

Black-ish*: Exploring Experiences, Attributions, and Emotional Reactions to Racial
Discrimination among Monoracial and Biracial African American Adolescents

By

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Introduction

Racial discrimination has been identified as a major and persistent stressor among African Americans of all ages (Hope, Skoog, & Jagers, 2014; Brody, Yu, Miller, & Chen, 2015; Howell, Egorova, Balbierz, Zeitlin, & Hebert, 2016; Utsey, Payne, Jackson, & Jones, 2002). For adolescents, in particular, racial discrimination has been associated with a number of negative developmental outcomes including poor self-esteem and depressive symptoms (Branscombe, Schmitt, & Harvey, 1999; Seaton, Caldwell, Sellers, & Jackson, 2010; Tynes, Giang, Williams & Thompson, 2008), that place them at higher risk for exhibiting further internalizing and externalizing problems (Coker, Elliott, Kanouse, Grunbaum, Schwebel, Gilliland, Tortolero, Peskin, & Schuster; 2009). While the effects of racial discrimination have been well-studied within this population, few studies have examined whether or how these experiences differ among adolescents of African descent with different genotypic and phenotypic characteristics (see Snyder, 2016 for exception). In particular, there is a dearth of studies examining how racial discrimination experiences impact the development and adjustment of biracial Black adolescents (Rockquemore, 1998), and the extent to which these experiences converge or diverge from those of monoracial youth. This lack of attention to comparative inquiry may be attributed to the fact that both groups are seldom adequately represented within existing data sets. Utilizing data from the Family and Community Health Study (FACHS) provides the opportunity to explore within-group differences in racial discriminatory experiences, attributions to these experiences, and emotional and psychological responses within a sample of monoracial and biracial adolescents. In addition to these primary inquiries, questions can be posed to determine whether skin tone and gender matter in race related issues among monoracial and biracial youth. In the following

sections, specific consideration is given to guiding theoretical frameworks, the historical construction and contemporary representations of racial categories within the United States, and extant studies that have been selected to inform the critical questions and hypotheses posed by the current study.

Conceptual Framework

Several theories and conceptual frameworks have been selected to inform and guide the present study, including Erikson's (1968) and Piaget's (Inhelder & Piaget, 1958) classic theories of life span development and Bronfenbrenner's ecological systems theory (1994). Other socio-culturally relevant theories, such as the phenomenological variant of ecological systems theory (PVEST; Spencer, Dupree, & Hartmann, 1997) and diaspora theory (Patterson & Kelley, 2000) will be applied to guide hypotheses about universal aspects of development and those uniquely associated with being of African-descent. Combining these theories may hold promise for linking contemporary understandings and experiences of race related issues to the historical and political processes that potentially shape the development and adjustment of youth of African-descent in the United States.

Classic Developmental Theories

Several developmental theorists have contributed to the field's current understanding of adolescence. For example, Piaget contends that adolescence is a period marked by increased cognitive flexibility, an ability that differentiates adolescent cognition from the concrete operationalization of previous developmental time frames (Inhelder & Piaget, 1958). Erikson (1968) contributes further to our comprehension of development by positing that adolescence

represents a period of identity exploration and formation (Erikson, 1968). Therefore, throughout adolescence, development is largely driven by the desire and struggle to determine one's identity. Bronfenbrenner's Ecological Systems Theory (1994) situates this development within nested sociological and historical contexts meant to account for the influence of social networks and structures, policies, and time. Inherent in these grand theories is the understanding that development, and adolescence in particular, is influenced by both cognitive and environmental factors. They each influence the current study by providing the rationale to explore the importance of history, cognition, self-esteem, and racial identity on discrimination related outcomes. Although these theories are foundational, contemporary theorists of color, have appropriated the use of these theories to account for the influence of power and oppression within multiple systems as a key factor in shaping developmental outcomes (Velez & Spencer, 2018).

The Phenomenological Variant of Ecological Systems Theory (PVEST)

The work of Beales-Spencer (1995) expanded upon existing developmental theories of adolescence by including the contextual processes to explain variability in developmental trajectories. An example of this appropriation is best articulated in a recently published article by Velez & Spencer (p. 79, 2018) wherein the authors claim that,

...while Bronfenbrenner's model provides a means to describe how multiple levels of context can influence individual development, PVEST illustrates life course development within and between contexts and group membership. In doing so, it emphasizes the individual's meaning making processes that underlie identity development and responsive behavioral processes and outcomes.

PVEST [See Figure 1] provides a theoretical framework through which to understand the experiences of marginalized groups without deficit-based or comparative analyses. In addition to

accounting for the influence of multiple contexts on development, it accounts for how individuals perceive and make sense of their social environments (Parke & Buriel, 2008). In other words, PVEST combines and extends upon existing developmental theoretical canon while attending to the influence of social positionality. This perspective of adolescent development is especially important when considering how adolescents of African descent interpret their varied experiences and contexts.

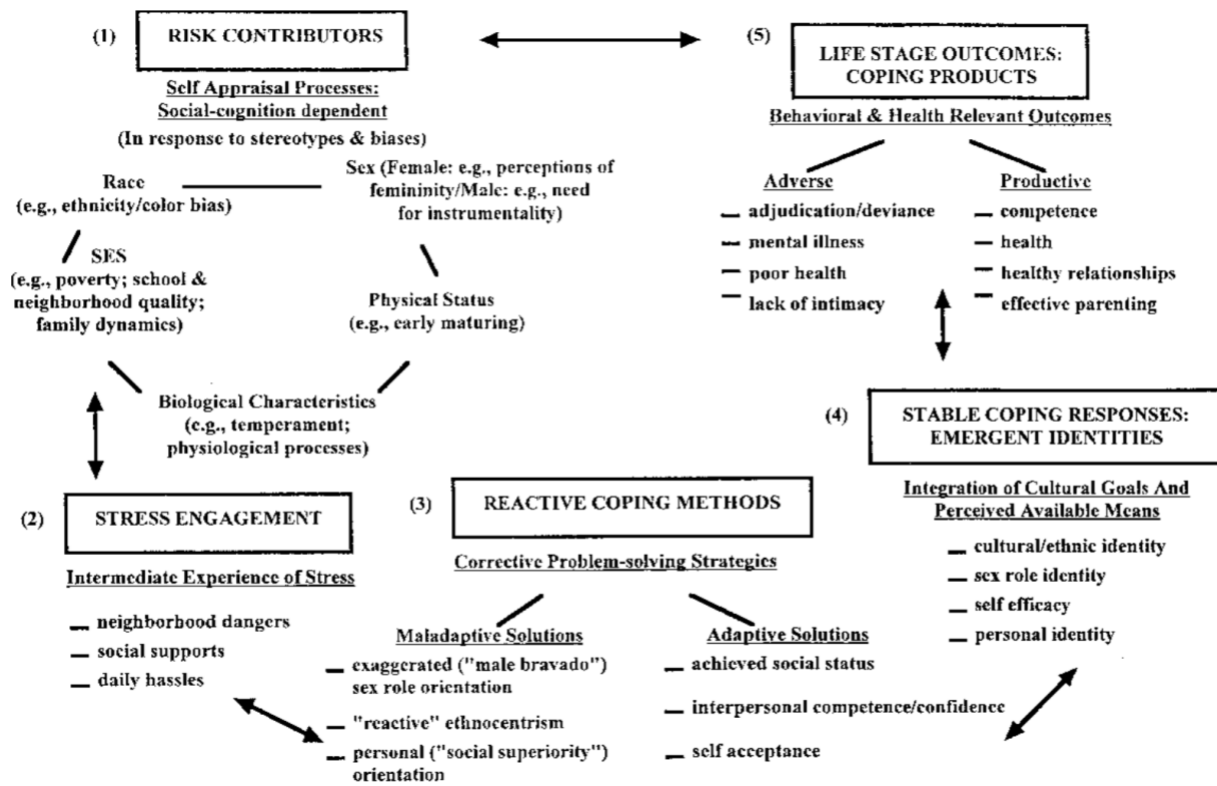


Figure 1. A Phenomenological Variant of Ecological Systems Theory (PVEST; Beale-Spencer, 1995)

Diaspora Theory

In addition to theories from the developmental psychology canon, diaspora theory was selected to frame the current study, as it offers greater understanding of the nuances of varied geographical and political contexts. As articulated by Patterson and Kelley (2000) diaspora

theory treats the diaspora as the “unit of analysis”, therein allowing the ability to breach the boundaries of nation states and time in the service of more thoughtful and inclusive analyses about the global experiences of African people. Rather than relying on the often taken for granted, highly politicized, and fluid constructions of race within the U.S., the use of diaspora theory allows for the consideration of both the experiential similarities and differences among African descendants, in this case racial discrimination, identity development, and perceptions of racialized incidents between and within monoracial and biracial adolescents. In the following sections, tenets of PVEST and diaspora theory are used to guide discussion on the social construction of race, perceptions of racial identification, and experiences and reactions to racial discrimination.

Racial Identification within the United States

Cultural representations of race in the U.S. continue to utilize biological language despite anthropological and historical evidence to the social origins of racial classification. Often considered as inheritable and immutable, race is viewed as a characteristic of individual people rather than a social assignment meant to allocate economic and social capital to some while depriving them from others (Burton, Bonilla-Silva, Ray, Buckelew, & Freeman, 2010; Rockquemore, 1998). A historical and geographical analysis of racial categories within the United States and other parts of the African diaspora highlights the use of racial categories to protect the economic and political interests of European settler-colonists. The manner in which these interests were protected differed based on the distribution of Africans in the population. Within the colonial United States, where Europeans greatly outnumbered enslaved Africans, racial order was maintained through the legislation of anti- miscegenation laws and rules of

hypodescent, respectively prohibiting interracial unions and relegating mixed-race persons as Black. Conversely, colonies in South America and the Caribbean--where the population of Africans outnumbered Europeans—did not legislate racial classifications and often afforded between-group or middle-class status to biracial progeny (Bowman, Muhammad, & Ifatunji, 2004; Nettleford, 1965).

Racial Assignment and Selection

The decision to assign Blackness to all African descendants in the English colonies that would become the United States resulted in the formation of a diverse racial and ethnic group connected through shared history rather than strict physical similarities. This grouping, originally meant to protect the boundaries of hegemonic Whiteness, inadvertently resulted in the development of shared culture and political interests as African descendants worked together to create their own institutions and challenge discriminatory practices. Cultural representations of race, however, continue to adapt to changing racial demographics and ideologies (Aspinall et al., 2015; Thompson, 2012). Despite this shared history, relatively recent shifts in the racial identification practices of mixed-race people in the U.S. have obscured the experiential overlap of racial discrimination among people of African descent (Thompson, 2012). Additionally, the shift from racial assignment to racial self-identification renders Black identifying biracial people invisible from studies only examining the identity development and discrimination experiences of self-identifying biracial samples. Studies hoping to include Black identifying biracial samples utilize varied methods of capturing this population including racial assignment based on parent race (Bracey, Bamaca, & Umana-Taylor, 2004; Rollins & Hunter, 2013).

Racial Perceptions

Regardless of intention, cultural ideas about race do not always follow policy and procedural shifts. While the addition of a multiracial category to the U.S. Census may allow people to self-identify in a manner consistent with their personal racial identity, it has no bearing on how others perceive them (Ho et al., 2017; Skinner & Nicolas, 2015). Within our everchanging social context, racial identification may be especially challenging for people of biracial parentage when traditional ascriptions are incongruent with lived experiences. For example, some people of biracial descent report experiencing racial identity invalidation or the “denial or misperception” of their racial identity due to cultural differences in phenotype and behavior (Franco & O’Brien, 2017, p. 112). Despite these differences in racial identification, research suggests that the “one drop rule”—the once formalized doctrine used to categorize Black mixed- race children as Black- -still governs the perceptions of Black-White biracial people by both parent groups (Ho, Ktiely, & Chen, 2017; Ho, Sidanius, Levin, & Banaji, 2011; Skinner & Nicolas, 2015). Therefore, these findings suggest that biracial people of African descent are perceived as monoracial despite potential differences in racial self-identification. It follows that this population would experience racial discrimination analogous to their monoracial-identifying counterparts, however, the racial discrimination experiences of biracial adolescents is woefully understudied. Therefore, a brief review of studies examining racial discrimination experiences and their effects on African American youth is summarized below.

African American Youth and Discrimination

Racial discrimination refers to a wide range of interpersonal behaviors, social policies, and unconscious associations that serve to maintain a system of racial inequity (Cooper et al., 2008).

