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PREPARING FOR RACIAL DISCRIMINATION: THE ROLE OF COGNITION AND  
EMOTION IN THE PROACTIVE COPING PROCESS OF AFRICAN AMERICAN  
COLLEGE STUDENTS

By

Ryan Christopher Tyler DeLapp  
B.A., Univ. of North Carolina at Chapel Hill, 2012  
M.A., Univ. of Louisville, 2015

A Dissertation Submitted to the Faculty of the College of Arts and Sciences of the  
University of Louisville in Partial Fulfillment of the Requirements for the Degree of

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Department of Psychological and Brain Sciences  
University of Louisville  
Louisville, Kentucky

August 2017



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A Dissertation Approved on

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this dissertation project from just an idea into a reality. I sincerely appreciate all of your hard work.

## ABSTRACT

### PREPARING FOR RACIAL DISCRIMINATION: THE ROLE OF COGNITION AND EMOTION IN THE PROACTIVE COPING PROCESS OF AFRICAN AMERICAN COLLEGE STUDENTS

Ryan C.T. DeLapp

August 16, 2016

Traditionally, conceptual models of racial discrimination have characterized the *reactive* experiences of African Americans, particularly identifying how African Americans cognitively, emotionally, and behaviorally respond to racial stress. The current study extends beyond the reactive coping experience and identifies nuances in the anticipatory and preparatory coping processes associated with racial discrimination. Methods: 62 African American college students participated in a stress induction experiment that prompted anticipatory judgments of discrimination. The full sample completed quantitative self-report questionnaires about their anticipatory thoughts (SAM; Peacock & Wong, 1990; Roesch & Rowley, 2005), state-based affect (PANAS-X; Watson & Clark, 1994), and proactive coping behaviors (PPCB; adapted from Mallet & Swim, 2009). A subset of the full sample (25 students) completed one-on-one interviews that captured their anticipatory thoughts, feelings, and preparatory behaviors. Results: Threat-oriented thinking and negative affect were experienced in anticipation of racial discrimination; however, the endorsement of challenge-oriented thinking and positive affect were better predictors of how the current sample planned to use proactive coping behaviors to manage the anticipated racial stress. Implications: The current findings expands the discriminatory coping narrative by capturing how the expression of optimism, perceived control, self-confidence, goal attainability, and positive emotion in anticipation of racial discrimination increases one's intention to implement coping strategies to minimize the impact of racial stress on task completion. Such findings provide cognitive and emotional targets for assessment when attempting to

understand how African Americans are preparing themselves to manage anticipated racial stressors.

**KEYWORDS:** African Americans, Proactive Coping, Discrimination, Positive Psychology



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## INTRODUCTION

Discrimination describes the behavioral manifestation of “beliefs, attitudes, institutional arrangements, and acts that tend to denigrate individuals or groups because of phenotypic characteristics or group affiliation” (Soto, Dawson-Andoh, & BeLue, 2011, p.258). Of the different forms of discrimination, race-based discrimination is most common experienced by racial/ethnic minorities in the United States (Chou, Asnaani, & Hofmann, 2012). A preponderance of literature has conveyed that the severity, temporality, and chronicity of exposure to discrimination are associated with poor physical and psychological health outcomes across genders and diverse ethnic groups (Pascoe & Richman, 2009). In particular, evidence supports that discrimination has harmful effects as indicated by its relation with a multitude of mental health outcomes (e.g., depression, anxiety, psychological distress, well-being; Paradies, 2006; Soto et al., 2011; Williams, Neighbors, & Jackson, 2003).

In light of evidence substantiating the link between discrimination and mental health outcomes, extant literature has drawn upon stress and coping theory (e.g., cognitive appraisal and coping strategies; Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986) to explain how coping efforts mitigate the psychological consequences of race-based stress (Clark et al., 1999; Harrell, 2000). Broadly, racial discrimination has been characterized as a legitimately stressful event (Eccleston & Major, 2006; Hoggard,

Byrd, & Sellers, 2012) and has traditionally described the coping process as occurring after exposure to a race-based stressor (i.e., reactive coping; Mallett & Swim, 2005). More recent literature has begun to explore how the anticipation of future race-based stress may prompt racial minorities to engage in preliminary coping efforts to manage the onset and psychological impact of racial biases within interracial interactions (Mallett & Swim, 2009). Despite the aforementioned empirical advancements, further research is needed to refine the present understandings of how African Americans cope with past, ongoing, and anticipated experiences of discrimination. Particularly, the current project seeks to identify the function of cognition, affect, and planned behavior as African American college students anticipate potential race-based stress.

## 1. STRESSFULNESS OF RACIAL DISCRIMINATION

Racism consists of a systemized, race-based categorization of people groups that ascribes preferential societal goods and resources to races regarded as superior, thereby creating power differentials exclusively based upon the ranking order of one's racial group (Williams & Muhammad, 2009). At the core of such racial distinctions is an inferiority ideology that attributes certain racial groups as inherently superior relative to lower ranking, more disadvantaged racial groups (Williams & Muhammad, 2009). The marginalization and domination of the disadvantaged groups is also rooted in this belief system (Helms, Nicholas, & Green, 2010). Moreover, as an inferiority ideology has permeated into the social norms and institutions of the American society, it has provided a framework for the development and reinforcement of stereotypes, prejudices, and discrimination (Harrell, 2000). As such, the current project broadly considers racial discrimination as the by-product of this inferiority ideology that has infiltrated various

levels of the American society to influence the interracial interactions of African Americans.

## STRESS AND COPING THEORY

Given that people tend to experience “unhealthy or pathological feelings and behaviors” in response to racial discrimination (Williams, Gooden, & Davis, 2012, p. 27), it is important to understand how African Americans attempt to cope with and manage the consequences associated with experiencing such a stressor. The stress and coping theory offers a framework for conceptualizing such experiences in this population.

Broadly, stress and coping theory is founded under the assumption that coping varies depending on the psychological and environmental demands of the situation (Folkman et al., 1986). When encountering a stressful life event, an individual gauges the relevance of the stressor to their overall well-being by engaging in cognitive appraisal processes.

Specifically, the individual conducts a primary appraisal in which the person evaluates the meaningfulness of the event (e.g., whether the event might be harmful or threatening to one’s self) in addition to a secondary appraisal where the person determines what coping options are available to meet the demands of the stressor. At some point, the individual selects a coping strategy and then evaluates whether the implemented strategy satisfactorily resolved the presenting stressor.

## STRESS APPRAISAL OF DISCRIMINATION

A social encounter involving discrimination is considered to be an example of a stressful event requiring coping efforts (Clark, Anderson, Clark, & Williams, 1999; Harrell, 2000). The stress and coping theory asserts that events are not inherently stressful, but rather the stressful nature of an event lies in how it is cognitively appraised,

which subsequently influences the emotional reactions to the event and the associated coping responses (Clark et al., 1999; Eccleston & Major, 2006). Major and colleagues (2002) argue that the primary appraisal for discrimination embodies perceiving oneself as a threatened victim of discrimination whereas the secondary appraisal pertains to whether the individual believes he/she has the adequate resources to manage the imminent threat of discrimination.

The concept of cognitive appraisal has been applied to the stress evaluation of racial discrimination in African Americans. Specifically, Hoggard et al. (2012) examined the situational characteristics as well as the cognitive appraisals of racially stressful events relative to nonracial events in African American college students. Results indicated that racially stressful events were more unexpected, less controllable, occurring mostly during interpersonal encounters, and in more discreet situations relative to nonracial stressful events. Also, racially stressful events were more likely to occur in places of service or in the community. Despite these situational differences between racial and nonracial events, the African American subjects did not report that racial events were more stressful, taxing, or less successfully coped with compared to nonracial events. An explanation offered by Hoggard and colleagues (2012) for this latter finding is that African Americans develop a hypervigilance for racial events that “may result in feeling more efficacious about one’s ability to cope with the situation thus possibly leading to less stressful appraisals (p. 336).” A separate explanation for their findings may lie in their methodology. In particular, the African American subjects in the Hoggard et al. (2012) study provided daily responses spanning a 20-day period, which included the description of stressful events followed by stress appraisals and evaluating whether the

events were coped with successfully. In maintaining the brevity of the daily response surveys, the authors operationalized the stressfulness of the events using two questions; participants were asked to rate “how taxing the event was to their resources and ability to cope” and “how stressful was the event? (p.333)” Such a brief yet broad measure of perceived stressfulness may not fully capture the nuances of race-based stress that distinguish it from nonracial events.

A separate assessment option that may better capture the unique stressful qualities of race-based stress examines the appraisals of discrimination using several dimensions (i.e., perceived severity, globality, stability, and uncontrollability; Eccleston and Major, 2006). In particular, Eccleston and Major (2006) utilized a sample of Latino American college students and conceptualized that these dimensions reflect the ‘harm appraisal’ of racially discriminatory events. Results indicated that appraisals of stability (perceiving the stressor as unlikely to change), globality (perceiving the stressor will affect multiple areas of life), and severity (perceiving stressor will have a severe influence on life) were positively related to attributions of discrimination, thus highlighting the stressful nature of racial discrimination. Also, their findings provided further support for the relevance of these cognitive appraisal dimensions in understanding the psychological consequences of racial discrimination as evidenced by the significant inverse relationship between global/severe appraisals of discrimination and self-esteem (Eccleston & Major, 2006).

#### PSYCHOLOGICAL CONSEQUENCES OF RACIAL DISCRIMINATION

Aside from being cognitively appraised as a stressful event, the stressfulness of perceived discrimination is also exhibited by its robust relationship with psychological outcome variables; a relationship that has been supported across different ethnicities and

genders (Pascoe & Smart Richman, 2009). Though many studies have utilized different indicators of psychological well-being (e.g., self-esteem, life satisfaction, depressive and anxiety symptoms), two recent meta-analytic reviews suggest that perceived discrimination has harmful psychological effects (Pascoe & Smart Richman, 2009; Schmitt, Branscombe, Postmes, & Garcia, 2014). Specifically, these adverse effects were greatest for pervasive experiences of discrimination (rather than single events of discrimination), for discrimination directed towards the individual (rather than group-based discrimination), and when psychological well-being was defined in terms of psychological distress and negative affect (Schmitt et al., 2014).

Regarding its psychological effects among African Americans, perceived racial discrimination has been shown to elicit adverse emotional responses (e.g., feeling anxious, hypervigilant, disrespected, angry, uncomfortable; Carter & Forsyth, 2010; Swim et al., 2003), is associated with greater psychological distress relative to nonracial stressors (Chae, Lincoln, & Jackson, 2011), and can contribute to the severity of psychiatric symptoms (e.g., anxiety, depression trauma-related symptoms, substance abuse, and eating problems; Chou et al., 2012; Clark, 2014; Harrell, 2000; Helms et al., 2010). Even though the majority of the studies examining the effects of racial discrimination utilize cross-sectional designs (Schmitt et al., 2014), longitudinal studies also suggest that perceived discrimination is a direct cause of psychological outcomes (Brown et al., 2000; Schmitt et al., 2014; Torres et al., 2010). For example, Brown and colleagues (2000) utilized an African American sample and found that racial discrimination within the past month predicted future psychological distress. Also, their results indicated that neither psychological distress nor depressive symptoms were



predictive of future racial discrimination, suggesting that psychological well-being does not cause increased perceptions of racial discrimination.

Altogether, the aforementioned studies demonstrate that perceived racial discrimination can be markedly stressful for its targets/victims. Evidence suggests that perceiving racial discrimination within one's interracial interactions can yield stressful emotional reactions thus producing considerable distress and discomfort in African Americans. A potential factor that has been identified as accounting for the adverse consequences resulting from racial discrimination is the subjective meaning attributed to racially stressful event(s) (Clark et al., 1999; Harrell, 2000). Specifically, when cognitively appraised as imposing a potential threat to self, perceived racial discrimination appears to be associated with a number of adverse emotional and psychological responses, thereby warranting efforts to cope with such responses.

## 2. REACTIVELY COPING WITH RACIAL DISCRIMINATION

When a social encounter is cognitively appraised as meaningful and potentially threatening, the stress and coping theory proposes that cognitive, emotional, and behavioral coping strategies are employed to “manage specific external and/or internal demands that are appraised as taxing or exceeding the person's resources” (Folkman et al., 1986, p. 993). Commonly, models of racial discrimination have proposed that various coping strategies moderate or mediate the relationship between past racial discrimination and psychological responses (Clark et al., 1999; Brondolo et al., 2009; Harrell, 2000). Though the coping literature is often inconsistent in its categorization of these coping strategies (e.g., active versus passive, individual versus collective, inner-directed versus outer-directed, self-focused versus situation-focused, culture-relevant versus mainstream;

Brondolo et al., 2009; Harrell, 2000), the current review utilizes the categorization used by Clark et al. (1999) given that it provides a parsimonious option for describing reactive coping strategies commonly used by African Americans. Specifically, the authors dichotomize coping responses into general versus race-specific coping responses.

#### GENERAL COPING RESPONSES

This category of coping reflects strategies that are typically utilized to manage stressful stimuli, regardless of the source of the stress (Clark et al., 1999). For African Americans, it was theorized that social support and religious participation are examples of their general coping responses. Specifically, Hayward and Krause (2015) utilized 2,032 African American adults from the National Survey of American Life (Alegria, Jackson, Kessler, & Takeuchi, 2008) to examine the relationship between religious participation and the use of religious coping in response to discrimination. These researchers found that African Americans with greater religious attendance, religious media usage (e.g., religious books, TV, and radio), church-based social support, and religiosity (i.e., the importance of religion to one's life) were more likely to endorse using prayer as a coping strategy after experiencing discrimination (Hayward & Krause, 2015). Additionally, evidence suggests that African Americans utilize social support as a means to deal with the effects of racial discrimination (Jean & Feagin, 1998; Utsey, Ponterotto, Reynolds, & Cancelli, 2000), potentially more so than other ethnic minority groups (Thompson Sanders, 2006). Despite the supported positive relationship between perceived racial discrimination and these forms of general coping responses, extant literature has yet to explore whether these variables moderate or mediate the discrimination-psychological outcome relationship.

## RACISM-SPECIFIC COPING RESPONSES

This category of coping responses has been described as cognitions and behaviors implemented to alleviate outcomes associated with perceived racial discrimination (Clark et al., 1999). Due to the dearth of available literature at the time of its publication, Clark and colleagues only provided broad descriptions of racism-specific coping responses by utilizing categories of active (directly dealing with the stressor) versus passive (indirectly managing the stressor) coping. Based upon more recent studies examining racism-specific coping responses (see Appendix A), research has found that different types of coping are related to psychological outcomes. Specifically, avoidant coping, which characterizes efforts to avoid the source of stress, appears to be less effective in attenuating the psychological effects of racial discrimination. Particularly, avoidant coping has exhibited a positive relationship with measures of psychological distress among college students (Barnes & Lightsey, 2006) and adolescents (Seaton, Upton, Gilbert, & Volpe, 2014) and has demonstrated a negative relationship with measures of life satisfaction and overall well-being in college students (Utsey et al., 2000). Also, active forms of coping, including confrontive coping, the logical analysis of the stressor, and problem solving, have also demonstrated significant relationships with psychological outcomes in college students (Barnes & Lightsey, 2006; Thompson Sanders, 2006). In particular, confrontive coping entails directly confronting the perpetrator of the discrimination. Although traditionally viewed as solely an emotional response to discrimination, Pittman (2011) examined active anger (or losing one's temper in response to discrimination) as a variant of confrontive coping and found that it was negatively associated with psychological well-being and distress.

Altogether, a review of the existing studies that describes the relationship between reactive coping strategies (i.e., general and racism-specific coping) and psychological well-being in African Americans who perceive racial discrimination are listed in the Appendix A. Importantly, several of these studies provide evidence that reactive coping strategies either mediate or moderate the relationship between perceived racial discrimination and psychological outcomes.

