Is it racism, colorism, or a pigment of your imagination? A study on the invisible color line

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IS IT RACISM, COLORISM, OR A PIGMENT OF YOUR IMAGINATION?
A STUDY ON THE INVISIBLE COLOR LINE

DISSERTATION

by

YOLANDA RODRIGUEZ

A Dissertation
submitted in partial fulfillment
for the degree of Doctor of Philosophy
Department of Psychology
The University of Mississippi

August 2019
ABSTRACT

This project explored the impact of internalized racism in the relationship between acculturation modality and skin lightening (both behaviors and attitudes). In addition, the role of psychological well-being was analyzed in the context of the relationships previously mentioned. Acculturation modality included orientation to the mainstream culture or one’s heritage culture. Skin lightening addressed participants’ avoidance and approach behaviors toward skin lightening, as well as personal and others’ perceptions of engaging in these behaviors. Internalized racism included measures of satisfaction with one’s skin color, comparison to others of the same ethnicity, and perceptions of attractiveness based on skin tone. Lastly, psychological well-being was defined as a global measure of life satisfaction.

Participants were 324 self-identified ethnic/racial minority adults recruited from a southern university in the United States and an online community (MTurk workers) primarily ranging in age from 18-30 (78.4%). Participants completed a demographic questionnaire and a measure for each of the variables of interest. A moderated mediation analysis was conducted using PROCESS (Hayes, 2013) model 8. It was hypothesized that acculturation modality (X) would predict skin lightening behaviors and attitudes (Y) through three mediators (M1: Discrepancy scores, M2: Satisfaction with Skin Color, and M3: Desire to Change Skin Color). Psychological well-being was predicted to be a moderator (W) of the relationship between acculturation modality and internalized racism, as well as in between acculturation modality and skin lightening behaviors and attitudes. Results suggest the validity of the overall model given
found statistical significance. In addition, acculturation modality (X), Satisfaction with Skin Color (M2), and Desire to Change Skin Color (M3) were found to be significant predictors of skin lightening behaviors (Y). However, the mediation and moderation effects were not found to be significant in this model. Follow-up analyses using simpler models with only one moderator showed that the model that accounted for Desire to Change Skin Color (M3) supported the proposed moderated mediation. Results and implications of findings are discussed.
DEDICATION

To God, who loves me more that I will ever know. Thank you Father for your love, mercy, encouragement, and guidance. Jesus, en ti confío.

To Tony, my husband, who has always been my biggest fan and my most adamant supporter. Thank you for cheering me on when all I wanted was to give up.

To Mom and Dad, whose passion for life, hard work, and dedication to our family has been the driving force behind all of my accomplishments. Thank you for loving me the way you do. Desde el fondo de mi corazón, gracias.

To my brother, Erick, who provided the support (in comedy) that I needed to get through the hardest parts of graduate school.

Lastly, this work is dedicated to all those who have been taught that their skin color is more important than who they are. Despite what others say, always remember than you are your ancestors’ wildest dreams. Keep going.
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<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tr>
<td>CRT</td>
<td>Critical Race Theory</td>
</tr>
<tr>
<td>FemCrit</td>
<td>Feminist Critical Race Theory</td>
</tr>
<tr>
<td>LatCrit</td>
<td>Latino/a Critical Race Theory</td>
</tr>
<tr>
<td>VIA</td>
<td>Vancouver Index of Acculturation</td>
</tr>
<tr>
<td>SWLS</td>
<td>Satisfaction with Life Scale</td>
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<tr>
<td>SCQ</td>
<td>Skin Color Questionnaire</td>
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ACKNOWLEDGEMENTS

To my advisor, Alan M. Gross, who always inspired me to move forward. Thank you for all of your support and guidance. I truly could not have done this without you.

To all of my committee members, Dr. Elicia C. Lair, Dr. Laura J. Dixon, and Dr. Kirk A. Johnson, thank you for your guidance and encouragement. Your perspectives, ideas, and feedback are always greatly appreciated. Thank you for always being ready to help in all aspects of this project. Your support is invaluable to me.
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I. INTRODUCTION

Racism can be conceptualized as a system of beliefs and attitudes that denigrate individuals based on their phenotypic characteristics and affiliation to an ethnic group (Clark, Anderson, Clark, & Williams, 1999). These sets of beliefs are usually linked to the majority group’s level of ethnocentrism or their general antipathy towards members of all outgroups (Berry & Kalin, 1995). This lack of acceptance of cultural diversity usually gives rise to a variety of negative stereotypes and prejudices towards other cultural/ethnic groups that include physical, behavioral, and personality characteristics (Dong, Day, & Collaço, 2008). More importantly, active implementation of these beliefs both at an institutional and societal level implicates racial discrimination against members of a specific minority group (Pager & Shepherd, 2008). Thus, discrimination can be accomplished given the societal power implicitly granted to the majority group that tends to be pervasive in all aspects of community life (Gillborn, 2016).

According to critical race theory (CRT), this Eurocentric perspective of the world has developed and encourages supremacy of Whiteness through societal norms, racial power, and law-related processes (Delgado Bernal, 2002). CRT proposes that this perspective has transformed White ideals into a superior way of existing that actively determines norms of beauty, intelligence, knowledge, experiences, and perspectives for all members of society. Thus, deviation from these norms justifies being dismissed, excluded, or ostracized by other group members (Campón & Carter, 2015). It has been hypothesized that this system of racial
oppression could not have been maintained without the addition of a psychological component that would be both self-perpetuating and internalized (Bailey, Chung, Williams, Singh, & Terrell, 2011). That is, racial oppression would no longer require overt enforcement by the majority group, but that minority members would enforce it onto other members of the oppressed group (Poupart, 2003).

One manifestation of this intergroup racism has been conceptualized as based on skin color. This concept, known as colorism, describes the tendency of creating a hierarchical stratification of racial minorities based on their skin tone and related phenotypic characteristics (Keith, 2009). This framework implies that individuals with lighter skin who share more physical characteristics with White majority group members tend to enjoy more advantages and social privileges than those with darker skin tones and/or Afrocentric features (Hunter, 2002). In comparison to racism, colorism ignores true ethnic group membership and focuses on an individual’s skin tone and physical characteristics. This means that within minority groups, intra-racial prejudice is presented by implicit use of a colorism framework in which lighter-skinned group members are perceived to possess higher social capital that permeates their personality, ability levels, education, income, and societal expectations of success (Burton, Bonilla-Silva, Ray, Buckelew, & Hordge Freeman, 2010).

The significance of colorism extends beyond social capital in one’s community. Its ubiquitous and pervasive societal presence has been found to negatively impact darker-skinned individuals by increasing their contact with law enforcement, number of criminal convictions, sentencing lengths, stereotyped perceptions of their past criminal involvement, and limited hopes for their future (Blake, Keith, Luo, Le, & Salter, 2017). Colorism has also been found to link dark skin with unattractiveness, lack of intelligence, low socioeconomic status, increased
aggression, and hypersexuality (Rollock, 2007). In comparison, light-skinned minority group members tend to have more educational opportunities, professional and/or managerial occupations, greater income, increased self-esteem, and overall higher psychological wellbeing than their darker-skinned counterparts (Keith, 2009).

Social stratifications based on skin color have been found to be present in several minority groups, including African Americans, Asian Americans, and Latinos. Within the African American group, lighter skinned individuals tend to be perceived as hard-working, loyal, and willing to serve others in all circumstances. In contrast, dark-skinned individuals are perceived as lazy, of limited intelligence, and linked to criminal activities (Blake et. al, 2017). Similarly, Central and Southeast Asians (who tend to have darker complexions) are usually linked to poverty and low levels of education. East Asians, on the other hand, are often recognized as a ‘model minority’ in which all its members are considered to be intelligent, capable, powerful, and successful in their careers (Kiang, Huynh, Cheah, Wang, & Yoshikawa, 2017). Lastly, light-skinned Latinos are perceived to be intelligent, capable, and appropriately acculturated. Dark-skinned Latinos, in comparison, tend to be perceived as uneducated, lazy, and “illegal” (or undocumented) (Adames, Chavez-Dueñas, & Organista, 2016).

Given the negative stereotypes and difficulties linked to dark skin complexion, it is not surprising that members from all of these minority groups have begun to engage in a variety of practices that promote lighter skin tones. These behaviors, which tend to be promoted and encouraged within each minority group, encompass both beauty routines and normative daily activities (Mahé, Ly, Aymard, & Dangou, 2003). The most common practices involve the daily application of skin lightening or skin bleaching creams that publicize their ability to ameliorate dark skin tones at various rates. This means that dark skin tones may become ‘brown’ while
medium skin tones may become ‘tanned’ (Charles, 2003). The demand and popularity of these products has significantly grown over the past decades, giving rise to many counterfeit products that have been linked to acne, damaged skin, and even cancer (Hunter, 2011). Although research is scarce, current literature suggests that use of skin bleaching or lightening products is linked to weak ethnic identity and high levels of internalized racism (Charles, 2003). This link was maintained even when individuals were consciously aware of potential health risks (Hunter, 2011). According to Glenn (2008), “yearning for whiteness” continues to have a pervasive presence among minority groups that can be traced to early colonization.

The purpose of this study is to examine relationships among acculturation modality, internalized racism (including colorism), and skin lightening (both attitudes and behaviors). The role of psychological well-being will also be explored in relation to the relationships mentioned above. The relationship between acculturation and skin lightening practices will be discussed, as well as the impact of internalized racism among participants. Lastly, the psychological and social implications of the relations among these variables will be reviewed.

Critical race theory and the perpetuation of white supremacy

Critical race theory (CRT) first emerged in American legal literature in the late 1980s. The initial focus was to understand the paradox of the pervasiveness of racism despite its nearly universal condemnation by both law and societal norms (Harris, 2012). After the post-civil war rights movement failed to eradicate racism, scholars from several law disciplines focused on understanding mechanisms that maintained discrimination both at institutional and societal levels (Ansley, 1989). From its earliest stages, CRT highlighted the roles of both governmental institutions and common citizens in the United States in the implicit maintenance of racism across the nation.
In contemporary social life, racism is conceptualized as a form of social injustice that should be remedied by both state and federal law (Harris, 2012). Thus, governmental institutions are perceived to possess the moral obligation of refraining from perpetrating racist acts against citizens while protecting society from experiencing these detrimental incidents through public policy (Crenshaw, 1988; Harris, 2012). However, these perceptions do not account for government limits in terms of restricting citizens’ private behaviors, or define freedom within the scope of a “racism-free” governmental system. At the same time, adoption of a ‘colorblind’ and ‘perspectiveness’ philosophy in governmental institutions implicitly led to facilitation of racism by directly invalidating the minority experience (Delgado, 1984).