While the type of exposure to discrimination changes across the life span, each developmental time period is marked by race related challenges. Adolescence, in particular, is marked by a variety of physiological, social, and cognitive changes that have the potential to exacerbate the experience of racial discrimination. When compared to children at earlier stages of development, adolescents physically appear more similar to and are more likely to be read as adults. For African American youth in particular, this adultification results in disparate perceptions of criminality and culpability by perceivers, including authority figures such as teachers and law enforcement agents (Goff et al., 2014; Rowley, Ross, Lozada, Williams, Gale, & Kurtz-Costes, 2014). Further, changes in social expectations for adolescents, in general, results in increased autonomy and less proximal adult supervision. While this increased independence is normative for adolescence and expands the social world of young people, it also results in more opportunities to experience both explicit and implicit forms of discrimination (Cooper, McLoyd, Wood, & Hardaway, 2008). The evaluation and appraisal of these discriminatory incidents is largely influenced by the increased cognitive capabilities associated with adolescence. Through the use of these cognitive processes, adolescents determine the meaning and cause of discrimination experiences and employ either adaptive or maladaptive coping responses (Beale-Spencer et al., 1997).

Attributions of Discrimination

Therefore, adolescents of African descent are not passive victims of racial discrimination, but utilize their ability to think abstractly to interpret events and social interactions (Steinberg, 2014). Moreover, research on discrimination attributions among adolescents of color suggests that they attribute mistreatment to a variety of sources such as race, age, physical attributes, and gender. Seaton and colleagues (2010), for example, examined the relationship between discrimination

attributions and psychological well-being among African American and Caribbean adolescents. Although there were no between group differences in discrimination attributions, they reported main effects of perceived discrimination and physical appearance attributions on depression. They further found main effects for perceived discrimination, age, and physical appearance attributions on self-esteem. Adolescents who attributed their discrimination to individual characteristics such as age or physical appearance, were more likely to self-report decreased self-esteem than those who attributed their experiences to race. Relatedly, a study examining the relationship between discrimination attributions and psychological well-being found that stable discrimination attributions had a direct negative effect on well-being, but a positive effect on racial identity. This increase in positive racial identity conversely resulted in a positive, but indirect effect on psychological well-being among African Americans (Branscombe, Schmitt, & Harvey, 1999). These studies taken together illustrate the complex relationship between discrimination attributions and psychological outcomes, as well as the need to examine other factors that may influence the relationship between self-reported discriminatory incidences and psychological well-being. While there is evidence that racial heritage and developmental stage influence the experience of racial discrimination and subsequent cognitive appraisals, research suggests that within-group intrapersonal characteristics may influence race-related experiences and perceptions (Cogburn, Chavous, & Griffin, 2011).

Intrapersonal Characteristics and Experiences of Discrimination

Although there may be similarities in the racialized experiences of adolescents of African descent, scholarship demonstrates that discrimination experiences and associated outcomes vary by within-group characteristics such as gender and skin tone (Butler-Barnes et al., 2018; Cooper

et al., 2008; Sellers et al., 2006; Skinner & Nicolas, 2015). To illustrate, a study by Cogburn, Chavous, & Griffin (2011) found that while Black adolescent boys and girls reported similar frequencies of race-related discrimination in schools, boys reported more gender-based discrimination. When significant interactions between race and gender-based discrimination do emerge, results reveal greater psychological distress for girls and elevated academic difficulties for boys, affirming the significance of both attributions of and reactions to racial discrimination for developmental outcomes and adjustment of African-descendant adolescents. In addition to the role of gender effects on racialized experiences of African-descendant adolescents, skin tone has also been associated with marked differences in social outcomes of these youth with lasting consequences throughout the lifespan (Adams, Kurtz-Costes, & Hoffman, 2016; Bowman, Muhammad, & Ifatunji, 2004; Rockquemore, 2002).

Skin Tone

Due to the varied genotypic histories of African Americans, within group differences in skin tones range from very light and nearly White passing to very dark, rich tones of brown and black. Extending from the Antebellum South, lighter skin has been associated with greater social and economic access for both males and females. Contemporarily, lighter skin is still more readily associated with positive characteristics and outcomes when compared to darker skin tones. Research in the field of skin tone bias and stratification suggests that future studies of racial experiences and disparities include analyses of skin tone and its effects (Adams et al., 2016).

While racism refers to discrimination based on racial identification, skin tone bias and stratification refer to discrimination based on phenotypic characteristics including hair texture, facial features, and most often skin tone (Landor et al., 2013). Developmental scholarship on skin

tone bias amongst African American children is some of the earliest in the field that may offer insights on this perspective, as evidenced by the works of Kenneth and Mamie Clark (1939; 1947). Their findings indicated that as early as preschool, African American children witness and replicate preferences for lighter skin. As African American youth transition from middle childhood to adolescence, heightened exposure to skin tone bias has been associated with variability in youths' racial identity and self-esteem (Coard, Breland, & Raskin, 2001). The extent to which these experiences are internalized may be explained by intergroup and institutional social interactions.

In fact, settings, such as school environments, play a major role in the race-related experiences of African American children and adolescents. Similar to intragroup preferences, intergroup skin tone bias is also evident during preschool, in which darker-skinned children are more likely to experience social ostracization from play groups (Adams et al., 2016). These experiences of ostracization have important implications for future self-esteem, as young children are more likely to attribute mistreatment to personal shortcomings (Adams et al., 2016). As youth transition into adolescence, the increased significance of skin tone becomes evident when examining disparities in school discipline, such that skin tone has been found to moderate the relationship between race and school discipline. Prior research suggests that darker-skinned African American adolescents are more likely to face suspension than their lighter skinned peers (Adams et al., 2016). This trend becomes even more stark when considering the interaction of gender and skin tone. Darker skinned adolescent girls are disproportionately affected, as they are more than 3x as likely to be suspended when compared to lighter skinned girls (Adams et al., 2016). These findings offer support for the need to consider the intersectionality both skin tone

and gender in research studies designed to explain variability in race-related experiences of youth of African descent.

Gender

Research findings regarding the contributions of gender effects on race related experiences and subsequent developmental outcomes are mixed (Cooper et al., 2008; Saleem & Lambert, 2016). While both girls and boys report similar frequencies of racial discrimination in schools, cultural representations of Black boys are more likely to depict them as problems to be solved (Rowley et al., 2014). Disparities in school discipline and academic performance allude to differential treatment by teachers and administrators in schools along the lines of gender. Although Black boys are overrepresented as the targets of school disciplinary practices when compared to other boys and Black girls (Barbarin, Murry, Tolan, & Graham, 2016), Black girls are also disproportionately targeted for school discipline when compared to other-race girls (Cooper, Brown, Metzger, Clinton, & Guthrie, 2013; Morris, 2016; Inniss-Thompson, 2018). Despite similarities in the type and frequency of racial discrimination, developmental outcomes differ along gender lines. In sum, intrapersonal characteristics such as gender and skin tone have been associated with differential experiences of racial discrimination. However, previous research has indicated that the degree to which these experiences are associated with psychological distress is likely moderated by the presence of protective processes.

Buffering Effects of Youth Intrapersonal Protective Processes

In recent years, there has been increased scholarly attention to examining the potentiality of protective processes for forecasting healthy development among adolescents, particular for

those at elevated risk for experiencing racial discrimination. Emerging from existing studies are two factors, self-esteem and racial identity, have been extensively studied as potential moderators of the relationship between racial discrimination and internal and external symptoms psychological distress.

Self-esteem

Self-esteem is an oft used measure of psychological well-being as it both predicts and is influenced by depression (Rosenberg, Schooler, & Schoenbach, 1989). Higher levels of self-esteem have empirically been associated with higher self-reported future orientation and has demonstrated a negative relationship with risky behaviors, alcohol use and misuse, tolerance of deviant peers, and self-reported health (Murry, Berkel, Brody, Miller, & Chen, 2009; Jackman & MacPhee, 2017; Trzesniewski et al., 2006; Zimmerman et al., 1997). Poor self-esteem during adolescence has been linked to long-term negative developmental outcomes during adulthood including increased criminality, anxiety, and depression (Trzesniewski et al., 2006). Research on the relationship between racial discrimination and self-esteem indicates a negative relationship between the two variables (Cogburn et al., 2011, Seaton et al., 2010). Given the relationship between self-esteem and other indicators of psychological well-being it should serve as a potential moderator for the relationship between discrimination experiences and depressive symptoms.

Racial Identity

Identity development has been recognized as a core task of adolescence, during which young people explore and solidify various aspects of identity (Erikson, 1968). Differing from racial identification, which refers to the social organization of people by phenotypic expression,

according to Sellers and colleagues (1998) racial identity is the “significance and meaning that African Americans place on race in defining themselves” (p.18). Previously theorized through a variety of stage models, (Cross,1994; Helms, 1997; Poston, 1990), racial identity is most often assessed using a multidimensional model proposed by Sellers and colleagues in which identity is composed of four dimensions including centrality, salience, regard, and ideology (Sellers, Smith, Shelton, Rowley, & Chavous, 1998). For African-descendant adolescents residing in the United States, the development of racial identity occurs in a sociocultural landscape that is often covertly and openly hostile to them.

Thus, the racial identity development of African American adolescents and young adults is often discussed in the context of racial discrimination. During adolescence, more frequent experiences with racial discrimination are linked to increased identity exploration and commitment for African American youth (Phinney, 1990). However, the relationship between discrimination and racial identity is bidirectional. Research shows that greater racial centrality and lower public regard is associated with increased perceptions of racial discrimination (Sellers & Shelton, 2003). Further, racial identity has been shown to buffer the effects of exposure to racial discrimination. In studies examining the role of racial identity as a moderator between experiences of discrimination and psychosocial outcomes, positive racial identity has proven protective utility against the most deleterious effects of interpersonal racism (Rivas-Drake et al., 2014).

Research studies on racial identity in adolescence have identified positive racial identity as a promotive factor in ensuring healthy developmental outcomes among African American adolescents (Murry et al., 2009; Brody, Yu, Miller, & Chen, 2015). Within the literature, positive racial identity—specifically high personal regard has been shown to moderate the relationship between perceived discrimination and cortisol levels (Hittner, Thomas, and Adam, 2016), death

ideation (Walker, Francis, Brody, Simons, Cutrona, & Gibbons, 2017), academic disengagement (Rivas-Drake et al., 2014), and depressive symptoms (Sellers, Copeland-Linder, Martin, & Lewis, 2006). Hence, an additional goal of this study is to determine the degree to which self-esteem and racial identity influence depressive symptoms and reactions and attributions to interpersonal experiences of racial discrimination.

Generally, studies examining the relationship between discrimination and psychological well-being during adolescence have been limited to examinations of monoracially identifying populations. However, given empirical findings suggesting the wide spread and contemporary use of the “rule of hypodescent” to categorize minority-White biracial individuals as racial minorities, the preceding literature review draws upon studies of monoracially-identifying African Americans to inform the current study. The experience of chronic perceived racial discrimination among African Americans is related to a number of adolescent outcomes such as the development of self-esteem, racial identity, and psychopathology (Seaton et al., 2010; Phinney, 1990). Studies of monoracially identifying adolescents have uncovered differences in treatment and experience based on intrapersonal characteristics such as gender and skin tone (Adams et al., 2016; Coard et al., 2001; Cooper et al., 2008; Landor et al., 2013; Rowley et al., 2014; Saleem & Lambert, 2016). Nonetheless, adolescents engaged in the process of identity formation across domains recognize and form opinions about the source of racial discrimination to varied effect (Branscombe et al., 1999; Seaton et al., 2010). Further, protective processes such as self-esteem and racial identity have been shown to mediate the relationship between discrimination experiences and psychological outcomes (Simons, Murry, McLoyd, Lin, Cutrona, & Conger, 2002). Informed and guided by theories and extant studies, the overall aim of the current study is to explore whether and how intrapersonal characteristics of African-descendent adolescents are associated with

reported experiences, interpretation, and internalization of racial discrimination, and in turn how these factors coalesce to predict psychological well-being, with specific consideration given to skin tone and gender.

Statement of the Problem

Racial discrimination has been demonstrated to have a negative impact on the mental health outcomes of African American adolescents. However, the degree to which individuals experience and are harmed by racial discrimination may depend on a combination of intrapersonal characteristics, cognitive appraisals, and protective processes. While previous research has identified the influence of interpersonal characteristics such as skin tone and gender, and protective processes, like racial identity and self-esteem, on mental health outcomes, the current study contributes to this scholarship by exploring this relationship among monoracial and biracial African American adolescents. Therefore, the goal of the proposed study is to expand the understanding of monoracial and biracial adolescents in the context of elevated risks of discrimination with an emphasis on within group analyses of the attributions and reactions to these events as a function of skin tone, gender, racial identity, and self-esteem. Four essential questions guide this research:

- 1) Does the frequency of reported racial discriminatory incidents differ between subgroups of African American youth who identified as monoracial and biracial?

H₁: Monoracial and biracial adolescents will not significantly differ in exposure to racial discrimination.

2) Does racial discrimination correlate to racial identity and do patterns of association differ based on subgroup racial identification?