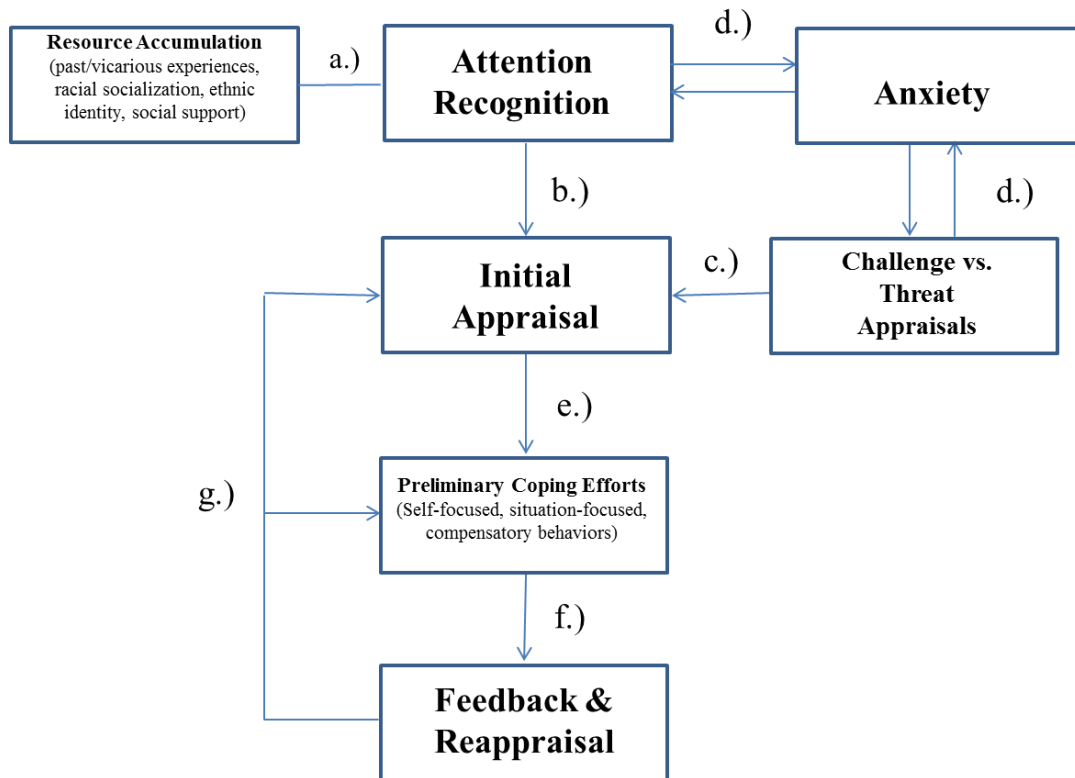
### 3. NEW DIRECTION: PRE-STRESSOR COPING AND RACIAL DISCRIMINATION

Thus far, the review of literature has provided evidence for what has traditionally been the empirical approach to understanding how coping strategies help manage the psychological effects of racial discrimination. Based in the stress and coping theory, existing models most often capture what African American's experience after exposure to discriminatory stimuli and subsequently attribute their mistreatment to racial discrimination (Clark et al., 1999; Harrell, 2000; Torres et al., 2010). Recent literature has begun to emerge beyond the study of this reactive coping process and attend to the pre-stressor coping efforts that may be employed to manage stressful life events. Mallet and Swim (2005) assert that "given its post hoc nature, reactive coping cannot explain how individuals approach potentially stressful situations or use strategies to reduce or eliminate negative consequences before or during a potentially stressful event" (p.414). In light of such limitations, it is important that research about perceived discrimination shift from focusing on its post hoc effects to exploring how African Americans are proactive in their approach to potential race-based stress; a process often entitled proactive coping. Notably, Mallett and Swim (2009) found that 83% of their African American college sample endorsed engaging in proactive coping behaviors when

anticipating discrimination, which importantly establishes a base-rate for proactive coping and warrants the further exploration of this pre-stressor coping process in this population.

#### 4. APPLICATION OF PROACTIVE COPING TO EXPERIENCES OF DISCRIMINATION

The current project utilizes a foundational model by Aspinwall and Taylor (1997) to provide a framework for discussing proactive coping within the context of racial discrimination. In their seminal paper, Aspinwall and Taylor (1997) did not specifically address racial discrimination; however, the current study provides a novel application of this foundational model to experiences of discrimination among African Americans. Specifically, these authors utilized core tenets of the stress and coping theory to propose a multi-step model of proactive coping: 1) Resource Accumulation, 2) Attention Recognition, 3) Initial Appraisal, 4) Preliminary Coping Efforts, and 5) Elicit Feedback (as shown Figure 1).



*Figure 1.* A hypothesized model of Proactive Coping for African Americans who anticipate and prepare for experiences racial discrimination. Model is based on an existing model by Aspinwall and Taylor (1997). (a) Resource Accumulation represents a reservoir of information that can be used to aid in the detection of potentially discriminatory events (Attention Recognition). (b) Following the detection of a potential stressor, the individual will ascribe meaning to the potential stressor (Initial Appraisal). (c) Cognitive appraisal process may include challenge-oriented or threat-oriented appraisals. (d) When anticipated events are perceived as threatening or harmful, the individual will experience anxiety. An individual's anxious arousal will influence their detection abilities and overall appraisal of the potential stressor. (e) When anticipated events are appraised as potentially meaningful, individuals will engage in Preliminary Coping Efforts to manage the onset and outcomes associated with the impending stressor. (f) Once the individual engages with the stressor, it provides feedback regarding the nature of the stressor and efficacy of coping efforts. (g) Based upon this feedback, the individual adjusts their appraisal of the stressor and the selection of coping efforts.

## RESOURCE ACCUMULATION AND ATTENTION RECOGNITION

Regarding Resource Accumulation, it is proposed that individuals must have adequate resources available (e.g., time, money, organization and planning skills, and social support networks) in order to engage in proactive coping. Specifically, Aspinwall

and Taylor (1997) described that these resources may also include anticipatory skills to detect and cope with stress that are learned during upbringing. For example, Figure 1 illustrates that African Americans may acquire such anticipatory skills from their past experiences (Harrell, 2000), by vicariously learning from the experiences of others (e.g., family, friends, and neighbors; Harrell, 2000), through exposure to racial socialization practices (Scott, 2003), and by having a strong ethnic/racial identity (Brondolo et al., 2009; Mallett & Swim, 2005, 2009). Notably, evidence suggests that African Americans high in ethnic identity are more likely to engage in proactive coping efforts (Mallett & Swim, 2009), which may suggest that identifying highly with one's stigmatized identity is a potential resource that increases the likelihood of engaging in proactive coping (Mallett & Swim, 2005, 2009). Also, as previously noted by Clark and colleagues (1999), the social networks of African Americans are important resources for coping with discrimination after it has occurred. Social support networks may particularly help facilitate proactive coping by sharing pertinent information about stressors, enabling more accurate appraisals of ambiguous stressors, providing tangible assistance when dealing the stressor, and offering emotional support. (Aspinwall & Taylor, 1997).

Through these channels of information and learned experiences (either personally or vicariously), individuals acquire skills to identify environmental warning signs and physiological indicators (i.e., bodily arousal) of a potential stressor, thus characterizing the Attention Recognition stage of the model (as shown in Figure 1). Particularly, the acquisition of such information activates a vigilance (or sensitivity) that enables the individual to “scan the environment for potentially threatening information” (Aspinwall & Taylor, 1997, p. 422). Following experiences with race-based stress, African

Americans have been shown to develop hypervigilance for experiences with racial discrimination (Carter & Forsyth, 2010; Helms et al., 2010). According to Aspinwall and Taylor (1997), such hypersensitivity to future threat cues may result in a negative information bias and a chronic state of emotional arousal. Although it has not been studied through the lens of hypervigilance, evidence has demonstrated that interracial interactions can exert considerable executive attentional demands on African Americans (Richeson & Shelton, 2007). Specifically, Richeson, Trawalter, and Shelton (2005) found that African Americans with negative implicit attitudes towards European Americans experienced a reduced performance on an inhibition task (i.e., Stroop task) following a social interaction with a European American individual, suggesting that social situations where discrimination is possible may deplete attentional abilities available for other tasks. Despite the contributions by the Richeson et al. (2005) study, it remains unclear whether a discrimination-based hypervigilance enhances or hinders the subsequent steps of the proactive coping process.

#### INITIAL APPRAISAL STAGE

After becoming aware of a potential stressor, the individual is believed to engage in the Initial Appraisal stage (as shown in Figure 1), which consists of ascribing meaning to the potential stressor through cognitive appraisal processes. Given the attributional ambiguity often evident in explaining the onset of past discriminatory experiences (Major et al., 2002), it is assumed that thoughts surrounding the ambiguous nature of discrimination are also present when anticipating its potential occurrence. In order to make meaning of warning signs for discrimination, Aspinwall and Taylor's (1997) model suggests that the individual must rely on their schemas (or exemplars) of the potential



stressor to aid their appraisal process. Along these lines, perceptions of discrimination can be impacted by whether an experience of unfair treatment is consistent with an individual's prototype (or expectancy) for discrimination (O'Brien, Kinias, & Major, 2008; Simon, Kinias, O'Brien, Major, & Bivolaru, 2013). Examples of such prototypes include status asymmetry (viewing discrimination as typically consisting of high-status groups mistreating lower-status groups; not low-status mistreating high-status groups) and stereotype asymmetry (viewing discrimination as commonly occurring when an individual is negatively rather than positively stereotyped; Simon et al., 2013). Although not empirically studied, it seems plausible that similar prototypes may be utilized in the detection of racial discrimination during the proactive coping process. Moreover, Aspinwall and Taylor (1997) suggest that "strong cues" (e.g., the overtness of the discriminatory cue), "recently primed or accessible cues" (e.g., a close friend or family member recently experiencing discrimination), and "representativeness cues" (e.g., the degree the detected cue matches one's discrimination prototypes) influence how people appraise harm and threat in a potential stressor.

Aside from simply defining an environmental cue as potentially discriminatory, it is also important to determine the likelihood that a warning sign will develop into an actual stressor. Aspinwall and Taylor (1997) propose that the individual must engage in the mental simulation of the potential implications or consequences of the stressor, which aids in their development of an action plan. Based upon this notion, individuals who perceive a potential stressor more favorably (e.g., as reflecting a challenge rather than a feared threat; more optimism) and view the stressor as amenable (e.g., high perceived control) are theorized to be more likely to engage in proactive coping. Contrarily, the

intense emotional arousal resulting from threat appraisals (fearing an unfavorable outcome) are believed to interfere with the information processing (e.g., attentional narrowing for negative environmental cues) and restrict one's ability to engage in proactive coping (e.g., leading to the avoidance of the stressor; Aspinwall & Taylor, 1997). Altogether, the authors suggest that the threat appraisal-coping effort relationship may be curvilinear in that both low and high perceived threat result in minimal preliminary coping efforts whereas moderate perceived threat (possibly where the stressor is viewed more favorably and representative of a challenge) is theorized as most promoting for the engagement in pre-stressor coping.

#### PRELIMINARY COPING STAGE

Regarding the Preliminary Coping stage of the Aspinwall and Taylor (1997) model, the authors propose that individuals engage in pre-stressor coping efforts as long as the stressor is perceived as likely to exist, but note that there will be an attempt to preserve resources if possible (as shown in Figure 1). Thus, the degree of coping efforts is proportionate to the severity of the stressor with more coping effort expended as the stressor becomes more severe; however, this resource conservation theory has not been validated in the context of discrimination. In terms of the types of coping efforts, Aspinwall and Taylor (1997) suggest that greater perceived optimism and control is associated with more active coping efforts whereas less perceived optimism and control (as well as neuroticism) is related to more avoidant coping.

Although the mediating effects of perceived optimism were not found to be related to proactive coping within the context of discrimination (Mallett & Swim, 2009), several studies have found evidence describing common types of proactive coping

strategies employed by African Americans (see Appendix B). For example, Mallett and Swim (2009) found that self-focused proactive coping (e.g., attempting to maintain self-control by attending to one's own thoughts, behaviors, or emotions during situations where racism is suspected) was more commonly used among their African American sample relative to situation-focused coping (e.g., using accumulated resources, attentional awareness, and information seeking to regulate the environment where the stressor is possible) and avoidance coping. Additionally, several studies have explored the use of compensatory behaviors (e.g., openly acknowledging one's stigmatized identity, self-disclosing information to disconfirm stereotypes and enhance individuation, or changing one's behavior to promote positivity and likability) as a means of managing the onset or intensity of discrimination (Richeson & Shelton, 2007; Shelton, Richeson, Salvatore, 2005; Singletary & Hebl, 2009).

#### FEEDBACK AND REAPPRAISAL

Finally, Aspinwall and Taylor (1997) assert that the implementation of initial coping efforts represents an educated guess of what will effectively mitigate the effects of the potential stressor. Given that preliminary coping attempts may be based on false appraisals that were formed prior to having experience with the stressor, the expending of initial coping efforts provides important information for the reappraisal of the stressor and subsequent changes in the coping strategies utilized (as indicated by the feedback loop in Figure 1). For example, individuals may initially perceive a situation as amenable by personal efforts; however, following exposure to the stressor, an individual's perceived control may be altered and potentially more effective coping strategies employed. Though the feedback-reappraisal process has yet to be studied in the

discrimination literature, evidence does suggest that proactive coping is associated with outcomes that can be used in the reappraisal and coping refinement process. For example, Singletary and Hebl (2009) randomly assigned college students to a stigmatizing (wearing 'Gay and Proud' attire) or nonstigmatizing identity (wearing 'Texan and Proud' attire) and asked them to enter stores to inquire about job availability. Participants were asked to engage in different types of compensatory behaviors while interacting with store employees. These researchers found that engaging in compensatory behaviors for stigmatized individuals resulted in more positive nonverbal cues from the store employees (e.g., more smiling, eye contact, and less standoffish behavior which are indicators of a positive impression). Such nonverbal cues can theoretically be utilized to reevaluate whether the situation poses a threat and possibly validate that the implemented pre-stressor coping strategies are effective in managing the onset of discrimination.

## 5. MAIN OBJECTIVES

Despite the aforementioned advances in our understanding of the proactive coping processes utilized by African Americans to manage discrimination, there still remain gaps in the literature that limits our knowledge of this coping process. Particularly, the current study will focus on the Initial Appraisal and Preliminary Coping stages of the Aspinwall and Taylor (1997) proactive coping model.

## CHALLENGE VS. THREAT APPRAISAL: THE ROLE OF COGNITION

Although Aspinwall and Taylor (1997)'s foundational model highlights the relevance of the Initial Appraisal stage within proactive coping, subsequent literature has contested some of the authors' core assumptions regarding how future stressors are cognitively appraised (e.g., Sohl & Moyer, 2009). To some, proactive coping is posited to

be a form of positive coping where future stressors are cognitively appraised as challenges and surmountable obstacles (or challenge appraisals) that provide opportunities for personal growth and a sense of mastery (Greenglass & Fiksenbaum, 2009; Schwarzer & Taubert, 2009). Contrarily, Aspinwall and Taylor's model describes proactive coping as a preparatory process wherein future stressors are appraised along a continuum of perceived threat (i.e., threat appraisals; Aspinwall & Taylor, 1997; Sohl & Moyer, 2009). The disagreement regarding the primary appraisal process (i.e., challenge vs. threat appraisal) in proactive coping is conceptually important given that it identifies different motivations for the implementation of preliminary coping efforts (Schwarzer & Taubert, 2009). For instance, *challenge* appraisals are believed to inspire coping efforts that reflect optimism and a sense of control in one's ability to manage the impact of a future stressor. As demonstrated by Greenglass and Fiksenbaum (2009) and others (Katter & Greenglass, 2013; Schwarzer & Taubert, 2009), coping efforts motivated by challenge-oriented appraisals promote positive affective states and are associated with better psychological outcomes (e.g., less depressive symptoms in a predominately European American sample). Regarding *threat-based* appraisals, it appears the underlying assumption is that coping efforts motivated by perceived threat are not promoting (at least to the degree of challenge-oriented appraisals) of positive psychological outcomes (e.g., positive affect, mental states, and overall well-being).

A recent article by Sohl and Moyer (2009) provided evidence demonstrating that the challenge-oriented (and not the threat-based) conceptualization of proactive coping best captures the coping efforts of 300 college students (49.1% European American) preparing for a future stressor. To provide such evidence, Sohl and Moyer (2009) utilized

a reconfigured version of the Aspinwall and Taylor's multi-step model. More specifically, in an attempt to design an education program that inspired elderly adults to invest in their future (e.g., set goals for their future), Bode, de Ridder, Kuijer, and Bensing (2007) operationalized coping as a set of trainable skills rather than a general dispositional trait (e.g., coping style). Based upon this perspective, Bode and colleagues (2006, 2007) developed a set of 'proactive competencies' based upon the Aspinwall and Taylor (1997) model, which broadly describes an individual's aptitude to detect warning signs, set attainable goals, and select adequate coping strategies to attain goals. Inasmuch, Sohl and Moyer (2009) planned to resolve the challenge versus threat appraisal disagreement by examining which proactive coping conceptualization (measured in the form of a dispositional coping style) was most related to students' proactive competencies and their overall well-being (i.e., affect, subjective well-being, and physical symptoms) prior to taking a college exam. Results indicated that proactive competencies only mediated the relationship between the challenge-oriented coping style and psychological well-being. Sohl and Moyer (2009) argued their findings demonstrate that aspiring for a positive future outcome (challenge appraisal) is more characteristic of the proactive coping process rather than preparing for/minimizing the likelihood of a negative outcome (threat appraisal).

Importantly, there are two pivotal limitations of their study that restrict the generalizability of these findings to experiences with potential race-based stressors. First, this study utilized a college exam to operationalize a future, anticipated stressor. Inherently, college exams are isolated events, easily anticipated, and offer a greater degree of control given that one is offered instruction leading up to the exam that is

intended to bolster a sense of preparation. Given these characteristics, the appraisal of exams becomes less comparable to more discrete, unexpected, and ambiguous stressors, such as discrimination. This limitation raises the question of whether a challenge-based conceptualization of proactive coping would exhibit a similar relationship with proactive competencies and psychological well-being if a race-based stressor was utilized in the Sohl and Moyer (2009) study. Also, the challenge-based conceptualization suggests that proactive coping is done to achieve certain goals (Sohl & Moyer, 2009). When taking an exam, there is a clear and objective desired outcome (i.e., best grade possible); however, the goal definition becomes less objective when encountering a more ambiguous stressor where one has to consider both proximal and distal goals (Folkman & Moskowitz, 2004). With this said, the Sohl and Moyer (2009) study suggests that the underlying motivation for proactive coping lies in the pursuit of goals (challenge appraisals), but the use of a college exam to define their stressor does not explain which primary appraisal process will motivate an individual's preliminary coping efforts when anticipating stressors that provide less clarity regarding attainable goals/outcomes. Given these limitations of the Sohl and Moyer (2009) study, an important question remains unanswered (as illustrated in Figure 1): Are anticipated race-based stressors best captured by challenge or threat appraisals in African Americans?