More specifically, CRT proposes four main themes that encompass development and maintenance of hegemony (the persistence of majority-group domination without coercion) within American society. The first of these refers to government’s race jurisprudence in which racial discrimination disappears under its ‘colorblindness’ bias. In other words, the court’s and government’s aims for impartial justice are biased by an egocentric view that excludes minorities’ perspectives and issues (Haney Lopez, 2007). The second theme highlights the government’s focus on conscious, intentional prejudice rather than all types of prejudice. According to CRT, this misguided focus has implicitly allowed for creation of institutional racism that is hidden within company/labor policies. This means that although minority members may be at an economic, social, and/or labor-related disadvantages in comparison to majority group members, the lack of explicit prejudice implies that discrimination or social injustice has not taken place (Powell, 2008; Robinson 2008).

The third of these themes describes the ‘black/white paradigm’ in which most efforts towards decreasing or eradicating racism focused on African-Americans. Unknowingly, this
focus implicitly invalidated racism against other minority groups for several decades (Harris, 2012). For this reason, a number of critical race theorists developed specialized CRT to address societal and institutional racism against other non-white groups in the United States including Latina/os (LatCrit), Asian-Americans (AsianCrit), and American Indians (TribalCrit) (Berger, 2009; Chin, 1996; Williams, 1991; Yosso, Parker, Solórzano, & Lynn, 2004). The last of these themes addressed the efforts of CRT to understand the interlocking relationship between race and other forms of oppression based on gender, class, and sexuality (Harris, 1990; Harris, 2012). These theorists, sometimes referred to as ‘critical race feminists’ or ‘FemCrit’ (Wing, 2001) tend to focus on issues of women of color while addressing the interplays of intersectionality. ‘LatCrit’ theorists, for example, work toward understanding the relationship between race, ethnicity, religion, national origin, class, and sexuality (Harris, 2012; Valdes, 1998).

Taken together, CRT proposes an explanation for the maintenance of racism despite its perception as a social injustice. Implicitly, governments at local, state, and federal levels developed policies and practices that allowed for the maintenance of racism in society. These systems also allowed for racial discrimination to become institutionalized, and to some degree, normalized as an element of everyday society. However, CRT does not fully address how institutionalized racism translates into implicit societal norms and rules that maintain it. CRT also fails to explain the pervasiveness of racist ideals beyond law-making institutions, especially since one of its main propositions is that racism is condemned by society as reproachable.

**Colonialism, the Legacy of Slavery, and Colorism**

The founding of the first American colonies in the 1600s involved conquest and colonization. Such settlement practices reflected racial ideologies reflecting White dominance. Subsequent enslavement of African individuals (Acharya, Blackwell, & Sen, 2016) resulted in
binary social system hierarchies in which enslaved individuals were perceived as “barbaric, savage, ugly, and evil”, while whiteness was equated with being “civilized, virtuous, and beautiful” (Keith, 2009). Given this perspective, African American individuals were understood to be inferior beings who could be ‘owned’ for their labor (Seawright, 2014). Within a decade, however, miscegenation between White plantation owners and their African American slaves allowed the creation of two distinct social classes among slave workers on many plantations. Enslaved individuals who possessed a ‘pure’ African ancestry tended to be classified as ‘Lowly field hands’ or ‘field slaves.’ In comparison, enslaved individuals who possessed more European characteristics or had some White ancestry were considered ‘aristocratic house servants’ or ‘house slaves’ (Harper, 1978; Keith, 2009). This latter group was not only recognized to be more aesthetically appealing and intellectually superior than their counterparts, but they also tended to be granted skilled jobs and less harsh treatment by slave owners (Keith, 2009).

This fragmentation of the slave population in terms of occupation and relative privilege led to creation of two distinctive classes that were solely differentiated based on their phenotypic characteristics (Keith, 2009). Favoritism and separation of lighter-skinned individuals was quickly recognized among the slave community, inadvertently creating social stratifications within minorities that were strictly based on white norms. In the antebellum South, for example, mulattos (defined as a person of mixed white and black ancestry) tended to have societal privilege that translated into skill-based occupations, appropriate nutrition, and generally comfortable living conditions (Harper, 1978; Keith, 2009). Given the harsh sociocultural environment for African Americans at that time, it is not surprising that many light skinned individuals began imitating mulatto’s physical appearance, speech, dress and behavior in search of societal privileges and rights. Through this strict structure of privilege, strengthened by
ideologies of White superiority, colorism was first present among a minority group in the United States (Harper, 1978; Keith, 2009; Seawright, 2014).

White supremacist ideas were further promoted given the political and economic power that slavery provided plantation owners. While African Americans were enslaved, society embraced a culture of whiteness in which the majority determined all societal rules and norms (Acharya, et. al, 2016). After the civil-war, the enfranchisement of African Americans threatened the cultural, societal, and economic power of White communities, which in turn, strengthened the already-existing anti-black sentiments and interracial hostility. This increased division between majority and minority group members was further perpetuated by creation and implementation of societal norms that granted all power and dominance to White individuals (Acharya, 2016; Harper, 1978; Keith, 2009). As CRT indicates, this White dominance was maintained into the 21st century through explicitly discriminatory laws that permitted segregation in state institutions (such as schools and universities), local business, public transportation, and most aspects of everyday life (Yosso, et. al, 2004).

**Racism and colorism in Latinos**

Similar to the history of African Americans, many other minorities in the United States share a history of colonization and social classification based of phenotypic characteristics. Latino/as for example, colonization from a variety of European countries (mainly Spain and Portugal) abruptly disrupted their native history and marked a new era for each of these countries (Uhlmann, Dasgupta, Elgueta, Greenwald, & Swanson, 2002). From Columbus’ arrival in the 1490s, Latino culture became dominated (both socioeconomically and politically) by Blancos or light-skinned individuals (Comas-Diaz, Lykes, & Alarcón, 1998). Through slavery and oppression of native cultures, Eurocentric features and light skin became synonyms with
privilege, civil rights, and high social status. In contrast, indigenous features and darker skin (Moreno) became highly stereotyped as indicative of low intelligence, high levels of criminality, and low social class (Uhlmann, et. al, 2002). However, the period of mestizaje or ‘racial mixing’ led to the creation of a continuum of skin color and facial features that ranged from highly Eurocentric to highly indigenous or African phenotypes (Adames, et. al, 2016). Similar to African Americans, many Latino/as began behaving in ways that promised lighter skin in order to gain basic societal rights and privileges that would have been denied to them otherwise (Arce, Murgia, & Frisbie, 1987; Montalvo, 2005; Montalvo & Codina, 2001).

As LatCrit theory suggests, the implicit maintenance of these societal standards through in-group colorism led to the present domination of whiteness in Latin America (Wade, 1997). This phenomenon can be observed in beauty standards, perceptions of intelligence, perceived linkage to criminality, and social class (Uhlmann, et. al, 2002). As a result, darker skin tones and less Eurocentric features in Latin America have been found to negatively impact mental health, educational attainment, income, and work-related wages (Arce, et. al, 1987; Montalvo, 2005). In comparison to their lighter-skinned counterparts, Latino/as with darker skin tones tend to report higher levels of perceived discrimination in their everyday life (Arce, et. al, 1987). Although this preference for light skinned individuals is more heavily present in Latin American countries, research suggests that a similar prejudice against dark skin and indigenous features is also present among Latino/as in the United States (Uhlmann, et. al, 2002).

Racism and colorism in Asian Americans

The trend of White supremacy also spread to the Asian continent, directly impacting societal standards in Japan, China, Korea, India, Vietnam, Indonesia, Cambodia, Laos, Philippines, and other Southeastern Asian countries (Jones, 2013). Although there are variations
among these countries, early reports of light-skin preference date back to the mid-nineteenth century in which upper-class Japanese men and women would wear white-lead powder to indicate their elite status in society (Rondilla & Spickard, 2007). In addition, light-colored skin served as an indicator of wealth given that dark skin was linked to working in the fields and being darkened by the sun (Jones, 2013). In Cambodia, for example, dark skin has also been linked to ignorance, laziness, physical unattractiveness, and lower socioeconomic status (Hunter, 2007). Overall, lighter-skinned Asian individuals tend to have higher incomes, complete more years of higher education, live in safer neighborhoods, and marry others of high social class than their darker-skinned counterparts (Hunter, 2007; Rondilla & Spickard, 2007).

In comparison to other minority group, however, Asian preference for light-skin tends to be more exclusively connected to social status and privileges rather than a desire to appear more European. Even after colonization, the standard of beauty remained having “glowing white skin, jet-black hair, and delicate almond-shaped obsidian eyes” (Jones, 2013). This standard tended to mimic more typical characteristics of individuals from Northeast Asia (Japan and Korea) rather than their Southeast Asian counterparts (India, Cambodia, Indonesia, Laos, Vietnam) (Hunter, 2007; Rondilla & Spickard, 2007). For Asian-American immigrants, however, this standard of beauty becomes biased towards American ideals of beauty. It has been reported than in addition to aiming to appear beautiful in their home country, Asian-American immigrants seek to lighten their skin in order to enjoy societal privileges of Whiteness (Jones, 2013; Rondilla & Spickard, 2007).

**Colorism in White Americans**

Given world history of colonization and the pervasiveness of White supremacy, light-skin tended to be perceived as the ideal standard of beauty, wealth, societal privileges, and rights.
Holubar, 1997; Uhlmann, et. al, 2002). In comparison to other minority groups, White Americans were not as concerned with lightening but rather aimed to maintain their natural skin color by protecting themselves from the sun (Randle, 1997). Historically, they achieved this by using parasols, wearing sizable hats, or using other items of clothing that represented their high social status (Holubar, 1997; Randle, 1997). In some occasions, some members of upper classes in Europe and Asia used white face powders to give the appearance of having preternatural light skin (Rondilla & Spickard, 2007). At the same time, their positions of privilege prevented them from working outdoors and risking darkening their light complexions (as it was the case with many other minority groups) (Harper, 1978; Keith, 2009).

Industrialization of the American workforce at the end of the 19th century led to a gradual reversal in social beliefs on skin color. At that time, the massive transition from agricultural/field work to factory-based employment meant that the ‘working class’ would spent their days engaging in labor inside company buildings (Hirschman, & Mogford, 2009). Given intense work schedules, low amount of resources, and poor living conditions, most members of this new working class tended to receive a limited amount of sunlight. Thus, their light-skin quickly became linked to ‘sunlight starvation,’ diseases such as tuberculosis and rickets, and ‘moral depravity’ in the form of alcoholism, depression, and suicide (Randle, 1997). This social change meant that light-skin was no longer linked to health and high social status, but rather to the sick, feeble low social class.

Given this context of shifting America demographics, the concept of tanning became markedly popular among high class society members. While it was initially perceived as something undesirable (since it could link oneself to the lower, working class), the industrial revolution led to its reconceptualization as a physical representation of upward mobility (Hunt,
Augustson, Rutten, Moser, & Yaroch, 2012). At the same time, those with sufficient economic resources began visiting summer resorts, engaging in recreational sports (such as swimming, golf, tennis, and bicycle riding), and wearing clothing that covered less skin. These activities resulted in the creation of a new symbol of affluence in which a ‘sun-kissed face and bronzed body’ represented belonging to a high social class and having societal privilege (Albert, & Ostheimer, 2002).