H2: Racial identity will be positively and significantly correlated to racial discrimination experiences for both monoracial and biracial respondents.

3) What factors and processes, including skin-tone, gender, self-esteem, and racial identity explain variability in reported reactions and attributions of racial discrimination?

H3: Reactions and attributions of discrimination will differ in response to intrapersonal and protective factors.

4) What is the predictive utility of these correlates in forecasting psychological functioning, particularly depressive symptoms?

H4: Intrapersonal characteristics, protective factors, and attributions will each demonstrate a significant effect on depressive symptoms.

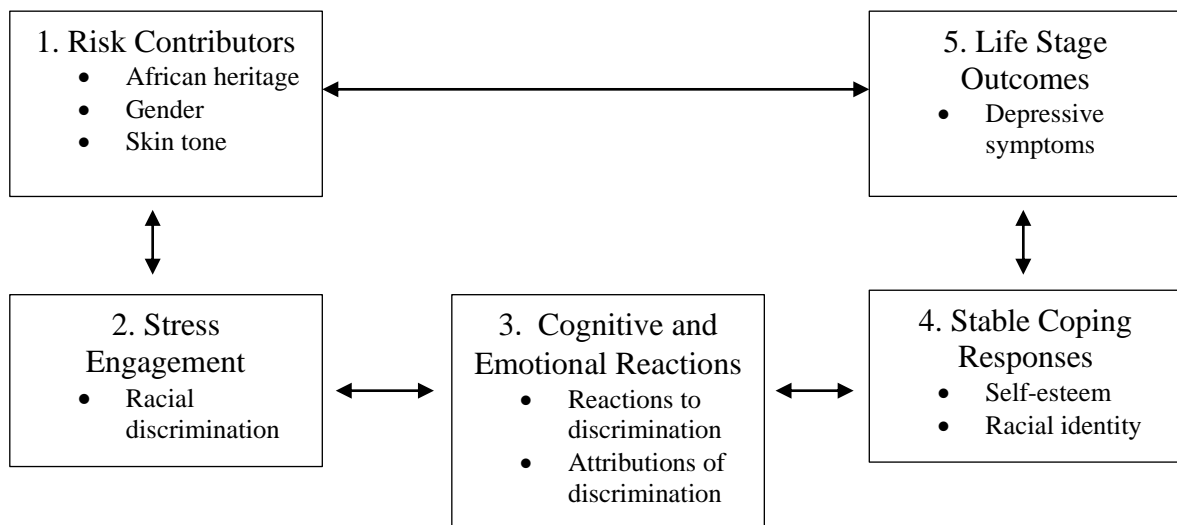


Figure 2. Conceptual Model

Overview of the Family and Community Health Study

The Family and Community Health Study (FACHS) is a multi-wave, multi-site, and non-clinical National Institute of Mental Health supported initiative. Beginning in 1997 as a collaboration between the University of Georgia and the University of Iowa, the goal of the original study was to follow a large cohort of African American families rearing adolescents in rural communities, small towns, and suburbs of major cities in Iowa and Georgia. FACHS research scholars have documented important discoveries about factors and processes that forecast a wide range of psychological and physical health outcomes, as well as contextual and environmental processes associated with normative development of youth from middle childhood to adulthood (Brody, Chen, Murry, Ge, Simons, Gibbons, Gerrard, & Cutrona, 2006; Brody, Conger, Gibbons, Ge, Murry, Gerrard, & Simons, 2001; Simons, Sutton, Shannon, Berg, & Gibbons, 2018). More recently, topics as diverse as exploring death ideation among African American adolescents (Walker et al., 2017) to examining the role of neighborhood on depressive symptoms among African American mothers (Lei et al., 2015) have been investigated using FACHS data. One key asset of the FACHS is the inclusion of interracial African American families and their children, providing data to address questions proposed in the current study.

Methods

Participating families were recruited from neighborhoods with varied demographic characteristics including economic level—measured as percentage of residents living below the poverty line-- and racial composition—measured by percentage of African Americans residing in a given census block. Recruitment efforts were aided by community liaisons in Georgia and school

officials in Iowa who compiled lists of eligible families. Eligible families had at least one target age (10-12-year-old) child and resided in communities in which at least 10% of the population was African American. Parental consent and child assent were obtained. Study data was collected by trained teams of African American college students and community members who verbally administered each of the self-report instruments included in the study. Each of the youth were compensated \$70 for their participation in each wave of data collection. Data collected included neighborhood ratings, engagement with risky health behavior, discriminatory experiences, racial identity, and skin tone.

Description of Current Study

The current study is a secondary analysis of FACHS data. I selected this data because it contains naturalistic observations of youth development and includes a variety of variables of interest for the current study. Additionally, the multiple waves of data collection afford the opportunity to draw inferences about developmental changes over time. Thus, I have opted to include only the first four waves of data collection as they represent the developmental time frame encompassing early to late adolescence. While there is available data from primary and secondary caregivers and siblings for the majority of the respondents, the current study is specifically concerned with the discrimination experiences of target youth. Further, although nearly all participants in the study are included in data analyses, participants who did not report having at least one African American/Black parent were excluded from these analyses (N=5).

Sample characteristics

Data for the current study was selected from a sample of N=897 adolescents who completed measures during the first wave of data collection. Of the 897 participants, 779 (87%) remained in the sample at wave 2, 767 (86%) at wave 3, and 655 (73%) at wave 4. Mean age of adolescent targets at Wave 1 = 10.41 and mean age Wave 4 = 18.81. Slightly more than half of all participants were girls (54%). The majority of adolescent target participants self-identified as Black or African American and had two African American or one African American and one biracial/with African American biological parent (N=795, 89%). By Wave 4 of data collection nearly 10% of the sample (N=65) were categorized as biracial while the remaining 90% (N=661) were categorized as monoracial.

Measures

Racial Identification. For the current study, racial identification was dummy coded with biracial participants as a reference group using mothers' and fathers' race as reported by target participants. Participants with two Black/African American parents or one African American and one multiracial/with Black parent are coded as African American. Participants with only one African American/ Black parent are coded as biracial.

Perceived Discrimination. As collected during Waves 1-4, frequency of racial discriminatory incidents was measured using a perceived discrimination scale developed for the FACHS study (Simons et al., 1995; 13 items; $\alpha = .90$) and measures the frequency of selected discriminatory events (e.g. hassled by police, had someone yell a racial slur or insult) within the preceding year. Ratings for each item were determined through the use of a 4-point Likert scale

ranging from 1 (never) to 4 (frequently). Higher scores are indicative of more frequent racial discriminatory experiences.

Skin Tone. Skin tone was measured in collaboration between FACHS' principal investigators and research observational coding staff from the Institute for Social and Behavioral Research at Iowa State University, under the leadership of Dr. Jan Melby. All coders were trained and practiced collaboratively to ensure interrater agreement before coding tapes independently. Each of the taped interactions were from the first wave of data collection. Intraclass correlation for the videotaped scoring of target and primary caregiver skin tone was between .67 and .79. Skin tone was rated using a Likert scale from 0-5 with 0 indicating an individual with very light skin (non-Black) and 5 denoting an individual with very dark skin (Landor, n.d.).

Attributions of Discrimination. Measured for the first time during Wave 4, attributions of discrimination were assessed using a 3-item Likert scale measure developed for the FACHS study ($\alpha = .66$; 1=strongly disagree to 5=strongly agree). Items include, "The discrimination I have experienced is entirely due to the prejudice of Whites", "Whites continue to treat Blacks unfairly" and "There is still a lot of discrimination in our society against Blacks"

Reactions to Discrimination. Measured initially at Wave 4, reactions to discrimination were assessed using two items measured using a Likert-scale developed for the FACHS study (1=strongly disagree to 5=strongly agree) items include "When I experience discrimination, I usually accept it without speaking up" and "When I experience discrimination, it makes me very angry."

Self-esteem. Self-esteem was assessed at Wave 4 using the Rosenberg Self-Esteem Scale (Rosenberg, 1965; $\alpha = .79$), a 10-item Likert scale self-report measure (1=strongly agree to

5=strongly disagree). Sample items include, “I feel that I’m a person of worth, at least on an equal level with others,” and “I wish I could have more respect for myself.”

Racial Identity. Racial identity is measured in Waves 3 and 4 using the Inventory of Black Identity (Smith & Brookins, 1997; $\alpha = .71$). The measure includes 21 items at Wave 3 and 12 items at Wave 4 intended to assess aspects of racial private regard using a Likert scale (1=strongly agree to 4=strongly disagree). Sample items include, “Blacks have “bad” hair,” and “I like living in a Black neighborhood.”

Depressive Symptoms. At Wave 4, depressive symptoms were assessed using the Major Depression sub-scale of the Diagnostic Interview Schedule for Children 4 (DISC-IV; Shaffer et al., 1993; $\alpha = .83$). The 22-item measure assesses how many times within the last year that the respondent felt sad, irritable, or restless; slept more or less than usual; or experienced difficulty focusing or making decisions.

Analytical Plan

As previously mentioned, racial identification was coded as a dummy variable, wherein participants who identified both parents as being of African descent were coded as 1 and those with one parent of African descent were coded as 0. All analyses were analyzed using SPSS 26.0 statistical software package (SPSS Inc., Chicago, IL, USA). Independent samples t-tests were used to test mean differences in racial discrimination, youth protective processes, and depressive symptoms by racial identification. Multiple linear regression was used to estimate reactions and attributions to discrimination from racial identification, gender, skin tone, racial discrimination, racial identity, and self-esteem. Pearson’s correlation coefficient was used to examine the relationship between racial discrimination and racial identity at waves 3 and 4 between monoracial

and biracial respondents. Finally, multiple linear regressions were estimated to predict depressive symptoms from racial identification, gender, skin tone, racial discrimination, self-esteem, racial identity, and reactions and attributions of discrimination.

Results

The results of the analyses are organized as such, first, an exploration of the differences between frequency of racial discrimination between monoracial and biracial youth is discussed. This is followed by an exploration into the theorized relationship between racial identity and racial discrimination by racial identity. Next, I report the results of a series of multiple linear regressions assessing the predictive utility of racial identification, skin tone, gender, racial discrimination frequency, self-esteem and racial identity on forecasting emotional and cognitive responses to racial discrimination. Finally, I examine how these intrapersonal characteristics and protective processes predict depressive symptoms among Black monoracial and biracial youth of African descent.

Sample Equivalence

To ensure sample equivalence, I conducted comparisons of monoracial and biracial respondents on sociodemographic and key study variables including household income, racial discrimination, and protective processes (i.e. self-esteem and racial identity). Levene's test for the equality of variances indicated equal variation between groups for all included variables except racial identity as measured at wave 3. There was no significant difference in racial identity between groups when equal variance could not be assumed. Means and t-values for these variables indicated equivalence for household income, racial discrimination, and racial identity across waves

of data collection. However, monoracial adolescents reported significantly higher self-esteem than biracial adolescents ($M_{\text{monoracial}}=42.6$, $SD_{\text{monoracial}}=5.82$; $M_{\text{biracial}}=40.1$, $SD_{\text{biracial}}=7.44$, $t(708) = -3.44$, $p = 0.001$). Table 1 presents descriptive information for key study variables to include the mean, standard deviation, range, and between group differences for each variable by wave of data collection. Correlations between key study variables by racial identification are presented in Table 2.

These correlations indicate differential patterns of association between discrimination and depressive symptoms among biracial and monoracial adolescents suggesting that discrimination may be more distressing for monoracial youth. Results of these analyses also suggests that it is more likely that discrimination during late adolescence would be associated with greater endorsement of all reactions and responses to discrimination, with the exception of the attribution of discrimination to unfair treatment from White people, for monoracial but not biracial adolescents.