Among the few studies that have examined proactive coping within the context of discrimination, it appears that threat-based appraisals, as originally proposed by Aspinwall and Taylor (1997), do characterize the Initial Appraisal process among stigmatized individuals, like African Americans. For instance, Mallet and Swim (2009) found that African American who attributed greater meaning to potential race-based

stressors (primary appraisals) engaged in more proactive coping behaviors. Though these researchers did not explicitly measure threat-based appraisals, the measure used to assess primary appraisal included items that are conceptually consistent with threat-oriented appraisal (e.g., being concerned the stressor may cause negative affect, impede goal attainment, or inflict personal harm), thus providing support for the relevance of the threat-based conceptualization of proactive coping in African Americans. Moreover, a primary appraisal projecting that discrimination is likely to occur (e.g., high anticipation of threat) is a particularly salient predictor of proactive coping behaviors (McGonagle & Hamblin, 2013; Shelton, Richeson, & Salvatore, 2005). For example, although not within an exclusively African American sample, Shelton et al. (2005) found that first year ethnic minority college students (50% African American) with higher prejudice expectations tended to use more proactive coping when interacting with their European American roommates, thereby illustrating a positive relationship between such appraisals and proactive coping efforts within discriminatory situations.

In summary, the main objective of the Sohl and Moyer (2009) study is valid in that there still appears to be an inconsistency regarding which appraisals most accurately describe an individual's motivation to engage in proactive coping efforts. Though evidence suggests that the challenge-based conceptualization best characterizes proactive coping (Greenglass & Fiksenbaum, 2009; Sohl & Moyer, 2009), a small body of literature supports the relevance of threat-based proactive coping within the context of discrimination (Mallett & Swim, 2005, 2009; Richeson & Shelton, 2007). In light of the aforementioned inconsistencies, the current study seeks to better understand the significance of each appraisal type; as such a study can refine our understanding of the



*cognitive* experience of this population as they anticipate experiences of racial discrimination.

#### POSITIVE VS. NEGATIVE AFFECT: THE ROLE OF EMOTION

A second, more exploratory objective of study includes examining the role of emotion within this coping process with particular interest in examining how emotion motivates proactive coping efforts and identifying the emotional correlates of the aforementioned appraisal processes. In particular, challenge appraisals have been shown to yield positive affective states and to promote positive outcomes when facing a potential stress (Greenglass & Fiksenbaum, 2009; Katter & Greenglass, 2013; Schwarzer & Taubert, 2009). Contrarily, threat appraisals are often associated with negative affective patterns (particularly anxiety). Within the context of discrimination, it has been hypothesized that the activation of negative affective states (e.g., anxiety) when anticipating discrimination causes African Americans to allocate substantial attentional resources to manage the onset of discrimination (Richeson et al., 2005), thereby depleting their attentional control abilities for other tasks (Richeson & Shelton, 2007). In support of this hypothesis, the clinical anxiety literature has identified distinctive attentional patterns among anxious individuals (Beck & Clark, 1988, 1997; Popescu & Baban, 2014). Specifically, anxious individuals are described to actively search for and experience difficulty disengaging from threat cues (i.e., an attentional bias for threatening stimuli; Mathews & MacLeod, 2005). This attentional bias is typically automatic and is influenced by anxiety level, perceived severity of threat, and attentional control (Mathews & MacLeod, 2005). Along these lines, the relevance of threat appraisals in the

discrimination literature warrants the assessment of negative affect (particularly anxiety) within the Initial Appraisal stage of proactive coping.

Theories of pre-stressor coping propose that appraisals interact with affect to influence the likelihood and quality of the proactive coping process (Aspinwall & Taylor, 1997; Richeson & Shelton, 2007; Schwarzer & Taubert, 2002). There are concerns that the available studies supporting that positive affect is related to proactive coping may not generalize to a state-based assessment of proactively coping with discrimination. For example, Greenglass and Fiksenbaum (2009) utilized a trait-based, dispositional measure of proactive coping and examined how affect is related to an individual's tendency to utilize proactive coping to manage potential stressors. A drawback of this dispositional assessment approach is that it separates the coping process from the context it is implemented within and relies on respondent memory recall to provide an aggregate evaluation of their coping responses. As such, there is still a gap in our understanding of how affect and proactive coping are related within the direct context of specific anticipated stressors with varying situational demands. Racial stressors represent a unique stressful situation that is characterized by its potentially unexpected, ambiguous, pervasive, and less controllable qualities (Hoggard et al., 2012). However, the role of pre-stressor affect has yet to be explored within such situational context (particularly from a state-based perspective), thus highlighting a gap in our understanding of how African Americans actively engage with anticipated race-based stressors. As such, the present study will examine whether variations in pre-stressor affect interact with the appraisals of anticipated discrimination to predict how African Americans proactive with such stressors. Such an empirical contribution would better characterize how the pre-stressor

cognitive and emotional experiences of African Americans are related to their behavioral efforts to manage the onset of discrimination.

## 6. STUDY AIMS AND HYPOTHESES

In moving beyond the post-stressor models of racial discrimination (e.g., Clark et al., 1999; Harrell, 2000), the current study combines different domains of psychology (e.g., social and clinical psychology) to explore how African Americans can actively equip themselves with tools to interpret and prepare for anticipated racial discrimination. In pursuit of the aforementioned main objectives, the current study has three primary aims.

### AIM 1: EXAMINE THE COGNITIVE APPRAISALS OF ANTICIPATED RACE-BASED STRESS

*Hypothesis 1.1:* Previous literature suggests that challenge appraisals of anticipated stress are more predictive of proactive coping efforts relative to threat appraisals (Sohl & Moyer, 2009). Due to concerns with the external validity of the Sohl and Moyer (2009) study, it is suspected that their findings do not generalize to how African Americans anticipate race-based stress. No prior study has explicitly compared the relevance of challenge and threat appraisals within the context of anticipated discrimination. However, in light of existing literature that has identified discrimination as a stressful and potentially harmful experience (Eccleston & Major, 2006; Hoggard et al., 2012; Major et al., 2002), it is hypothesized that threat appraisals will be a significant predictor of proactive coping efforts among African American college students.

*Hypothesis 1.2:* There are several appraisal types that are implicated in previous literature that can better explain the relationship between primary appraisals and proactive coping in African Americans found by Mallet and Swim (2009). As previously described, there has been a debate regarding the relevance of threat versus challenge appraisals; however, this debate has often conceptualized these two appraisal types using an “either/or” approach where proactive coping is forcefully considered a challenge or threat-oriented process. No study to date has considered whether these appraisals are orthogonal, potentially occurring in tandem with one another. To account for this possibility, the current study will explore whether an interaction between challenge and threat appraisal emerges as a significant predictor of proactive coping behaviors. Given that conceptualizations of challenge- and threat-oriented appraisals are, in ways, oppositional (e.g., challenge appraisal- high perceived control; threat appraisal- low perceived control), it is hypothesized that the combination of high threat appraisals and low challenge appraisal will be a significant predictor of proactive coping efforts among African American college students.

#### AIM 2: EXAMINE THE AFFECT WHEN ANTICIPATING RACE-BASED STRESS

*Hypothesis 2:* Several studies have proposed that positive affective states promote the use of proactive coping efforts (Greenglass & Fiksenbaum, 2009; Katter & Greenglass, 2013; Schwarzer & Taubert, 2009); however, there is concern that the anticipated stressors used in these studies are characteristically different from anticipated race-based stressors. Within the discrimination literature, there has traditionally been a *reactive* conceptual approach, as existing models have explored the post-stressor experiences of victims of discrimination (Clark et al., 1999;

Brondolo et al., 2009; Harrell, 2000). From this body of research, negative affective states (anxiety, anger; Carter & Forsyth, 2010) have typically exhibited significant relationships with perceived racial discrimination, suggesting that encounters with race-based stress are more closely associated with negative rather than positive affect. As such, it is hypothesized that negative affect will better predict proactive coping behaviors among African American college students than positive affect. However, given that the role of state-based affect has yet to be explored within the context of proactive coping with discrimination, *hypothesis 2* is considered to be exploratory.

### AIM 3: EXAMINE THE COGNITIVE-AFFECTIVE INTERACTION WHEN ANTICIPATING RACE-BASED STRESS

*Hypothesis 3:* According to the Aspinwall and Taylor (1997) model, cognitive appraisals and affect are theorized to interact to influence proactive coping behaviors. Although no study to date has examined the interaction between cognition and affect within the context of discrimination, evidence proposes that challenge appraisals are generally associated with positive affect and threat appraisal are associated with negative affect (Aspinwall & Taylor, 1997; Sohl & Moyer, 2009). As such, it is hypothesized that these interactions (i.e., challenge appraisal-positive affect and threat-negative affect) will be predictive of proactive coping behaviors, and the threat appraisal-negative affect interaction will be the best predictor of proactive coping behaviors within this population.

## METHODS

### 1. PARTICIPANTS

**Quantitative Sample:** The sample consisted of 62 undergraduate students from a southern university who identified themselves as African American or Biracial (Black and White). Specific inclusionary criteria for the current study included: participants must be between the ages of 18-25 years of age and a student at the University of Louisville. Participants were recruited using an online university research database, by encouraging university professors and employees to inform students about the project, posting fliers around the campus, and offering a monetary incentive. During the recruitment process, the study was advertised as an effort to understand peer interactions during group work in online courses. Particularly, participants were recruited under the guise that the current study was interested in the experiences and opinions of college students about online multicultural courses. The age range of participants was 18 to 24 years old, with a mean of 20.28 years old ( $SD = 1.52$ ). Participants were 27.4% male ( $n=17$ ) and 71.0% female ( $n=44$ ). In terms of school classification, 14.5% were freshman ( $n=9$ ), 30.6% were sophomores ( $n=19$ ), 32.3% were juniors ( $n=20$ ), 21.0% were seniors (13), and 1.6% was other ( $n=1$ ). Within our sample, the following majors were represented by at least 1

student: Spanish, Psychology, Sociology, Business (i.e., Marketing, Accounting, Economics), Communication Studies, Exercise Science, Biology, Pan-African Studies, Economics, English, Nursing, Social Work, Education, Engineering (i.e., Computer and Bio), Criminal Justice, and Public Health.

**Qualitative Sample:** The sample consisted of 25 African American undergraduate students, who were a subset of the quantitative sample. The age range of these participants was 18 to 24 years old, with a mean of 20.16 years old ( $SD = 1.40$ ). Participants were 44% male ( $n=11$ ) and 56% female ( $n=14$ ). In terms of school classification, 12% were freshman ( $n=3$ ), 36% were sophomores ( $n=9$ ), 32% were juniors ( $n=8$ ), and 20% were seniors ( $n=5$ ). Within our sample, the following majors were represented by at least 1 student: Spanish, Psychology, Sociology, Business (i.e., Marketing, Accounting, Economics), Communication Studies, Pan-African Studies, English, Education, Bioengineering, and Criminal Justice.

## 2. PROCEDURE

### STUDY SCREENING AND BASELINE ASSESSMENT

The main objective of the current study is to explore the proactive coping experiences of African American college students who anticipate experiences of discrimination. Given that the current study tells participants that they were randomly assigned to work with their partner (a fictitious White male or female), the recruitment strategy should be consistent with the possibility of this interracial partner match. As such, we did not publicly advertise the study as restricted to African American college students, but rather used a brief, pre-study screener to select African American

participants. As noted previously, the study was marketed as seeking to better understand the quality and effectiveness of peer interactions during online college courses. Aside from obtaining basic demographic information (e.g., race/ethnicity, socioeconomic status, age, gender), the study screener obtained consent for student completion of the screener and their participation in the main part of the study. Additionally, participants provided information consistent with the study's backstory, such as their impressions of group work, their personal experience with online courses, and their experience with multicultural courses, and completed a battery of baseline questionnaires assessing trait-level and individual differences between participants. Following the completion of the study screener, only respondents who self-identified as African American or Biracial (Black and White) were selected for participation in the main part of the study.

#### THE INDUCITION OF ANTICIPATED RACE-BASED STRESS

Following the baseline assessment, participants partook in an analogue experiment that examined the planned proactive coping efforts of African Americans who anticipate working with a racially prejudiced European American peer (see Appendix C for specific materials used in the induction). The current methodology is a modified version of a study conducted by Mallet and Swim (2005), which explored the proactive coping efforts of overweight women when facing potential discrimination. Consistent with the guise that the study is assessing peer interactions during online group work, participants were asked to initially read a short excerpt on the academic retention rates for African American college students and were told that they would work with their assigned partner to complete a group project related to the reading topic. The topic of the reading was intentionally selected to draw upon the stereotype threat literature that



describes how African Americans can perceive situations as self-threatening when there is a “possibility of ... being treated and judged in terms of a [negative stereotype].” (Steele, 1997, p. 617) In this case, the intended function of the reading topic is to present a reality of lower retention rates and place in a spotlight on the negative stereotype that African Americans can be perceived as unintelligent. In order to induce the perception that the participants may be treated or judged based upon this stereotype, participants were informed that they have to work with their partner (a fictitious White male or female) to brainstorm campus-wide solutions for improving retention rates for African American students. It was emphasized that this group activity would be evaluated based upon the quality of their interaction.

Prior to meeting their partner via webcam, it was explained that both the participant and their partner must respond to the following prompt when preparing their introductory video, “Describe ways that you have been exposed to diversity and culture in your life, particularly within academic and/or school settings. Also, describe your impressions of group work and multicultural courses.” In order to enhance the perceived reality of the partner, the researcher appeared to receive a notification while interacting with the participant that was ostensibly from another researcher running their partner at another location in the building. The notification appeared to inform the researcher that the partner’s video was complete. The participant was told that their partner must have arrived early for the study, thus allowing them to complete their introduction video. The participant was then asked to review the video prior to making their video. Participants were randomly assigned to view either a male or female partner’s video. In both videos, participants observed a White college student endorsing “negative” racial attitudes.

During the development of stress induction experiment, these videos were pre-screened and evaluated to ensure they were gender equivalent. Specifically, 19 respondents (which mostly consisted of ethnoracial minority college/graduate students) rated how comfortable they would feel working with the person in each video as well as how approachable, friendly, racially sensitive, and likable the person appeared. There were no significant differences in how the male and female videos were rated.

The partner introduction videos are a subtle experimental manipulation that was adapted from a study by Murphy, Richeson, Shelton, Rheinschmidt, and Bergieker (2012), which examined the differential responses of ethnic minorities to blatant versus subtle biases. Within the current study, the White partner shared, in their videos, information about their hometown, high school, and impressions of college life, and group work (See Appendix C for complete partner video transcript). Several details disclosed in the videos explicitly communicated the White partner's negative racial attitudes about African Americans. For example, while expressing thoughts about college life, the partner explained that s/he was "surprised and a bit uncomfortable with all the ethnic people on campus when [s/he] arrived mainly because of [their] experience with these folks in high school and [they had] seen some crazy things recently on t.v." Moreover, the partner referenced experiences from high school that were consistent with the negative stereotype that African American students were unintelligent and lazy (e.g., "I didn't have many classes with [Black students], but I did realize that they really didn't try at school and a lot of them didn't even graduate") (Williams, Gooden, & Davis, 2012). The partner's personal background details combined with their expressed racial attitudes were intended to further induce the anticipation that the participant would be

treated or judged in way that is consistent with the stereotype that African Americans are unintelligent.

In summary, the current study used three manipulations that were designed to induce the possibility of encountering race-based stress: 1) the reading topic, 2) type of group activity, and 3) the racial attitudes of the partner. Collectively, these components were intended to create an anticipated peer interaction where the participant could be mistreated by a racially prejudiced partner within an academic environment.

#### POST-EXPERIMENT ASSESSMENT: A MIXED METHODS APPROACH

After viewing the partner's video, participants were given a short period of time to prepare and record their own introductory video. Following the recording of their introduction video, participants watched as the researcher ostensibly sent to the video to partner. Next, participants were reminded that the group activity would include working with their partner to brainstorm potential campus-wide solutions for improving the retention rates of African American students. All participants received the quantitative assessments; however, certain participants were asked to participate in an extended assessment that included an adjunctive qualitative assessment.

During the **quantitative** assessment, *all* participants responded to several questionnaires regarding the *anticipation* of working with their partner on this project. These questions included the measurement of challenge versus threat appraisals, current affect level, and the proactive coping strategies participants *plan* to use during their anticipated interaction their partner. The purpose of the qualitative condition was to build upon existing evidence that has shown that primary appraisals (and not secondary appraisals) of anticipated race-based stress are predictive of engaging in proactive coping

strategies. Moreover, the questionnaires included in this condition provided a more nuanced understanding of the relationship established by Mallet and Swim (2009) by explicitly measuring types of primary appraisals and adding affect into the conceptual equation. Also, this quantitative approach intends to capture how *state-based* cognition and affect influence *planned* proactive coping efforts.

For a subset of the full sample, the **qualitative** assessment offered an alternative methodological approach to advancing our understanding of how African Americans prepare for racial discrimination. Specifically, the current study conducted *case study research* (Creswell, 2006), which is a qualitative approach that involves examining an issue using several cases within a specific setting or context (i.e., anticipated race-based stress in the current study). Creswell (2006) asserts that a *collective case study* (or using multiple cases to illustrate to occurrence of an issue) is an appropriate methodology when researchers desire to capture an in-depth perspective of a group's overall experience while encountering a specific issue. In this case, the qualitative condition sought to illustrate how pre-stressor cognition and affect interact to influence preliminary coping behaviors when anticipating racial discrimination utilizing participant responses. Importantly, this qualitative approach provided African American participants the opportunity to inform researchers about their experiences rather than having their experiences restricted to questionnaires. As previously noted, the current study conducted 25 interviews and all interviews were video-recorded and transcribed.

Once participants completed their responses in either condition, they were debriefed and told that they would not be interacting with the fictitious partner.