In recent years, indoor tanning (by using sunlamps, sunbeds, or tanning booths) has grown popular among younger generations. Approximately 20.4% of self-identified White individuals ranging from 18-29 years old regularly engage in indoor tanning practices. In addition, they were also found to be more likely to avoid outdoor activities and engage in sun protection behaviors such as wearing sunscreen (SPF of 15 or more) (Heckman, Coups, & Manne, 2008). Although there is limited research on the subject, it has been hypothesized that White individuals who tend to engage in tanning behaviors do so in search of societal privileges linked to high affluence and high social class. This has been supported by statistics that highlight age (teenage years), living in the American Midwest or South, being female, having a less educated mother, and attending a rural high school as the main correlates with probabilities of engaging in tanning behaviors in a regular basis (Heckman, et. al, 2008). In other words, White Americans may be conceptualized to also experience a unique type of colorism in which tanned skin, rather than light-skin, is perceived as the ideal of beauty, intelligence, and affluence. However, this type of colorism highly contrasts with that of other minority groups. While some minorities members seek to lighten their skin in order to obtain societal privileges and rights, White Americans who do not have access to tanning tools are not denied any privileges or rights for not meeting the ‘skin-color ideal (bronze skin).’
“The bleaching syndrome,” colorism, and privilege

Given the pervasiveness of light-skin preferences among minority groups, researchers in the early 1990’s developed a theory that explained the nature and function of this phenomenon. “The bleaching syndrome,” as named by Hall (1994, 1995, 1997, 2006) fills the gap left by CRT by explaining how institutional racism translated into implicit societal norms that maintained White supremacy. From this perspective, Colonialism and slavery created a foundation for the domination of Whiteness in society. Within a couple of decades, societal standards of behavior, beauty, and intelligence were shaped by European norms and phenotypic characteristics. In addition, societal rights and privileges were mostly exclusively reserved for members of the majority group, placing all other minorities at a social and economic disadvantage.

These ethnic, racial, and societal differences were commonly observed and experienced by minorities across the United States (Jones, 2013; Hunter, 2007; Rondilla & Spickard, 2007). Hall proposed that constant psychological bombardment regarding White supremacy led to the internalization of a white aesthetic ideal rooted in the historic legacy of colonialism and slavery around the world (1994, 1995, 1997, 2006). In other words, minorities began aiming to appear more European by actively changing their skin tone, hair, body weight, and even clothing styles (Hunter, 2002). With time, this internalized preference for light-skin translated into within-group societal norms that aimed to improve the living conditions of many minority members (Hall, 1994, 1995, 1997, 2006). Although this societal mechanism of adaptation tends to be maladaptive in the long term, adapting European ideals tends to decrease psychological distress and reduce socioeconomic stratification of minorities in the short term (Hunter, 2007).

Society-wide adaptation of European ideals perpetrates White supremacy without explicit coercion from majority group members. As CRT proposed, this mechanism would allow racism
to maintain its definition as a reproachable societal behavior while being implicitly maintained by minority groups themselves. Through colorism minorities perpetrate leftover colonial structure in which there is a strong value of white aesthetics (Hunter, 2007) and a disdain for dark skin or more indigenous facial features (Uhlmann, et. al, 2002). This goal can be accomplished by implicit avoidance of dark skin (by spending most of the day indoors) or explicit attempts to change one’s phenotypic features (by using bleaching creams/agents, straightening curly hair, and undergoing surgical cosmetic procedures to change one’s facial features) (Hall, 1994, 1995, 1997, 2006).

**Ethnic identity, acculturation, and its relation to colorism and racism**

Ethnic identity is a theoretical construct rooted in the ego identity model of Erik Erikson (1968) and the empirical study of personal identity by Marcia (1980) and Berry (2005). This concept is usually understood as an elaboration on traditional identity development during adolescence to include cultural, ethnic, social, and other contextual factors linked to one’s minority status. In other words, personal self-identification with an ethnic, cultural, social, or minority group is hypothesized to occur through a 4-stage process of acculturation. These include diffusion (when a minority group member has not questioned his/her belonging to a specific group nor has made any identity commitments), foreclosure (when a minority group member makes an identity commitment based on external factors without self-exploration), moratorium (when a minority group member is exploring/experimenting belonging to different ethnic groups and actively engages in identity search), and achievement (when a minority group member has experienced an identity crisis, has explored several options, and has made an identity commitment based on his/her self-exploration process) (Marcia, 1980).
This acculturation process can result in four different identity outcomes that highlight the person’s identification with both the majority and minority groups (Berry, 2005). The first of these outcomes, known as integration or biculturalism, is the ideal result of an adaptive acculturation process. Individuals who are fully integrated or bicultural strongly identify with both the minority and majority groups, providing them with adaptive skills that allow them to flexibly interact across both ethnic groups and contexts. The second acculturation outcome, known as assimilation, indicates that the person strongly identifies with the majority group but experiences as weak level of identification with the minority group. This means that this individual is more likely to behave more similarly to members of the majority group and have minimal engagement with traditions, customs, and other factors linked to his/her minority group. The third of these outcomes, known as separation or ethnic dissociation, refers to the individual who has a strong level of identification with his/her minority group but minimal level of identification with the majority group. In contrast to those individuals who are assimilated, those who are separated are more likely to actively engage in the traditions and customs of their minority group and have minimal contact with those of the majority group. Lastly, marginalization refers to the least adaptive acculturation outcome. Individuals who are marginalized have a low level of identification with both the majority and minority groups, which in turn, tends to be linked with elevated levels of distress, confusion, and maladaptive behaviors (Berry, 2005, Phinney, 1990). A summary of these outcomes can be found in Table 1. Appendix¹.

Recent research has proposed that the process of minority acculturation is a dynamic and multi-faceted process that constantly evolves and matures based on contextual changes (Phinney

¹ All tables and figures can be found in the Appendix.
& Ong, 2007). One of the most important factors in understanding ethnic identity is self-categorization and labeling. As its name implies, this means the personal self-identification or labeling of oneself as a member of particular social or ethnic group (Ashmore, Deaux, McLaughlin-Volpe, 2004). Given the context, minority group members may use a variety of different self-labels in order to better adapt to others. For example, an individual of Mexican descent living in the United States may identify him/herself as Hispanic in a job setting, Latino among his/her friends, and Mexican among his/her family. This would allow the person to adaptively navigate social contexts by using labels that imply acceptable levels of acculturation. At work (especially when there is limited ethnic diversity among employees), it is likely that this person may benefit from identifying with a highly-acculturated group (Hispanic) so that he/she may benefit from rights and privileges linked to the majority group. In contrast, this strategy is not likely to be beneficial when the person finds him/herself among other members of his/her minority group. In this context, identifying with a highly-acculturated group may place the person at a social disadvantage given that he/she may be perceived as a less legitimate or authentic member of his/her minority group (Hunter, 2007).

In a similar way, ethnic identity of minority group members is highly influenced by their engagement in ethnic behaviors or practices that are distinct from those of the majority group. These may include speaking another language, eating different food, celebrating cultural holidays, and associating with other minority group members (Phinney, et. al, 2007). True engagement in these cultural practices, however, is shaped by the individual’s context and the social rules of normative behavior (Berry, Phinney, Sam, & Vedder, 2006). As in the case of self-identification or labeling, minority group members’ behavior is likely to be directly related to the social group’s expectations of acculturation. For example, Chinese-American students
have been found to train themselves to speak without an accent when engaging with American students. This is done to decrease probability of being stereotyped/discriminated, being perceived as having limited proficiency in the language, or having low social status (Ching, Renes, McMurrow, Simpson, & Strange, 2017).

Beyond the previously addressed complexities of ethnic identity development, it is important to also consider the impact and development of the ‘American identity’ among minority group members. While previous research proposed that ethnic and American identities tended to always be negatively correlated, more recent research has challenged these hypotheses by suggesting that they are 1) independent and that they may be 2) positively, negatively, or not correlated (Berry, 2003). Variations between these two identities appears to extend beyond observable labels and behaviors to include two separate systems that allow minority members to effectively transition from one context to another. Depending on the person’s outcome of acculturation, this may also mean that he/she may choose to remain in one context so that transitions between social groups are not necessary (Phinney, et. al, 2007).

The relationship between these two identities is also likely to be impacted by levels of colorism among a particular minority group. While in the moratorium stage of acculturation, individuals may implicitly learn White standards of beauty and behavior which in turn, may bias their acculturation process and led them to Separation or Ethnic Dissociation (Berry, 2005, Phinney, 1990). In most cases, it is likely that the pervasive of Whiteness in media and daily social interactions provides a foundation for colorism and internalized racial oppression expressed through a preference for European norms and phenotypic characteristics (Hunter, 2007). Even when the minority group member achieves full integration/biculturalism, it is likely
that social and cultural norms related to Whiteness may bias the person’s perceptions of beauty, intelligence, and normative behavior.

Taken together, it is likely that there are two similar but distinct systems that account for minority and majority group members’ engagement in colorism/racism practices in terms of their ethnic identity. Majority group members, given their social position of power, tend to develop their identity based on an ethnocentric view that is tailored to their group’s needs, wants, rules, and norms. In addition, the pervasiveness of Whiteness in society prevents them from developing an ample array of behaviors that would allow them to effectively transition from one social context to another. In other words, their societal status and power encourages the development of an ethnocentric behavioral repertoire that is expected to be effective and adaptive across all contexts. In comparison, minority group members seem to develop several sets of behavior that allow them to transition and adapt across social contexts. Thus, their ethnic identity is not only shaped by their own experiences, perceptions, and beliefs, but also by the behavioral contingencies placed around societal privileges and rights.
II. SUMMARY AND PRESENT STUDY

Until now, racism has been studied almost exclusively in terms of interracial differences among different ethnic groups. However, CRT proposes that the long-standing superiority of Whiteness is maintained through internalized and self-perpetuating mechanisms among minority members. In other words, racial oppression is maintained by internalized racism that implicitly allows and promotes the ubiquitous presence of Whiteness as the main standard for societal behavior. Recent research has introduced colorism in order to explain this process of internalized racism in which racial minorities create a hierarchical stratification based on each other’s skin color and phenotypic characteristics. This means that within minority groups, racism may be understood as an intra-racial prejudice that employs a colorism framework in which lighter-skinned group members are perceived to possess higher social capital that their darker-skinned counterparts.