Table 1
Descriptive statistics and group differences of key study variables

		Total		Monoracial		Biracial		Difference p-value
		M (SD)	Range	M (SD)	Range	M (SD)	Range	
Wave 1	Discrimination	1.68 (.57)	1-5	1.68 (.57)	1-5	1.67 (.51)	1-3	ns
	Household Income	\$25,900 (\$22,500)	\$3- \$201,100	\$25,500 (\$22,700)	\$3- \$201,100	\$29,300 (\$20,600)	\$320- \$87,000	ns
Wave 2	Discrimination	1.64 (.57)	1-4	1.65 (.57)	1-4	1.64(.52)	1-3	ns
Wave 3	Discrimination	1.74 (.57)	1-4	1.74 (.58)	1-4	1.74 (.56)	1-3	ns
	*Racial identity	75.08 (6.96)	48-116	75.26 (6.8)	48-116	74.07 (7.6)	52-86	ns
Wave 4	Discrimination	1.79 (.6)	1-4	1.78 (.6)	1-4	1.87 (.65)	1-3.5	ns
	Racial identity	42.82 (4.74)	16-74	42.86 (4.62)	16-70	42.74 (5.6)	30-74	ns
	Self-esteem	42.3 (6.09)	15-50	42.6 (5.82)	19-50	40.1 (7.44)	15-50	t (708) =- 3.44, p=.001
	Depressive symptoms	3.94 (4.61)	0-19	3.86 (4.52)	0-19	4.71 (5.35)	0-18	ns

*Levene's test of equal variances did not indicate equal variances

Table 2
Intercorrelations of key study variables of biracial and monoracial adolescents

Measure	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Intrapersonal Characteristics														
1. Skin tone	-	.126	-.002	-.033	.135	-.101	-.139	-.027	.216	.006	.112	.105	.044	-.094
Racial Discrimination														
2. Discrimination W1	.029	-	-.064	.071	-.195	-.227	-.410**	-.290	.101	.043	-.018	-.024	-.291*	-.066
3. Discrimination W2	.052	.436**	-	.255	.370*	-.078	-.047	.122	.000	-.160	.163	-.031	-.005	.240
4. Discrimination W3	.044	.292**	.466	-	.424**	.041	-.198	.005	.268	.217	.243	.085	.299	.167
5. Discrimination W4	.012	.240**	.342**	.499**	-	.042	.309**	.063	.218	.270*	.243*	-.054	.409**	.066
Protective Processes														
6. Racial identity 3	-.040	.016	.048	.089*	.139**	-	.290*	.192	.045	-.099	-.133	-.047	.297*	-.189
7. Racial Identity 4	-.009	-.084*	-.063	-.041	-.026	.213**	-	.317	-.154	.349**	.143	-.082	.155	.060
8. Self-esteem	-.086*	-.088*	-.016	-.018	-.020	.140**	.216**	-	-.096	-.057	-.090	.002	.009	-.190
Responses and Attributions to Discrimination														
9. Anger	.024	.067	.051	.131**	.295**	.045	.049	-.030	-	.249*	.180	.167	.228*	-.010
10. Acceptance	-.076	.050	.125**	-	.295**	.05	.08*	-.023	.387*	-	.443**	-.056	.140	.088
11. Anti-Black Discrimination	-.073	.047	.093**	.119**	.293**	.062	.036	.007	.242**	.465**	-	-.174	.206	.142
12. Unfair treatment	.051	-.091*	-.108**	-.103*	-.138**	-.149**	-.105**	-.157**	-.036	.021	.014	-	.331**	-.025

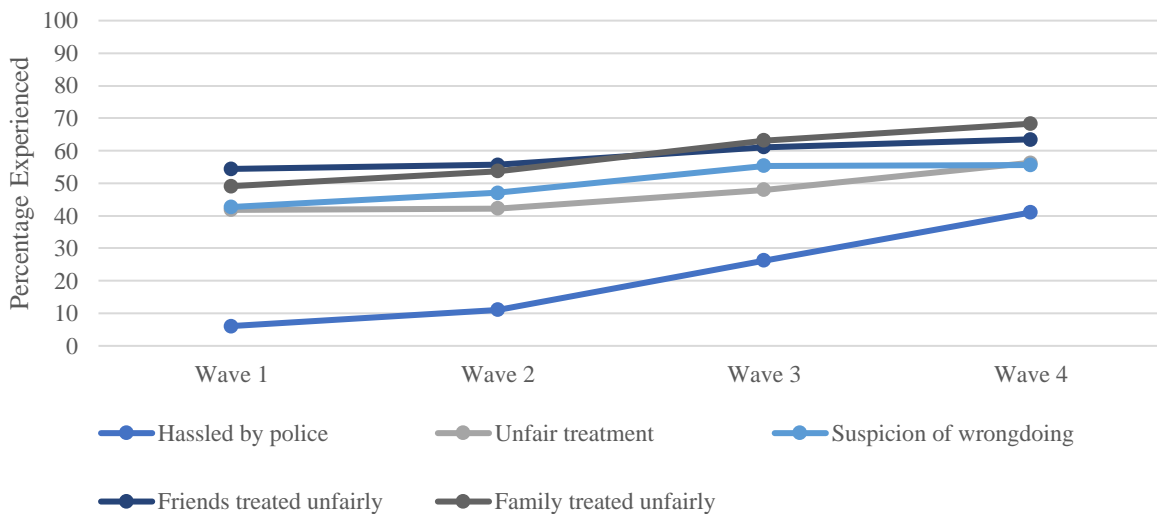
13. White prejudice	-.002	.059	.078	.119**	.209**	.102*	.038	.057	.194**	.220**	.200**	-.058	-	-.083
14. Depressive symptoms	.018	.144**	.117**	.132**	.272**	.002	.139**	-.196**	.072	.016	.120**	.010	.117**	-

Intercorrelations for the biracial adolescents are presented above the diagonal and intercorrelations for monoracial adolescents are presented below the diagonal. Note: * $p < 0.05$, ** $p < 0.01$.

Test of Study Hypotheses

Hypothesis 1: There is not a significant difference in frequency of racial discrimination between monoracial and biracial African descent youth. An independent samples t-test was conducted to determine whether or not there were statistically significant differences in total perceived discrimination scores between biracial and monoracial respondents. As shown in Table 1, results indicated that there were no statistically significant differences in the frequency of self-reported racial discrimination between monoracial and biracial adolescents at any of the first four waves of data collection. However, an observed pattern is that the percentage of adolescent reports of experiencing a given type of discrimination increased across each wave of data collection [See Figure 3].

Figure 3. *Racial Discrimination by Wave*



A post-hoc independent samples t-test was conducted at the item-level to determine if self-reported frequency of specific racialized events differed between the two groups. Results revealed no significant group differences in frequency of specific race-related events during Waves 1 and

3, however, statistically significant differences did emerge in monoracial and biracial youth reports of frequency of exposure to specific racial discriminatory events at Waves 2 and 4. Specifically, compared to monoracial respondents, biracial respondents were more likely to self-report incidences of having someone say something insulting to them because of their racial or ethnic background at Wave 2 ($t(726)=-2.30$, $p=.022$) and Wave 4, ($t(708)=-3.559$, $p<.001$), with greater mean difference observed at Wave 4. Other significant group differences include, biracial youths' greater likelihood to report being treated disrespectfully by a store owner or sales clerk ($t(708)=-2.366$, $p=.018$), and having someone yell a racial slur or insult at them ($t(708)=-3.017$, $p=.003$) compared to monoracial youth. While reporting similar overall frequencies of racial discrimination (as noted in Figure 3), an examination of specific incidences of race-related experiences revealed that in some circumstances, biracial adolescents reported more frequent experiences of overt racial discrimination, with noted increases during critical developmental stages, early adolescence (age 13) and late adolescence (age 18), compared to their monoracial counterparts.

Hypothesis 2: Racial identity will be positively and significantly correlated to racial discrimination experiences for both monoracial and biracial respondents. Using Pearson's correlation [See Table 2] the relationship between racial discrimination and racial identity for both monoracial and biracial adolescents, across waves, was examined. Results revealed that, for biracial adolescents, reports of racial discrimination at Wave 1 was negatively associated with racial identity at Wave 4 ($r=-.410$, $p=.005$), and racial discrimination at Wave 4 was positively associated with racial identity at Wave 4 ($r=.309$, $p=.006$). Similarly, discrimination at Wave 1 was negatively associated with racial identity wave 4 ($r=-.084$, $p=.036$) and positive but modest correlations between racial identity at wave 3 and discrimination at waves 3 ($r=.089$, $p=.021$) and 4 ($r=.139$, $p=.001$) for monoracial adolescents. Therefore, this hypothesis was partially supported,

as the significance of relationship between discrimination and racial identity emerged during critical developmental stages, but the direction and significance of the association between racial identity and racial discrimination differed across waves.

Hypothesis 3: Gender, skin tone, self-esteem, and racial identity will significantly explain variability in reported reactions and attributions of discrimination for monoracial and biracial adolescents. The third aim of the current study was to explore whether intrapersonal characteristics and protective processes predicted emotional and cognitive appraisals of discrimination experiences. Thus, multiple linear regression analyses were conducted and results are presented in Table 3. As noted in the table, only the model predicting acceptance in response to racial discrimination demonstrated good fit ($F(5,650) = 3.616, p = .003$). Racial identity ($\beta = -.084; p = .037$) and self-esteem ($\beta = -.110; p = .006$) were both found to be negative predictors of acceptance, while biracial identification ($\beta = -.092; p = .019$) was found to significantly predict anger in response to racial discrimination. In other models, variables approached ($\leq .11-.15$) but did not reach statistical significance. For example, racial identity as measured at Wave 4, nearly predicted youths' reports of attributing racial discrimination to unfair treatment from Whites ($\beta = .077; p = .058$). Additionally, being female approached significance in reported attribution of discrimination to widespread societal discrimination against Black people ($\beta = .068; p = .085$). In sum, only partial support for this hypothesis emerged, as only racial identification, racial identity, and self-esteem reached statistical significance as predictors of reactions and attributions of discrimination. It is noteworthy that skin tone was not a significant predictor of attributions of racial discrimination. However, while several factors emerged as predictors for monoracial youth, biracial identification was predictive of anger in response to the experience of racial discrimination.

Table 3

Regression Analyses Predicting Reactions and Attributions of Discrimination

Model	Variables	F	B	SE	β	t-value	p
Model 1: The discrimination I've experienced is entirely due to the prejudice of Whites.	Constant	1.340	2.819	.506		5.566	.000
	Monoracial/biracial		-.009	.006	-.061	-1.561	.119
	Gender		-.122	.093	-.052	-1.310	.191
	Skin tone		.047	.042	.044	1.123	.262
	Racial identity		.009	.010	.033	.818	.414
	Self-esteem		-.009	.008	-.045	-1.104	.270
Model 2: Whites continue to treat Blacks unfairly.	Constant	1.603	3.111	.454		6.851	.000
	Monoracial/biracial		-.005	.005	-.038	-.972	.332
	Gender		-.038	.083	-.018	-.451	.652
	Skin tone		-.060	.038	-.063	-1.593	.112
	Racial identity		.018	.009	.077	1.898	.058
	Self-esteem		-.009	.007	-.050	-1.247	.213
Model 3: There is still a lot of discrimination in our society against Blacks	Constant	1.449	3.894	.416		9.350	.000
	Monoracial/biracial		-.007	.005	-.055	-1.413	.158
	Gender		-.132	.077	-.068	-1.728	.085
	Skin tone		-.025	.035	-.028	-.714	.475
	Racial identity		.009	.009	.045	1.102	.271
	Self-esteem		-.004	.006	-.027	-.678	.498
Model 4: When I experience discrimination, I usually accept it without speaking up	Constant	3.616**	3.690	.456		8.097	.000
	Monoracial/biracial		-.001	.005	-.010	-.251	.802
	Gender		.005	.084	.002	.062	.951

	Skin tone		.055	.038	.057	1.461	.145
	Racial identity		-.020	.009	-.084	-2.086	.037*
	Self-esteem		-.019	.007	-.110	-2.748	.006**
Model 5: When I experience discrimination, it makes me very angry	Constant	2.039	3.281	.460		7.147	.000
	Monoracial/biracial		-.013	.005	-.092	-2.351	.019*
	Gender		-.105	-.084	-.049	-1.238	.216
	Skin tone		-.009	.038	-.009	-.235	.814
	Racial identity		.008	.009	.033	.822	.412
	Self-esteem		.007	.007	.039	.960	.337

Note: * p < 0.05, ** p < 0.01.

Hypothesis 4: Racial discrimination, intrapersonal characteristics, protective factors, and attributions will each demonstrate a significant effect on depressive symptoms. Several multiple linear regression analyses were conducted to examine the relationship between discrimination-related variables and depressive symptoms. Based on the preceding literature review and correlational data (See Table 2), the first model examined the predictive function of racial discrimination on depressive symptoms. Subsequent models were designed to examine the additive predictive utility of gender, self-esteem, racial identity, and attributions of discrimination that were found to be significantly correlated to depressive symptoms. Model two through four examine the possible effects of gender, self-esteem, and racial identity. As such, model one is nested in model two with the addition of gender. Model two is nested in model three with the addition of racial identity. Model three is nested in model four with the addition of self-esteem. Models five and six continue along this line of inquiry and examine the possible main effects of the attributions of discrimination to prevalent societal discrimination against Blacks and the prejudiced attitudes of Whites. Model five extends upon model four with the addition of the

attribution of discrimination to societal anti-Black discrimination. Model six also extends upon model four with the addition of the attribution of discrimination to the prejudiced attitudes of Whites.