### 3. MEASURES

#### QUANTITATIVE APPROACH: EVALUATING PROACTIVE COPING IN AFRICAN AMERICAN

*Stress Appraisal Measure* (Peacock & Wong, 1990; Roesch & Rowley, 2005)

The SAM was originally designed as a 24-item dispositional measure of stress appraisals that evaluate anticipated rather than past stressors. Ratings are provided on a 4-point scale ranging from 0 (not at all) to 4 (a great amount). The transactional model of stress identifies two appraisals processes (i.e., primary and secondary) that determine the personal significance of an event (Peacock & Wong, 1990). The SAM represents a multidimensional approach to measuring how individuals typically appraise anticipated stressors. There have been mixed findings regarding the factor structure of the SAM. Originally, the SAM included 6 subscales (e.g., three primary appraisals and three secondary appraisals subscales; Peacock & Wong, 1990); however, several factors had poor internal consistency and subsequent analyses have revealed factor redundancy (Roesch & Rowley, 2005). In more nascent findings, a three-factor solution containing 14 of the original 24 items emerged in an ethnic minority adolescent sample (Rowley, Roesch, Jurica, & Vaughn, 2005) and a four-factor solution containing 19 items emerged in a predominantly ethnic minority college sample (Roesch & Rowley, 2005). The original version of the SAM (24 items) was administered in the current study as none of the factor patterns have been validated exclusively in a sample of African Americans. However, the challenge and threat appraisal subscales derived from the 19-item version were utilized in the current study given that, relative the other factor solutions (i.e., Peacock & Wong, 1990; Rowley et al., 2005), these subscales emerged in a sample that

was the same age cohort as our sample (i.e., college-aged ethnic minority students). Moreover, these researchers found that the 19-item measure was invariant across genders and demonstrated good internal consistency (Roesch and Rowley, 2005).

There was a slight modification to the SAM in the current study. Given that the SAM was originally designed to be a dispositional measure of stress appraisals, the items are phrased to reflect an individual's general appraisal of stress (e.g., "I have the ability to overcome stress"). In order to capture the *situation-specific* appraisals of interracial interactions, participants were asked to rate their current stress level as they anticipate working with their European American partner on a 4-point Likert scale ranging from 1 (I am Not At All stressed) to 4 (I am very stressed). Next, participants were instructed to provide their responses on SAM items within the context of their perceived stress ratings (i.e., "Please answer the following questions based on how stressful you feel it will be to work with your partner"). Also, SAM items were re-phrased to further reflect a situation-specific appraisal (e.g., "I have the ability to overcome *this* stress"). See Appendix D for a complete description of adaptations to the SAM.

#### *Positive Affect Negative Affect Scale- Expanded (PANAS-X; Watson & Clark, 1994)*

The PANAS-X is a 60 item self-report measure assessing different affective states. The measure is designed to measure two higher order categories of positive and negative affect as well as 11 lower order subcategories of affect (e.g., Fear, Hostility, and Serenity). Participants provide ratings on 5-point likert scale, ranging from 1 (very slightly or not at all) to 5 (extremely), to measure the degree respondents' feel or have felt different adjectives within a specific time frame. In the current study, participant responses will capture their 'momentary' (i.e., "right now") elevations across various

affective states. The Positive Affect ( $\alpha = .89$ ) and Negative Affect ( $\alpha = .92$ ) scales of the PANAS-X have demonstrated good internal consistency in a community based sample of African American women (Petrie, Chapman, & Vines, 2013). Similar findings emerged in a predominantly white college sample (Watson & Clark, 1994). Also, evidence supports that the PANAS-X can be used as a *state-based* measure of affect by prompting participants to provide momentary ratings (Watson & Clark, 1999; Petrie et al., 2013). Specifically, ratings of positive and negative affect on the PANAS-X appear to be sensitive to daily fluctuations in affect and several affect subcategories have exhibited meaningful correlations with other state-based inventories (e.g., Fear subscale of the PANAS-X positively correlated with State Trait Anxiety Inventory-State Version), thereby providing further support for its use as a state-based metric of affect (Watson & Clark, 1994). The current study utilized the Positive and Negative Affect scales (as broad indicators of state-based affect). See Appendix D for the complete list of items that make-up the positive and negative affect subscales.

#### *Planned Proactive Coping Behaviors (PPCB; adapted from Mallet & Swim, 2009)*

Adaptions were made to an assessment tool used by Mallet and Swim (2009) to measure the retrospective reports of proactive coping in an African American college sample. Specifically, participants were asked, “When you think someone might discriminate against you based on your race/ethnicity, do you do any of the following things to help manage the situation or to reduce the likelihood of harm to yourself,” and then subsequently rated their tendency to engage in a list of 14 proactive coping strategies generated by Mallet and Swim (2009). Researchers found that a 3-factor solution best fit their African American sample with factors describing self-focused coping, situation-

focused coping, and physical avoidance. Each factor had acceptable internal consistency: self-focused ( $\alpha = .76$ ), situation-focused ( $\alpha = .76$ ), and physical avoidance ( $\alpha = .80$ ).

The current investigation utilized a list of 12 out of the 14 proactive coping strategies, as two of the strategies cannot be feasibly used in the analogue experiment (i.e., avoiding or leaving situations where racism may be encountered). As a result, the current study only measured situation-focus and self-focused coping strategies. Moreover, instead of prompting participants to rate their retroactive use of these coping efforts, they were asked to rate the likelihood that they *plan* to engage in specific proactive coping strategies as they anticipate working in the upcoming group activity. Specifically, each participant read the following prompt, “Before you interact with your partner, how likely are you to use the following behaviors to influence your interaction with him/her?” In order to further enhance the situation-specific nature of participant ratings, each item was revised by prompting to participants to consider the use of each coping strategy within the context of working their partner (e.g., “While working with my partner....”). In addition to revising the prompt to be more future-oriented and state-based, the language explicitly prompting participants to think of “racism” was replaced with the term “discrimination.” Also, participants were asked to define discrimination as “being treated differently or unfairly due to a personal characteristic of yourself (e.g., race).” See Appendix D for a complete description of adaptations to the original measure.

#### QUALITATIVE INTERVIEW

For a subset of the sample, participants were interviewed about their current cognitive and emotional experience as they anticipate working with their partner. The interview



questions are organized into three sections: 1) introduction, 2) anticipated group work, and 3) contextual information.

### INTRODUCTORY SECTION

Participants were told that the interview is a follow-up to their quantitative assessment and is intended to provide them an opportunity to elaborate on their current experience. During the introductory section, interview questions elicited responses about the participant's general impression of group work (e.g., "What are your general impressions of working on group projects") and their personal evaluation of how they work in groups (e.g., "Do you have any notable strengths or weaknesses when working in groups?") Broadly, the purpose of the introduction section is to further bolster the backstory of the current study (e.g., the study of online group work) and to begin easing the participant into the interviewing process.

### ANTICIPATORY GROUP WORK

Once acclimated to the interview format, participants were reminded that they were about to begin working with their partner to generate campus-wide solutions for improving African American student retention. During this section of the interview, participants were encouraged to describe their current thoughts and emotions as they anticipate working with their partner. Also, participants were asked to provide a description of their planned proactive coping efforts by responding to the following prompt, "Please describe some strategies you will use to help successfully and effectively work together with your partner to complete the project." This section of the interview approaches the topic of anticipated race-based stress from a perspective analogous to the quantitative approach. Specifically, participant responses to these questions will be used

to characterize how *state-based* cognition and affect is related to how African Americans *plan* to proactively cope with anticipated race-based stress.

## CONTEXTUAL INFORMATION

Aspinwall and Taylor (1997) describe that individuals must have adequate resources available in order to detect anticipated stressors and to engage in proactive coping. As such, the final section of the interview will focus on placing the participant's aforementioned responses within a situational context that considers the acquisition of these resources. Specifically, evidence has shown that the centrality of an individual's race and/or ethnicity can influence their use of proactive coping efforts (Mallet & Swim, 2009), which necessitates that the researcher inquire about the participant's perception of their racial identity. Also, although not empirically supported, it has been theorized that previous encounters with racial discrimination influences the detection and interpretation of anticipated race-based stress (see Figure 1). Consistent with this theory, participants will be asked to recall past experiences when their race has been a source of stress in their life.

Finally, the interview will be concluded by gauging whether the participant anticipates that their race will influence their ability to work with the partner. Similar to the quantitative condition, participants in the qualitative condition were not be forced to explicitly consider anticipated race-based stress until the end of the study. As such, all previously gathered data should be considered authentic responses to anticipated race-based stress that are not biased by the researcher suggesting that the impending event (i.e., group project) is stressful due to the participant's race. However, in order to verify

that their previous responses occurred within the context of anticipated race-based stress, it warrants that the participant is explicitly asked at the conclusion of the study, “Do you feel that your race will influence how well you and your partner will be able to work together?”

#### 4. STATISTICAL ANALYSIS

##### QUANTITATIVE ANALYSIS

Bivariate correlations were conducted to explore the linear relationships between planned coping efforts and method effect variables. These preliminary analyses were utilized to identify significant differences in planned coping efforts that resulted from study methodology that would need to be controlled for in the primary analyses. These method effect variables included participant believability (the extent to which believed they would be working with their partner and that their partner would discriminate against them), fictional partner gender, researcher type, and stress ratings. Similarly, bivariate correlations were conducted to explore the linear relationships between planned coping efforts and participant demographics (e.g., participant age, gender, and classification) to also identify variables that would need to be controlled for in our primary analyses.

**Cognition and Proactive Coping:** Bivariate correlations were conducted to explore the linear relationships between planned coping efforts and state-based cognitive appraisals. Additionally, hierarchical linear regression was used to compare the relationships between two primary appraisal dimensions (Challenge and Threat) and proactive coping behaviors. Given that the assessment tool used to measure proactive coping efforts is believed to have two subscales (i.e., situation-focused and self-focused

coping), two regression models were conducted with each subscale used as a continuous dependent variable. Within these models, each appraisal dimension (Challenge and Threat subscales of the SAM) is entered into Block 1 and the standardized beta weights were used to examine to determine which appraisal dimension is more predictive of each proactive coping strategy (*Hypothesis 1.1*). Finally, the significance of an interaction term combining threat and challenge appraisals was included in a separate model to determine if there is an orthogonal relationship between these appraisal types (*Hypothesis 1.2*). Given that challenge and threat appraisals were measured as continuous variables, two centered variables were generated by subtracting the mean from each appraisal total score, which minimizes the colinearity between these independent variables within the regression model (Aiken & West, 1991). According to the guidelines outlined by Osborne (2017), the interaction term was created by multiplying the two centered appraisal total scores together and evaluating whether there is a significant improvement in explained variance in the outcome variable (i. e. ,  $\Delta R^2$ ).

**Affect and Proactive Coping:** Bivariate correlations were conducted to explore the linear relationships between planned coping efforts and state-based affect. The current study also used hierarchical linear regression to compare the relationships between two types of affect and proactive coping behaviors. Similarly, two regression models were conducted with each proactive coping subscale used as a continuous dependent variable. Within these models, positive affect (PANAS-X: PA total score) and negative affect (PANAS-X: NA total score) were entered into Block 1 and the standardized beta weights were examined to determine which affect type is more predictive of each proactive coping strategy (*Hypothesis 2*).

**Cognition, Affect, and Proactive Coping:** An exploratory approach was used to examine how cognition and affect interact to predict proactive coping efforts. Specifically, bivariate correlations were again used to inform the creation of the cognitive-affective interaction term. Within each model, there were 3 total predictors with one predictor of interest (i.e., the interaction term) and the standardized beta weights were examined to determine whether the interaction term (representing the combined cognitive-affective experience) was predictive of each proactive coping strategy (*Hypothesis 3*). As previously described, the interaction term was created by multiplying the two centered appraisal total scores together and evaluating whether there is a significant improvement in explained variance in the outcome variable (i. e. ,  $\Delta R^2$ ; Osborne, 2017).

#### QUALITATIVE ANALYSIS

According to the analysis procedure summarized by Creswell (2006), collective case study analyses occur in several phases. First, the criteria for selecting cases for inclusion in the qualitative analyses (or *purposeful sampling*) consisted of identifying individuals who endorsed some anticipation that their partner would discriminate against them (i.e., a perceived discrimination believability greater than 0). During data collection, the qualitative coding process was initiated and *embedded analyses* (or the analysis of specific aspects of each case) were conducted in that special attention was paid to participant statements about their thoughts, emotions, and planned coping in anticipation of the partner interaction. Next, an *analysis of themes* was conducted where each case was reviewed for themes (or categories) in the data, also known as *within-case analysis*. In the current analysis, cognition (i.e., challenge and threat appraisals), affect (positive

and negative affect), and planned coping strategies (i.e., self-focused and situation-focused coping) were already identified as the categories of interest and the semi-structured interview was designed to gather data about these categories. As such, this phase of the analysis consisted of verifying whether these empirically-supported categories emerged at the within-case level and then conducting a *cross-case analysis* where appropriately saturated categories across cases were identified along with subcategories of cognition, affect, and planned coping that also emerged across participant responses. It is worth noting that qualitative interviews were discontinued after participants began providing repeat descriptions of their experiences in the stress induction experiment (i.e., saturation). Finally, the last phase of the qualitative analyses was to interpret the meaning of the themes that emerged across the cases, a process that is characterized as ‘lesson learned’ from the data (Creswell, 2006). In summary, the goal of the qualitative analysis was to generate a more comprehensive understanding of the cognitive, affective, and behavioral experience of anticipating discrimination by identifying subcategories within each of these general themes.

## RESULTS

### 5.1. DESCRIPTIVE STATISTICS

*Believability effect:* As previously noted, participants rated the extent to which they believed they would be interacting with their partner (partner believability) and the extent to which they believed their partner would discriminate against them (discrimination believability) at the end of the study on a scale of 0% to 100%. The mean partner believability was 84.39% ( $SD= 23.35$ ) with minimum rating of 10 and a maximum rating of 100. The mean discrimination believability rating was 41.54% ( $SD=30.06$ ) with a minimum rating of 0 and maximum rating of 100. Given that the main objective of the current is to examine how African American students prepare themselves for anticipated discrimination, all participants who endorsed a 0% discrimination believability ( $n=4$ ) were excluded for all subsequent analyses. After excluding these participants, the mean discrimination believability rating slightly increased to 44.41% ( $SD=28.94$ ). Altogether, there were no significant correlations between planned coping efforts (self-focused or situation-focused coping) and partner believability and discrimination believability, indicating that the extent of believability was not a relevant indicator of planned proactive coping efforts (See Table 2).

*Video effect:* To control for effect of partner gender, participants were randomly assigned to view either a White male or White female introductory video. Partner video was dummy coded as 1 representing “male video” and 0 representing “female video.” There was not a significant correlation between planned coping efforts (self-focused or situation-focused coping) and partner gender, suggesting African American students endorsement of planned coping was relatively consistent regardless of the gender of their assigned partner. Also, to explore the effect of gender matching, a dummy code was created where 1 represented “matched” (e.g., male participant matched with male video) and 0 represented “non-matched” (e.g., male participant with female video). There was not a significant correlation between planned coping efforts and gender matching, which also indicates that how African Americans planned to cope was consistent regardless of gender matching.

*Researcher effect:* There were three researchers that administered the stress induction experiment to African American participants, which included an African American undergraduate male, a European American undergraduate female, and an African American doctoral student. Dummy coded variables were created to compare student endorsements of planned coping across each researcher by creating separate variables where “1” is set for a specific researcher and “0” is set for the other researchers (Field, 2009). The dummy coded variables were entered as bivariate correlates of each type of planned coping effort. There were no significant correlations between planned coping efforts (self-focused or situation-focused coping) and researcher dummy coded variables, suggesting the endorsement of planned coping efforts was not related to which researcher administered the stress induction.



*Effect of Perceived Stressfulness:* As noted previously, participants rated the perceived stressfulness of anticipating their work with their partner on a scale of 1 (I am not at all stressed) to 4 (I am very stressed). The mean stressfulness rating was 1.79 ( $SD=.72$ ) with a minimum of 1 and maximum rating of 4, which demonstrates that the majority of African American students found the stress induction mildly stressful. As shown in Table 1, the majority of the current sample (86.2%) was “not at all” to “a little” stressed in anticipation of the partner interaction. Also, the anticipated stressfulness of the interaction with the partner was not significantly correlated with planned coping efforts (self-focused or situation-focused coping). And, given that there was one participant that endorsed “very stressed” (as shown in Table 1), all subsequent analyses were conducted with and without this participant’s responses. Due to the invariant findings between the statistical approaches (i.e., consistency in the direction and significance of linear and moderation relationships), all subsequent analyses include this participant’s responses. Additionally, the perceived stressfulness rating exhibited significant relationships with each appraisal and affect dimension. As shown in Table 2, perceived stressfulness was negatively correlated with challenge appraisal total scores ( $r= -.271, p= .041$ ) and positive affect total scores ( $r= -.302, p=.02$ ). Contrarily, perceived stressfulness was positively correlated with threat appraisal total scores ( $r=.573, p<.001$ ) and negative affect total scores ( $r=.466, p<.001$ ). Taken together, these findings suggest that less perceived stress during the study was cognitively associated with greater perceived optimism, control and less perceived harm as well as emotionally related to more positive affect and less negative affect.

**Table 1:** Frequency distribution of the perceive stressfulness of the anticipated partner interaction

	Frequency	Percent	
NOT At All Stressed	21	36.2	36.2
A Little Stressed	29	50.0	86.2
Stressed	7	12.1	98.3
Very Stressed	1	1.7	100.0
Total	58	100.0	

*Demographics:* Dummy codes were created for categorical demographic variables: gender (i.e., male =1 and female =0) and classification (e.g., 1=freshman, 0=sophomore, 0=junior, 0=senior, and 0=other). There were no significant correlations between planned proactive coping efforts (self-focused or situation-focused coping) and participant age, gender, and classification, suggesting that our sample of African American college students were relatively similar in their endorsement of planned coping strategies despite their demographic differences.