The purpose of this study was to assess the relationship between acculturation modality (orientation to heritage or mainstream culture), internalized racism (including colorism), psychological well-being, and skin lightening (both attitudes and behaviors). Participants were asked to provide demographic information and complete measures for each variable of interest. It was hypothesized that acculturation modality would predict skin lightening (behaviors and attitudes) and that internalized racism would mediate that relationship. In addition, it was hypothesized that psychological well-being would moderate the relationship between acculturation modality and internalized racism, as well as the relationship between acculturation
modality and skin lightening (behaviors and attitudes). These relationships were analyzed in a moderated mediation.
III. METHODS

Participants

Participants were recruited from two main groups: Amazon Mechanical Turk (MTurk) workers and college students from the University of Mississippi. The final sample consisted of 324 self-identified ethnic/racial minority adults. 62.7% identified as female, 36.1% as male, and 1.2% as gender fluid. In terms of age, 40.4% were between the ages of 18-20, 18.2% between the ages of 21-25, 19.8% between the ages of 26-30, 8.9% between the ages of 31-35, 4.7% between the ages of 36-40, 2.1% between the ages of 41-45, 1.9% between the ages of 46-50, 1.9% between the ages of 51-55, and 2.1% were 56 years of age or older. 288 (88.9%) of the participants identified as heterosexual, 3.1% as homosexual, 5.6% as bisexual, 1.2% as queer, and 1.2% as other (pansexual). At the time of the survey, 2.8% of the participants had never attended college, 30.6% had less than a year in college, 9.3% were freshmen, 12.7% were sophomores, 9.6% were juniors, 21.6% were seniors, 4.3% were in their fifth year of college, 5.9% were in their sixth year, 1.2% were in their seventh year, and 2.2% had completed eight or more college years. In terms of ethnicity, 22.2% of the sample identified as Latino/Hispanic, 37.7% as African-American/Black, 19.8% as Asian-American, 4.3% as Native American, 0.6% as Pacific Islander, 8.6% as Biracial, and 6.8% as other ethnicity (including Asian, Asian-Indian, Greek/Bahamian, Indian, and Middle-Eastern) (Table 1, Appendix).
Measures

Demographic information was collected on participants’ age, gender, race/ethnicity, sexual orientation, and number of years in college. Participants were also asked if they had traveled outside of the country within the past year, the purpose, and the length of their trip given that these variables could impact their knowledge of acculturation and awareness of related minority issues (Table 2, Appendix).

The Vancouver Index of Acculturation (VIA; Ryder, Alden, & Paulhus, 2000) is a 20-item self-report measure that assesses acculturation modality using a bi-dimensional approach. This conceptualization of acculturation was directly built on Berry’s (1997) acculturation model and related strategies. Exploratory factor analysis revealed two components: heritage identity and mainstream identity. Items are assessed on a 9-point Likert-type scale. Response options range from “disagree” to “agree.” Mean scores are calculated for each factor. In the original study, the subscales (Heritage and Mainstream) demonstrated very good internal consistency (Cronbach α; .91 and .87, respectively). In the current study, the Cronbach alpha coefficient was .89 for the Heritage subscale and .89 for the Mainstream subscale.

The Satisfaction with Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985) is a 5-item self-report questionnaire that measures life satisfaction as a cognitive-judgmental process. This measure approaches life satisfaction as a global assessment of an individual’s psychological well-being rather than a simple subjective impression of one’s affective and/or emotional states. A principal axis factor analysis suggested a single factor (life satisfaction) that accounted for 66% of the variance. Items are assessed using a 7-point Likert-type scale. Response options range from “strongly disagree” to “strongly agree.” A total mean score is calculated for all items. The scale was found to have favorable psychometric properties including strong internal
consistency (Cronbach α; .87) and appropriate test-retest reliability (0.82). In the current study, the Cronbach alpha coefficient was .89 for the overall scale.

Internalized racism was measured using two related, but separate assessments. The Skin Color Questionnaire (SCQ; Bond & Cash, 1992) is a 3-item self-report questionnaire that assesses satisfaction with one’s skin color, self-perceived skin color, and ideal skin color. The first item is “How satisfied are you with the shade (lightness or darkness) of your own skin color?” Responses range from 1 (extremely dissatisfied) to 9 (extremely satisfied). The second item asks “Compared to most [people of my own ethnicity], I believe my skin color is....” possible responses range from 1 (extremely light) to 9 (extremely dark). It is important to note that in the original measurement this item only included “Black people” as the only point of reference for one’s skin color. This was changed to be more inclusive of the various ethnicities of participants. Lastly, the third item is “If I could change my skin color, I would make it....,” response choices range from 1 (much lighter) to 9 (much darker) with 5 anchored as exactly the same. Although internal consistency was not reported in the original study, the Cronbach alpha coefficient for the current study was .16. This low value was attributed to the small number of items in the scale, as well as it high alpha levels not being expected given that each of the 3 items addresses a different construct (i.e. skin color satisfaction, perception of skin color, and desire to change skin color).

The second assessment was the Skin Color Assessment Procedure (SCAP; adapted from Bond & Cash, 1992 and Coard, Breland, & Raskin, 2001). A series of nine skin color squares (ranging from lightest to darkest) were displayed to participants. These colors are based on those previously selected by Bond and Cash from a standardized color system (Pantone Matching System, PMS; Gitter, Mostofsky, & Satow, 1972). The PMS is known for cataloguing hundreds
of colors and hues as used in the printing industry. An online version of these colors is freely available to the public. The skin colors that ranged from 1 (very light, fair skin) to 9 (very dark, ebony skin) were: PMS #4685, PMS #155, PMS #466, PMS #1385, PMS #145, PMS #4715, PMS #168, PMS #469, and PMS #462. Once participants had a chance to review these color squares, they were asked a couple of questions regarding perceptions of these skin colors. Specifically, participants were asked 1) to choose the color that most resembles their actual skin color, 2) the skin color that they would most prefer to have, 3) the skin color that they believe their opposite-gender peers of the same ethnicity find the most attractive, 4) the skin color that they believe is most admired by peers of their same gender, and 5) the skin color that is most admired by their closest family members. A skin-color ideal discrepancy score was calculated by subtracting participant’s rating of his or her ideal skin color (question #2) from his or her self-perceived skin color ratings (question #1). Discrepancy values were found to be significantly correlated to the third item of the SCQ (desire to change skin color), \( r = 0.51, p < .01 \) and negatively correlated with the second items of the SCQ (perception of skin color), \( r = -0.23, p < .01 \) As it was the case with SCQ, the internal consistency of the SCAP was not reported in the original study. In the current study, the Cronbach alpha coefficient was .85.

The participants were also administered a skin lightening questionnaire. This measure, which was created by the author, contains two main scales. The first consists of 13 self-report items and addresses ‘approach behaviors’ (defined as any activities in which participants regularly engage to actively lighten their skin). These include the frequency with which participants use skin lightening products (creams, masks, etc.) and pay for skin lightening cosmetic procedures. In addition this scale measures participants’ attitudes towards lightening one’s skin. Example questions include “How important is it to you to use these skin lightening
procedures or products?” “How do you view people who use these products?” “If you were to use these products, how do you think you would be viewed by your family?” This final question is intended to assess perceptions of their family, friends, strangers, and themselves regarding skin lightening. Answer choices range from 1 (not at all favorable/important) to 9 (extremely favorable/important). Additional questions assess the impact of potentially using these products in terms of their level of attractiveness, opportunities at school or work, and love life. Once again, answer choices range from 1 (not at all) to 9 (extremely). The Cronbach alpha coefficient for the scale in this current study was .80.

The second scale consists of 4 self-report items and addresses ‘avoidance behaviors’ (defined as any activities in which participants regularly engage to avoid darkening their skin). Each question addresses frequency of four target behaviors (wearing sunscreen, avoiding outdoor activities, wearing sun protective clothing during outdoor activities, and re-applying sunscreen when using it). The answer choices for the first three items use a 5-item Likert-type scale ranging from never to very often. Answer choices for the last item include just once (would not re-apply), every thirty minutes, every hour, every couple of hours, and whenever I remember. The Cronbach alpha coefficient for the scale in this current study was .65.

Procedures

Participants were recruited in two different ways. One group was recruited via the University online research recruitment system (Sona Systems) and through Facebook announcements. Students received 1 research credit for their participation. The other group of participants was recruited through Amazon’s online participant worker system (MTurk). MTurk workers received $1.00 for their participation. Informed consent, measures, and question items were administered anonymously using Qualtrics (Enterprise Service Tools; Provo, UT).
Participants were first administered informed consent describing the nature of the study, confidentiality, and the right to terminate participation at any time. Participants were then prompted to provide demographic information including their age, gender, race/ethnicity, sexual orientation, and numbers of year in college. In addition, they were asked about the number of travel abroad experiences within the last year, the purpose of these trips (academics or leisure), and the length of their most recent abroad experience. Measure administration followed a specific order in which the acculturation and psychological well-being measures were presented first and the internalized racism and skin lightening measures second. The last two were counterbalanced (e.g. half of the participants completed the internalized racism measure before the skin lightening measure and the other half of participants completed the internalized racism measure after the skin lightening measure). Upon completion of the survey, participants were thanked for their participation, provided instructions regarding compensation for participation, and redirected to the survey homepage.
IV. RESULTS

Data Preparation

Nine-hundred and twenty five individuals began the survey on Qualtrics. SPPS was used for all preliminary analyses. Participants were excluded if they self-identified as Caucasian/White (593), failed to complete the survey (4), or completed the survey in fewer than 5 minutes or more than 2 hours (4; the median response time was 8 minutes). The final sample consisted of 324 participants. Prior to analyses, descriptive statistics were conducted on all demographic variables and distributions on continuous variables were assessed for skewness, kurtosis, and outliers. Mahalanobis distance identified no multivariate outliers. All continuous variables were found to have adequately normal distributions (with skewness and kurtosis < 2). Linear relationships were observed with all continuous variables, although the spread of standardized residuals indicated heteroscedasticity. For this reason, heteroscedastic-consistent standard errors were used in the analyses through the HC3 option in PROCESS for SPSS (Hayes, 2013). A correlation matrix of quantitative variables was computed (Table 3, Appendix).

Descriptive Statistics

At the time of the study, 144 (44.4 %) participants indicated to be “extremely satisfied” with their skin tone, 150 (46.3%) reported to be “neutral” to “somewhat satisfied” with their skin tone, and 30 (9.3%) indicated to be “little dissatisfied” to “extremely dissatisfied” with their skin tone. However, 84 (26%) participants indicated that if possible, they would change their skin tone to be lighter, 191 (59%) reported that they would maintain their current skin color, and 49
(15%) reported that they would like their skin tone to be darker. In terms of self-perception of skin color given their own ethnicity, 136 (42%) participants reported to consider their skin tone to be lighter than the average member of their ethnic group, 99 (30.5%) indicated to be of an average skin tone, and 89 (27.5%) reported to have a darker skin tone than their peers. When asked about peer and family perception of skin color, 294 (91%) participants indicated that lighter skin tones would be perceived as “most attractive” by their opposite-gender peers and 277 (86.3%) reported that lighter skin tones would be perceived as “most attractive” by their same-gender peers. In addition, 266 (82%) participants reported that lighter skin tones were likely to be the “most admired” by their closest family members.