Table 4

Regression Analyses Predicting Depressive Symptoms

Predictors	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Racial discrimination	.241**	.251**	.249**	.249**	.238**	.251**
Gender		-.160**	-.166**	-.166**	-.163**	-.166**
Self-esteem			-.207**	-.188**	-.187**	-.188**
Racial identity				-.071	-.073	-.071
Anti-Black discrimination					.036	
White prejudice						-.007
Adjusted R ²	.058	.084	.098	.131	.132	.131
F-statistic	40.86**	30.15**	23.93**	24.82**	20.02**	19.831**

Note: * $p < 0.05$, ** $p < 0.01$.

The results of multiple linear regression models for the whole sample are presented in Table 4. In model one ($F(1, 660) = 40.9; p < .001$), a significant main effect was found for racial discrimination ($\beta = .241; p < .001$) in the prediction of depressive symptoms during late adolescence. These findings indicate that as there is an increase in frequency of racial discrimination, there is an associated increase in depressive symptoms within the whole sample. Overall entering racial discrimination in the model contributed to approximately 6% (*adjusted R² = .058*) of the variance in youths' reports of depressive symptoms. Model two ($F(2, 659) = 30.2; p < .001; \Delta R^2 = .026; p < .001$) significantly improved upon model one with the inclusion of gender, increasing explanatory value to a little over 8% of the variance (*adjusted R² = .084*). Significant main effects were found for both racial discrimination ($\beta = .251; p < .001$) and gender ($\beta = -.160; p < .001$), increasing the likelihood of reported depressive symptoms within the overall sample. Similarly, the explanatory value of model two was improved by adding self-esteem, as noted in model three ($F(3, 658) =$

23.9; $p < .001$; $\Delta R^2 = .043$; $p < .001$). Thus, the combination of racial discrimination ($\beta = .249$; $p < .001$), gender ($\beta = -.166$; $p < .001$), and self-esteem ($\beta = -.207$; $p < .001$) accounted for nearly 10% (*adjusted* $R^2 = .098$) of the variance in youth reported depressive symptoms. An examination of the direction and strength of beta coefficients suggest that racial discrimination was the strongest predictor, followed by self-esteem, and gender. Directionally, racial discrimination was positively associated with depressive symptoms, and both self-esteem and gender were inversely associated with reports of depression, such that depressive symptoms were more likely to be reported by youth with low self-esteem and those who are female. Racial identity was added in model four ($F(4, 657) = 24.8$; $p < .001$; $\Delta R^2 = .005$; $p = .060$) but its inclusion did not improve the model, beyond the contributions of significant main effects of racial discrimination ($\beta = .249$; $p < .001$), gender ($\beta = -.166$; $p < .001$), and self-esteem ($\beta = -.188$; $p < .001$). Finally, no additional improvements were observed in the development of models five ($F(5, 656) = 20$; $\Delta R^2 = .001$; $p = .353$) and six ($F(5, 656) = 19.831$; $\Delta R^2 = .000$; $p = .852$), as no significant improvement in model fit was observed. Therefore, model four demonstrates the best fit to the data, accounting for 13% (*adjusted* $R^2 = .131$) of the variance youths' self-report of depressive symptoms, with racial discrimination emerging as the strongest predictor, followed by low self-esteem and being female.

The same six models were evaluated comparing predictive value of variables for biracial and monoracial youth, results presented in Tables 5 and 6, respectively. As noted in Table 5, while model one ($F(1, 64) = .025$; $p = .875$), which included racial discrimination as a predictor of depressive symptoms, did not explain any of the variance in depressive symptoms for biracial adolescents (*adjusted* $R^2 = -.015$), the inclusion of gender in model two demonstrated a marked improvement ($F(2, 63) = 3.43$; $p = .038$; $\Delta R^2 = .098$; $p = .011$).

However, no improvements were observed in the development of models three ($F(3, 62) = 3.17; \Delta R^2 = .035; p = .121$), four ($F(4, 61) = 2.53; \Delta R^2 = .010; p = .414$), five ($F(5, 60) = 2.07; \Delta R^2 = .005; p = .565$) and six ($F(5, 60) = 1.993; \Delta R^2 = .000; p = .945$) beyond the inclusion of variables in model 2. Based upon these findings model two represents the best fit for biracial respondents, accounting for nearly 7% of the variance (*adjusted R*² = .07). Therefore, among biracial youth, the greatest proportion of variance in self-reported depressive symptoms in the current model is explained by female gender, not by racial discrimination.

Table 5

Regression Analyses Predicting Depressive Symptoms for Biracial Adolescents

Predictors	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Racial discrimination	.020	.017	.014	.016	-.001	.000
Gender		-.313*	-.315*	-.353**	-.342**	-.353**
Self-esteem			.019	.108	.099	.098
Racial identity				-.229	-.212	-.229
Anti-Black discrimination					.073	
White prejudice						.009
Adjusted R ²	-.015	.070	.091	.086	.076	.071
F-statistic	.025	3.43	3.17	2.53	2.07	1.99

Note: * $p < 0.05$, ** $p < 0.01$.

Results for monoracial youth are presented in Table 6. As noted, model one ($F(1,590) = 46.38; p < .001$) demonstrated significant fit with the inclusion of racial discrimination ($\beta = .270; p < .001$) significantly predicting depressive symptoms and accounting for approximately 7% (*adjusted R*² = .071) of the total variance in reported depressive symptoms. Model two ($F(2, 589) = 30.2; p < .001; \Delta R^2 = .020; p < .001$) demonstrated a significant improvement of the first model with the inclusion of both racial discrimination ($\beta = .279; p < .001$) and gender ($\beta = -.142; p < .001$), with incremental improvements observed in model

three ($F(3, 588) = 31.5; p < .001; \Delta R^2 = .045; p < .001$), when racial discrimination ($\beta = .273; p < .001$), gender ($\beta = -.146; p < .001$), and self-esteem ($\beta = -.213; p < .001$) were included in the model. Racial identity was added in model four ($F(4, 587) = 25.04; p < .001; \Delta R^2 = .007; p = .025$), and significantly improved explained variance in depressive symptoms. Significant main effects were found for racial identity ($\beta = -.088; p = .001$), racial discrimination ($\beta = .272; p < .001$), gender ($\beta = -.147; p < .001$), and self-esteem ($\beta = -.193; p < .001$). Models five ($F(5, 586) = 20.07; p < .001; \Delta R^2 = .001; p = .553$) and six ($F(5, 586) = 20; p < .001; \Delta R^2 = .000; p = .807$) did not account for a significant increase in the variance of depressive symptoms among monoracial adolescents. Therefore, explaining approximately 14% (*adjusted R*² = .14) of the variance depressive symptoms, model four represents the best fit to the data. Thus, the final parsimonious model indicates that for monoracial youth, racial discrimination is the most salient predictor of depressive symptoms, followed by low self-esteem, being female, and low regard for one's racial identity.

Table 6

Regression Analyses Predicting Depressive Symptoms for Monoracial Adolescents

Predictors	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Racial discrimination	.270**	.279**	.273**	.272**	.264**	.275**
Gender		-.142**	-.146**	-.147**	-.145**	-.147**
Self-esteem			-.213**	-.193**	-.193**	-.193**
Racial identity				-.088*	-.089*	-.087*
Anti-Black discrimination					.024	
White prejudice						-.010
Adjusted R ²	.071	.090	.134	.140	.139	.138
F-statistic	46.38	30.2	31.48	25.03	20.07	20.00

Note: * $p < 0.05$, ** $p < 0.01$.

DISCUSSION

Despite the inclusion of ethnically diverse participants, African American adolescents are frequently conceptualized as monolithic within developmental research. While these studies have contributed to the advancement of knowledge about the development and adjustment of African American adolescents, there are still areas in need of scholarly attention. One such area is the need to consider the heterogeneity among youth of African descent, with greater consideration given to examining whether and how monoracial and biracial identified youth report similar or dissimilar exposure, reactions to, and perceptions of racial discrimination. Although there has been growing research on identity development and racial discrimination in the field of critical multiracial studies (for example, Jackson, Yoo, Guevarra, & Harrington, 2012), limited attention has been given to examining the unique experiences of monoracial and biracial people of African descent. Thus, the primary purpose of the current study is to expand this area of inquiry by exploring if and how biracial African American adolescents experience, understand, and react to racial discrimination and to determine how their experiences are similar to or differ from their monoracial counterparts.

To address this aim, the following goals and hypotheses guided the current study. The first goal was to determine whether monoracial and biracial adolescents differed in reported frequency of exposure to racial discrimination experiences. Drawing on previous research, I hypothesized that there would be no significant group differences. Relatedly, the second aim was to identify the relationship between racial discrimination and identity development. Here, I hypothesized that there would be a significant relationship between racial discrimination and racial identity. The third was to explore the role of intrapersonal characteristics and protective processes in predicting attributions of discrimination. In response to this inquiry, I hypothesized that both intrapersonal

characteristics: gender, skin tone, protective processes: racial identity, and self-esteem would influence youths' perceptions and reactions to racially discriminatory experiences. And finally, the last goal was to assess combined and unique contributions of intrapersonal characteristics, protective processes, and exposure to racial discrimination in predicting psychological well-being, e.g., depressive symptoms among study participants. Specific consideration was given to the significance and strength of predictors and the explanatory value of racial identification. Therefore, I predicted differences in depressive symptoms by frequency of experiencing racial discrimination, gender, self-esteem, racial identity, and attributions to discrimination. Throughout this discussion I will consider how each of these findings align with or add to existing research.

This study yielded many interesting key findings. First, biracial and monoracial adolescents experience similar frequencies of racial discrimination, but biracial adolescents are more likely to report experiences of overt racial discrimination. Second, the impact of racial discrimination is dependent on the developmental time period in which it occurs with earlier experiences of racial discrimination being associated with lower self-reported racial identity and later experiences of discrimination being associated with higher self-reported racial identity. Third, biracial adolescents are more likely to endorse anger in response to discrimination while racial identity and self-esteem negatively predict acceptance of racial discrimination. Finally, while racial discrimination is a significant predictor of depressive symptoms for monoracial youth, it did not demonstrate any utility in predicting depressive symptoms among biracial adolescents.

In developing this study, I employed the combined use of classical (Piaget & Inhelder, 1958; Erikson, 1968), ecological (Bronfenbrenner, 1994), and cultural theories of development (Beales-Spencer, 1995) with diaspora theory (Patterson & Kelley, 2000) to examine how African

racial heritage rather than racial identification serves as a risk contributor for experiencing racial discrimination. In alignment with PVEST and diaspora theory, I predicted that both biracial and monoracial adolescents would be at risk for similar experiences of racial discrimination. While the results of the first analyses indicated few differences in experiences of racial discrimination, further analyses suggest that insights from studies of monoracial adolescents cannot be easily applied to biracial youth. Evidence of critical differences emerged when investigating reactions and attributions to discrimination and in the prediction of depressive symptoms. These findings support the need for continued refinement of existing developmental frameworks to account for the varied experiences of youth of color.

Does the frequency of reported racial discriminatory incidents differ between subgroups of African American youth who self-identify as monoracial and biracial? One similar experience among youth in the current study was their exposure to racial discrimination. When compared to monoracial adolescents, biracial youth reported similar frequencies of racial discrimination throughout adolescence. This finding contributes to existing literature about the prevalence of racial discrimination among youth of African descent and raises further questions about the degree to which phenotypic variation (e.g. skin tone) contributes to differential experiences of racial discrimination. These findings, however, do fail to account for the experience of colorism. Recent work by Landor and Smith (2019) may be informative, as they propose the need to consider the role of colorism and racial discrimination, as darker skinned individuals are at elevated risk for race related stress when compared to lighter skinned individuals. These scholars coined the term, skin-tone trauma, to capture differential experiences of individuals of African-descent, noting that early exposure often begins within the African American community.

Although there are no significant differences in the frequency of racial discrimination when aggregated across all incidents, a difference did emerge when I considered the items individually. Biracial adolescents were more likely to report overt instances of discrimination during both early and late adolescence. A potential mechanism for this difference, as implied by Landor and Smith (2019) may be different social environments. Research suggests that interracial families are more likely to live in predominantly White communities than monoracial Black families (Quillian & Redd, 2009), therefore, the social ecologies of these two groups has the potential to be markedly different. Wherein African American communities having noticeably lighter or darker skin tone becomes particularly salient, not being White may become salient in predominantly White communities.

Research on the perceptions of racially ambiguous or mixed-race faces has indicated that both Black and White perceivers are likely to view biracial targets as Black (Ho, Sidanius, Levin & Banaji, 2011). Ho and colleagues (2017), however, suggests that the purpose of the use of the rule of hypodescent may differ between Black and White perceivers. While Black perceivers were motivated by a shared sense of fate, White perceivers who were less supportive of equality initiatives were more likely to categorize biracial Black-White targets as Black. Therefore, suggesting that biracial adolescents—when viewed by White people with antiegalitarian views—are more likely to be perceived and assumedly treated as Black.

