iwamoto & Liu, 2010; Sellers et al., 2013).

Experiencing discrimination based on one's race can, understandably, have an impact on one's sense of racial identity (Sellers & Shelton, 2003). Sellers et al. (2003) examined the relationship between racial identity, racial discrimination, and psychological distress in an African American population ( $n = 555$ ; Mean Age = 17.8; 46% Male, 54% Female) as one part of a larger longitudinal study. Results showed that race being important to one's identity was a risk factor for experiencing racial discrimination in the sample they studied. Sellers et al. (2003) hypothesize that the finding could be because those with strong racial identity may be more sensitive to race-related social cues. Despite that being the case, results also showed that those with a more central racial identity reported less general psychological distress and better overall mental health (Sellers et al., 2003). The participants' U.S. nativity status was not included in this study, though it has been shown by others (Hall & Carter, 2006; Tummala-Nara & Claudius, 2013) to be a relevant factor in this relationship.

Iwamoto & Liu (2010) conducted a study of racial and ethnic identity, cultural values, race-related stress, and psychological well-being on 402 Asian-American or Asian international students studying at a U.S. university (Mean Age = 21.02; 36.3% Male, 63.7 Female). Of the sample, 274 participants were second-generation American, 100 were first-generation, and 28

were third-generation or later. Similar to Sellers et al. (2003), they found a positive relationship between identifying strongly with their racial group and elevated race-related stress (which includes experiencing perceived racial discrimination) in their sample of Asian Americans (Iwamoto & Liu, 2010). One of the advantages of this study is that the researchers focused on broader racial categories, as compared to many discrimination studies that focus on specific ethnicities (Koneru et al., 2007). However, these studies have limitations in that they do not examine the similarities or differences between racial groups.

### ***Biculturalism***

Biculturalism is another topic that, while not directly included in the current study, is a concept that has been linked to a deeper understanding of acculturation through significant previous research. Much existing research regarding race and acculturation references biculturalism, so the discussion of biculturalism can provide some context for the body of research at large. Some even use the term as an acculturation orientation (being similar to integration as defined earlier). Biculturalism is the ability of immigrants or their children to incorporate both their native and new cultures into their identity (Schwartz et al., 2019). Bicultural competence is the ability to be part of two cultural groups without compromising either cultural identity (Yeh & Yoshino, 2003). Understanding biculturalism and bicultural competence is particularly relevant to the study of immigrant versus non-immigrant populations because they are actively experiencing both cultures, either from the process of immigration or from their families and communities. Hazell (2014) found that bicultural competence acted as a protective factor against the adverse effects of discrimination when the immigrant sample was faced with acculturative stress. Chen, Benet-Martinez, and Bond (2008) similarly found that bicultural competence and integration of identities lead to improved psychological outcomes in

immigrant populations. Yeh and Yoshino (2003) also suggested that one's level of bicultural competence is a potential explanation for the difference in the presentation of mental health symptoms in immigrant Asian youth.

Rodriguez et al. (2015) conducted a study to examine bicultural influences on acculturation patterns and response differences between adolescents and adults. Participants were 331 high school students (age 14-20; 127 Male, 204 Female) of Mexican origin from southern California, compared to adults from a previous study by the same authors. The researchers highlighted that both adolescents and adults struggled with language competency. Still, adolescents had more stress associated with their sense of identity— between being American and “Latino”— than the adults. Additionally, the internal conflict between the participants' native and American culture and a self-consciousness of bicultural status were shown to be significant stressors for the younger population (Rodriguez et al., 2015). Regarding generational differences, Rodriguez et al. (2015) found that those born in the U.S. had higher levels of English proficiency and Americanized identity, while foreign-born participants had higher Spanish proficiency and “Latino” cultural identity.

Biculturalism is a concept tied to acculturation as some refer to biculturalism as a type of successful acculturation and adaptation (Berry et al., 2006). Successful engagement in biculturalism is posited to remediate acculturative stress (Hazell, 2014; Yeh & Yoshino, 2003); therefore, it should be studied alongside acculturation so that researchers can better understand both the problem and a potential solution.

### **Discrimination and Acculturation**

Numerous studies connect perceived discrimination and acculturative stress. Many of the aforementioned studies that focused on perceived discrimination included references to

acculturation due to the closely tied concepts, and many of the acculturation studies include perceived discrimination as a factor involved in acculturative stress (Flores et al., 2008; Hall & Carter, 2006; Hall et al., 2015; Hazell, 2014). Furthermore, several studies focused specifically on the relationship between perceived discrimination and acculturation for different populations of interest (D'Anna-Hernandez et al., 2015; Haugen & Kunst, 2017; Torres et al., 2013).

D'Anna-Hernandez, Aleman, & Flores (2015) looked at the effects of acculturative stress on prenatal depression in 98 pregnant Mexican-American women. The study sought a connection between both acculturation level and acculturative stress with perceived discrimination in the context of pregnancy. The researchers found that acculturative stress and general perceived stress were related to adverse maternal mental health symptoms in Mexican-American women (D'Anna-Hernandez et al., 2015). This study connects several of the concepts from the studies previously mentioned. It connects both acculturative stress and perceived discrimination and presents the idea that combining these two factors has a negative influence on both the mental and physical health of POC communities. While helpful for demonstrating this point, D'Anna-Hernandez et al.'s (2015) study is precisely focused, therefore, making it challenging to generalize its findings outside of the population of pregnant Mexican-American women. It is unclear what the relationship would be if extended to other racial/ethnic groups. Also, the participants' nativity status was not recorded or analyzed in the results, so the relationship to perceived discrimination and acculturative stress is uncertain.