In terms of skin lightening product/procedure use, 19 (5.9%) reported using these products regularly, 29 (9%) indicated using these products sometimes, and 276 (85.2%) reported to have never used these products. Out of those who reported using these products, approximately 21 (43%) obtained their products from mass and private markets online, 17 (35.42%) from pharmacies and local shopping supercenters, and 10 (20.83%) from other sources including shipments from abroad sent from family members to creating the products from household items. When asked about perceptions regarding the use of these products, 42 (12.96%) participants indicated that they would consider skin-bleaching/lightening to be a favorable behavior in themselves, 33 (10.2%) reported that it would be a favorable behavior in others, 41 (12.7%) reported that their families would view them more favorably if they were to lighten their skin using products/procedures, and 33 (10.2%) indicated that their friends would have a more positive view of them if they were to engage in skin-bleaching/lightening behaviors. Participants were also asked to rate how much using these products could impact their level of attractiveness, opportunities at school or work, and their love life. 48 (14.8%) participants indicated that
lightening their skin would have medium to extreme positive impact on their level of attractiveness, 73 (22.5%) reported medium to extreme positive impact on their opportunities at school or work, and 52 (16.0%) reported medium to extreme positive impact on their love life.

With regard to engagement in behaviors to avoid darkening of skin, participants were asked regarding their use of sunscreen during outside activities, avoidance of outdoor activities, and use of protective clothing (hats, long-sleeved shirts) during outside activities. 60 (18.5%) reported using sunscreen often or very often during outdoor activities, 79 (24.4%) would use sunscreen sometimes, and 185 (57.1%) reported to never or rarely use sunscreen. In terms of avoiding outdoor activities for fear of skin darkening, 41 (12.6%) reported to avoid these activities often or very often, 41 (12.6%) indicated to sometimes avoid these activities, and 242 (74.7%) reported to never or rarely avoid outdoor activities. Lastly, 46 (14.2%) indicated that they used protective clothing often or very often to avoid skin darkening, 65 (20.1%) used protective clothing sometimes, and 213 (65.7%) participants reported to never or rarely use protective clothing.

Analyses

Conditional Process analysis using PROCESS Model 8 (Hayes, 2013) was computed to test the effect of acculturation modality (X) on skin lightening behaviors (Y) through measures of internalized racism (skin color discrepancy score, satisfaction with skin color, and desire to change skin color) (M1) and satisfaction with life (W). Additionally, group membership of participants (University student or MTurk worker) were introduced as control variables.²

Predictor variables were mean centered prior to analysis for ease of interpretation (Table 4, Appendix). Given the theoretical foundation of the model (in which internalized racism was

² T-test analyses were conducted to compare the means of both groups on all variables of interest. No statistically significant differences were found.
defined in terms of skin color discrepancy, satisfaction with skin color, and desire to change skin color), the three mediators were introduced in stage 1. Although the overall model was found to be statistically significant, the proposed indirect effects of the model did not support the hypothesis (Table 5 & Figure 2, Appendix). Although significant relationships were found between acculturation modality, satisfaction with skin color, and desire to change skin color with engagement in skin lightening behaviors, none of the mediators nor the moderator were found to be significant. In addition, there was a conditional direct effect of acculturation modality on engagement in skin lightening behaviors given high levels of satisfaction with life. That is, neither skin-color discrepancy, satisfaction with skin color, or desire to change one’s skin color are effective mediators of the relationship between acculturation modality and engagement in skin lightening behaviors. Taken together, this indicates that one’s level of acculturation, satisfaction with skin color, or desire to change one’s skin color independently predict one’s engagement in skin lightening behaviors. However, these effects are mitigated when they are all placed under one statistical model.

For ease of interpretation, these analyses were also conducted separately (Tables 6-8, Appendix). In all of these models, both acculturation modality and each of the mediators (skin-color discrepancy, satisfaction with skin color, or desire to change one’s skin color) effectively predicted engagement in skin lightening behaviors. More specifically, the first model (skin-color discrepancy as mediator, table 6, Appendix) also has a marginal significant moderation of acculturation modality in its direct effect to engagement in skin lightening behaviors. This result suggests that as the moderation becomes stronger, so does the effect of acculturation modality on engagement in skin lightening behaviors. However, the predicted moderated mediation was not supported. The second model (satisfaction with skin color as mediator, table 7, Appendix) had no
significant effects and the moderated mediation was not supported. Lastly, the third model (desire to change skin color as mediator, table 8, Appendix) had a significant moderation of acculturation modality in its direct effect to engagement in skin lightening behaviors. This finding suggests that as the moderation becomes stronger, so does the effect of acculturation modality on engagement in skin lightening behaviors. For this model, the predicted moderated mediation was supported, meaning that desire to change one’s skin color mediates the relationship between acculturation modality and engagement in skin lightening behaviors. Moreover, one’s life satisfaction was found to moderate the relationships between acculturation modality and skin lightening behaviors as well as the relationship between acculturation modality and desire to change one’s skin color.

Data were further explored by using attitudes towards skin lightening behaviors as an outcome variable. This variable was computed by creating a composite score of items 6-10 from the Skin Lightening Questionnaire (Cronbach’s alpha: 0.851). Descriptive data can be found in Table 4, Appendix. The model did not support the hypothesis (Table 9 & Figure 3, Appendix). Neither of the three mediators were found to be statistically significant in the relationship between acculturation modality and attitudes toward skin lightening behaviors. However, desire to change skin color was found to be significant in its relationship with attitudes toward skin lightening behaviors.
V. DISCUSSION

Internalized racism has been conceptualized as a culture-driven “yearning for whiteness” (Glenn, 2008) that directly impacts individuals’ ethnic identity. From a historical perspective, colorism (or the tendency of creating a hierarchical stratification of racial minorities based on their skin tone and related phenotypic characteristics) was inadvertently fostered by minority communities in order for those with lighter skin tones to obtain societal privileges usually reserved for White individuals (Hunter, 2002; Keith, 2009). For this study, internalized racism was explored in the context of acculturation modality, satisfaction with life, and engagement in skin lightening behaviors. Based on previous research, it was hypothesized that orientation to the mainstream (White) culture among minority members would effectively predict engagement in skin lightening behaviors via internalized racism (as defined by skin color discrepancy, satisfaction with skin color, and desire to change skin color) (Berry, 2005; Hunter, 2007; Phinney, et. al, 2007). It was also hypothesized that satisfaction with life would moderate the relationship between acculturation modality and internalized racism (Blake, et. al, 2017; Dong, et. al, 2008). Although the overall model was found to have some statistical significance given that portions of the model had exerted effects, predicted relationships through mediation and moderation were not found.

More specifically, the model demonstrated that engagement in skin lightening behaviors was effectively predicted by acculturation modality, satisfaction with skin color, and desire to change skin color. This finding suggests that minority members who are oriented to their
heritage (minority) culture, have low levels of satisfaction with their skin color, and have high desires to change their skin color tend to engage in skin lightening behaviors at a higher frequencies than their counterparts. As suggested by Marcia (1980) and Berry (2005), it may be that minority individuals who are in the early stages of acculturation (such as diffusion or foreclosure) have not explored their ethnic identity and have a superficial understanding and commitment to their heritage culture. In other words, it is likely that these individuals do not have a clear commitment to any ethnic group and may be more vulnerable to external pressure to conform to the majority’s expectations of beauty, dress, and outward appearance.

The above model also suggested a significant moderation of the direct effect of acculturation modality on engagement in skin lightening behaviors via internalized racism. This finding indicates that as levels of internalized racism are higher, the relationship between one’s acculturation modality and one’s engagement in skin lightening behaviors will be stronger. As previously suggested in the literature (Charles, 2003; Mahé, et. al, 2003), internalized racism can be conceptualized as personal dissatisfaction given one’s skin complexion and/or membership to a specific ethnic group. In turn, internalized racism has been linked to increased engagement in behaviors that are likely to change the person’s phenotypical characteristics (such as skin color). Therefore, this finding further supports previous literature in which internal dissatisfaction with one’s phenotypical characteristics are directly linked to engagement in behaviors to change one’s appearance.

These effects, however, seem to be muted when analyzed in our initial cohesive model. When analyzed as independent mediators, the models were found to be statistically significant. This finding suggests that in all three models, several aspects had significant effects on predicted relationships. In each model, acculturation modality and each measure of internalized racism
effectively predicted participants’ engagement in skin lightening behaviors. That is, individuals who more closely identify with their minority groups tend to engage in skin lightening practices in order to change their phenotypical characteristics. As mentioned above, it may be that these individuals are in earlier stages of acculturation (Marcia, 1980) or have high levels of internalized racism, which in turn, encourages them to engage in behaviors to change their outward appearance (Mahé, et. al, 2003).

In addition, for two of the models (in which skin color-discrepancy and desire to change skin color served as mediators, respectively), there was a significant effect in the relationship between acculturation modality and engagement in skin lightening behaviors. This finding means that as levels of internalized racism increased, so did the strength between the relationship between acculturation modality and engagement in skin lightening behaviors. It is possible that individuals who identify with a minority group may be more vulnerable to external influences to match the majority’s ideals of beauty and outward appearance, which through colorism, may exacerbate internal dissatisfaction with one’s outward appearance and may be a motivator to actively change one’s skin color through cosmetic products and procedures (Hunter, 2007).

Lastly, the effect of life satisfaction on the other variables was also demonstrated in these two models. Results suggested that higher dissatisfaction with one’s life is likely to impact one’s sense of ethnic identity, levels of internalized racism, and one’s engagement in skin lightening behaviors. That is, individuals who are tend to be more dissatisfied with their life conditions than the rest of the members of their ethnic group tend to have poor sense of identity (likely to be in one of the earlier stages of acculturation), have higher levels of internalized racism (or dissatisfaction with their physical appearance), and are more likely to engage in skin lightening behaviors in order to change their skin color.
This results are consistent with previous literature that suggests that acculturation modality (more specifically, orientation to one’s heritage or minority culture) is linked to one’s ethnic identity (and acculturation process), and it likely increases one’s exposure to colorism and its related hierarchy of skin color (Berry, 2005; Hunter, 2007; Marcia, 1980). That is, individuals with superficial or non-existent commitment to an ethnic group are more likely to have higher levels of internalized racism and are more likely to be dissatisfied with their skin color. Thus, they may more vulnerable to outward influences to change their appearance and engage in skin lightening behaviors in order to better match majority ideals of beauty. These findings further strengthen previous research that suggests that internalized racism is directly linked to the use of skin lightening of skin bleaching creams in order to ameliorate dark skin tones (Charles, 2003; Mahé, et. al, 2003).
VI. LIMITATIONS AND FUTURE DIRECTIONS

Despite the findings described above, it is important to note that neither of the factors in the complete model supported the overall hypothesis. This finding suggests that the relationship between acculturation modality and engagement in skin lightening behaviors may not be appropriately conceptualized via internalized racism. That is, there may be additional external factors that can account for the frequency and motives of active engagement of skin lightening behaviors. Some of these extraneous factors may include cultural norms in terms of skin lightening practices, frequency of these behaviors in the community, access to skin lightening products, and knowledge of potential damaging medical consequences of using skin lightening products and procedures.

At the same time, it is important to consider the impact of the selected measures of internalized racism for this study. Given the limited literature available and lack of a validated measure of internalized racism, three proxy items were used (discrepancy between perceived actual and ideal skin color, satisfaction with skin color, and desire to change skin color). While there were found to be predictive of engagement in skin lightening behaviors in the independent model, the effect was muted when all three proxy items were added simultaneously to the model. This may indicate a common shared factor among the three or a relationship to another, unknown variable that mitigates individual effects. Moreover, these data may be an indication of the multifaceted nature of the concept of internalized racism and the limited understanding in the
literature of the many factors that could account for dissatisfaction with one’s phenotypical characteristics.