**Table 2:** Correlation Matrix for Planned Coping

	1	2	3	4	5	6	7	8	9	10	11	12
1) Discrimination Believability (0-100%)	1	.103	.044	.318*	.213	.131	-.125	.219	-.125	.226	.019	.082
2) Partner Believability (0-100%)		1	.140	.125	-.071	.156	.100	.159	.030	.136	-.065	.009
3) Gender of Partner Video			1	-.058	.128	.130	.026	-.049	-.017	-.057	-.225	-.093
4) Perceived Stressfulness				1	-.001	.109	.271*	.573**	-.302*	.466**	-.097	.076
5) Age					1	.082	.066	.026	.153	.077	-.042	-.145
6) Gender of Subject						1	-.103	.077	-.128	.137	-.007	.028
7) SAM: Challenge Appraisal							1	-.382**	.643**	-.216	.451**	.313*

8) SAM: Threat Appraisal	1	-.419**	.757**	-.120	-.010
9) PANAS: Positive Affect		1	-.275*	.303*	.291*
10) PANAS: Negative Affect			1	-.020	-.014
11) PCB: Self-focused coping				1	.717**
12) PCB: Situation-focused coping					1

Note. \* p<.05; \*\*p<.01

## 5.2 QUALITATIVE MEASUREMENT

### PLANNED COPING EFFORTS

The current study operationalized behavioral coping by examining how African American students *planned* to use self-focused coping and situation-focused coping strategies to manage the onset and/or impact of discrimination during their interaction with their partner.

### SELF-FOCUSED COPING

Self-focused coping is defined as “attempts to regulate the self to avoid a potentially negative outcome (Mallet & Swim, 2009, p. 305).” A subset of the overall sample (n= 25) were interviewed and asked questions about what strategies they plan to use to assure that their interaction with their partner goes well. A common theme emerged from student responses that coalesced around the general concept of self-focused coping in that their responses described internally focused efforts to monitor and/or regulate their own personal reactions to racial stress within their impending partner interaction. Within this

overall theme, there were *three* types of self-focused coping efforts that were commonly endorsed in our African American student sample: 1) Reserved Judgment, 2) Emotion Regulation, and 3) Behavior Regulation (see Table 3).

**Table 3:** Types of Self-focused Coping Efforts Derived from Qualitative Interviews

Code	Frequency	Sub-code	Sample Quote
1. Reserved Judgment	8/25 (32%)		<p>“I think I always try to start off friendly. I don’t really see a reason to start out being rude unless you give me a reason to be rude. So just starting out with everybody has a clean slate. I know his experiences, but I don’t think he’s a bad person...I just think he has some ideas that are a little warped so I don’t think there’s any reason to come in with some animosity.”</p> <p>“I feel like we could come to an agreement [on the project]...like I said I think she means well, and if I don’t for myself let those things that kind of freak me out [lead me to] have an officially negative opinion of her to begin with, I think that we could come to a little agreement...”</p>
2. Emotion-Regulation	9/25 (36%)	<ul style="list-style-type: none"> <li>• Cognitive Reappraisal</li> <li>• Ignoring</li> </ul>	<p><i>Cognitive Reappraisal:</i> “I am kind of like I am little annoyed. It all just kind of rubbed me the wrong way, like I am trying to be as optimistic about it as possible. I am really trying to like I am having a pep talk with myself like, ‘You have to be open minded because that’s what you want the other person to be.’ But it definitely like watching the video definitely annoyed me and rubbed me the wrong way”</p> <p><i>Ignoring:</i> “...just kind of let stuff roll off my back...just trying to ignore anything rude or...”</p>
3. Behavior-	14/25 (56%)	<ul style="list-style-type: none"> <li>• Conditional Reactivity/Response</li> </ul>	<p><i>Conditional Reactivity:</i> “I don’t know [how I will respond] until I am actually put into</p>

Regulation	<ul style="list-style-type: none"> <li>• Effortful Impulse Control</li> </ul>	<p>the situation because I can be very passive and just bite my tongue and handle things and just let them play out and then sometimes I can just snap back or educate you and let you know that this isn't how things are, you know? But I wouldn't know unless I was actually in the situation.”</p> <p><i>Effortful Impulse Control:</i> “Before each response I want to make sure that I have taken what he's said and thought about my response before speaking. I do tend to be impulsive and just speak, so now that it's online I can have the time to think about what I am going to say before I say it and how I want to react to this... [For example,] ‘Is this the right way to react,’ and yadda yadada...”</p>
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1) Reserved Judgment: This concept of self-focused coping describes efforts by African American students to be hesitant in their judgments about their partner's character and the likelihood that their partner would become a perpetrator of racial mistreatment. As shown in Table 3, one student described their hesitation by stating,

“...I don't really see a reason to start out being rude unless you give me a reason to be rude. So just starting out with everybody has a clean slate...I just think he has some ideas that are a little warped so I don't think there's any reason to come in with some animosity.”

Similar to other students, this statement captures how the African American student is very intentional in their efforts to reserve their judgments and predictions about their partner. More specifically, the imagery of a “clean slate” is suggestive of the student attempting to give their partner the benefit of the doubt and trying to see beyond the influence of his background/environment. Also, among the students, there was a notion to

fight or suspend personal racial biases about their White partner. For instance, a student expressed,

“I think she means well and if I don’t for myself let [her biases] that kind of freak me out lead me to have an officially negative opinion of her to begin with, I think that we could come to a little agreement [on solutions for the project].”

Another student added that,

“I mean I will be honest I guess I was just kinda judging her. So I judged her as like not really an open person but then again I don’t know her so she could be but I don’t know.”

Together, these statements highlight the efforts by African American students to fight instinct or intuition regarding how the interracial interaction will unfold.

2) *Emotion-Regulation*: After viewing their partner’s introduction video, African American students endorsed feeling a range of emotions as they anticipated working with their partner on the project, which included a number of negative affective states (see below for more details). The combination of a negative emotional response to the video as well as a negative emotional state while anticipating their partner interaction led students to engage in efforts to manage the intensity of these emotions. Particularly, African American students broadly referenced a plan to maintain a controlled emotional appearance during their partner interaction (e.g., keep a calm demeanor). One student articulated the importance of African Americans being in such an emotional state by stating,

“It’s important not to get upset and just start yelling because every stereotype that they probably have of you is affirmed and then they are just...they are like, ‘You

are like everything I expected you to be, so I don't really need to listen,' so I feel like approaching it in a calm manner is the better way to go.”

Notably, this statement illustrates how this student envisions that an emotionally dysregulated reaction to racial stress will be costly and broadly result in consequences that far exceed the context of the group project (e.g., confirming negative stereotypes about African Americans in general).

Additionally, students described how they planned to achieve this emotionally controlled demeanor. For some, their approach to managing their affect mirrored a self-talk coping strategy, where they appeared to coach themselves through the emotional stress of the situation. For example, one student openly described how she was already engaging in this regulatory process as she stated,

“I am little annoyed...It all just kind of it just rubbed me the wrong way like I am trying to be as optimistic about it as possible. I am really trying to like...I am having a pep talk with myself like, ‘You have to be open minded because that’s what you want the other person to be.’ But it definitely like watching the video definitely annoyed me and rubbed me the wrong way.”

This statement illustrates a process of struggling to re-orient her affect to be in-tune with an optimistic mindset; a cognitive restructuring process that is achieved by engaging in an internal dialogue. Contrarily, another common strategy for planning to manage one’s emotional response was the intention to ignore negative affect. For instance, one student simply expressed a plan to “just kind of let stuff roll off my back...just trying to ignore anything rude.” Along these lines, another student explained why the approach of

ignoring might be a desired coping strategy within the specific context created by the study. The student stated,

“I don’t like to look over people’s discrimination or anything like that, but when I have to work with somebody I am willing to put it aside...put aside my personal beliefs or whatever and get the work done so as long as it doesn’t keep being an occurring thing over and over again. I feel like I could get things done but its still...the bias is still there and it could potentially hurt the work, so I try my best to put it aside.”

According to this student, the process of ignoring (or “putting aside”) reactions to racial stress may be utilized to achieve a more primary goal (e.g., work completion).

Altogether, the aforementioned statements capture the purpose behind regulating emotional responses to racial stress and the ways these students plan to control their emotion; however, another student articulated that the process of emotion regulation is no easy task. This student expressed,

“I feel like [African Americans] are always told to just let it roll off your back...just kind of ignore it, but it’s hard not to want to say anything, so it’s like how can you say something without getting so mad [...] because I get mad easily when I feel like I am being disrespected, but I try not to let myself get there because I don’t like people having that type of power over me.”

This statement aptly illustrates that effective emotion regulation (particularly in anticipation of racial stress) is perceived as a taxing and difficult process that is



compounded by a concern that a mismanaged emotional response comes with a costly consequence (e.g., a loss of power).

3) *Behavior-Regulation*: Similar to the perceived importance of appropriate emotional expression in response to racial stress, African American students expressed a desire to respond behaviorally in a fashion that is appropriate for the situation. For some, the intensity and nature of one's planned behavioral response during the interracial interaction was dependent upon the behavior of the partner. One student explained that,

“If I feel like I am being disrespected, I don't really take that very well. I don't appreciate it and I don't condone it and it may sound childish, but I feel like if I am being disrespected I try not do it, but I am usually disrespectful back.”

Similarly, another student expressed that,

“I don't know [how I will respond] until I am actually put into the situation because I can be very passive and just bite my tongue and handle things and just let them play out and then sometimes I can just snap back or educate you and let you know that this isn't how things are, you know? But I wouldn't know unless I was actually in the situation.”

Together, these statements illustrate that, for some students, there is conditionality to the behavioral response to racial stress where the African American student's efforts to regulate behavior is determined by situational demands (e.g., communication of respect via partner behavior).

Contrarily, other African American students described a behavioral approach that was less contingent upon the dynamics of the interaction; a planned approach that appeared more calculated and effortful. One student expressed that her plan was to,

“Before each response, I want to make sure that I have taken what he’s said and thought about my response before speaking. I do tend to be impulsive and just speak, so now that it’s online I can have the time to think about what I am going to say before I say it and how I want to react to this... [For example,] ‘Is this the right way to react,’ and yadda yadada...”

Consistent with this student’s plan to be intentional about her impulse control, another student explained that,

“When I do let her speak and I actively listen to what she’s saying and what opinions she might have and I will try my best not to find a word and immediately attack her on that because I know that is something that I have done in the past [and] it’s not very productive.”

Again, this student expresses intent to be effortful in controlling her typical response to racial stress, which is a behavioral control strategy that is believed to be important for achieving a more primary goal (e.g., work productivity). Another effortful behavioral strategy that African American students planned to use was remaining aware of one’s nonverbal cues during the project completion (or self-monitoring). Broadly, students referenced wanting to monitor their overall behavioral appearance (e.g., their level of eye contact, tone of voice, and physical posture) in order to manage the overall impression

their partner has of them personally and the African American race. A male student expressed that,

“I don’t want to be intimidating because I am a black guy and a lot of people I work with in classes and outside of classes are white people and they are smaller than me. And so it could be like a lot to take in if I’m super loud and super headstrong in things and I don’t want to make people feel uncomfortable because I don’t like feeling uncomfortable myself and so I [can] sit back a little bit from the[from the computer] or maybe not look them in the eye too long or too much. I don’t know...just make them feel like it’s not pressured...like too much pressure.”

Altogether, there was a common reference to the nature of how one planned to behaviorally respond to racial stress among African American students; however, there was variability in the extent to which students intended to be reactionary versus calculated/effortful in their behavioral approach.

#### SITUATION-FOCUSED COPING

Situation-focused coping is broadly characterized as “attempts to regulate the person-environment relationship that is causing the stress Mallet & Swim, 2009, p. 305).” The subset of interviewed students also endorsed a cluster of planned coping strategies that were consistent with the situation-focused coping conceptualization. Within this theme, there were *two* types of situation-focused coping efforts that were commonly endorsed in our African American student sample: 1) Education/Enlightenment and 2) Information Seeking (see Table 4).

**Table 4:** Types of Situation-focused Coping Efforts Derived from Qualitative Interviews

Code	Frequency	Sub-code	Sample Quote
1. Education/ Enlightenment	13/25 (52%)		<p>“I see it as a little bit of enlightenment maybe next time he can think about [what he learned from me] before it’s something that he says or maybe he can educate his friends on things like [it].”</p> <p>“I think it will be interesting because she said she came from a small town, and the people that she knew who were my minority, my race only played sports. I did play sports growing up, but I was more of a nerd, like the people on my team were always, like, put me down for that, you know. So, I guess that’s something I can kind of throw at her that might be a little different.”</p>
2. Information Seeking	7/25 (28%)	<ul style="list-style-type: none"><li>• Strategy Selection</li><li>• Bias Exploration</li></ul>	<p><i>Strategy Selection:</i> “Um, first I’m going to ask him, um, what has he seen on campus currently, what do you know, what do you know about African-American retention, first off. If he, if he’s not knowledgeable on the subject then I’ll try to educate him seeing that, you know, I’m African-American and then from there, um, hear what he has to say or I’ll go first, he goes first, and then from there come up with a plan, uh, kind of ‘X’ out things that might not work or whatever. Then just come up with a proposal.”</p> <p><i>Bias Exploration:</i> “I like to see how people’s minds work what’s going on in your head or basically for me to analyze</p>

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him and have an opinion about him honestly to see if he is someone I would socialize with or that I would do business with or just see why you say this because I don't want to judge and take his statement and say oh my gosh he's racist. I want to see like why what's going on in your head to make you think this.”

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1) *Education/Enlightenment*: In hearing their partner endorse negative beliefs about the work ethic and intelligence of African Americans, many students planned to confront or manage the impact of these negative beliefs directly by attempting to educate their partner about who they are individually as an African American student (e.g., individuating information that disconfirms their partner's negative beliefs about their race). For instance, one student stated,

“I feel like because he has the impression already before meeting me that I won't work hard and so if he has that impression...by no means am I going to go out of my way to break that impression by being something that I am not, but I will work hard and hopefully just me being me breaks that impression.”

In this statement, the student identifies the specific bias that he anticipates being judged on during the project completion. However, his planned course of action for managing this racial stress is himself; the plan entails being who he is and hoping that approach is enough to counteract their partner's negative attitudes about his race. Along these lines, several students articulated how the plan to use oneself as an educational tool comes with a pressure to prove oneself and appropriately represent one's race. For example, one

student expressed, “I feel at first I would just prove myself just because I am African American but other than that I am pretty chill about it.” Similarly, another student states,

“I feel like it’s the fact that I am one of the first or only black people she’s talk to plays a part in it, but it’s also a good position for me to be in just because I can put on for my people, I guess.”

Collectively, these aforementioned statements illustrate how using one’s experiences and interpersonal characteristics as a strategy to counteract racial stress is, for some, compounded by a pressure to adequately represent oneself and his/her overall race. However, one student provided a potential explanation for why some may select an educational approach to confront anticipated racial stress. She stated, “I see it as a little bit of enlightenment maybe next he can think about [what he learned from me] before it’s something that he says or maybe he can educate his friends on things like [it].” Notably, this statement highlights that, for some, an underlying goal motivating one’s intent to use this form of situation-focused coping is to enhance their partner’s cultural learning. Altogether, a type of situation-focused coping that students planned to engage in was using their own experiences and interpersonal characteristics as educational tools to address and manage the impact of racial stress during their project completion.

2) *Information Seeking*: As previously noted, some students endorsed efforts to manage the stress of their interracial interaction by reserving their judgment about their partner’s character. For some students, their reserved judgment also extended into a reticence regarding how they planned to respond behaviorally to any racial stress during the project completion. More specifically, their planned coping process appeared to be suspended

until additional situational information was gathered. For example, a student expressed that,

“I guess since I’m like anxious or whatever to like hear what he has to say, I may just sort of like...you know I mean I’m not saying that I won’t do any work, but I may just sort of like follow and hear what he has to say.”

This statement suggests that this student is in need of more information before they are able to plan and execute a course of action regarding how to navigate any stressors within the interracial partner interaction. Moreover, students explicitly described planning to begin the project completion phase of the current study by seeking additional information about their partner’s beliefs and biases. One student stated,

“First I’m going to ask him, um, what has he seen on campus currently, what do you know, what do you know about African-American retention, first off. If he, if he’s not knowledgeable on the subject then I’ll try to educate him seeing that, you know, I’m African-American and then from there, um, hear what he has to say or I’ll go first, he goes first, and then from there come up with a plan, uh, kind of ‘X’ out things that might not work or whatever. Then just come up with a proposal.”

Notably, this student eloquently articulates how they plan to utilize the obtained information to aid their coping strategy selection; a coping approach that describes how African Americans may go about proactively problem solving how to reduce the interference of any anticipated racial stress within their group work.

Aside from seeking information primarily for the purpose of guiding one’s coping strategy selection, students also planned to use an ‘information seeking’ approach to gain

a better sense of the intent behind the negative racial biases endorsed by their partner. An example of this comes from a student who stated,

“I like to see how people’s minds work what’s going on in your head or basically for me to analyze him and have an opinion about him honestly to see if he is someone I would socialize with or that I would do business with or just see why you say this because I don’t want to judge and take his statement and say oh my gosh he’s racist. I want to see...what’s going on in your head to make you think this.”

In a sense, the pursuit of information is intended to explore the depth and nature of the racial biases held by their partner, which again will be used to determine the African American student’s overall character assessment of their partner and inform their course of action within the interpersonal exchange.