Interestingly, a Norwegian study hypothesized that even racial/ethnic majorities would feel both acculturative stress and perceived discrimination if they lived in areas with significant minority populations (Haugen & Kunst, 2017). The sample was 185 ethnic Norwegians (Age M = 32.00; 28.6% Male, 71.4% Female) of which 53% lived in culturally diverse areas of Oslo.

Because of the chosen population, nativity status was not included as a relevant factor in this study. The authors found that majority-group members experienced separation, integration, and undifferentiated acculturation, but not assimilation. Of the integrated group, which is generally seen as the healthiest acculturation method, most of the participants were younger, but were less likely to live in multi-cultural neighborhoods. The authors proposed that this is due to the idea that they were raised with the idea of multiculturalism rather than being introduced to it later in life (Haugen & Kunst, 2017). Haugen and Kunst's (2017) study is particularly interesting because it highlights that acculturation stress exists outside of how it is typically viewed and emphasizes that acculturation is not exclusive to recent immigrants.

It was found that successful adaptation to a new culture links discrimination and psychological well-being, often helping mediate the detrimental effects (Torres et al, 2013). Torres et al. (2013) took a sample of 669 self-identified "Latino" adults (Age M = 39; 86.2% Mexican), about half of whom were born outside of the US (53%) and who had lived in the U.S. for an average of 24.46 years. The results found that higher perceived discrimination was associated with higher acculturative stress, and higher acculturative stress was associated with higher psychological distress. An interesting caveat was that the link between perceived discrimination and acculturative stress was moderated by a preference for Americanized ("Anglo") attitudes and behaviors but not for Latino (or enculturative) ones (Torres et al., 2013). This finding provides an optimistic outlook that shows why it is vital to study acculturation and discrimination. It also further emphasizes the difference between acculturation and enculturation in academic study. However, this study is specific to one racial group and does not seek comparison between groups.



The aforementioned studies (D'Anna-Hernandez et al., 2015; Haugen & Kunst, 2017; Torres et al., 2013) have connected discrimination, acculturation, nativity, and race/ethnicity through their choice of sample populations. Each of the studies has its specific ethnic population of focus. As referenced in the Koneru et al. (2007) meta-analysis, the majority of currently published studies on acculturation do the same, as very few take the broader view of looking at the differences between different racial groups. The Bondy et al. (2017) study does note differences between racial groups, but it is not the focus of the study and does not relate to discrimination. Similarly, immigration status is often mentioned in these studies but is rarely a subject of focus.

### **Current Study**

Discrimination and acculturation are linked to each other in multiple studies (D'Anna-Hernandez et al., 2015; Haugen & Kunst, 2017; Torres et al., 2013). While there are studies that focus on the role of a person's racial/ethnic group in this relationship (Bondy et al., 2017; Iwamoto & Liu, 2010), these studies are mostly focused on a single, specific group, rather than on the differences between the various groups (Koneru et al., 2007). One's country of origin also has been shown in some studies to be relevant to their experience of discrimination (Hall & Carter, 2006; Tummala-Nara & Claudius, 2013) and acculturation (Arbona et al., 2010; Kim et al., 2006). The interaction of these concepts is essential to study because it brings together several ideas that exist separately and adds to the body of knowledge on constructs that affect the lives and well-being of POC.

The current study examined whether there was a connection between perceived discrimination and acculturation in the form of Americanization (assimilation) and enculturation, as they are two contrasting experiences of acculturation that produce acculturation stress and are

used frequently in existing research (Bondy et al., 2017; Koneru et al., 2007; Torres et al., 2013). It was hypothesized that perceived discrimination may influence how acculturation stress is expressed. This study further examined if a relationship exists specifically between the level of perceived discrimination in one's everyday life and the pressure they feel to become culturally Americanized. The hypothesis is that higher perceived discrimination is a significant contributing factor to acculturation stress in the form of Americanization. It also explored if differences exist based on racial/ethnic group or U.S. nativity status of participants. The hypothesis is that the individual's racial/ethnic group and U.S. nativity status will be significant relevant factors.

## **Methods**

### **Research Design**

The present study utilized data compiled from a large-scale set of paper surveys that were conducted in-person over the span of 6 years. For the purpose of the study, perceived discrimination and acculturation were tested to find a correlation between these concepts as related to two key demographic variables—racial/ethnic group and U.S. nativity (U.S.-born or not U.S.-born). Descriptive statistics and a MANOVA test were used to look at the significant differences between groups for demographic variables (e.g., Racial/ethnic group and nativity) when it comes to perceived discrimination levels and acculturation stress levels. Linear regressions were used to determine if acculturation stress was related to perceived discrimination with acculturation stress as the independent variable and perceived discrimination as the dependent variable, and further, to determine if racial/ethnic group was a significant factor in this relationship.