Social desirability (defined as the tendency of participants to answer questions in a way that could be viewed favorably by others) is another factor that could have impacted observed results (Crowne & Marlowe, 1960). As reported by Mossavar-Rahmani (2013), the accuracy of participants’ answers in self-report measures tends to be correlated with their levels of social desirability. This means that participants’ answers that indicate high levels of body acceptance, positivism, and health behaviors are likely to indicate a high desire to be viewed positively by others rather than true reflections of their behaviors and thoughts. In this study, it may be likely that participants’ reports of high satisfaction with their skin color and low desire to change skin color may reflect high levels of social desirability rather than participant’s true perceptions and satisfaction with their skin color. In addition, social desirability may have encouraged participants to underreport skin bleaching practices given that these tend to be seen as unfavorable by many members of society.

Future efforts should focus on developing a quantifiable conceptualization of skin lightening motivations, understanding psychosocial factors that influence and exacerbate use of skin lightening products, and address precursors and consequences (both medical and psychosocial) of using these products in the short- and long-term. Moreover, given the observed relationship between life satisfaction and skin lightening behaviors, future work will benefit from examining environmental factors directly affecting quality of life variables. In particular, examination of minority members’ exposure to implicit and explicit discriminatory practices should be considered.


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Table 1. Descriptive Statistics of Participants (n=324)

<table>
<thead>
<tr>
<th>Gender</th>
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<td>21-25</td>
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</tr>
<tr>
<td>26-30</td>
<td>64</td>
<td>19.8 %</td>
</tr>
<tr>
<td>31-35</td>
<td>29</td>
<td>8.9 %</td>
</tr>
<tr>
<td>36-40</td>
<td>15</td>
<td>4.7 %</td>
</tr>
<tr>
<td>41-45</td>
<td>7</td>
<td>2.1 %</td>
</tr>
<tr>
<td>46-50</td>
<td>6</td>
<td>1.9 %</td>
</tr>
<tr>
<td>51-55</td>
<td>6</td>
<td>1.9 %</td>
</tr>
<tr>
<td>56-60+</td>
<td>7</td>
<td>2.1 %</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sexual Orientation</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heterosexual</td>
<td>288</td>
<td>88.9 %</td>
</tr>
<tr>
<td>Homosexual</td>
<td>10</td>
<td>3.1 %</td>
</tr>
<tr>
<td>Bisexual</td>
<td>18</td>
<td>5.6 %</td>
</tr>
<tr>
<td>Queer</td>
<td>4</td>
<td>1.2 %</td>
</tr>
<tr>
<td>Other</td>
<td>4</td>
<td>1.2 %</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Latino/Hispanic</td>
<td>72</td>
<td>22.2 %</td>
</tr>
<tr>
<td>African-American/Black</td>
<td>122</td>
<td>37.7 %</td>
</tr>
<tr>
<td>Asian-American</td>
<td>64</td>
<td>19.8 %</td>
</tr>
<tr>
<td>Native American</td>
<td>14</td>
<td>4.3 %</td>
</tr>
<tr>
<td>Pacific Islander</td>
<td>2</td>
<td>0.6 %</td>
</tr>
<tr>
<td>Biracial</td>
<td>28</td>
<td>8.6 %</td>
</tr>
<tr>
<td>Other</td>
<td>22</td>
<td>6.8 %</td>
</tr>
</tbody>
</table>
Table 1. *Descriptive Statistics of Participants, Continued (n=324)*

<table>
<thead>
<tr>
<th>Years in College</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never attended</td>
<td>9</td>
<td>2.8 %</td>
</tr>
<tr>
<td>&lt;1</td>
<td>99</td>
<td>30.6 %</td>
</tr>
<tr>
<td>1</td>
<td>30</td>
<td>9.3 %</td>
</tr>
<tr>
<td>2</td>
<td>41</td>
<td>12.7 %</td>
</tr>
<tr>
<td>3</td>
<td>31</td>
<td>9.6 %</td>
</tr>
<tr>
<td>4</td>
<td>70</td>
<td>21.6 %</td>
</tr>
<tr>
<td>5</td>
<td>14</td>
<td>4.3 %</td>
</tr>
<tr>
<td>6</td>
<td>19</td>
<td>5.9 %</td>
</tr>
<tr>
<td>7</td>
<td>4</td>
<td>1.2 %</td>
</tr>
<tr>
<td>8+</td>
<td>7</td>
<td>2.2 %</td>
</tr>
</tbody>
</table>
Table 2. *Descriptive Statistics of Abroad Travel within the last year (n=324)*

<table>
<thead>
<tr>
<th>Traveled Abroad</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>123</td>
<td>38.0 %</td>
</tr>
<tr>
<td>No</td>
<td>200</td>
<td>61.7 %</td>
</tr>
<tr>
<td>Missing</td>
<td>1</td>
<td>0.3 %</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Purpose of Trip</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic (school/classes)</td>
<td>7</td>
<td>2.2 %</td>
</tr>
<tr>
<td>Leisure (vacations)</td>
<td>104</td>
<td>32.1 %</td>
</tr>
<tr>
<td>Mission Trip</td>
<td>9</td>
<td>2.8 %</td>
</tr>
<tr>
<td>Not Applicable</td>
<td>204</td>
<td>63.0 %</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Length of stay abroad</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 2 weeks</td>
<td>59</td>
<td>18.2 %</td>
</tr>
<tr>
<td>Less than 1 month</td>
<td>37</td>
<td>11.4 %</td>
</tr>
<tr>
<td>Between 1-3 months</td>
<td>18</td>
<td>5.6 %</td>
</tr>
<tr>
<td>More than 4 months</td>
<td>8</td>
<td>2.5 %</td>
</tr>
<tr>
<td>Not Applicable</td>
<td>202</td>
<td>62.3 %</td>
</tr>
</tbody>
</table>
Table 3. *Correlation Matrix (n=324) among Model Variables*

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orientation to Heritage</td>
<td>1</td>
<td>.455**</td>
<td>-.165**</td>
<td>.109</td>
<td>.108</td>
<td>.153**</td>
<td>.002</td>
</tr>
<tr>
<td>Culture</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Orientation to Mainstream</td>
<td>.455**</td>
<td>1</td>
<td>-.157**</td>
<td>.001</td>
<td>.179**</td>
<td>.088</td>
<td>.112*</td>
</tr>
<tr>
<td>Culture</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfaction with Life</td>
<td>-.165**</td>
<td>-.157**</td>
<td>1</td>
<td>-.075</td>
<td>-.071</td>
<td>-.204**</td>
<td>-.020</td>
</tr>
<tr>
<td>Skin Color Discrepancy</td>
<td>.109</td>
<td>.001</td>
<td>-.075</td>
<td>1</td>
<td>.036</td>
<td>.508**</td>
<td>.154**</td>
</tr>
<tr>
<td>Satisfaction with Skin Color</td>
<td>.108</td>
<td>.179**</td>
<td>-.071</td>
<td>.036</td>
<td>1</td>
<td>.150**</td>
<td>.272**</td>
</tr>
<tr>
<td>Desire to Change Skin Color</td>
<td>.153**</td>
<td>.088</td>
<td>-.204**</td>
<td>.508**</td>
<td>.150**</td>
<td>1</td>
<td>.231**</td>
</tr>
<tr>
<td>Use of skin lightening</td>
<td>.002</td>
<td>.112*</td>
<td>-.020</td>
<td>.154**</td>
<td>.272**</td>
<td>.231**</td>
<td>1</td>
</tr>
<tr>
<td>products</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note.* 1= Orientation to Heritage Culture, 2= Orientation to Mainstream Culture, 3= Satisfaction with Life, 4= Skin Color Discrepancy, 5= Satisfaction with Skin Color, 6= Desire to Change Skin Color, 7= Use of skin lightening products; Pearson correlations: *p*.05, **p*.01.
Table 4. *Descriptive Statistics for Model Variables (n=324)*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orientation to Heritage Culture</td>
<td>6.65</td>
<td>1.60</td>
<td>-0.69</td>
<td>0.57</td>
</tr>
<tr>
<td>Orientation to Mainstream Culture</td>
<td>6.92</td>
<td>1.47</td>
<td>-0.85</td>
<td>0.85</td>
</tr>
<tr>
<td>Satisfaction with Life</td>
<td>16.66</td>
<td>7.38</td>
<td>0.61</td>
<td>-0.44</td>
</tr>
<tr>
<td>Skin Color Discrepancy</td>
<td>-0.22</td>
<td>1.39</td>
<td>-0.69</td>
<td>5.91</td>
</tr>
<tr>
<td>Satisfaction with Skin Color</td>
<td>7.37</td>
<td>1.98</td>
<td>-1.29</td>
<td>1.24</td>
</tr>
<tr>
<td>Desire to Change Skin Color</td>
<td>4.79</td>
<td>1.26</td>
<td>-0.22</td>
<td>2.04</td>
</tr>
<tr>
<td>Use of skin lightening products</td>
<td>2.79</td>
<td>0.53</td>
<td>-2.53</td>
<td>5.23</td>
</tr>
<tr>
<td>Attitudes towards Skin Lightening Behaviors</td>
<td>3.45</td>
<td>1.78</td>
<td>0.579</td>
<td>0.256</td>
</tr>
</tbody>
</table>
Table 5. Model Coefficients for a Moderated Mediation Analysis with Skin Color Discrepancy, Satisfaction with Skin Color, and Desire to Change Skin Color as Mediators (Model 8)

<table>
<thead>
<tr>
<th></th>
<th>Skin Lightening Behavior</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$M_1$ (DS)</td>
<td>$M_2$ (SWSC)</td>
<td>$M_3$ (DCSK)</td>
<td>$Y$ (Skin lightening behavior)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Coef.</td>
<td>SE</td>
<td>p</td>
<td>Coef.</td>
<td>SE</td>
</tr>
<tr>
<td>$X$ (VIA)</td>
<td>$a_{11}$</td>
<td>-0.088</td>
<td>0.060</td>
<td>0.139</td>
<td>$a_{12}$</td>
</tr>
<tr>
<td>$W$ (SWLS)</td>
<td>$a_{21}$</td>
<td>-0.011</td>
<td>0.009</td>
<td>0.227</td>
<td>$a_{22}$</td>
</tr>
<tr>
<td>$XW$</td>
<td>$a_{31}$</td>
<td>-0.012</td>
<td>0.007</td>
<td>0.065</td>
<td>$a_{32}$</td>
</tr>
<tr>
<td>$M_1$ (DS)</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>$M_2$ (SWSC)</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>$M_3$ (DCSK)</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Constant</td>
<td>$\delta M_1$</td>
<td>0.011</td>
<td>0.095</td>
<td>0.908</td>
<td>$\delta M_2$</td>
</tr>
</tbody>
</table>