#### ANTICIPATORY COGNITION:

In order to better conceptualize the cognitive experience of African American students as they anticipate racial stress, the current study examined the extent to which our sample endorsed two types of cognitive appraisals (Challenge and Threat appraisals) that have been purported to influence the proactive coping efforts. The following section includes a description of sub-categories of challenge- and threat-oriented thinking that emerged among interviewed African American students. Notably, 13 out of the 25 (52%) interviewed students simultaneously endorsed both types of appraisals in anticipation of the partner interaction.

#### CHALLENGE APPRAISALS



Challenge appraisal reflects viewing a future stressor optimistically, believing that the stressor may provide opportunities for personal growth, and ultimately perceiving the stressor as controllable. Among the types of anticipatory thoughts endorsed by students that were contextually specific to interacting with their partner, a theme of cognition emerged that was consistent with the challenge appraisal conceptualization. Within this theme, there were *four* types of challenge appraisals that were commonly endorsed: 1) Valuing Differences, 2) Goal Attainment (Partner Learning), 3) Goal Attainment (Self Learning), and 4) Interpersonal Adaptability (See Table 5).

**Table 5:** Types of Challenge Appraisals Derived from Qualitative Interviews

Code	Frequency	Sample Quote
1. Valuing Differences	6/25 (24%)	<p>“Him coming from a small town with a lot of white people in it, I think it will give this specific topic a different view of things, because for me I would have a view of this what we should because I am black so I feel like I know what we should do in a sense, but for him coming up in a predominantly white town I think having his idea of what might work would be interesting...I think it would be very contributing. I think you need more than just one opinion, so you need different kind of races and different people to give their opinions to make the best of it.”</p> <p>“Hopefully, [our differences] will make it better in the sense that we'll...I will bring my ideas and she will bring hers and they will be different, but they will be good together.”</p> <p>“I feel like we will have different viewpoints, which can come together and decide which works best.”</p>

2. Goal Attainment (Partner-Learning)	11/25 (44%)	<p>“I mean I want him to open up because he can’t go through life living like this. There is going to be a time when he is going to face somebody and he is just going to have to look at them for who they are rather than the color of their skin or where they come from...I mean that’s just the world we live in”</p> <p>“I am excited. He said he didn’t have that many black people in his school or whatever. And I always like being able to initially be like someone’s first impression of what it would be like...you know what it’s like to work with a black guy. So I think it will be good.”</p>
3. Goal Attainment (Self-Learning)	4/25 (16%)	<p>“I am actually trying to see what ways I can learn from this and learn about myself and how I react to things that are tense or like a sensitive topic. I am usually not put in a situation where I have to be bothered with it or if there’s a post about it I don’t go or just ignore it. I want to see how I react as an individual and how I can react better”</p> <p>“I think this is, uh, cause like I said this is a new, it’s a new thread for me, like, it’s something that I’ve never done before and it’s something that I’m looking forward to, like, I don’t want to have a problem with her.”</p>
4. Interpersonal Adaptability	12/25 (48%)	<p>“I have been [around] people with his same mindset from 1st grade until 12th grade so I think I can work pretty well with like trying to understand where he is coming from and hopefully he will try to see where I am coming from.”</p> <p>“I feel like I can communicate with people even though they have different views...I listen to people...like we can work through it.”</p>

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“It doesn't bother me because I know that there are people like that who don't really have experience with other people and they really do think that, you know, that one group of people represent a whole entire race and, I mean, I'm use to it by now, so, I mean, it doesn't effect what I have to do.”

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1) *Valuing Differences*: As previously noted, participants were told that they would be interacting with their partner on a project that required them to think of campus-wide solutions to improving the graduation rates of African American students on their campus. Many students believed their firsthand experiences and observations as an African Americans placed them in a more knowledgeable role relative to their White counterpart. Specifically, one student expressed that,

“When we are thinking about why these students are not graduating, I see it...I know people who have dropped out for whatever reason, so I know the reasons. I don't know how many African American friends [my partner] has, but he may think that it's something else that it's not...that they have a reason for dropping out that is not the case.”

As highlighted in this statement, personal experiences and observations as a member of the targeted group were viewed as a valued partner quality and, more importantly, the lack of ingroup experience left some questioning the potential quality of their partner's contribution to the project.

However, a subset of the interviewed students articulated the potential value and, in some ways, added benefit of collaborating with an individual with such a disparate

background. One student acknowledged the limitation of a racially homogeneous group when explaining that, “if [my partner and I] came from the same background...we might try to throw out the same or similar ideas...” This student captures how partners with similar backgrounds and experiences may hinder the variety of solutions generated during the group project. Moreover, another student articulates the potential benefits of interpersonal differences by saying, “Me and him are apparently from different backgrounds and bring different assets to the table so he can bring some of his beliefs and things that might be beneficial to this topic and likewise for me.” Notably, the term used to describe what their partner ‘brings to the table’ was “asset;” a term that ascribes value and meaning to their White counterpart’s potential to contribute to the group project. Finally, another student summarizes both the limitation of racially homogenous partners and the value of heterogeneous pairings by expressing,

“Him coming from a small town with a lot of white people in it, I think it will give this specific topic a different view of things because for me I would have a view of this [is] what we should do...because I am black so I feel like I know what we should do in a sense, but for him coming up in a predominantly white town I think having his idea of what might work would be interesting...I think it would be very contributing...I think you need more than just one opinion so you need different kind of races and different people to give their opinions to make the best of it.”

Altogether, many students were aware of the blatant demographic differences between themselves and their partner; however, this concept represents how some students

interpreted these differences to be valuable and indicative of some personal benefit (e.g., a better quality project).

2) *Goal Attainment (Partner Learning)*: All students in the current study were explicitly provided one primary goal for their interaction with their partner: to submit a proposal that summarizes the campus-wide solutions that he/she and their partner believe will improve graduation rates for African American students. However, some students identified alternative goals that were less about project completion and more about the opportunity for personal or partner enlightenment. As aforementioned, African American students often viewed themselves as being within the more knowledgeable role in regard to the project's topic. Potentially, this self-perspective translated into viewing their role in the group interaction as an opportunity to aid their partner's cultural learning, particularly about the African American experience. One student appraised the stress of the interracial interaction as

“Maybe this can actually be very productive and if not just changing her worldview forever it will at least be...she will kind of work with me on an individual basis of me as a person and not just go straight to well she's this race.”

This student casts himself or herself as a person of influence and envisions that their actions may promote change for their partner. Along these lines, another student states,

“I want him to open up because he can't go through life living like this, there is going to be a time when he is going to face somebody and he is just going to have to look at them for who they are rather than the color of their skin or where they come from, I mean that's just the world we live in.”

For this student, there is an added emphasis on the importance of their partner's cultural learning that far exceeds the context of simply completing the assigned project, as they express concern that their partner's current worldview will limit their ability to adapt in multi-ethnic environments.

In viewing their group interaction as representing an opportunity for partner learning, some students, in particular, identified certain negative stereotypes that they hoped to disconfirm during the group project. One student expressed that,

“Maybe he doesn't like African Americans right now because he thinks they're all stupid or whatever he might think...I think this [group project] might either deepen his opinion in that or help him steer away from that [mindset] and have an experience outside of a forced diversity class where [he realizes,] ‘I interacted with this girl and she was very smart...she was cool to talk to...I like talking to her’...just have an effect on him whether it be positive or negative.”

Within this statement, there is hope that the personal encounter of the group project will provide individuating information that will challenge specific preconceived notions about African Americans. However, this hope is combined with a realization that just one interaction may not promote the desired positive change. Another student explicitly expressed his dislike for African Americans, particularly Black males, being reduced to a circumscribed list of characteristics, as he stated, “I don't want his only view of black people or black males to be they're athletic or they are good at sports or they don't graduate...or when they do something they don't finish it.” He continued by defining the

group interaction as an integral and possibly exclusive opportunity for change, as he stated,

“I feel like maybe this is the only chance that he will have to like actually work with a black person. In class he might choose to be...well he might not choose to be paired with a black person you know what I am saying. And so being put in the situation where, ‘Alright I am in this situation now I gotta make the best of it’... And so I feel like I should make the best of it not only as like myself to show that, ‘Hey I am smart too,’ but black people [are] in general that way he doesn’t just go down like, ‘oh this is what black people are,’ you know.”

This student’s statement captures the nuanced nature of setting a goal for partner learning in that it casts the group interaction as being an opportunity for dispelling stereotypes at both the personal and general population levels.

Collectively, this type of challenge appraisal places the African American student in the role of a potential catalyst for change and illustrates how these students attribute meaning to encountering racial stress. Specifically, this concept describes how African American students envisioned that a potential outcome of the group interaction could result in their partner’s cultural learning and growth.

3) *Goal Attainment (Self-Learning)*: Aside from foreseeing that the group project represents an opportunity for partner-learning, a concept of challenge appraisals endorsed by the current sample characterizes beliefs that the group project also offers a chance for personal growth and discovery. One student stated,

“I am actually trying to see what ways I can learn from this and learn about myself and how I react to things that are tense or like a sensitive topic. I am usually not put in a situation where I have to be bothered with it or if there’s a post about it I don’t go or just ignore it. I want to see how I react as an individual and how I can react better.”

In this statement, the student notes that they often intentionally minimize their exposure to racial stress; however, they have appraised their impending partner interaction as a unique opportunity for self-evaluation and ultimately self-learning regarding their response to racial stress. Other students also acknowledged the novelty of interacting with a racially insensitive partner on this subject matter, and rather than appraising the situation as representing an opportunity for personal growth, the focus shifts to expanding one’s exposure to the thought processes of someone with a different background.

Specifically, one student expressed,

“It’s a new thread for me, like, it’s something that I’ve never done before and it’s something that I’m looking forward to, like, I don’t want to have a problem with her. I want to see what her ideas are, just because she came from that different background, like, that peaks my interest, you know, I don’t know what her idea will be, and I think that’ll be kind of cool. Cause she could really, legitimately have something better than what I could come up with.”

In this statement, there is an expressed eagerness and excitement to learn what ideas their partner proposes and, analogous to the Valuing Differences concept, there is an



anticipation that interpersonal differences could result in valuable contributions towards the project's completion. Similarly, another student stated,

“I have a lot of white friends but I have never talked to them about this subject matter. Never got to pick their brain about what they think. So part of me... I want to answer the [project] question, but also part of me wants to pick her brain just to see like what their perceptions are about it.”

Notably, this student describes a genuine intrigue to learn about their partner and envisions that this group project provides an opportunity for him to learn more about the worldview and ideologies underlying his partner's belief system in ways that past interracial interactions have not afforded. Broadly, this concept captures how students appraised the anticipated stress of the partner interaction as representing a unique opportunity for personal growth, particularly in the forms of stress management and cultural learning.

4) *Interpersonal Adaptability*: The last concept underlying the challenge appraisal theme describes student perceptions of their own qualifications to the navigate stress of the interracial interaction. For many students, there was a perceived efficacy and confidence in their interpersonal skills that were rooted in past exposure to peers with backgrounds similar to the partner. Specifically, one student touted that,

“I have been [around] people with his same mindset from first grade until 12th grade so I think I can work pretty well with like trying to understand where he is coming from and hopefully he will try to see where I am coming from.”

In this statement, this student expresses that her past experiences bolster her ability to engage in coping strategies (particularly perspective taking) focused on navigating the interpersonal stress in the pursuit of the project completion. Moreover, some students also referenced past interracial interactions as experiential evidence supporting their ability to manage interpersonal stress through being relatable. Similar to the concept of partner learning, one student explained that he viewed his partner interaction as an opportunity for change and noted his ability to be an agent of his partner's cultural learning.

Particularly, he stated that,

“I think a lot of people...don't get a chance to see we are pretty smart and we know some stuff and so for me being like in the position I can be in to where I can be your teammate on the team but at the same time excel in my classes and stuff like that I feel you get to see both sides of the spectrum...I can talk sports talk or show that I am a good athlete but at the same time I take like advanced classes so I can show you, 'Hey, you know I am smart too.'”

Notably, this student envisions that his partner may view athleticism and intelligence as mutually exclusive characteristics where African Americans are considered less likely to be intelligent. But, based in his self-image of being competent in both areas, he expresses confidence in his ability to draw upon his athleticism and intelligence to be both relatable and dispel negative stereotypes. Along these lines, another student expressed confidence in his ability to be relatable as well as assuage any discomfort his partner may have. He stated,

“I just think that I give a different perspective...I feel that I have the racial background of an African American, but I have the knowledge of different races just because I put myself in the situations. I think that I will be able to relate and that’s what this is all about. I think it’s about relations and I think that I can relate to her and make her feel comfortable just given my experience and what I’ve done.”

For this student, his interpersonal confidence again is grounded in his past experiences, particularly, as an African American male and his past efforts to broaden cultural awareness of racially diverse individuals.

Altogether, the general thread unifying this concept is the self-perceived confidence in one’s ability to navigate any stress posed by the interracial interaction; however, one student acknowledged that there are limitations to one’s ability to manage the stress (regardless of past experience or perceived confidence). Particularly, this student expressed that,

“I think the only thing that really turns me off with a person that I don’t think I could ever do group work with them is that if they tell me they are really closed minded or they say something that’s really offensive and you know you kind of get the bias of...since you think that, maybe it will be super hard to work with you or something like that.”

She continues by expressing that her perceived control over managing the stress of the partner interaction occurs along a continuum:

“I have worked with a lot of people that are difficult to work with before, so I...you kind of have to be at the top of, you know, being like a jerk essentially to really make me think that I can’t get anything accomplished with you.”

Notably, this statement captures that some students may feel that their confidence can only take them so far and highlights that the possibility of achieving a productive interpersonal exchange is not solely dependent upon the African American student’s own ability and actions.

### THREAT APPRAISALS

Threat appraisals describe viewing a future stressor as representing a potential harm to one’s self, resources, or loved ones. Similar to the challenge appraisals, qualitative analyses identified a cluster of anticipatory cognition that was consistent with the threat appraisal conceptualization. Within the subset of students interviewed, *two* types of threat appraisal that commonly emerged: 1) Anticipated Partner Bias and 2) Anticipated Racial Mistreatment/Discrimination (See Table 6).

**Table 6:** Types of Threat Appraisals Derived from Qualitative Interviews

Code	Frequency	Sample Quote
Anticipated Partner Bias	17/25 (68%)	<p>“... The fact that the first time he’s encountered a black person was in high school which is like recently and the fact that I’m black its just like you know I don’t know...it just makes me anxious because I just don’t wanna be like you know him to like focus more on like “oh she’s black” rather than what do we have to do.”</p> <p>“... Just the way he was raised he may be sort of like stuck in his mindset of, you know, well he may just not understand really that...I’m black but I’m not really about sports, that it’s different</p>

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		for him so and it'd be hard for him to sort of adjust to the idea of a black person that is not in sports [and] that is more so about their academics.”
Anticipated Mistreatment/ Discrimination	12/25 (44%)	“I would say I am a little anxious just because I don't really know what they are going to say and if they say something...if there is a little microaggression or something that's kind of under their breath then I am probably going to address it and I am just hoping that I respond in the correct way and that he responds in the correct way.”
		“...I hope she does not say the wrong thing to me because of the way she described how she feels about ethnic people...I'm ethnic so...I don't want her to say anything offensive to me.”

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1) Anticipated Partner Bias: In the introduction video, African American students are exposed to a White partner whose opinions about African Americans are rooted in their limited firsthand exposure to members of this population (e.g., not spending time an African American person until high school). And, based in their limited exposure, these students view their White partner communicating broad generalizations about the intelligence and work ethic of African American students. For some students in the current study, their partner's preconceived notions about working with African Americans created concerns that their partner's racial biases would inevitably interfere with their ability to successfully complete the project. For instance, one student stated, “...it just makes me anxious because I just don't wanna be like, you know, him to like focus more on like ‘oh she's black’ rather than what do we have to do.” In this statement, this student foresees that the color of her skin may, in some ways, distract her partner's ability to focus solely on project completion. Moreover, the anticipation of partner bias also centered on concerns regarding the rigidity or fixed nature of their partner's beliefs

and prejudices. Analogous to the aforementioned student, there were concerns that their partner will be so fixed in their generalization of an African American prototype that they overlook who the student is on an individual level. For example, a student expressed a desire for her partner to “instead of seeing me for the color of my skin, see me for who I am, see me for the ideas I can bring to the table, see me for the cultural background and the influence that I might have;” however, she expressed that her partner’s biases may be so deeply rooted that, “he might just be stuck on me as a woman, or me as black or whatever.” In other words, she envisioned that there is a possibility her partner will be unable to value her contribution as a partner and appreciate the worth of her cultural background because of deeply rooted biases. And, for some, the anticipation of partner bias gave root to feelings of uncontrollability regarding the likelihood for change in their partner’s mindset. One student stated that,

“If he has [those impressions of African Americans], I feel like it’s a step backwards and it will be hard to break down the barrier and actually open up his mind to look for other possible reasons that students aren’t succeeding [other than] they don’t try or don’t want to or they are only interested in sports.”

Another student added that,

“The way he was raised, he may be sort of like stuck in his like mindset of...he may just not understand really that...I’m black, but I’m not really about sports...it’d be hard for him to sort of adjust to the idea of a black person that is not in sports [and] that is more so about their academics.”

In these aforementioned statements, the students are acknowledging that there may be a deepness to their partner’s prejudices that is beyond their control.

2) Anticipated Mistreatment/Discrimination: In addition to endorsing concerns about being face-to-face with their partner's negative racial attitudes about African Americans, students also anticipated that they could encounter racial discrimination during their completion of the project. Though a number of students made broad references to being victims of "racism" or "discrimination," the more specific concerns represented subtler and more covert forms of mistreatment that are analogous to racial microaggressions. For example, one student expressed that,

"I am a little anxious ...if there is a little microaggression or something that's kind of under their breath then I am probably going to address it and I am just hoping that I respond in the correct way and that he responds in the correct way."