## Participants

There were 242 participants, two of which were excluded due to missing data, leaving a total of 240 participants. Males comprised 27.9% of the sample ( $n = 67$ ) and females constituted the remaining 72.1% ( $n = 173$ ). The participants' race was recorded as an open-ended response, which was coded to align with the major U.S. racial categories. The racial/ethnic composition of the sample, recoded, was: 13% White American ( $n = 31$ ), 16% Non-Hispanic Black ( $n = 39$ ), 47% Latinx ( $n = 113$ ), 16% Asian ( $n = 38$ ), and 8% other ( $n = 18$ ). Of the population, 30% ( $n = 72$ ) were born in countries other than the U.S., and the remaining 70% ( $n = 168$ ) were born in the U.S. For the purposes of this study, the "U.S. Nativity" variable was based on the participant's response to a "country of origin" question on the demographic questionnaire. Those who reported being born in countries other than the U.S. were coded as non-native, and those born in the U.S. were coded as native.

## Procedures

Informed consent was collected prior to participation. Participants completed self-report scales on a paper survey. All Institutional Review Board approved procedures were followed. The principal investigator and IRB-approved research assistants were responsible for entry and analysis of the data. Participants were given debriefing information, as well as the principal investigator's contact information, upon completion of the questionnaires. All physical data is kept and stored in a locked filing cabinet in a locked lab during and after analysis. As approved by IRB, all digital data is stored on a password-protected hard drive.

## Measures

**Discrimination Stress Scale (DSS):** The Discrimination Stress Scale (See Appendix A) was developed by Flores et al. (2008) to measure how much one believes they experience unfair

treatment because of their belonging to a particular group. The DSS was developed for use with Mexican-origin adults in a study looking at the effects of discrimination on mental health, but the language of the scale items was general so that it could be used for other minority races/cultures (Flores et al., 2008). The development study tested the difference between perceived and measured stress levels associated with discrimination and their relationship to effects on health.

The scale has 14 items using a 4-point Likert scale (responses being “never”, “sometimes”, “often”, and “very often”) (Flores et al., 2008). An example question from the scale is “How often are you treated rudely or unfairly because of your race or ethnicity?”. The survey data being used for this particular study contains the DSS in its original form, as there was no culturally specific language that would exclude any given racial/ethnic minority group from being able to complete the scale. Earlier examples, from studies examining varying types of minorities in cultures with different majority groups, indicate that the DSS is useful for studying discrimination even beyond its intended population (Dengechi et al., 2018; Hall et al., 2015; Hazell, 2014).

This scale was chosen for the current study because it has been found reliable for different populations over several studies, and it relates to one of the key concepts for the current study. The development study found a Cronbach’s alpha of  $\alpha = .92$  (Flores et al., 2008). A 2015 study focusing on racial minority college students returned a Cronbach’s alpha of  $\alpha = .93$  for the DSS (Hall et al., 2015). Hazell’s 2014 study on Caribbean-native participants found a value of  $\alpha = .92$ . The DSS returned a Cronbach’s alpha of  $\alpha = .92$  for the current sample.

**Multidimensional Acculturative Stress Inventory (MASI):** The Multidimensional Acculturative Stress Inventory (See Appendix B) attempts to measure acculturative stress that native Mexicans have as they navigate American culture and biculturalism. However,

acculturation happens among people of many ethnicities as they navigate cultures different from their native culture. The MASI (Rodriguez et al., 2002) was designed to measure the levels of stress associated with the process of acculturation, specifically for Mexican people living in the United States.

There were four consistent factors through the 36-item scale, each comprising an individual subscale: Spanish Competency Pressures, English Competency Pressures, Pressure to Acculturate, and Pressure Against Acculturation. Items within these categories consist of statements relating to the overall topic of the category, and participants are asked their opinion on each on a scale of 0-5. A rating of 0 indicates that the statement doesn't apply, otherwise, they rate the levels of stress they feel associated with the statement ranging from 1 ("Not at all stressful") through 5 ("Extremely stressful"). The Spanish Competency and Pressure Against Acculturation subscales were combined into a comprehensive "enculturation" variable, and English Competency and Pressure to Acculturate were combined into an "Americanization" variable. The purpose of the MASI is to measure stress that is associated with becoming Americanized (assimilation to U.S. American culture) and/or retaining ethnic culture of origin (enculturation).

The original version of the MASI used culturally specific terminology in the scale items, such as referencing the Spanish language and Mexican/Latino culture. To make the scale applicable to those of other minority cultures in the U.S., the language of the scale was changed to reference "family" or "family heritage" instead of specifically Mexican/Latino examples of what the item was meant to measure. For example, the item "It bothers me when people assume that I speak Spanish" was changed to "It bothers me when people assume that I speak my

family's heritage language.” There are some to whom the questions may not apply, even when reworded, in which case the participant may select option 0 to indicate non-applicability.