Does racial discrimination correlate to racial identity and do patterns of association differ based on subgroup racial identification? In partial support of the second hypothesis, which predicted a positive relationship between racial discrimination and racial identity based on seminal stage models of racial identity development (Cross, 1994), findings generally indicated modest and positive relationships between these variables during middle and late adolescence. An

unanticipated finding, however, was the significant association between exposure to discrimination and lower self-reported racial identity, with noticeable changes from early adolescence through late adolescence. This pattern was observed for both monoracial and biracial adolescents, and is in contrast to Seaton and colleagues (2012) study, which demonstrated that racial discrimination was not a significant predictor of racial identity. One plausible explanation for these differential results is the use of a longitudinal research design rather than a cross-sectional design which allowed me to more fully capture the influence of racial discrimination on racial identity development over time. Moreover, given that identity development is the central task of adolescence (Erikson, 1968), exposure to racial discrimination may stimulate identity development (Phinney, 1990). In line with PVEST, if identity formation is stimulated by incidences of race-related stressors youth may then begin to internalize these negative images as they establish their “looking glass” selves (Cooley, 1902). Confronting these circumstances may evoke racism-stress management (Stevenson, 2003), requiring the use of both coping mechanisms and stable coping responses, such as rejecting one’s racial identity, as self-protection. Further, the long term effects of such exposure to racial discrimination, especially during critical developmental periods, such as middle-childhood and early adolescence, may have implications for mental and physical health over time. For example, Brody and colleagues (2014) found that exposure to racial discrimination was associated with elevated allostatic loads among youth as they transitioned into young adulthood. A noteworthy finding was that this path was less pronounced among males who were in emotionally supportive families.

What factors and processes, including skin-tone, gender, self-esteem, and racial identity explain variability in reported reactions and attributions based on racial subgroup? There was partial support for the third hypothesis which stated that skin tone, racial identification, gender,

racial identity, and self-esteem would predict reactions and attributions of discrimination. Although none of the included variables were found to significantly predict any of the included attributions of discrimination, results indicated that reactions to discrimination could be predicted from these covariates. Acceptance of discrimination without speaking up was associated with lower self-reported racial identity and self-esteem, while anger in response to discrimination was associated with biracial identity. These results fall in line with previous qualitative research about mechanisms of coping with racism (Mellor, 2004; Snyder, 2016). In a study examining coping responses to discrimination among Aboriginal Australians, Mellor (2004) found that acceptance serves the purpose of defending oneself without challenging the source of racism and is enacted through withdrawal, avoidance, and denial of one's identity. Furthermore, consistent with current findings, Snyder (2016) also found anger to be a common response to discrimination for multiracial Black individuals. Thus, the current study provides quantitative support for these prior findings.

What is the predictive utility of these correlates in forecasting psychological well-being, particularly the absence of depressive symptoms? In response to the fourth and final inquiry, I hypothesized that racial discrimination, intrapersonal characteristics, protective factors, and attributions would each demonstrate a significant effect on depressive symptoms. However, results were only indicative of partial support for this hypothesis. While each of the proposed models demonstrated significant model fit for the full and monoracial samples, only the models which included gender as a predictor of depressive symptoms were found to be significant for the biracial subsample. The models, developed through a review of relevant literature about monoracial Black adolescent experiences of discrimination and an examination of significant correlations between key study variables, did not adequately account for sources of variance of biracial adolescents'

depressive symptoms. In contrast to studies of monoracial youth (Sellers, Copeland-Linder, Martin, & Lewis, 2006), discrimination did not predict depressive symptoms for biracial adolescents, therefore, suggesting that despite similar self-reports of discrimination that it is not a significant stressor for biracial adolescents.

Both findings from the current study and existing scholarship provide some insight into the potential cause of the differential relationship between racial discrimination and depressive symptoms among monoracial and biracial youth in the study. Within the current study, for example, early experiences of racial discrimination were associated with lower self-esteem in late adolescence for monoracial, but not for biracial youth, therefore, suggesting that racial discrimination has less impact on self-esteem among biracial adolescents. Given that low self-esteem emerged as a significant predictor of depressive symptoms among monoracial adolescents, it can then be implied that these early experiences of discrimination do not influence the self-esteem of biracial adolescents in the same way. A 2007 study (Shih et al., 2007) found that biracial Black-White participants were more likely to demonstrate stereotype inhibition during task performance when primed with a racial stereotype than monoracial participants, suggesting that although both groups are exposed to similar experiences that the impact of those experiences may differ. Further, studies of multiracial identity suggest that biracial identity is especially fluid and may change to suit a particular context (Lusk et al., 2010). In a study of biracial identity by Lusk and colleagues (2010), researchers found that those participants who identified as biracial at least some of the time were less depressed and had higher self-esteem than those who did not identify as biracial at all. Taken together, these findings suggest that the fluid nature of biracial identity may serve a protective function against the effects of racial discrimination.

CONCLUSION AND IMPLICATIONS

These findings suggest that there are both important similarities and differences between monoracial and biracial adolescents of African descent in regards to their experiences of interpersonal racial discrimination. Although I am aware of one qualitative study examining the racial discrimination experiences of biracial people of African descent (Snyder, 2016), to my knowledge, this is the first to quantitatively examine how intrapersonal characteristics, emotional and cognitive reactions, and protective processes interact to forecast depressive symptoms among both biracial and monoracial adolescents of African descent. Three key takeaways emerge. First, biracial and monoracial adolescents are nearly equally likely to experience interpersonal racial discrimination, but biracial adolescents are more likely to report verbal assaults. Second, early experiences of racial discrimination have the potential to negatively influence the development of positive racial identity—a significant protective factor against depressive symptoms for monoracial adolescents. Finally, the manner in which researchers classify, collect, and interpret racial demographic data has important implications on the fit of conceptual models based on research of broadly defined racial categorizations.

These findings also have implications for the fields of adolescent development research, intervention science, and counseling. Scholars seeking to adapt to a constantly diversifying population of children and adolescents may benefit from employing a social and political analysis of race and ethnicity in order to discover important within-group variation amongst adolescent populations. Intervention scientists, in particular, ought to pay specific attention to protective processes for biracial adolescents and tailor targeted interventions for this population. Further, counselors seeking to understand the experiences of biracial adolescents and their implications on

mental health functioning may benefit from attending to early experiences of discrimination and its impact on racial identity development within this population.

While this study helped to illuminate how within-group diversity contributes to the experience and interpretation of racial discrimination, a few limitations must be noted. First, although the data used in this secondary analysis does include biracial people, the original study was intended to assess the developmental trajectories of African American youth and families and only 10% of the sample can be identified as biracial. Secondly, although biracial respondents were considered as a single group, respondents in this category self-reported as having Native American, Asian, Latinx, and European ancestries. Future research should attend to these differences within studies of biracial adolescents. Lastly, race--as a social construct--cannot be adequately accounted for without an accompanying discussion of racism. If racism refers to a system of societal disadvantages, we would be remiss to fail to address racial disparities in wealth, employment, housing, and schooling that contribute to the lived experiences of African American families. While this study examines the experiences of perceived interpersonal discrimination, future studies ought to address the presence and influence of these structural forms of racism not readily identified in self-reported measures of discrimination on dimensions of psychological well-being for adolescents. Despite these limitations the current findings contribute to the literature by establishing an empirical precedent for examining the experiences and effects of racial discrimination among African descendent biracial adolescents.

References

- Adams, E. A., Kurtz-Costes, B. E., & Hoffman, A. J. (2016). Skin tone bias among African Americans: Antecedents and consequences across the life span. *Developmental Review, 40*, 93–116. doi:10.1016/j.dr.2016.03.002
- Aspinall, P. J. (2015). Social representations of ‘mixed-race’ in early twenty-first-century Britain: content, limitations, and counter-narratives. *Ethnic and Racial Studies, 38*, 1067–1083. doi:10.1080/01419870.2014.992924
- Barbarin, O. A., Murry, V. M., Tolan, P., & Graham, S. (2016). Development of boys and young men of color: Implications of developmental science for My Brother's Keeper Initiative. Social Policy Report. 29. *Society for Research in Child Development*.
- Bracey, J. R., Bamaca, M. Y., & Umana-Taylor, A. J. (2004). Examining ethnic identity and self-esteem among biracial and monoracial adolescents. *Journal of Youth and Adolescence, 33*, 123–132.
- Branscombe, N. R., Schmitt, M. T., & Harvey, R. D. (1999). Perceiving pervasive discrimination among African Americans: Implications for group identification and well-being. *Journal of Personality and Social Psychology, 77*, 135-149.
- Brody, G. H., Conger, R., Gibbons, F. X., Ge, X., McBride Murry, V., Gerrard, M., & Simons, R. L. (2001). The influence of neighborhood disadvantage, collective socialization, and parenting on African American children's affiliation with deviant peers. *Child Development, 72*, 1231–1246. doi: 10.1111/1467-8624.00344

- Brody, G. H., Lei, M.-K., Chae, D. H., Yu, T., Kogan, S. M., & Beach, S. R. H. (2014). Perceived discrimination among African American adolescents and allostatic load: A longitudinal analysis with buffering effects. *Child Development, 85*, 989–1002. doi:10.1111/cdev.12213
- Brody, G. H., Yu, T., Miller, G. E. B., & Chen, E. (2015). Discrimination, racial identity, and cytokine levels among African-American adolescents. *Journal of Adolescent Health, 56*, 496–501. doi:10.1016/j.jadohealth.2015.01.017
- Bowman, P. J., Muhammad, R., & Ifatunji, M. (2004). Skin tone, class, and racial attitudes among African Americans. (C. Herring, V. Keith, & H. D. Horton, Eds.), *Skin Deep: How Race and Complexion Matter in the “Color-Blind” Era*. Chicago. Retrieved from [http://www.ifatunji.info/papers/bowman et al 2004 skin tone, class and racial attitudes among African americans.pdf](http://www.ifatunji.info/papers/bowman%20et%20al%202004%20skin%20tone,%20class%20and%20racial%20attitudes%20among%20African%20americans.pdf)
- Butler-Barnes, S. T., Leath, S., Williams, A., Byrd, C., Carter, R., & Chavous, T. M. (2018). Promoting resilience among African American girls: Racial identity as a protective factor. *Child Development, 89*, e552–e571. doi.:10.1111/cdev.12995
- Burton, L. M., Bonilla-Silva, E., Ray, V., Buckelew, R., & Hordge Freeman, E. (2010). Critical race theories, colorism, and the decade’s research on families of color. *Journal of Marriage and Family, 72*, 440–459. doi:10.1111/j.1741-3737.2010.00712.x
- Carlos Poston, W. S. (1990). The biracial identity development model: A needed addition. *Journal of Counseling & Development, 69*, 152–155.

- Carter, R. T., & Forsyth, J. (2010). Reactions to racial discrimination: Emotional stress and help-seeking behaviors. *Psychological Trauma: Theory, Research, Practice, and Policy*, 2, 183–191. doi:10.1037/a0020102
- Cheng, S., & Klugman, J. (2010). School racial composition and biracial adolescents' school attachment. *The Sociological Quarterly*, 51, 150-178. doi:10.1111/j.1533-8525.2009.01166.x
- Clark, K. B., & Clark, M. P. (1939). The development of consciousness of self and the emergence of racial identification in Negro preschool children. *J. Soc. Psychol.*, 10, 591-599.
- Clark, K. B., & Clark, M. P. (1947). Racial identification and preference in Negro children. In T. M. Newcomb & E. L. Hartley (Eds.), *Readings in social psychology*. New York: Holt, Rinehart & Winston.
- Cogburn, C. D., Tabbye, •, Chavous, M., Griffin, T. M., Chavous, T. M., & Griffin, T. M. (2011). School-based racial and gender discrimination among African American adolescents: Exploring gender variation in frequency and implications for adjustment. *Race and Social Problems*, 3, 25–37. doi:10.1007/s12552-011-9040-8
- Collins Jr, J. W., David, R. J., Handler, A., Wall, S., & Andes, S. (2004). Very low birthweight in African American infants: The role of maternal exposure to interpersonal racial discrimination. *American Journal of Public Health*, 94(12), 2132–2138.