$R^2 = 0.030$  
$R^2 = 0.020$  
$R^2 = 0.060$  
$R^2 = 0.130$

$F(4,318) = 2.092, p = 0.082$  
$F(4,318) = 1.029, p = 0.392$  
$F(4,318) = 4.863, p < .001$  
$F(7,315) = 3.955, p < .001$

Note. $N=323$. Bold indicates $p<.05$; DS: discrepancy scores, SWSC: satisfaction with skin color, DSCK: desire to change skin color, VIA: Vancouver index of acculturation composite score, SWLS: satisfaction with life scale.
Table 6. *Model Coefficients for a Moderated Mediation Analysis with Skin Color Discrepancy as a Mediator (Model 8)*

<table>
<thead>
<tr>
<th>Skin Lightening Behavior</th>
<th>$M_1$ (DS)</th>
<th>$Y$ (Skin lightening behavior)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coeff.</td>
<td>SE</td>
</tr>
<tr>
<td>$X$ (VIA)</td>
<td>$a_1$</td>
<td>-0.088</td>
</tr>
<tr>
<td>$W$ (SWLS)</td>
<td>$a_2$</td>
<td>-0.011</td>
</tr>
<tr>
<td>$XW$</td>
<td>$a_3$</td>
<td>-0.012</td>
</tr>
<tr>
<td>$M_1$ (DS)</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Constant</td>
<td>$i_{M_1}$</td>
<td>0.011</td>
</tr>
<tr>
<td>$R^2 = 0.030$</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

$F(4,318) = 2.092, p = 0.082$  $F(5,317) = 2.834, p < .05$

*Note. N=323. Bold indicates $p<.05$; DS: discrepancy scores, VIA: Vancouver index of acculturation composite score, SWLS: satisfaction with life scale.*
Table 7. Model Coefficients for a Moderated Mediation Analysis with Satisfaction with Skin Color as a Mediator (Model 8)

<table>
<thead>
<tr>
<th></th>
<th>M₁ (SWSC)</th>
<th></th>
<th></th>
<th>Y (Skin lightening behavior)</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coeff.</td>
<td>SE</td>
<td>p</td>
<td>Coeff.</td>
<td>SE</td>
<td>p</td>
</tr>
<tr>
<td>X (VIA)</td>
<td>a₁</td>
<td>0.065</td>
<td>0.071</td>
<td>0.365</td>
<td>c₁</td>
<td>0.028</td>
</tr>
<tr>
<td>W (SWLS)</td>
<td>a₂</td>
<td>-0.019</td>
<td>0.015</td>
<td>0.204</td>
<td>c₂’</td>
<td>0.000</td>
</tr>
<tr>
<td>XW</td>
<td>a₃</td>
<td>0.016</td>
<td>0.009</td>
<td>0.089</td>
<td>c₃’</td>
<td>0.001</td>
</tr>
<tr>
<td>M₁ (SWSC)</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>b₁</td>
<td>0.071</td>
<td>0.020</td>
</tr>
<tr>
<td>Constant</td>
<td>iM₁</td>
<td>0.065</td>
<td>0.154</td>
<td>0.675</td>
<td>iₘ</td>
<td>2.811</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>R²</td>
<td>0.020</td>
<td></td>
<td></td>
<td>R²</td>
<td>0.083</td>
</tr>
<tr>
<td></td>
<td>F(4,318)</td>
<td>1.029</td>
<td>p = 0.392</td>
<td></td>
<td>F(5,317)</td>
<td>3.161</td>
</tr>
</tbody>
</table>

Color as a Mediator (Model 8)

Note. N=323. Bold indicates p<.05; SWSC: Satisfaction with Skin Color, VIA: Vancouver index of acculturation composite score, SWLS: satisfaction with life scale.
Table 8. Model Coefficients for a Moderated Mediation Analysis with Desire to Change Skin Color as a Mediator (Model 8)

<table>
<thead>
<tr>
<th>Skin Lightening Behavior</th>
<th>$M_1$ (DCSK)</th>
<th>$Y$ (Skin lightening behavior)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coeff.</td>
<td>SE</td>
</tr>
<tr>
<td>$X$ (VIA)</td>
<td>$a_1$</td>
<td>-0.046</td>
</tr>
<tr>
<td>$W$ (SWLS)</td>
<td>$a_2$</td>
<td>-0.033</td>
</tr>
<tr>
<td>$XW$</td>
<td>$a_3$</td>
<td>-0.012</td>
</tr>
<tr>
<td>$M_1$ (DCSK)</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Constant</td>
<td>$iM_1$</td>
<td>0.000</td>
</tr>
</tbody>
</table>

$R^2 = 0.060$  
$F(4,318) = 4.863, p < .01$

$R^2 = 0.074$  
$F(5,317) = 3.302, p < .05$

*Note. N=323. Bold indicates $p<.05$; DCSK: Desire to Change Skin Color, VIA: Vancouver index of acculturation composite score, SWLS: satisfaction with life scale.*
Table 9. Model Coefficients for a Moderated Mediation Analysis with Skin Color Discrepancy, Satisfaction with Skin Color, and Desire to Change Skin Color as Mediators (Model 8)

<table>
<thead>
<tr>
<th>Attitudes toward Skin Lightening Behaviors</th>
<th>$M_1$ (DS)</th>
<th>$M_2$ (SWSC)</th>
<th>$M_3$ (DCSK)</th>
<th>$Y$ (Attitudes toward Skin lightening behaviors)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coeff</td>
<td>SE</td>
<td>$p$</td>
<td>Coeff</td>
</tr>
<tr>
<td>$X$ (VIA)</td>
<td>$a_{11}$</td>
<td>-0.087</td>
<td>0.061</td>
<td>0.160</td>
</tr>
<tr>
<td>$W$ (SWLS)</td>
<td>$a_{21}$</td>
<td>-0.012</td>
<td>0.009</td>
<td>0.188</td>
</tr>
<tr>
<td>$XW$</td>
<td>$a_{31}$</td>
<td>-0.012</td>
<td>0.007</td>
<td>0.074</td>
</tr>
<tr>
<td>$M_1$ (DS)</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>$M_2$ (SWSC)</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>$M_3$ (DCSK)</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Constant</td>
<td>$iM_1$</td>
<td>0.002</td>
<td>0.096</td>
<td>0.986</td>
</tr>
</tbody>
</table>

$R^2$ = 0.030  
$R^2$ = 0.015  
$R^2$ = 0.060  
$R^2$ = 0.036

$F(4,315) = 2.089, p = 0.082$  
$F(4,315) = 0.829, p = 0.508$  
$F(4,315) = 4.757, p = .001$  
$F(7,312) = 1.434, p = .191$

Note. $N=320$. Bold indicates $p < .05$; DS: discrepancy scores, SWSC: satisfaction with skin color, DCK: desire to change skin color, VIA: Vancouver index of acculturation composite score, SWLS: satisfaction with life scale.
FIGURES
Figure 1: Acculturation Matrix

<table>
<thead>
<tr>
<th>Identification with Ethnic Group</th>
<th>Strong</th>
<th>Weak</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strong</td>
<td>Integration/Biculturalism</td>
<td>Assimilation</td>
</tr>
<tr>
<td>Weak</td>
<td>Separation/Ethnic Dissociation</td>
<td>Marginalization</td>
</tr>
</tbody>
</table>
Figure 2: Moderated Mediation Model with Skin Color Discrepancy (DS), Satisfaction with Skin Color (SWSK), and Desire to Change Skin Color as Mediators (DCSK) and Skin Lightening Behaviors as an outcome variable (Model 8)

Psychological Well-being

Acculturation Modality

Engagement in Skin Lightening Behaviors

\[ a_{21} = -0.011; a_{22} = -0.019; a_{23} = -0.033^{**}; c_2' = 0.030^* \]

Note. *p < 0.5  **p < .01
Figure 3: Moderated Mediation Model with Skin Color Discrepancy (DS), Satisfaction with Skin Color (SWSK), and Desire to Change Skin Color as Mediators (DCSK) and Attitudes toward Skin Lightening Behaviors as an outcome variable (Model 8)

Note. *p < 0.5  **p < .01

\[a_{21} = -0.012; a_{22} = -0.019; a_{23} = -0.033^*; c^2 = -0.077\]
VITA

EDUCATIONAL BACKGROUND

<table>
<thead>
<tr>
<th>Year</th>
<th>Degree</th>
<th>Institution</th>
<th>GPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>Doctor of Philosophy in Clinical Psychology</td>
<td>The University of Mississippi, Oxford, MS.</td>
<td>4.0</td>
</tr>
<tr>
<td>2014</td>
<td>Master of Arts in Clinical Psychology</td>
<td>The University of Texas-Pan American, Edinburg, TX.</td>
<td>4.0</td>
</tr>
<tr>
<td>2012</td>
<td>Bachelor of Science in Psychology</td>
<td>The University of Texas-Pan American, Edinburg, TX.</td>
<td></td>
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</table>

Institution Honors: Summa Cum Laude

CERTIFICATIONS

<table>
<thead>
<tr>
<th>Year</th>
<th>Certification</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>Provisionally Certified Mental Health Therapist (PCMHT)</td>
<td>Mississippi Department of Mental Health</td>
</tr>
<tr>
<td>2016</td>
<td>Examination for the Professional Practice of Psychology (EPPP)</td>
<td>Passed at the Doctoral Level</td>
</tr>
</tbody>
</table>

LANGUAGES

Spanish (native language) and English (12 years)

DISSERTATION AND THESES

Advisor: Alan M. Gross, Ph.D.

Advisor: Michiyo Hirai, Ph.D.
Rodriguez, Y. (2012). Suggestion and the Creation of False Memories in Mexican-American College Students (Undergraduate Honors Thesis, University of Texas-Pan American). Advisor: Frederick Ernst, Ph.D.

CLINICAL EXPERIENCE

2018-present  
Pre-doctoral Intern (Therapist and Behavior Health Consultant)  
Location: Cherokee Health Systems, Knoxville, TN  
Supervisors: Carter Miller, Ph.D., Adair Allen, Ph.D., Allison East, Ph.D.  
Duties: Conducted individual and family therapy with diverse, low-income adult, adolescent, and child clients in East TN. Internship training included fulfilling roles in both traditional therapy and as a BHC. Served as a member of a multidisciplinary team that included primary care, specialty health care, and behavioral health (psychiatry and psychology).

2017-2018  
Graduate Therapist  
Location: Communicare Regional Mental Health Center, Oxford, MS  
Supervisor: Scott Gustafson, Ph.D.  
Duties: Conducted individual and family therapy with diverse, low-income adult, adolescent, and child clients. Most cases addressed existing disabilities, serious mental illness, and alcohol and drug treatment. Individualized treatment plans and reports were developed for each case. In addition, many of these cases were conceptualized using a system of care approach (Wraparound) facilitated by a SAMHSA federal grant.