The MASI was chosen for use in this study because it is a multidimensional measure of acculturation. The scale covers several different aspects of acculturation such as language, family pressure, and peer pressure to capture a more comprehensive picture of the acculturative process. The MASI also differentiates between and measures both acculturation (showing preference for U.S. American culture) and enculturation (showing preference for their native culture) pressures. This distinction is important to this study because it could show the difference in how people respond to perceived discrimination— either becoming more Americanized or retreating into their familiar culture as a way to avoid feeling further discrimination.

The development study for the MASI found all subscales ranging in reliability from  $\alpha = .74$  to  $\alpha = .94$  (Rodriguez et al., 2002). A follow-up study by the same author found the subscales ranging from  $\alpha = .71$  to  $\alpha = .96$  (Rodriguez et al., 2015). In this sample, the native language pressure subscale returned a Cronbach's alpha of  $\alpha = .91$ , the English language subscale was  $\alpha = .93$ , the pressure towards acculturation subscale was  $\alpha = .84$ , and the pressure against acculturation subscale was  $\alpha = .77$ .

**Demographic Questionnaire:** Participants were asked to complete a series of questions to measure demographic information. The questions relevant to the study included race, ethnicity, country of origin, sex, age, SES, and yearly income. Other demographic questions were asked on this questionnaire but were not used for this analysis. U.S. nativity was defined by participants reporting whether or not they were born in the U.S. through their response on the “country of origin” question.

## Results

Score means were found for the main constructs of Americanization and enculturation. Scores means were also calculated for native language competency pressure, English competency pressure, pressure towards acculturation, and pressure against acculturation, as well as perceived discrimination. Score means by racial/ethnic group and U. S. nativity status are depicted in Table 1. A MANOVA was conducted with five demographic variables as independent variables (IVs), and with the scale/subscale results— for Americanization, enculturation, native language competency pressure, English competency pressure, pressure towards acculturation, and pressure against acculturation, and perceived discrimination— as dependent variables (DVs) (See Table 2). The independent variables included: biological sex, socioeconomic status (SES), yearly income, racial/ethnic group, and U.S. nativity. Racial/ethnic group was defined by participants who self-identified as Latinx, Non-Hispanic Black/African American, and Asian American. U.S. nativity was defined by participants reporting whether or not they were born in the U.S. and was dummy-coded so it could be used with this analysis.

The results of the MANOVA revealed that scores on the dependent variables differed by specific demographic variables including racial/ethnic group ( $F(25,387) = 2.32, p = .000$ ) and sex ( $F(5,104) = 2.36, p = .045$ ). For this sample, U.S. nativity was not a significant factor. Based on the results, perceived discrimination stress, pressure towards acculturation, English competency pressure, and native culture competency pressure differed by the two significant demographic variables—racial/ethnic group and sex. The results of the between-subjects effects further revealed that perceived discrimination ( $F(5, 25) = 3.36, p = .007$ ), Americanization ( $F(5, 25) = 3.24, p = .009$ ), English competency pressure ( $F(5, 25) = 4.39, p = .000$ ), and pressure against acculturation ( $F(5, 25) = 2.58, p = .030$ ) differed significantly by racial group. While sex

was found to be a significant variable on the multivariate analysis, the specific tests did not reveal significant differences on the DVs.

To further examine how discrimination stress related to acculturation stress with the inclusion of the key demographic variable (i.e., racial/ethnic group), two regression analyses were performed—one with pressure towards enculturation as the DV and one with pressure towards Americanization as the DV. In both analyses, perceived discrimination stress and race were IVs. The enculturation regression (i.e., enculturation as a DV; See Table 3) revealed that both race and perceived discrimination explained a significant amount of variance in enculturation scores for the sample. Race accounted for 7.8% of the variance in enculturation scores ( $F(5, 222) = 3.74, p = .003$ ). Discrimination stress accounted for an additional 6%, for a total of 13.8% variance in the enculturation variable explained between discrimination stress and racial/ethnic group ( $F(1, 221) = 15.51, p = .000$ ). The regression for Americanization (i.e., Americanization as the DV) also yielded significant results (See Table 4). Race accounted for 25.5% of the variance in levels of Americanization ( $F(5, 221) = 15.14, p = .000$ ). Discrimination stress accounted for an additional 9% of variance, for a total of 34.5% variance accounted for between the two variables ( $F(1, 220) = 30.25, p = .000$ ). Pearson correlations found discrimination stress to be moderately positively correlated with both enculturation ( $r(232) = .26, p = .000$ ; see Table 5) and Americanization ( $r(228) = .39, p = .000$ ; see Table 6). The correlation tables were separated due to the availability of data (See Tables 5 & 6).

## **Discussion**

### **Chosen Concepts**

The concepts of discrimination and acculturation were chosen for this study because their relationship is supported by research (D'Anna-Hernandez et al., 2015; Haugen & Kunst, 2017;



Torres et al., 2013). Previous studies have found that discrimination is often considered a key factor that exacerbates the experience of acculturative stress in various populations (Flores et al., 2008; Hall & Carter, 2006; Hall et al., 2015; Hazell, 2014). Researchers have also found that successful, healthy acculturation can help mediate the negative effects of racial discrimination (Torres et al., 2013). Despite the wealth of research connecting discrimination and acculturation, there are still related variables that remain unexplored.