- Cooley, C. H. (1902). Looking-glass self. *The production of reality: Essays and readings on social interaction*, 6.
- Cooper, S. M., Brown, C., Metzger, I., Clinton, Y., & Guthrie, B. (2013). Racial discrimination and African American adolescents' adjustment: Gender variation in family and community social support, promotive and protective factors. *Journal of Child and Family Studies*, 22, 15–29. doi:10.1007/s10826-012-9608-y
- Cooper, S. M., McLoyd, V. C., Wood, D., & Hardaway, C. R. (2008). Racial discrimination and the mental health of African American adolescents. In *Handbook of Race, Racism, and the Developing Child* (pp. 278–312).
- Cross, W. E. (1994). Nigrescence theory: Historical and explanatory notes. *Journal of Vocational Behavior*, 44, 119–123. doi:10.1006/JVBE.1994.1008
- Csizmadia, A., Rollins, A., & Kaneakua, J. P. (2014). Ethnic-racial socialization and its correlates in families of black-white biracial children. *Family Relations*, 63, 259–270. doi: 10.1111/fare.12062
- Goff, P. A., Jackson, M. C., Di Leone, B. A., Culotta, C. M., & DiTomasso, N. A. (2014). The essence of innocence: consequences of dehumanizing Black children. *Interpersonal Relations and Group Processes*, 106, 526–545. doi:10.1037/a0035663
- Franco, M. G., & O'Brien, K. M. (2017). Racial identity invalidation with biracial individuals: An instrument development study. *Cultural Diversity and Ethnic Minority Psychology*, 24, 112–125. doi:10.1037/cdp0000170

- Goings, T. C., Butler-Bente, E., McGovern, T., & Howard, M. O. (2016). Prevalence and correlates of substance use in black, white, and biracial Black–White adolescents: Evidence for a biracial intermediate phenomena. *American Journal of Orthopsychiatry*, *86*(5), 527-539. doi:10.1037/ort0000166
- Helms, J. E. (1997). Toward a model of White racial identity development. *College student development and academic life: Psychological, intellectual, social and moral issues*, 49-66.
- Hittner, E. F., Thomas, S. E., & Adam, E. K. (2016). Racial/Ethnic identity reduces effects of adolescent racial discrimination on adult cortisol. *Psychoneuroendocrinology*, *71*, 49. doi:10.1016/j.psyneuen.2016.07.129
- Ho, A. K., Kteily, N. S., & Chen, J. M. (2017). “You’re one of us”: Black Americans’ use of hypodescent and its association with egalitarianism. *Journal of Personality and Social Psychology*, *113*, 753–768. doi:10.1037/pspi0000107
- Ho, A. K., Sidanius, J., Levin, D. T., & Banaji, M. R. (2011). Evidence for hypodescent and racial hierarchy in the categorization and perception of biracial individuals. *Journal of Personality and Social Psychology*, *100*(3), 492–506. doi:10.1037/a0021562
- Hope, E. C., Skoog, A. B., & Jagers, R. J. (2014). “It’ll never be the White kids, it’ll always be us”. *Journal of Adolescent Research*, *30*, 83–112. doi:10.1177/0743558414550688
- Howell, E. A., Egorova, N., Balbierz, A., Zeitlin, J., & Hebert, P. L. (2016). Black-white differences in severe maternal morbidity and site of care. *American Journal of Obstetrics and Gynecology*, *214*, 122.e1-122.e7. doi: 10.1016/J.AJOG.2015.08.019

Hughes, D. L., Watford, J. A., & Del Toro, J. (2016). A transactional/ecological perspective on ethnic–racial identity, socialization, and discrimination. In *Advances in Child Development and Behavior*, *51*, 1–41. doi: 10.1016/bs.acdb.2016.05.001

Inhelder, B., & Piaget, J. (1958). *The growth of logical thinking from childhood to adolescence*. New York: Basic Books.

Inniss-Thompson, M.N. (Oct 2018). Summary of discipline data for girls in U.S. public schools: An analysis from the 2015-16 U.S. Department of Education Office for Civil Rights Data Collection. Prepared for the National Black Women’s Justice Institute [NBWJI]. Available at https://docs.wixstatic.com/ugd/0c71ee_9506b355e3734ba791248c0f681f6d03.pdf.

Jackson, K. F., Yoo, H. C. B., Guevarra, R., & Harrington, B. A. (2012). Role of identity integration on the relationship between perceived racial discrimination and psychological adjustment of multiracial people. *Journal of Counseling Psychology*, *59*, 240–250. doi:10.1037/a0027639

Jackman, D. M., & MacPhee, D. (2017). Self-esteem and future orientation predict adolescents’ risk engagement. *Journal of Early Adolescence*, *37*, 339–366. doi:10.1177/0272431615602756

Landor, A. M. (2012). *Does skin tone matter?: Exploring the impact of skin tone on colorism within families, racism, and racial socialization among African American adolescents*. Retrieved from https://getd.libs.uga.edu/pdfs/landor_antoinette_m_201208_phd.pdf

- Landor, A. M., Simons, L. G., Simons, R. L., Brody, G. H., Bryant, C. M., Gibbons, F. X., & Granberg, E. M. (2013). Exploring the impact of skin tone on family dynamics and race-related outcomes. *Journal of Family Psychology, 27*, 817–826. doi:10.1037/a0033883
- Landor, A. M., & McNeil Smith, S. (2019). Skin-tone trauma: Historical and contemporary influences on the health and interpersonal outcomes of African Americans. *Perspectives on Psychological Science, 14*, 797–815. doi:10.1177/1745691619851781
- Legette, K. (2018). School tracking and youth self-perceptions: Implications for academic and racial identity. *Child Development, 89*(4), 1311–1327. doi:10.1111/cdev.12748
- Lei, M.-K., Beach, S. R. H., Simons, R. L., & Philibert, R. A. (2015). Neighborhood crime and depressive symptoms among African American women: Genetic moderation and epigenetic mediation of effects. *Soc Sci Med, 146*, 120–128.
- Lusk, E. M., Taylor, M. J., Nanney, J. T., & Austin, C. C. (2010). Biracial identity and its relation to self-esteem and depression in mixed black/white biracial individuals. *Journal of Ethnic and Cultural Diversity in Social Work, 19*, 109–126.
doi:10.1080/15313201003771783
- Mason, T. B., Maduro, R. S., Derlega, V. J., Hacker, D. S., Winstead, B. A., & Haywood, J. E. (2017). Individual differences in the impact of vicarious racism: African American students react to the George Zimmerman trial. *Cultural Diversity and Ethnic Minority Psychology, 23*(2), 174–184. <https://doi.org/10.1037/cdp0000099>

- Martin, M. J., Mccarthy, B., Conger, R. D., Gibbons, F. X., Simons, R. L., Cutrona, C. E., & Brody, G. H. (2011). The enduring significance of racism: Discrimination and delinquency among Black American youth NIH public access. *J Res Adolesc, 21*, 662–676.
doi:10.1111/j.1532-7795.2010.00699.x
- Mellor, D. (2004). Responses to racism: A taxonomy of coping styles used by Aboriginal Australians. *American Journal of Orthopsychiatry, 74*, 56-71. doi:10.1037/0002-9432.74.1.56
- Morris, M. (2018). *Pushout: The Criminalization of Black Girls in Schools*. The New Press.
- Murry, V. M. B., Berkel, C., Brody, G. H., Miller, S. J., & Chen, Y. fu. (2009). Linking parental socialization to interpersonal protective processes, academic self-presentation, and expectations among rural African American youth. *Cultural Diversity and Ethnic Minority Psychology, 15*, 1–10. doi:10.1037/a0013180
- Nettleford, R. (1965). National identity and attitudes to race in Jamaica. *Race, 7*, 59–72.
doi:10.1177/030639686500700105
- Patterson, T. R., & Kelley, R. D. (2000). Unfinished migrations: reflections on the African diaspora and the making of the modern world. *African Studies Review, 43*, 11-45.
- Phinney, J. S. (1990). Ethnic identity in adolescents and adults: A review of research. *Psychological Bulletin, 108*, 499–514. doi:10.1037//0033-2909.108.3.499

- Rivas-Drake, D., Seaton, E. K., Markstrom, C., Quintana, S., Syed, M., Lee, R. M., ... Sellers, R. M. (2014). Ethnic and racial identity in adolescence: Implications for psychosocial, academic, and health outcomes. *Child Development, 85*, 40–57. doi:10.1111/cdev.12200
- Rockquemore, K. A. (1998). Between black and white exploring the “biracial” experience. *Race and Society, 1*, 197–212. doi:10.1016/S1090-9524(99)80044-8
- Rockquemore, K. A. (2002). The gendered process of racial identity construction among black / white biracial women. *Twenty-First Century, 16*, 485–503.
- Rollins, A., & Hunter, A. G. (2013). Racial socialization of biracial youth: Maternal messages and approaches to address discrimination. *Family Relations, 62*, 140–153. doi:10.1111/j.1741-3729.2012.00748.x
- Rosenberg, M. (1965). Rosenberg self-esteem scale (SES). *Society and the adolescent self-image*.
- Rosenberg, M., Schooler, C., & Schoenbach, C. (1989). Self-esteem and adolescent problems: Modeling reciprocal effects. *American Sociological Review, 54*, 1004. doi:10.2307/2095720
- Rowley, S. J., Ross, L., Lozada, F. T., Williams, A., Gale, A., & Kurtz-Costes, B. (2014). Framing black boys. Parent, teacher, and student narratives of the academic lives of black boys. In *Advances in Child Development and Behavior* (Vol. 47, pp. 301–332). doi:10.1016/bs.acdb.2014.05.003
- Seaton, E. K., Caldwell, C. H., Sellers, R. M., & Jackson, J. S. (2010). Developmental characteristics of African American and Caribbean Black adolescents’ attributions

regarding discrimination. *Journal of Research on Adolescence*, 20, 774–788. doi: 10.1111/j.1532-7795.2010.00659.x

Seaton, E. K., Yip, T., Morgan-Lopez, A., & Sellers, R. M. (2012). Racial discrimination and racial socialization as predictors of African American adolescents' racial identity development using latent transition analysis. *Developmental Psychology*, 48, 448–458. doi:10.1037/a0025328

Sellers, R. M., Copeland-Linder, N., Martin, P. P., & Lewis, R. L. (2006). Racial identity matters: The relationship between racial discrimination and psychological functioning in African American adolescents. *Journal of Research on Adolescence*, 16, 187–216.

Sellers, R. M., & Shelton, J. N. (2003). The role of racial identity in perceived racial discrimination. *Journal of Personality and Social Psychology*, 84, 1079–1092. doi:10.1037/0022-3514.84.5.1079

Schmitt, M. T., Postmes, T., Branscombe, N. R., & Garcia, A. (2014). The consequences of perceived discrimination for psychological well-being: A meta-analytic review. *Psychological Bulletin*, 140. doi:10.1037/a0035754

Shaffer, D., Schwab-Stone, M., Fisher, P., Cohen, P., Placentini, J., Davies, M., ... & Regier, D. (1993). The diagnostic interview schedule for children-revised version (DISC-R): I. Preparation, field testing, interrater reliability, and acceptability. *Journal of the American Academy of Child & Adolescent Psychiatry*, 32, 643-650.

- Shih, M., Bonam, C., Sanchez, D., & Peck, C. (2007). The social construction of race: Biracial identity and vulnerability to stereotypes. *Cultural Diversity and Ethnic Minority Psychology, 13*, 125–133. doi:10.1037/1099-9809.13.2.125
- Simons, R. L., Murry, V., McLoyd, V., Lin, K. H., Cutrona, C., & Conger, R. D. (2002). Discrimination, crime, ethnic identity, and parenting as correlates of depressive symptoms among African American children: A multilevel analysis. *Development and Psychopathology, 14*, 371-393.
- Smith, E. P., & Brookins, C. C. (1997). Toward the development of an ethnic identity measure for African American youth. *Journal of Black Psychology, 23*, 358-377.
- Snyder, C. R. (2016). Navigating in murky waters: How biracial black individuals cope with racism. *American Journal of Orthopsychiatry, 86*, 265–276. doi:/10.1037/ort0000148
- Spencer, M. B. (1995). Old issues and new theorizing about African American youth: A phenomenological variant of ecological systems theory. *Black youth: Perspectives on their status in the United States*, 37-70.
- Spencer, M. B., Dupree, D., & Hartmann, T. (1997). A phenomenological variant of ecological systems theory (PVEST): A self-organization perspective in context. *Development and Psychopathology, 9*, 817-833.
- Steinberg, L. (2014). Adolescence.

Sue, D. W., Capodilupo, C. M., Torino, G. C., Bucceri, J. M., Holder, A., Nadal, K. L., & Esquilin, M. (2007). Racial microaggressions in everyday life: implications for clinical practice. *American Psychologist, 62*, 271.