2016-2017  
Graduate Therapist  
Location: Baddour Memorial Center, Senatobia, MS  
Supervisor: Shannon Hill, Ph.D.  
Duties: Conducted individual and group therapy for adults with cognitive and developmental disabilities (ranging from low to high functioning). Responsibilities included developing behavioral plans, implementing them across contexts, and writing comprehensive reports for clinical staff.

2015-2018  
Psychological Examiner  
Location: Psychological Assessment Clinic, University of Mississippi  
Supervisor: Scott Gustafson, Ph.D.  
Duties: Administer comprehensive psychological evaluations to assess for a variety of mental health diagnoses, learning disabilities, adaptive difficulties, and drug and alcohol disorders. Scored tests, wrote integrated reports, and presented feedback.
2015-2018 **Graduate Therapist**
Location: Psychological Services Center, University of Mississippi
Supervisors: Alan M. Gross, Ph.D., Laura Dixon, Ph.D., & Laura Johnson, Ph.D.
Duties: Provide evidence-based interventions to clients from both the community and the university. Weekly assessments were conducted to determine therapeutic progress and incidence of target symptoms. Therapeutic services were offered in both English and Spanish.

2016 **Psychological Examiner**
Location: DeSoto School District, DeSoto County, MS
Supervisor: Shannon Sharp, Ph.D.
Duties: Administered comprehensive psychological evaluations to assess for Attention-Deficit/Hyperactivity Disorder, learning disabilities, and other mental health concerns. Scored tests, wrote integrated reports, and presented feedback during client Individualized Education Plan (IEP) meetings.

2015-2016 **Group Leader and President of the International Ladies Club**
Location: Office of International Students, University of Mississippi
Supervisor: Laura Johnson, Ph.D.
Duties: Lead an ethnically diverse support group of international women focused on aiding them through their acculturation process to the university and community life. Participants were mostly from Middle-Eastern, Asian, Northern European, and Caribbean countries.

2014 **Refugee Crisis Center Therapist**
Supervisor: Phillip Gasquoine, Ph.D.
Duties: Aided border patrol agents in receiving and providing therapeutic services for incoming refugee children from Central and South American countries. Also served as a translator and cultural broker.

2014 **Clinical Therapist**
Location: Catholic Charities of the Rio Grande Valley, San Juan, TX
Supervisors: Phillip Gasquoine, Ph.D. & Norma Pimentel, L.P.C.
Duties: Served as a therapist conducting CBT with minority, community-based clients. Therapeutic services were offered in both English and Spanish.

2013 **Graduate Therapist**
Location: Psychology Training Clinic, University of Texas-Pan American
Supervisors: Phillip Gasquoine, Ph.D., Michiyo Hirai, Ph.D. & Alfonso Mercado, Ph.D.
Duties: Conducted evidence-based short-term therapeutic interventions for clients from both the community and the university. Therapeutic services were offered in both English and Spanish.

2012

**Mental Health and IDD Intern**
Location: Tropical Texas Behavioral Health Center, Edinburg, TX
Supervisor: Edna Alfaro, Ph.D.
Duties: Conducted intake interviews, individual counseling, and home visitations. Services were offered in both English and Spanish.

### RESEARCH EXPERIENCE

<table>
<thead>
<tr>
<th>Year</th>
<th>Position</th>
<th>Institution</th>
<th>Supervisor</th>
<th>Duties</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017-2018</td>
<td><strong>Graduate Researcher</strong></td>
<td>University of Mississippi</td>
<td>Alan Gross, Ph.D.</td>
<td>Conducted data collection, entry, and analysis of a variety of projects focused on minority issues, bullying, and sexual assault.</td>
</tr>
<tr>
<td>2014-2016</td>
<td><strong>Graduate Research Assistant</strong></td>
<td>Cultural &amp; Ecology Psychology Lab, University of Mississippi</td>
<td>Laura Johnson, Ph.D.</td>
<td>Conducted data collection, entry, and analysis of a variety of projects focused on minority issues at a community, national, and international level.</td>
</tr>
<tr>
<td>2013-2014</td>
<td><strong>Graduate Researcher</strong></td>
<td>Trauma and Anxiety Disorders Lab, University of Texas-Pan American</td>
<td>Michiyo Hirai, Ph.D.</td>
<td>Conducted data collection, analysis, and presentation of findings.</td>
</tr>
<tr>
<td>2012</td>
<td><strong>Research Assistant</strong></td>
<td>Project: <em>Undergraduate Attitudes and Feedback</em>, University of Texas-Pan American</td>
<td>Edna Alfaro, Ph.D.</td>
<td>Assisted with data collection, data entry, and data analyses.</td>
</tr>
<tr>
<td>2010</td>
<td><strong>Research Assistant</strong></td>
<td>Project: <em>2nd and 4th Finger Digit (2D:4D) Ratios in Hispanic College Students of Mexican Descent</em>, University of Texas- Pan American</td>
<td>Frederick Ernst, Ph.D. &amp; Isela Stephens, M.A. Candidate</td>
<td>Assisted research professor and Master’s candidate with literature review, data collection, and abstract writing.</td>
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</table>
TEACHING/MENTORING EXPERIENCE

2017-2018  **Statistics Tutor**, University of Mississippi, Dept. of Psychology  
Supervisor: Rebekah Smith, Ph.D.  
Duties: Aid students in undergraduate statistic courses in understanding statistical concepts and preparing for related examinations.

2017  **Graduate Trainer**, Baddour Memorial Center, Senatobia, MS  
Supervisor: Shannon Hill, Ph.D.  
Duties: Provided 5 quarterly trainings for staff members (case managers, direct support professionals, staff for recreational activities, vocational staff, and administrators). The training focused on teaching evidence-based behavioral interventions for adults with intellectual disabilities.

2015-2016  **Graduate Instructor**, University of Mississippi, Dept. of Psychology  
Supervisor: Laura Johnson, Ph.D.  
Duties: Instructor of record for an introductory course in psychology for two different sections of 100 students each.

2014-2016  **Study Abroad workshop leader**, Institute for International Studies, University of Mississippi  
Supervisor: Laura Johnson, Ph.D.  
Duties: Conducted and co-facilitated 8 pre-departure and post-arrival workshops for undergraduates majoring in international students. The workshops were aimed to help them understand and successfully navigate the acculturation process both during their study abroad experience and upon re-entry to the United States.

2014  **College Assistance Migrant Program (CAMP) Mentoring Supervisor**, University of Texas-Pan American  
Duties: Trained and guided academic mentors to help migrant students transition effectively to the University experience. Created academic curriculum and established a support network for these students.

2012-2013  **Graduate Teaching Assistant**, University of Texas-Pan American, Department of Psychology  
Supervisor: Kristin Croyle, Ph.D.  
Duties: Assisted professor in Introduction to Psychology courses using team-based learning, facilitated study sessions, conducted test reviews, and mentored students with academic concerns.

2011-2012  **Academic Mentor**, Sophomore Academic Mentoring Program, University of Texas-Pan American  
Duties: Provided academic advising to sophomore students, served as peer educator, and advised students about career-growth opportunities.
PEER-REVIEWED PUBLICATION


MANUSCRIPTS UNDER REVIEW

**Rodriguez, Y.,** & Gross, A. M. (Under Review). It is racism, colorism, or a pigment of your imagination? A study on skin lightening.


PRESENTATIONS


**Rodriguez, Y.,** & Gross, A. (2017). *A mediation analysis of internalized racism, ethnicity, and perceived racism.* Oral presentation at the 63rd Annual Meeting of the Southeastern Psychological Association (SEPA), Atlanta, GA.


at the University of Mississippi/University of Mississippi Medical Center (UM/UMMC) 2nd Annual Research day at UMMC, Jackson, MS.

**Rodriguez, Y.** & Hirai, M. (2014). *Anxiety Symptomatology in Foreign-Born Latinos Based on Acculturation.* Paper Presentation at the College of Social and Behavioral Sciences 8th Annual Research Conference (ARC) at the University of Texas-Pan American, Edinburg, TX.

**Rodriguez, Y.** (2012). *Suggestion and the Creation of False Memories in Hispanic College Students-Future Directions.* Paper Presentation at the College of Social and Behavioral Sciences 6th Annual Research Conference (ARC) at the University of Texas-Pan American, Edinburg, TX.


**EDITORIAL ACTIVITIES**

**Guest reviewer:**
- *Clinical Case Studies, 2017*
- *Aggression and Violent Behavior, 2017*

**PROFESSIONAL SERVICE**

2016-2017 **Graduate Student Advisory Council Member**, Department of Psychology, College of Liberal Arts, University of Mississippi

Worked along Rebekah E. Smith, Ph.D. (Department Chair) and other elected graduate students in the development, planning, and implementation of departmental changes and policies.

2016 **Abstract Translator**, Department of Psychology, College of Liberal Arts, University of Mississippi

Aided students and alumni in the translation and back-translation of research abstracts for Latin-American clinical journals (English to Spanish).
2013 **Abstract Reviewer**, 2013 Undergraduate Research Conference, Edinburg, TX
Reviewed and ranked abstract submissions.

2011 **National Alpha Lambda Delta Conference**, Charlotte, North Carolina
Guest Speaker and “Order of the Torch” award recipient (highest community service recognition at a national level). National leadership requested a talk regarding the awarded community service project across the Rio Grande Valley, TX.

2011 **Bilingualism Conference**, University of Texas-Pan American
Helped with conference preparation.

**PROFESSIONAL HONORS AND CERTIFICATIONS**

2012 **Pam Graham Graduate Fellow**, Alpha Lambda Delta Honors Society. Awarded a scholarship as a leadership fellow for graduate studies. Ten of these scholarships were awarded nationwide.

2012 **International Advanced Mentoring Certificate (Level 2)**, International Mentor Training Program Certification from the College Reading and Learning Association, University of Texas-Pan American.

2012 **Academic Dean’s Outstanding Student Award for the College of Social and Behavioral Sciences**, University of Texas-Pan American.

2012 **Honorable Mention for Best Thesis Presentation**, Guerra Honors Program, University of Texas-Pan American.

2012 **Profiles in Excellence**, University of Texas-Pan American. Highlighted as an outstanding student by the Dean of Students.

2009-2012 **Dean’s List**, College of Social and Behavioral Sciences, University of Texas-Pan American.

**PROFESSIONAL MEMBERSHIPS AND HONORS**

2017 Association for Behavioral and Cognitive Therapies (ABCT)

2017 Southeastern Psychological Association (SEPA)

2016 Association of Psychological Science (APS)

2011 Psi Chi-The International Honor Society In Psychology

2011 Psychology Club, University of Texas- Pan American
<table>
<thead>
<tr>
<th>Year</th>
<th>Organization</th>
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<tbody>
<tr>
<td>2010</td>
<td>South Western Psychological Association (SWPA)</td>
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<tr>
<td>2010</td>
<td>Alpha Lambda Delta Honor Society</td>
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<tr>
<td>2010</td>
<td>Eta Omicron Nu (HON)</td>
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<td>2010</td>
<td>Guerra Honors Program</td>
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<tr>
<td>2010</td>
<td>Golden Key Honor Society</td>
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<tr>
<td>2009</td>
<td>Academic Mentoring Program</td>
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