Racial/ethnic group and U.S. nativity were chosen as the key demographic variables in the current investigation because they have been shown to be conceptually relevant. Previous research has found that people of differing racial/ethnic groups and nativity experience discrimination and acculturation differently. The specific findings vary by the measures used in the study, but research generally finds that those of different nativity statuses and racial/ethnic groups report different predominant sources of acculturation stress— such as English vs. native language or cultural identity conflicts (Arbona et al., 2010; Bondy et al., 2017; Hall & Carter, 2006; Iwamoto & Liu, 2010; Kim et al., 2006; Tummala-Nara & Claudius, 2013). Other researchers have found that both race and nativity status are significant determining factors in how individuals report the impact of discrimination stress (Hall & Carter, 2006; Sellers et al., 2003; Tummala-Nara & Claudius, 2013). Highlighting and further examining these relationships can help illuminate experiences that are commonplace (T. H. Chan School of Public Health, 2018; Sue et al., 2007) for POC in the U.S.

Racial/ethnic group and nativity were both included in the analysis to see if they were significant factors in the experience of perceived discrimination and acculturation. Previous studies have looked at pieces of this relationship, such as discrimination and acculturation (D'Anna-Hernandez et al., 2015; Haugen & Kunst, 2017; Torres et al., 2013), demographic

variables and discrimination (Hall & Carter, 2006; Sellers et al., 2003; Sellers & Shelton, 2003; Tummala-Nara & Claudius, 2013), or demographic variables and acculturation (Arbona et al., 2010, Kim et al., 2006; Rodriguez et al., 2013) as independent topics. To date, previous research lacks evidence for this connection between all four relevant variables, so the current study incorporated all of the aforementioned variables into one analysis.

### **Significance of Race**

The results of the current study indicate that demographic variables, such as racial/ethnic group, can influence the way one experiences discrimination, acculturation, and acculturation stress. These results are consistent with similar studies conducted on these topics (Hall & Carter, 2006; Kim et al., 2006; Rodriguez et al., 2013; Sellers et al., 2003; Sellers & Shelton, 2003; Tummala-Nara & Claudius, 2013). However, previous research is lacking in studies that focus on the broader concept of race (Koneru et al., 2007), which suggests a subsequent lack of studies that analyze race in relation to other demographic variables, such as nativity. The current research serves to help fill that gap. The results suggest that, when it comes to discrimination and acculturation, there was a statistically significant difference in response depending on the racial/ethnic group of the participant. This indicates that the experience of discrimination and acculturation is quantifiably different depending on the racial/ethnic group to which one belongs.

Race is influential in discrimination (Hall & Carter, 2006; Sellers et al., 2003; Sellers & Shelton, 2003; Tummala-Nara & Claudius, 2013) and ethnicity is used in acculturation research (Arbona et al., 2010, Kim et al., 2006; Rodriguez et al., 2013). To date, the relationship between perceived discrimination, acculturation stress, racial/ethnic group, and nativity status remains understudied, as very few existing studies currently incorporate all of these concepts. Race is underutilized as a categorical variable in the study of acculturation as most studies on the topic

use ethnicity as the chosen variable. By extension, race is underutilized in conjunction with other variables (Koneru et al., 2007).

A potential reason why race is not used frequently in acculturation research is because acculturation is specifically about an adjustment in culture, which tends to be more specific to ethnicity (Schwartz et al., 2010). While this may be the case, there are some unifying cultural similarities between ethnicities within each racial group, especially being minority groups dealing with the change from relatively similar native cultures to American culture (Phinney, 1996). Race is culturally defined (van den Berghe, 1978), so given the cultural emphasis on race in the U.S., race is inherently relevant to adjustment to American culture. The existing research that primarily focuses on ethnicity is valuable but extending the field of study to consider race can provide additional insight into important within-group differences. For example, a study that examines Mexican Americans with race as a consideration is able to determine if the potential impact of racial differences among the ethnic sample is also meaningful. Taking into account these considerations, race may not be the most effective categorical group when examining specific cultural traits and behaviors related to acculturation, but it can be effective when considering how a group of people is affected by the stress of the process of change. The results of the current investigation support this conclusion because race was found to be a significant predictor of acculturation stress.

Foundational research provides some insight as to potential reasons why racial group disparities exist and are significant for discrimination and acculturation. Discrimination stress is likely to be significantly affected by racial group because discriminatory behavior, such as stereotypes, differ by racial group (Chang & Kleiner, 2003). As people of different groups experience different types of discrimination, it may account for differences in their resulting

levels of discrimination stress. Many scholars have already noted the significant differences in acculturation experience between ethnic groups within a broader racial category (ex. Chinese, Japanese, and Koreans as Asian Americans; Iwamoto & Liu, 2010). Being that differences exist between closely related groups due to their different experiences, it would follow that differences exist between the broader categories of which they are a part.