Importantly, this statement captures that the potential occurrence of racial mistreatment (e.g., muttering racially insensitive statements under one's breath) causes some emotional distress, which, in this student's case, is compounded by the pressure to respond in the "correct" way to the racial stress. Other forms of microaggressions that students anticipated were feeling as-if their partner would be "hesitant towards me," "coming at me and maybe accusing me," and "saying the wrong thing to me." More specifically, one student strongly expressed that the one foreseeable obstacle that would impede his ability to work well with his partner was whether his partner made "sure that he is conscious of his tone and how he is coming across." He added that he planned to be vigilant of "any type of demeaning language or demeaning tone, talking down to me or just like hinting like I am incapable of solving a problem or not qualified or just any demeaning type of responses or like underhand comments." Collectively, the forms of racial mistreatment endorsed by

the current sample represent subtle nonverbal cues that could leave the students questioning the intent or meaning behind their partner's display of such behavior.

#### STATE-BASED AFFECT

The current study also examined the types of affective states endorsed as African American students prepare themselves for racial stress. Specifically, the current study assessed momentary positive and negative affective states as students anticipated their interaction with their partner. Qualitative analyses revealed that African American students experienced a range of both positive and negative affect. Regarding positive affect, students reported feeling ready, excited, and interested. For instance, one student expressed that,

“I am kind of excited in that way of ‘okay maybe this can actually be very productive and, if not just changing her worldview forever, it will at least be...she will kind of work with me on an individual basis of me as a person and not just go straight to well she’s this race so I have to.”

As previously mentioned, some students envisioned that the partner interaction represented an opportunity for growth. In many cases, the envisioned opportunity for this goal attainment was associated with positive affect.

In terms of negative affect, students reported that they felt anxious, annoyed, angry, and frustrated. For example, one student expressed that,

“I’m just really anxious and shaking a little bit...just like really jittery just because I’m trying to figure out what’s gonna happen...I’m sort of making these



scenarios in my head. [The scenarios are] just the fact that we both may be quiet because I don't know since I'm thinking this was... maybe he is thinking the same way, so thinking of what if we're both quiet and what if we both don't share like, 'Am I going to take on that leadership role.' And, another scenario is, 'If... I have this idea and he has this idea, but we sort of can't compromise.' And, if we can't compromise, then another scenario is that, 'We might have like some tension going on. And umm another scenario is, 'Him blatantly just being like, 'Ok black person... how do I approach this person... what do I call them so....'"

As aforementioned, students were commonly concerned about encountering racial stress in the forms of their partner's racial biases and potential racial mistreatment. Notably, this statement captures how negative affect can be intertwined within the process of trying to envision how to navigate the potential interpersonal obstacles that one may face during the project completion.

### 5.3 QUANTITATIVE MEASUREMENT

Given the novel use of each measure to achieve state-based assessments as well as the limited validation of these measures in African Americans, see Table 7 for normative data describing the endorsement of cognitive appraisals (as measured by the SAM), affect (as measured by the PANAS-X), and planned coping efforts (as measured by the PPCB) within the current African American college sample. Notably, each cognitive, affect, and planned coping effort subscale exhibited acceptable internal consistency with alphas ranging from .73 to .92. Regarding the bivariate relationships between each cognitive appraisal subscale and planned coping (as shown in table 3), the challenge appraisal total

score was positively correlated with both self-focused ( $r=.451$ ,  $p<.001$ ) and situation-focused ( $r= .313$ ,  $p=.018$ ) coping total scores whereas the threat appraisal total score was not significantly correlated with either self-focused ( $r= -.12$ ,  $p= .374$ ) and situation-focused ( $r= -.01$ ,  $p= .94$ ) coping total scores. In sum, these findings suggest that students who momentarily rated the stress of interacting with their partner optimistically (rather than as representing threat/harm) were more likely to plan to engage in these forms of coping. In terms of state-based affect, the positive affect total score was positively correlated with both self-focused ( $r= .303$ ,  $p= .021$ ) and situation-focused ( $r= .291$ ,  $p= .027$ ) whereas the negative affect total score was not significantly correlated with either self-focused ( $r= -.20$ ,  $p= .882$ ) or Situation-focused ( $r= .291$ ,  $p= .914$ ). Together, these findings indicate that positive affect (and not negative affect) was the best indicator of how African American students planned to cope with anticipated racial stress.

**Table 7:** Normative Data from Quantitative Measurement of State-based Cognition, Affect, and Planned Coping Efforts in a Sample of African American Students

		Mean ( <i>SD</i> )	Min-Max	$\alpha$
SAM (Peacock & Wong, 1990; Roesch & Rowley, 2005)	Challenge Appraisal (7 items)	29.23 (5.35)	15 – 35 <sup>a</sup>	.913
	Threat Appraisal (SAM) (5 items)	8.52 (3.31)	5 – 17 <sup>b</sup>	.809
PANAS-X (Watson & Clark, 1994)	Positive Affect (10 items)	30.34 (7.39)	12 – 44 <sup>c</sup>	.853
	Negative Affect (10 items)	14.48 (4.13)	10 – 28 <sup>d</sup>	.728

PPCB (Mallet & Swim, 2009)	Self-focused Coping (4 items)	20.69 (5.96)	4 – 28 <sup>e</sup>	.920
	Situation-focused Coping (8 items)	39.90 (8.40)	22 – 56 <sup>f</sup>	.808

Note. <sup>a</sup> highest possible total score was 35. <sup>b</sup> highest possible total score was 25. <sup>c,d</sup> highest possible total score was 50. <sup>e</sup> highest possible total score was 28. <sup>f</sup> highest possible total score was 56

#### 5.4 MAIN ANALYSES:

The primary goal of the current project was to better understand how African American students prepare themselves for anticipated discrimination by examining their state-based cognition and affect.

#### COGNITION PREDICTS PLANNED COPING EFFORTS (*HYPOTHESES 1.1 and 1.2*)

Similar to the main objective of Sohl and Moyer (2009), the current study sought to examine the role that challenge- and threat-related thinking play in the determining how individuals cope with anticipated stress. Consistent with the preponderance of literature, *Hypothesis 1.1* explored the relevance of an “either/or” conceptualization in that it was proposed that threat-related thinking would be a better predictor of planned coping efforts relative to challenge-related thinking. To examine *Hypothesis 1.1*, linear regression modeling was utilized where state-based challenge and threat appraisals (as measured by the SAM) were centered and entered into separate models as predictors of self-focused coping or situation-focused coping (as measured by the PCB). According to a plot with standardized residual and predicted values, multivariate normality and

homoscedasticity assumptions were met (Field, 2009). Multicollinearity did not compromise the coefficient estimates in the regression models as evidenced by Tolerance values above .1.

In terms of *self-focused coping*, the model significantly explained nearly 21% of the variance in student's endorsements of self-focused coping ( $F_{(2,54)} = 7.03, p = .002$ ) with only challenge appraisals emerging as a significant positive predictor ( $\beta = .474, p = .001$ ). Similarly, the model predicting *situation-focused coping* significantly explained approximately 11% of the variance in student's endorsement of this planned coping efforts ( $F_{(2,54)} = 3.40, p = .041$ ) with challenge appraisal again emerging as the only significant positive predictor ( $\beta = .362, p = .001$ ).

Additionally, a more exploratory aim of the current study was to explore whether an additive rather than "either/or" approach was a better way to conceptualize the relationship between cognition and planned coping (*Hypothesis 1.2*). In support of this exploratory hypothesis, there was a significant negative correlation between challenge and threat appraisals, demonstrating that student endorsements on each appraisal dimension were related to one another. Moreover, 52% of interviewed students endorsed experiencing both types of appraisals as they described their anticipatory thoughts about working with their partner, further demonstrating that both appraisal dimensions can occur in response to the anticipated stressor. As such, an interaction term (i.e., Challenge X Threat Appraisal) was added to each of the aforementioned regression models to examine model fit. However, both models were a poor fit as evidenced by nonsignificant interaction terms and nonsignificant  $\Delta R^2$  value.

Collectively, the qualitative analyses reveal that both challenge and threat-related appraisal were contextually relevant appraisal dimensions and comprised a portion of the cognitive experience as African American students anticipated their interaction with their racially insensitive partner. However, the quantitative analyses demonstrate that when attempting to understand how these students prepare themselves to engage and/or manage anticipated racial stress, challenge appraisals are a better indicator of the degree to which they planned to use self-focused and situation-focused coping to do so.

#### AFFECT PREDICTS PLANNED COPING EFFORTS (*HYPOTHESIS 2*)

Another exploratory aim of the current study was to comparatively examine which affect dimension was a better predictor of planned proactive coping. To examine this Hypothesis 2, positive affect and negative affect total scores were entered into two separate regression models as predictors of self-focused coping or situation-focused coping (as measured by the PCB). According to a plot with standardized residual and predicted values, multivariate normality and homoscedasticity assumptions were met (Field, 2009). Multicollinearity did not compromise the coefficient estimates in the regression models as evidenced by Tolerance values above .1.

In terms of *self-focused coping*, the model was a poor fit as it explained less than 10% of the variance in student's endorsements of self-focused coping ( $F_{(2,55)} = 2.92, p = .062$ ). Despite the model's poor fit, the positive affect total score had a significant positive correlation with self-focused coping ( $\beta = .322, p = .019$ ) whereas negative affect was a nonsignificant predictor. Similarly, the model predicting *situation-focused coping* was nonsignificant as it also explained less than 10% of the variance in student's endorsement

of this planned coping effort ( $F_{(2,55)}= 2.70$ ,  $p= .076$ ) with mean positive affect again emerging as the only significant positive predictor ( $\beta = .311$ ,  $p= .024$ ) within the model.

Altogether, though African American college students may have experienced some degree of negative affect in response to our study's stress induction, these findings suggest that positive affect comparatively may be a better indicator of the extent to which African American student plan to engage in self-focused and situation-focused coping behaviors.

### COGNITIVE-AFFECTIVE INTERACTION AND PLANNED COPING EFFORTS (HYPOTHESIS 3)

The final aim of the current study was to examine the additive effect of cognition and affect in relation planned coping. In light of the aforementioned findings, only the interaction between mean challenge appraisal and mean positive affect was explored for both types of coping. According to a plot with standardized residual and predicted values, multivariate normality and homoscedasticity assumptions were met for both regression models (Field, 2009). Multicollinearity did not compromise the coefficient estimates in the regression models as evidenced by Tolerance values above .1.

*Predicting Self-focused Coping:* The challenge appraisal total score and positive affect total score were centered and entered into the model to examine their comparative relationship with this type of planned coping (Model 1). This model significantly explained approximately 20% of the variance ( $F_{(2,54)}= 6.91$ ,  $p= .002$ ) with only mean challenge appraisal emerging as a positive significant predictor ( $\beta = .435$ ,  $p= .008$ ). Next, a separate model (Model 2) containing a Challenge Appraisal X Positive Affect

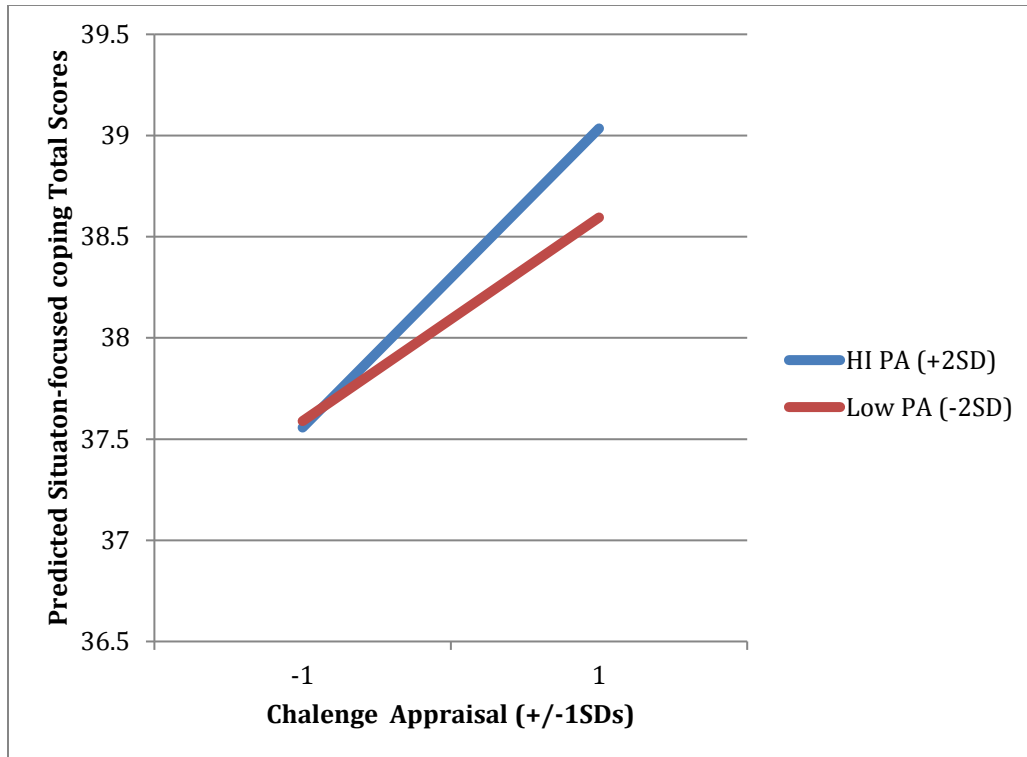
interaction term significantly explained nearly 26% of the variance in self-focused coping ( $F_{(3,54)} = 6.06, p = .001$ ). However, Model 2 exhibited a poorer fit as indicated by a nonsignificant interaction term ( $\beta = .252, p = .060$ ) and a nonsignificant increase in explained variance ( $\Delta R^2: p = .060$ ). The better fit of Model 1 suggests that the extent to which African American college students appraised the stress of their partner interaction optimistically and as a stressor that they could control was the best indicator of self-focused coping regardless of the level of positive affect experienced.

*Predicting Situation-focused Coping:* The challenge appraisal total score and the positive affect total score were first entered into the model to examine their comparative relationship with this type of planned coping (Model 1). This model was a poor fit as evidenced by only explaining approximately 10% ( $F_{(2,54)} = 3.14, p = .051$ ) of the variance in situation-focused coping. Next, a separate model (Model 2) containing a Challenge Appraisal X Positive Affect interaction term significantly explained nearly 18% of the variance in situation-focused coping ( $F_{(3,53)} = 3.82, p = .015$ ), which was a significant increase in explained variance ( $\Delta R^2: p = .034$ ) relative to Model 1. Also, the interaction term within Model 2 was significant ( $\beta = .301, p = .034$ ), suggesting the strength of the relationship between challenge appraisal and situation-focused coping was dependent on the level of positive affect.

With a significant interaction term, Osborne (2017) recommends that regression coefficients can be used to generate a list of predicted values to evaluate the nature of the interaction. To identify the interaction between two continuous variables, different levels of each variable were created by specifying values that represent “high” and “low” endorsements of each variable. Specifically, it is important that the different level

estimate values that actually exist within the dataset (so that the predicted values do not over-extrapolate beyond the data. For the model predicting situation-focused coping,  $\pm 1SD$  was utilized to represent “high” and “low” challenge appraisal and  $\pm 2SDs$  was used to represent “high” and “low” positive affect. The next step is to utilize the regression equation to generate a list of predicted situation-focused coping total scores at each level of the interaction (i.e., low challenge appraisal –low positive affect, low challenge appraisal –high positive affect, high challenge appraisal –low positive affect, high challenge appraisal –high positive affect). Finally, these predicted values were used to graphically illustrate the interaction. As shown in Figure 2, the relationship between challenge appraisals and situation-focused coping is generally positive, demonstrating that higher levels of challenge appraisals are associated with a greater intention to use situation-focused coping strategies to manage anticipated discrimination. Specifically, this positive relationship appears to be stronger among individuals who also endorsed a high level of positive affect in that African American students in our sample with higher endorsements of challenge appraisals combined with higher reports of positive affect were associated with the greatest intent to engage in situation-focused coping.





*Figure 2. Cognition-affect interaction predicting situation-focused coping*  
 African American students were most likely to endorse using situation-focused coping strategies to manage racial stress at high levels of challenge appraisal and positive affect. High and low levels of challenge appraisals are represented by SAM: Challenge Appraisal total scores +/-1SD. High and low levels of positive affect are represented by PANAS: Positive Affect total scores +/-2SD.

## DISCUSSION

Empirical efforts to represent how African Americans proactively cope with the chronic threat of racial mistreatment adds to the conceptualization of how this stigmatized people group *empowers* themselves to manage racial stress and the overall quality of intergroup interactions (Mallet & Swim, 2009). The current study enhances this conceptualization by illustrating how African American college students anticipate and prepare themselves for encountering racial stress within academic group work. Specifically, our findings contribute to this coping model by providing *in vivo* assessments of proactive coping, clarifying the role of cognition within the coping model, and identifying the moderating effects of affect all within the context of anticipated racial stress. In comparison to state-based threat appraisals, our findings demonstrate that challenge appraisals were a better predictor of African American student's efforts to cope with anticipated racial stress, indicating that our sample was more likely to plan to engage with racial stress if they appraised the stress of their interracial interaction as controllable and as representing opportunities for growth. Moreover, the assessment of state-based positive affect was more closely related to coping efforts (relative to negative affect) in that increased positive affect was associated with a greater intention to cope with racial stress. Finally, the current study found that positive affect moderated the

relationship between challenge appraisal and situation-focused coping, demonstrating that African American students with high endorsements of challenge appraisals and positive affect were most likely to engage with racial stress. Together, these findings begin to establish a picture of race-based coping that conveys how African American students can proactively prepare themselves to manage racial stress.