Synovitz, L., & Chopak-Foss, J. (2013). Precocious puberty: Pathology, related risks, and support strategies. *Journal of Preventive Medicine, 03*, 504–509.

doi:10.4236/ojpm.2013.39068

Thompson, D. (2012). Making (mixed-)race: Census politics and the emergence of biracial multiculturalism in the United States, Great Britain and Canada. *Ethnic and Racial Studies, 35*, 1409–1426. doi:10.1080/01419870.2011.556194

Thompson, M. S., & Keith, V. M. (2001). The blacker the berry: Gender, skin tone, self-esteem, and self-efficacy. *Gender & Society, 15*(3), 336–357. doi:10.1177/089124301015003002

Trzesniewski, K. H., Donnellan, M. B., Moffitt, T. E., Robins, R. W., Poulton, R., & Caspi, A. (2006). Low self-esteem during adolescence predicts poor health, criminal behavior, and limited economic prospects during adulthood. *Developmental Psychology, 42*, 381–390. doi:10.1037/0012-1649.42.2.381

Umaña-Taylor, A. J., Quintana, S. M., Lee, R. M., Cross, W. E., Rivas-Drake, D., Schwartz, S. J., ... Sellers, R. M. (2014). Ethnic and racial identity during adolescence and into young adulthood: An integrated conceptualization. *Child Development, 85*, 21–39.

doi:10.1111/cdev.12196

- Velez, G., & Spencer, M. B. (2018). Phenomenology and intersectionality: Using PVEST as a frame for adolescent identity formation amid intersecting ecological systems of inequality. *New Directions for Child and Adolescent Development*, (161). doi:10.1002/cad.20247
- Walker, R., Francis, D., Brody, G., Simons, R., Cutrona, C., & Gibbons, F. (2017). A longitudinal study of racial discrimination and risk for death ideation in African American youth. *Suicide and Life-Threatening Behavior*, 47, 86–102. doi:10.1111/sltb.12251
- Windle, M., & Lerner, R. M. (1986). Reassessing the dimensions of temperamental individuality across the life span: The revised Dimensions of Temperament Survey (DOTS-R). *Journal of Adolescent Research*, 1, 213–229. doi:10.1177/074355488612007
- White, K. M. (2015). The salience of skin tone: Effects on the exercise of police enforcement authority. *Ethnic and Racial Studies*, 38(6), 993–1010. doi:10.1080/01419870.2014.952752
- Zimmerman, M. A., Copeland, L. A., Shope, J. T., & Delman, T. E. (1997). A longitudinal study of self-esteem: Implications for adolescent development. *Journal of Youth and Adolescence*, 26, 117.

Appendix

Measures

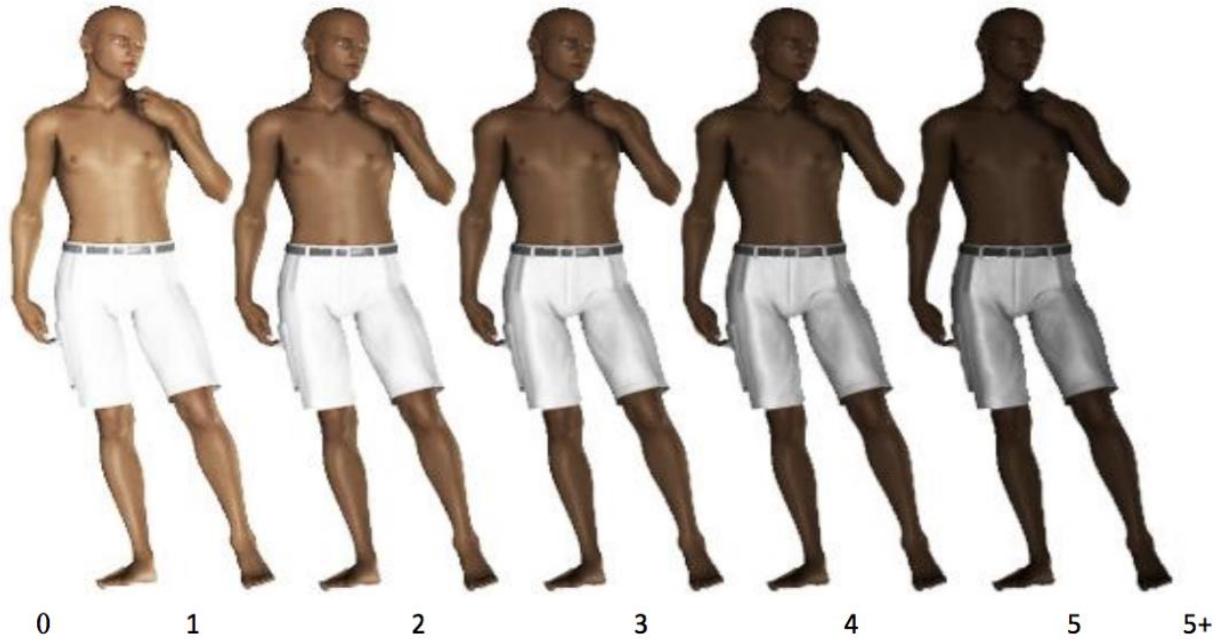
PERCEIVED DISCRIMINATION	
G [1-2] E0154	How often has someone said something insulting to you just because you are African American? Is it...
G [3-4] E0154	How often has someone said something insulting to you just because of your race or ethnic background? 1=Never 2=Once or twice 3=A few times 4=Several times/Frequently
G [1-2] E0155	How often has a store owner, sales clerk, or person working at a place of business treated you in a disrespectful way just because you are African American? Is it...
G [3-4] E0155	How often has a store owner, sales clerk, or person working at a place of business treated you in a disrespectful way just because of your race or ethnic background? Is it... 1=Never 2=Once or twice 3=A few times 4=Several times/Frequently
G [1-2] E0156	How often have the police hassled you just because you are African American? Is it...
G [3-4] E0156	How often have the police hassled you just because of your race or ethnic background? Is it... 1=Never 2=Once or twice 3=A few times 4=Several times/Frequently
G [1-2] E0157	How often has someone ignored you or excluded you from some activity just because you are African American? Is it...

G [3-4] E0157	<p>How often has someone ignored your or excluded you from some activity just because of your race or ethnic background? Is it...</p> <p>1=Never 2=Once or twice 3=A few times 4=Several times/Frequently</p>
G [1-2] E0158 G [3-4] E0158	<p>How often has someone suspected you of doing something wrong just because you are African American? Is it...</p> <p>How often has someone suspected you of doing something wrong just because of your race or ethnic background? Is it...</p> <p>1=Never 2=Once or twice 3=A few times 4=Several times/Frequently</p>
G [1-2] E0159 G [3-4] E0159	<p>How often has someone yelled a racial slur or racial insult at you just because you are African American? Is it...</p> <p>How often has someone yelled a racial slur or racial insult at you just because of your race or ethnic background? Is it...</p> <p>1=Never 2=Once or twice 3=A few times 4=Several times/Frequently</p>
G [1-2] E0160 G [3-4] E0160	<p>How often has someone threatened to harm you physically just because you are African American? Is it...</p> <p>How often has someone threatened to harm you physically just because your race or ethnic background? Is it...</p> <p>1=Never 2=Once or twice 3=A few times 4=Several times/Frequently</p>

	<p>3=A few times 4=Several times/Frequently</p>
G [1-2] E0165	How often have close friends of yours been treated unfairly just because they are African American? Is it...
G [3-4] E0165	<p>How often have your close friends been treated unfairly just because of their race or ethnic background? Is it...</p> <p>1=Never 2=Once or twice 3=A few times 4=Several times/Frequently</p>
G [1-2] E0166	How often have members of your family been treated unfairly just because they are African American? Is it...
G [3-4] E0166	How often have members of your family been treated unfairly just because of their race or ethnic background? Is it...

SKIN TONE RATING MEASURE

Pictorial Measure: Use the 5-figure skin tone rating chart on the next page as the primary basis for scoring skin tone shade. To assist scoring, each image is presented twice—once in color tones and again in grayscale (black & white) tones. When scoring, pay attention to the gradation (shades) in skin tone from lighter to darker.



SCORE	SKIN TONE COLOR NAME	SKIN TONE DESCRIPTOR	SKIN TONE SHADE
0	None of the below	White	Very light
1	Light Brown	Light, light skinned, yellow (also includes very light, but not quite 0)	Light
2	Medium Brown	Caramel	Medium light
3	Brown	Brown, brown skinned	Medium
4	Dark Brown / Very Brown	Mocha	Medium Dark
5	Black	Dark, Dark skinned / ebony (also includes very dark skinned)	Dark

DISCRIMINATION-ATTRIBUTION	
G4E4452	<p>The discrimination I have experienced is entirely due to the prejudice of Whites. Do you...</p> <p>1=Strongly disagree 2=Disagree 3=Neither agree nor disagree 4=Agree 5=Strongly agree</p>
G4E4453	<p>Whites continue to treat Blacks unfairly. Do you...</p> <p>1=Strongly disagree 2=Disagree 3=Neither agree nor disagree 4=Agree 5=Strongly agree</p>
G4E4454	<p>There is still a lot of discrimination in our society against Blacks. Do you...</p> <p>1=Strongly disagree 2=Disagree 3=Neither agree nor disagree 4=Agree 5=Strongly agree</p>

REACTION TO DISCRIMINATION	
G4E4455	<p>When I experience discrimination, I usually accept it without speaking up. Do you...</p> <p>1=Strongly disagree 2=Disagree 3=Neither agree nor disagree 4=Agree 5=Strongly agree</p>
G4E4456	<p>When I experience discrimination, it makes me very angry. Do you...</p> <p>1=Strongly disagree 2=Disagree 3=Neither agree nor disagree 4=Agree 5=Strongly agree</p>

THE INVENTORY OF BLACK IDENTITY-BLACK PRIDE SUBSCALE	
G [3-4] T3018	Blacks should be proud of their race. Do you... 1=Strongly agree 2=Somewhat agree 3=Somewhat disagree 4=Strongly disagree
G [3-4] T3019	Blacks can do anything if they try. Do you... 1=Strongly agree 2=Somewhat agree 3=Somewhat disagree 4=Strongly disagree
G [3-4] T3019	Whites do better in school. Do you... 1=Strongly agree 2=Somewhat agree 3=Somewhat disagree 4=Strongly disagree
G3T3021	Whites look better than Blacks. Do you... 1=Strongly agree 2=Somewhat agree 3=Somewhat disagree 4=Strongly disagree
G3T3022	Blacks do not do well in business. Do you... 1=Strongly agree 2=Somewhat agree 3=Somewhat disagree 4=Strongly disagree
G [3-4] T3023	Blacks are good at things besides sports. Do you... 1=Strongly agree 2=Somewhat agree 3=Somewhat disagree 4=Strongly disagree
G [3-4] T3024	I prefer to go to a White school. Do you... 1=Strongly agree

	<p>2=Somewhat agree 3=Somewhat disagree 4=Strongly disagree</p>
G3T3025	<p>Black have “bad” hair. Do you...</p> <p>1=Strongly agree 2=Somewhat agree 3=Somewhat disagree 4=Strongly disagree</p>
G3T3026	<p>Short hair is as nice as long hair. Do you...</p> <p>1=Strongly agree 2=Somewhat agree 3=Somewhat disagree 4=Strongly disagree</p>
G [3-4] T3027	<p>Blacks don’t speak as well as Whites. Do you...</p> <p>1=Strongly agree 2=Somewhat agree 3=Somewhat disagree 4=Strongly disagree</p>
G [3-4] T3028	<p>I prefer White friends. Do you...</p> <p>1=Strongly agree 2=Somewhat agree 3=Somewhat disagree 4=Strongly disagree</p>
G3T3029	<p>Blacks are not good at math. Do you...</p> <p>1=Strongly agree 2=Somewhat agree 3=Somewhat disagree 4=Strongly disagree</p>
G3T3030	<p>I don’t like being around Blacks. Do you...</p> <p>1=Strongly agree 2=Somewhat agree 3=Somewhat disagree 4=Strongly disagree</p>

G [3-4] T3031	<p>Most Blacks can't be trusted. Do you...</p> <p>1=Strongly agree 2=Somewhat agree 3=Somewhat disagree 4=Strongly disagree</p>
G [3-4] T3032	<p>I like living in a Black neighborhood. Do you...</p> <p>1=Strongly agree 2=Somewhat agree 3=Somewhat disagree 4=Strongly disagree</p>
G [3-4] T3033	<p>Black is beautiful. Do you...</p> <p>1=Strongly agree 2=Somewhat agree 3=Somewhat disagree 4=Strongly disagree</p>
G [3-4] T3034	<p>I prefer living in a White neighborhood. Do you...</p> <p>1=Strongly agree 2=Somewhat agree 3=Somewhat disagree 4=Strongly disagree</p>
G [3-4] T3035	<p>Whites speak better than Blacks. Do you...</p> <p>1=Strongly agree 2=Somewhat agree 3=Somewhat disagree 4=Strongly disagree</p>
G3T3036	<p>Black people are very smart. Do you...</p> <p>1=Strongly agree 2=Somewhat agree 3=Somewhat disagree 4=Strongly disagree</p>
G3T3037	<p>I wish my skin were lighter. Do you...</p> <p>1=Strongly agree 2=Somewhat agree</p>

	3=Somewhat disagree 4=Strongly disagree
G3T3038	I think people of other races look better than Black people. Do you... 1=Strongly agree 2=Somewhat agree 3=Somewhat disagree 4=Strongly disagree