Another important concept to consider when looking at the current investigation is that it treats the relationship between discrimination and acculturation as an intersectional issue. Incorporating additional variables— in this case, racial/ethnic group and nativity— helps address some the nuance that is inherently involved in such a complicated issue. The combination of race and nativity status has been found to have an effect on experience with discrimination (Hall & Carter, 2006). Race and ethnicity have been connected to both discrimination and acculturation separately (Hall & Carter, 2006; Kim et al., 2006; Rodriguez et al., 2013; Sellers et al., 2003; Sellers & Shelton, 2003; Tummala-Nara & Claudius, 2013), so if nativity is connected to race, it should also be considered in the relationship. Since nativity is connected to race, then it should be considered in conjunction with racial issues for a more comprehensive view and to account for important differences in experience.

### **Americanization**

The regression analysis further revealed that racial/ethnic group and discrimination stress were significant contributors to the experience of both enculturation and Americanization. In the enculturation regression analysis, 13.8% of the variance in enculturation was accounted for by these two variables. In the Americanization regression, 34.5% of the variance was accounted for by the same variables. This indicates that an individual's racial/ethnic group and experience with discrimination can possibly be used as predictors of levels of acculturation stress. It is also

significant that, specifically for Americanization, race by itself accounted for 25.5% of the variance, which indicates that it is both a considerable predictor of Americanization stress on its own, but also much more so than for enculturation stress.

Being that race predicted a significant portion of Americanization stress in the current sample, there are some implications to be considered when it comes to further study of race and acculturation. The variance in Americanization stress depending on one's race could indicate that certain cultures are more at risk of dilution through the process of Americanization. Additionally, it shows that some racial groups could be more vulnerable to the compounded mental health symptoms from experiencing both discrimination and acculturation. Assimilation (Americanization) has been linked to increased general stress (Ward, 2001), eating disorder symptoms (Marais et al., 2003), risk of alcoholism (Cheng et al., 2004). Extensive research has validated that culturally competent interventions are important in treating POC populations (Alizadeh & Chavan, 2016). Therefore, interventions that are specially focused for different racial groups can be utilized to help combat the negative effects of acculturation stress because race has been found to be a relevant factor.

### **Measures Used**

There is a statistically significant relationship between perceived discrimination scores and acculturation stress scores as evidenced by the regression analysis. Perceived discrimination (as measured by the DSS) was a significant predictor of higher levels of stress on both the Americanization and enculturation subscales of the MASI, with the relationship to Americanization being slightly stronger. These results indicate a relationship between perceived racial discrimination and pressure to change one's cultural behaviors, either towards Americanization or enculturation. These findings are consistent with previous research on this

topic (D'Anna-Hernandez et al., 2015; Haugen & Kunst, 2017; Torres et al., 2013) and support the conclusion that the scales used for the current study, and the two concepts they measure, are related. Other studies have used either the DSS or the MASI for measuring their respective topics, but few, if any, thus far have used these two tests together. The validity of the relationship between these tests suggests that the combination of these two scales can be useful for future studies on discrimination and acculturation stress. Additionally, the MASI has only been validated for Hispanic/Latinx samples in the past with questions that specifically reference Spanish language. The current study revised the language of the scale to have more general applicability to POC regardless of their specific background, because the sample consisted of various racial/ethnic groups. For the current sample, the Cronbach's alpha ranged from  $\alpha = .77$ - $.93$  (depending on the subscale) which suggests that it can be valid for use with a mixed race/ethnicity sample.

### **Current Events and Representation**

The results of the current study add a new level of understanding to current events. Issues surrounding race/ethnicity, discrimination, and immigration have been prevalent in the news, especially in recent years (Roche et al., 2018). Despite that being the case, large gaps remain in research as related to issues faced by POC. It is a good time to add to the body of empirical evidence to support the experiences of POC with respect to the way that race and immigration affect them directly. Furthermore, POC are often underrepresented when it comes to general psychology research, and studies specifically regarding POC issues are part of a still-growing field (Mazzula et al., 2017). The findings from the current study add representation of POC groups and POC issues in research, where scholars are working to make up for years of POC underrepresentation (Mazzula et al., 2017)

### **Limitations and Future Research**

This study includes limitations that may have influenced the results at the data-level and from the survey itself. One major limitation of this study is that the sample was heavily Hispanic, representing nearly half of the total participants. Similarly, there were many more U.S.-born participants than participants born in other countries, which may have been a reason why nativity did not reach significance for this sample. With regard to the survey, both the DSS and MASI were developed based on Mexican-American norm groups and did not include participants of other racial/ethnic groups. The MASI has not been tested for use with other racial/ethnic groups, so although the results were found to be valid for the current sample, the general validity of the measure for other groups may be uncertain. Additionally, it was specifically developed for use with Spanish-speaking participants, so the current study edited the MASI questions referencing the Spanish language to use general terminology applicable to any non-English language. That being said, some of the questions may still not be applicable for certain POC groups who experience acculturation, but in a way not captured by this measure (e.g., Black Americans and a “heritage” language). A potential future study could use or develop an acculturation measure with this consideration in mind.

Only a few participants in the sample identified as biracial or of a racial/ethnic group outside of the groups used for this study, so they were unable to be included. Biracial individuals may have a different relationship to culture than ones who identify as being of one race. It might prove interesting to see how study results may differ for biracial participants compared to those who identify as one race. Also, people who identify as a race categorized as “other” for the purposes of this study may have different trends in a sample where their group is better represented and able to be considered in analysis.

A larger-scale study examining patterns of the DSS/MASI relationship, further separated by demographic variables such as racial/ethnic group or U.S. nativity, could be conducted. Due to data limitations, this could not be explored in the current study. A future study with a larger and more diverse sample may be able to further break down and analyze how racial/ethnic group and U.S. nativity may impact the relationship between discrimination and acculturation stress. For example, researchers could separate participants by racial group and run individual analyses to investigate trends that may differ for each group or could specifically compare responses of immigrant populations from different racial groups. Additionally, further studies could examine the differences between enculturation and Americanization based on other demographic variables, such as ethnicity or SES. Looking at how individual groups compare to each other when it comes to this relationship may reveal some interesting information about the similarities and differences between experiences of different POC populations.



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**Table 1***Scale Score Means by Racial/Ethnic Group and Nativity*

	Racial/Ethnic Group				Nativity Status	
	Non-Hispanic White (n = 31)	Non-Hispanic Black (n = 39)	Latinx (n = 113)	Asian-American (n = 38)	Born outside US (n = 168)	Born in US (n = 72)
Native Language Pressure	0.61	0.69	1.07	1.45	0.80	1.12
English Language Pressure	0.18	0.25	0.46	1.00	1.00	0.21
Pressure Towards Acculturation	0.49	1.17	0.98	1.50	1.43	0.92
Pressure Against Acculturation	0.35	0.56	0.63	0.92	0.75	0.65
Acculturation	0.68	1.42	1.43	2.52	2.43	1.14
Enculturation	0.94	1.28	1.69	2.37	1.54	1.77
Perceived Discrimination	1.48	2.20	1.79	1.92	1.95	1.80

**Table 2***MANOVA for Scale Scores Separated by Nativity Status and Racial/Ethnic Group*

Source	Dependent Variable	Type III Sum of Squares	Df	Mean Square	F	Sig.
Nativity Status	Perceived Discrimination	.001	1	.001	.003	.960
	Enculturation	.012	1	.012	.005	.946
	Americanization	12.321	1	12.321	7.857	.006
	Native Language Pressure	.050	1	.050	.049	.826
	English Language Pressure	3.721	1	3.721	8.926	.003
	Pressure Towards Acculturation	2.500	1	2.500	3.354	.070
	Pressure Against Acculturation	.013	1	.013	.018	.893
Racial/Ethnic Group	Perceived Discrimination	4.351	5	.870	3.360	.007
	Enculturation	29.589	5	5.918	2.254	.054
	Americanization	-25.398	5	5.080	3.239	.009
	Native Language Pressure	9.155	5	1.831	1.774	.124
	English Language Pressure	10.195	5	2.039	4.891	.000
	Pressure Towards Acculturation	4.469	5	.894	1.199	.315
	Pressure Against Acculturation	9.414	5	1.883	2.580	.030

**Table 3***Enculturation Subscale Regression Table*

<i>Step</i>	Predictor	Unstandardized coefficients		Standardized coefficients		$R^2$	$R^2$ Change	F Change	P
		B	SE	$\beta$	p				
1						.078	.078	3.736	.003
	Sex	-.101	.241	-.027	.674				
	SES	-.095	.149	-.048	.523				
	Income	-.034	.140	-.018	.810				
	Nativity Status	.366	.236	.101	.122				
	Racial/Ethnic Group	.176	.044	.261	.000				
2						.138	.060	15.509	.000
	Sex	-.190	.235	-.052	.418				
	SES	-.024	.146	-.012	.870				
	Income	-.005	.136	-.003	.968				
	Nativity Status	.454	.230	.126	.050				
	Racial/Ethnic Group	.165	.043	.245	.000				
	Discrimination Stress	.714	.181	.254	.000				

**Table 4***Acculturation Subscale Regression Table*

Step	Predictor	Unstandardized coefficients		Standardized coefficients		R <sup>2</sup>	R <sup>2</sup> Change	F	P
		B	SE	$\beta$	p				
1						.255	.255	15.141	.000
	Sex	.052	.194	.016	.790				
	SES	-.211	.120	-.120	.079				
	Income	-.172	.113	-.104	.130				
	Nativity Status	-1.187	.190	-.368	.000				
	Racial/Ethnic Group	.130	.035	.217	.000				
2						.345	.090	30.254	.000
	Sex	-.045	.183	-.014	.805				
	SES	-.134	.114	-.076	.241				
	Income	-.141	.106	-.086	.186				
	Nativity Status	-1.092	.179	-.338	.000				
	Racial/Ethnic Group	.118	.033	.197	.000				
	Discrimination Stress	.778	.142	.310	.000				

**Table 5***Enculturation and Discrimination Stress Pearson Correlation*

	Enculturation Stress Score	Discrimination Stress Score	Sex	SES	Nativity	Race
Enculturation Stress Score	1	.26**	-.03*	-.08**	.07	.25
Discrimination Stress Score	.26**	1	.11	-.18	-.11*	.09
Sex	-.03*	.11	1	-.05	-.06	.01
SES	-.08**	-.18	-.05	1	-.00	-.08
Nativity	.07	-.11*	-.06	-.00	1	-.14**
Race	.25**	.09	.01	-.08	-.14**	1

\* Correlation is significant at the 0.05 level (1-tailed).

\*\*Correlation is significant at the 0.01 level (1-tailed).

**Table 6***Americanization and Discrimination Stress Pearson Correlation*

	Americanization Stress Score	Discrimination Stress Score	Sex	SES	Nativity	Race
Americanization Stress Score	1	.39**	.06	-.19**	-.40**	.29**
Discrimination Stress Score	.39**	1	.12*	-.18**	-.11*	.09
Sex	.06	.12*	1	.05	-.06	.00
SES	-.19**	-.18**	-.05	1	-.00	-.08
Nativity	-.40**	-.11*	-.06	-.00	1	-.14*
Race	.29**	.09	.00	-.08	-.14*	1

\* Correlation is significant at the 0.05 level (1-tailed).

\*\* Correlation is significant at the 0.01 level (1-tailed).

**Appendix A****DSS**

Instructions: Please mark the number from the scale that best corresponds to your answer.

	1 Never	2 Sometimes	3 Often	4 Very Often
1. How often are you treated rudely or unfairly because of your race or ethnicity?	1	2	3	4
2. How often are you discriminated against because of your race or ethnicity?	1	2	3	4
3. How often do others lack respect for you because of your race or ethnicity?	1	2	3	4
4. How often do you have to prove your abilities to others because of your race or ethnicity?	1	2	3	4
5. How often is racism a problem in your life?	1	2	3	4
6. How often do you find it difficult to find work you want because of your race or ethnicity?	1	2	3	4
7. How often do people dislike you because of your race or ethnicity?	1	2	3	4
8. How often have you seen friends treated badly because of their race or ethnicity?	1	2	3	4
9. How often do you feel that you have more barriers to overcome than most people because of your race or ethnicity?	1	2	3	4
10. How often do you feel rejected by others due to your race or ethnicity?	1	2	3	4
11. How often is your race or ethnicity a limitation when looking for a job?	1	2	3	4
12. How often do people seem to have stereotypes about your racial or ethnic group?	1	2	3	4
	1			

13. How often do people try to stop you from succeeding because of your race or ethnicity? 2 3 4

14. How often do you not get as much recognition as you deserve for the work you do, just because of your race or ethnicity? 1 2 3 4



## Appendix B

### MASI

**Instructions:** In responding to the individual items below, please decide whether or not the event has occurred during the past 3 months and appraise the stressfulness of that event. If you have not experienced the event during the past 3 months, please indicate 0 (does not apply). If you have experienced the event in the last 3 months, please rate the stressfulness of that event ranging from 1 (not at all stressful) to 5 (extremely stressful).

	0	1	2	3	4	5
	does not apply/has not occurred in the last 3 months	not at all stressful	a little stressful	moderately stressful	quite stressful	extremely stressful
1. I don't speak my family's heritage language or don't speak it well.	0	1	2	3	4	5
2. I feel uncomfortable being around people who only speak my family's heritage language.	0	1	2	3	4	5
3. I feel pressure to learn my family's heritage language.	0	1	2	3	4	5
4. I have a hard time understanding others when they speak my family's heritage language.	0	1	2	3	4	5
5. Since I don't speak my family's heritage language well, people have treated me rudely or unfairly.	0	1	2	3	4	5
6. It bothers me when people assume that I speak my family's heritage language.	0	1	2	3	4	5

7. I have been discriminated against because I have difficulty speaking my family's heritage language.	0	1	2	3	4	5
8. I don't speak English or don't speak it well.	0	1	2	3	4	5
9. I have been discriminated against because I have difficulty speaking English.	0	1	2	3	4	5
10. Since I don't speak English well, people have treated me rudely or unfairly.	0	1	2	3	4	5
11. I feel pressure to learn English.	0	1	2	3	4	5
12. It bothers me that I speak English with an accent.	0	1	2	3	4	5
13. I have a hard time understanding others when they speak English.	0	1	2	3	4	5
14. I feel uncomfortable being around people who only speak English.	0	1	2	3	4	5
15. It bothers me when people pressure me to assimilate to the American ways of doing things.	0	1	2	3	4	5
16. It bothers me when people don't respect my family's cultural values (e.g., familism).	0	1	2	3	4	5
17. Because of my cultural background, I have a hard time fitting in with Whites.	0	1	2	3	4	5
18. I feel uncomfortable when others expect me to know American ways of doing things.	0	1	2	3	4	5
19. I don't feel accepted by Whites.	0	1	2	3	4	5

20. I feel uncomfortable when I have to choose between my family's ways of doing things and American ways of doing things.	0	1	2	3	4	5
21. People look down upon me if I practice my family's customs.	0	1	2	3	4	5
22. I have had conflicts with others because I prefer American customs over my family's customs.	0	1	2	3	4	5
23. People look down upon me if I practice American customs.	0	1	2	3	4	5
24. I feel uncomfortable when others expect me to know my family's ways of doing things.	0	1	2	3	4	5
25. I feel uncomfortable because my family members do not know our own cultural ways of doing things.	0	1	2	3	4	5
26. What family heritage or culture were you thinking of when you answered these questions?						