#### ANTICIPATED RACIAL STRESS: SITUATIONAL CHARACTERISTICS OF THE CURRENT STRESSOR

Before elaborating on the meaning behind the current study's findings, it is important to provide a context for the type of racial stress that African American students experienced. As previously mentioned, there were three components to the stress induction experiment, which included: 1) reading a passage about academic disparities between Black and White students, 2) viewing a White peer expressing negative attitudes about African American students, and 3) being assigned to work with this peer on a project focused on improving a disparity that may serve as a confirmation of the negative beliefs held by the peer. All African American students (except four students who were excluded from the final analyses) endorsed that they believed, to some degree, their partner would racially mistreat them during their interaction. Broadly, the nature of this racial stress appears analogous to components of the stereotype threat phenomenon in that African American students experienced a heightened awareness of certain negative stereotypes held about their ingroup (e.g., lazy and unintelligent) that provoked a perception that they may be judged based upon these stereotypes while interacting within a specific performance domain (Steele, 1997). Though the performance deficits associated with stereotype threat have been well documented across various stigmatized

people groups (Bouazzaoui, Follenfant, Ric, et al., 2016; Heildrich & Chiviacowsky, 2015; Steele & Aronson, 1995), the anticipatory features of stereotype threat were the primary focus of the current study.

Several findings from the current qualitative analyses reveal that the activation of stereotype threat was successfully achieved. Particularly, based in the general theme of Threat Appraisals (see Table 6), African American student responses demonstrate that there was both a genuine awareness of the racial prejudices their partner held and a concern that these negative racial attitudes may impede their ability to successfully complete the assigned group project. For instance, several students acknowledged an awareness of their partner's beliefs that African Americans have a poor work ethic and limited intelligence within the classroom, particularly highlighting a concern that their partner's beliefs may be rigid and unchangeable. Also, African American students endorsed concerns about behaving in ways that confirmed the negative stereotypes they faced, which is another dimension of this social-psychological threat characterized by Steele (1997). Regarding the anticipation of racial mistreatment, some students envisioned that the racial stress would be evident in the subtleties of their partner's behavioral interactions with them. Specifically, students expressed concerns about being exposed to certain nonverbal cues (e.g., negative tone of voice, interpersonal hesitancy) that they anticipated would be indicators of their partner's negative racial beliefs. Consistent with this perspective, existing literature describes how, in today's society, the nature of race-based stress has evolved into a less overt and more covert, ambiguous and subtle presentation (Murphy et al., 2012; DeLapp & Williams, 2015). A number of current theories of racial bias assert "while many Whites explicitly endorse egalitarian

beliefs and values, socialization in a culture with a history of racial oppression leads people to harbor underlying negative attitudes toward minorities” (Murphy et al., 2012, p. 561). In the current study, African American students were exposed to these ‘underlying negative attitudes’ by watching a video of a White peer endorsing negative racial beliefs about African Americans. Notably, their White peer did not espouse these beliefs using a malicious or derogatory presentation (e.g., harsh tone, angry facial expression), but instead innocently and obviously shared their negative beliefs in response to the study’s prompt for the introductory videos (i.e., sharing the experiences with culture and diversity within academic settings). In other words, these negative attitudes were simply expressed as by-products of the White peer’s upbringing and limited exposure to diverse people groups. It is worth noting that such subtle forms of racial stress can pose a distinct threat to the psychological functioning of African Americans (Murphy et al., 2012; Torres et al., 2010).

In contrast to the student’s concerns about encountering such racial stress, our findings also suggest that the majority of African American students found the stress induction to be mildly stressful and mildly threatening as evidenced by the mean perceived stressfulness score falling in the lower end of the scale and the restricted variability in threat appraisal ratings that also centered at the lower end of potential threat appraisal total scores. A possible explanation for these findings may be the self-perceived confidence and efficacy of the students within the academic performance domain of interest (e.g., multicultural coursework). Specifically, some students identified their ingroup membership and their past/vicarious experiences as sources of confidence, which appeared to increase their self-perceived credibility and competence (relative to their

partner) leading into the group work. Although not empirically examined within the current study, it is possible that the perceived self-confidence juxtaposed to their partner's limited exposure to diversity (i.e., not attending school with an African American until high school) buffered the perceived stressfulness and threat of the anticipated interracial interaction. Such an explanation is consistent with previous findings that demonstrate perceived self-efficacy within a performance domain can be a useful psychological resource in situations where negative stereotypes about one's ingroup are cued (Graham, 1994; Schweinle & Mims, 2009).

Altogether, the dynamics of the racial stressor in the current study consists of the awareness of negative attitudes and the anticipation that these negative attitudes may manifest within the interracial interaction in the form of racial microaggressions. However, the anticipation of racial stress is confounded with perceptions of self-competency and partner incompetency. Collectively, the interaction between these situational dynamics generated a conflict that African American students had to navigate and reconcile; a conflict that consisted of feeling competent to be a good contributor to the project combined with awareness that there could be interpersonal obstacles impeding one's ability to do so.

#### APPROACH COPING AND ANTICIPATED RACIAL STRESS

In the face of a stressor, coping responses are defined as a person's reoccurring and evolving efforts to cognitively and behaviorally manage situational demands that are perceived as meaningful and taxing (Folkman et al., 1986). A broad category of coping

responses where individuals attempt to *engage* with the stressor and mitigate the consequences of the stressful environment is known as “approach coping” (Yoo & Lee, 2005); a coping construct that includes both cognitive (e.g., cognitive restructuring) and behavioral (e.g., problem solving) efforts (Yoo & Lee, 2005; Gustems-Carnicer & Calderon, 2016). Contrarily, “avoidant coping” defines efforts by individuals to cognitively or behaviorally avoid the emotional intensity of the stressor (Gustems-Carnicer & Calderon, 2016), which may include efforts to expeditiously escape racially hostile situations or to avoid cognitive or emotional reminders/cues of racial stress. Commonly, such avoidant strategies have been linked to negative psychological outcomes (e.g., increased distress- Scott & House, 2005; lower subjective well-being- Villegas-Gold & Yoo, 2014; increased traumatic reactions-Thompson Sanders, 2006). Compared to avoidant coping, approach coping has been identified as a coping style that promotes positive outcomes (e.g., improved emotion regulation, identifying useful social support; Hoyt et al., 2016). Within the context of racial discrimination, approach coping (also called “active coping”) strategies (e.g., cognitive restructuring, problem solving, social support seeking) have been shown to increase overall well-being in ethnoracial minorities (Barnes & Lightsey, Jr., 2006; Gaylord & Cunningham, 2009; Seaton et al., 2014; Utsey et al., 2000; Yoo & Lee, 2005). A limitation of the aforementioned findings is that they capture the use of approach coping in reaction to discrimination (or post-stressor), which highlights the importance of better understanding the manifestation of this style of coping within the context of anticipated racial discrimination (or pre-stressor).

The current study's measurement of the proactive coping efforts reflects how African American students *planned* to use specific approach coping strategies to manage racial stress (or *planned coping*). In using a mixed-methods approach, this investigation directly builds on findings by Mallet and Swim (2009) by capturing 'how' African American students planned to use approach coping strategies to engage with anticipated racial stress (qualitative findings) and the 'extent' to which these students planned to use these strategies (quantitative findings). Consistent with the categorization used by Mallet and Swim (2009), the approach coping strategies were reconfigured to fall into self-focused versus situation-focused coping efforts. Within each coping effort, there is an intersection of cognitive and behavioral strategies that are either internally directed towards managing one's own response to the racial stress (i.e., self-focused coping) or externally directed towards managing the person-environment interaction (i.e., situation-focused coping; Mallett & Swim, 2009).

A 4-item quantitative subscale of self-focused coping was utilized to broadly assess the degree to which African American students intended to engage in efforts to manage their own emotional, cognitive, and behavioral responses to anticipated racial stress during the interracial interaction. However, a distinct limitation of this measure was its inability to reveal 'how' the students planned to achieve such self-control. The qualitative findings identified both cognitive (e.g., reserved judgment, self-coaching) and behavioral (e.g., impulse control, conditional reactivity) efforts that the current sample intended to use to manage racial stress. In anticipation of racial stress, the Reserved Judgment subcategory may represent a cognitive strategy where African Americans acknowledge that the absence of sufficient information about the stressor hinders their



ability to arrive at an appropriate conclusion (e.g., whether to identify their partner as racist; see Table 3). For the students in the current study, such reservation was an effort to restrain the activation of their own racial biases and maintain a flexible outlook until more information was obtained. In support of the Reserved Judgment strategy, previous literature has found that African Americans may be reluctant in making causal attributions to discrimination for negative events due to a fear of the social costs of such judgments (Garcia, Reser, Amo, Redersdorff, & Branscombe, 2005; Stanger, Swim, Van Allen, & Sechrist, 2002), which is a social factor that may have also contributed to the reluctant judgments in the current sample. Nonetheless, the present findings add to the extant literature by demonstrating that the reluctance to make such racial judgments occurs in anticipation of racial stress and suggesting that such reserved judgments represent a coping strategy that may promote engagement with the stressor.

Moreover, African American student responses comprising the Emotion Regulation subcategory identified another cognitive-oriented coping strategy that was intended to internally manage the intensity of emotional reactions to the anticipated racial stressor (see Table 3). According to Gross (1999), emotion regulation can be defined as personal efforts to manage emotional responses within a given situation. And, in regulating personal emotion, individuals may seek to decrease unwanted emotion and/or to increase desired emotion states (Gross, 1999). In the current study, African American students endorsed the use of self-coaching (or cognitive reappraisal) as a method to augment the meaning of the stressor to achieve a new and more positive perspective of the impending partner interaction. As suggested by Gross (1999), potential explanations for this strategy may be: 1) the recognition that initial negative emotional responses may

prompt unhelpful behaviors in the partner interaction and 2) that the behavioral by-products of such negative emotion are inconsistent with goals for the situation (e.g., completing the project). And, given the significant positive relationship between positive affect and self-focused coping exhibited in the current study (see Table 2), it is possible that the down-regulation of negative affect using cognitive reappraisals enabled African American students to reconfigure their emotional experience to be more positive (e.g., excitement, eagerness), thereby creating a mindset that was more open to engaging with racial stress during the partner interaction (Frederickson, 2001).

Along these lines, the current sample described efforts to regulate behavior (i.e., Behavior Regulation subcategory; see Table 3). Similar to identifying consequences associated with expressing negative emotion, some African American students also endorsed the importance of effortful behavioral control to limit their impulsive reactions that may confirm their partner's negative stereotypes about African Americans. Such behavioral control efforts included self-monitoring one's speech, tone of voice, eye contact, and body posture. Contrarily, there were other students that acknowledged limitations to their behavioral regulation and noted their own tendency to conditionally respond to racial stress (e.g., 'I will do to them as they do to me'). A potential explanation for the disparity between planned behavioral reactivity versus behavioral control may lie in the student's goals for their interaction, where plans for behavioral control are directly motivated by a desire to be a positive representative of one's race.

Moreover, the situation-focused coping subscale was used to measure the extent to which African American students planned to manage the nature/onset of the racial stress within the partner interaction. As mentioned previously, this measure was unable to

articulate exactly how these students planned to implement such strategies. From the qualitative analyses, there were two coping subcategories that revealed how the current sample planned to utilize situation-focused coping strategies during the partner interaction, which included Education/Enlightenment and Information Seeking (see Table 4). Regarding the Education/Enlightenment, this coping strategy appeared to represent an effort to counteract racial stress using the disclosure of specific information that directly disconfirms stereotypes held by their White partner. Such a strategy is consistent with what Singletary and Hebl (2009) dubbed individuating information, which characterizes the sharing of information in order to encourage others to treat them as an individual rather than as a representative of their race. In this case, African American students endorsed a desire to behave in ways that were inconsistent with their partner's stereotypes in order to communicate that despite broad generalizations about the work ethic and intelligence of African Americans, I (an individual) am different than these preconceived notions. Another established theory that is relevant to the emergence of the Education/Enlightenment subcategory is the invisibility syndrome. Specifically, this construct describes the psychological distress associated with having one's true talents, identity, and overall worth overshadowed by negative stereotypes (Franklin, 1999). Within these societal messages, a healthy respect and acceptance of one's true personal identity is absent, thereby contributing to a sense of invisibility (Sawyer, DeLapp, & Williams, 2016). In light of the distress created by such invisibility, planned efforts to enlighten or educate one's partner using individuating information could also be understood as efforts to minimize the likelihood of feeling *invisible* during the partner interaction.

Another situation-focused strategy that African American students planned to use to manage the occurrence of racial stress during their partner interaction was the use of Information Seeking. Specifically, students articulated their plan to gather additional information in order to aid their selection of context-relevant coping strategies, which is a planned course of action that is consistent with Aspinwall and Taylor (1997) conceptualization of the role of situational feedback. The Information Seeking strategy highlights the value of situational feedback in the eyes of African American students and accentuates the limitations of attempting to develop an effective course of action without sufficient knowledge of the stressor. Uniquely, the current findings begin to identify types of feedback that African American students felt were most vital to refining their ability to cope with racial stress, which included the nature and complexity of their partner's racial biases. Specifically, the qualitative analyses revealed, as previously described, that African American students were concerned about the committal of racial microaggression (e.g., subtle, covert racial mistreatment). Evidence has shown that racial microaggressions are often committed unintentionally and the subtle nature of such mistreatment can leave racial minorities unsure if mistreatment is due to race or alternative explanations (DeLapp & Williams, 2015). As such, the intention to use Information Seeking to explore the nature their partner's biases may function as efforts to become a more informed judge of whether their partner will be a perpetrator of racial mistreatment, thereby enhancing one's ability to select coping strategies that are more appropriately matched with situational demands.

Altogether, the current study further demonstrates that approach coping strategies are considered viable options by African Americans for managing the stress of racial

mistreatment. Uniquely, this investigation illustrates *how* these strategies may be specifically implemented to deal with anticipated racial stress.

#### COGNITION AND PLANNED COPING (HYPOTHESIS 1)

The way African American's cognitively appraise anticipated racial stressors has been shown to influence how this population attempts to manage the onset of such stress (Mallet & Swim, 2009). The current study found that African American students who appraised anticipated racial stress optimistically (challenge appraisals) were more likely to plan to manage the onset of the stressor and that appraisals of anticipated threat/harm (threat appraisals) were unrelated to these planned efforts to cope. Within the context of anticipated racial stress, the cognitive appraisals captured in the current study are believed to be facilitated by a process called mental simulation, which is known as the imitative representation of future events where an individual "run[s] the incipient stressful event forward in time to project what its likely implications or course will be or could be (Aspinwall & Taylor, 1997, p.424)." In response to a stress induction experiment, African American students were forced to consider the likelihood that their fictional partner would discriminate against them, foresee the nature of their partner's mistreatment, and envision their own ability to control the impact of the discrimination; collectively such simulations are used to define the meaningfulness of the future stressor and enables the development of a course of action to manage the stressor (Aspinwall & Taylor, 1997; Rivkin & Taylor, 1999).

The current study builds upon the proactive coping literature by bringing clarity to the nature of the appraisal-proactive coping behavior relationship within African

Americans by illustrating what type of mental simulation is most promoting of planning a course of action to manage anticipated racial stress. Mallet and Swim (2009), the only other study to explore proactive coping exclusively in a sample of African Americans, found evidence supporting the appraisal-proactive coping behavior relationship; however, their study's methodology does not permit the delineation of threat versus challenge-oriented thinking within their findings. Particularly, their measurement of the primary appraisal construct conflated cognitive dimensions ("Did you think this event would hurt your self-esteem" or "Did you feel as if your ability to deal with this incident was challenged") with affect dimensions (e.g., "Did you think you would become angry/anxious/depressed because of this event") and the current study demonstrates that such conflated measurement oversimplifies the nuanced relationship between cognition, affect, and proactive coping behavior. Moreover, Aspinwall and Taylor (1997)'s foundational model proposes that the initial appraisal stage occurs along a threat-oriented continuum where mental simulations of impending threat are defined as predictive of coping efforts to manage the anticipated stressor. Supporting the relevance of this type of mental simulation within the overall proactive coping model, many African American students in the qualitative condition (as shown in Table 6) did endorse believing they would encounter prejudice from their partner (68%) and that they would be racially mistreated (44%). Moreover, as shown in Table 2, African American students endorsing higher anticipated racial discrimination also perceived the forthcoming partner interaction as more threatening, which further illustrates that the detection of racial stress is associated with perceived threat (Eccleston & Major, 2006; Major et al., 2002). However, the current findings were, more generally, inconsistent with Aspinwall and

Taylor (1997)'s conceptualization in that state-based challenge appraisals (a mindset marked by high perceived optimism, goal attainability, and control) was a better predictor of the degree to which African American students planned to cope with the anticipated racial stressor (relative to threat appraisals).

In support of our findings, Sohl and Moyer (2009) concluded that a challenge-oriented (and not threat-oriented) mindset is the primary motivator for planning to proactively cope with a future stressor. An aforementioned critique of the Sohl and Moyer (2009) study was the inability to generalize its findings to anticipated stressors that were more discrete with less clearly defined goals (e.g., racial discrimination), as their conclusion was derived from college students' anticipation of college exams. Notably, the current study demonstrates that this challenge appraisal-proactive coping behavior relationship is not only evident on a dispositional/trait level using a more manageable, predictable stressor (e.g., college exams), but also evident on a state-based level as our findings provide insight into how momentary stress appraisals motivate race-based coping.

A potential explanation for the challenge appraisal-coping relationship is that a challenge-oriented mindset is characterized by setting attainable goals when encountering a future stressor (Bode, 2006, 2007; Sohl & Moyer, 2009); a mindset that is purported to enhance the likelihood that individuals engage in proactive coping. Consistent with this explanation, the current qualitative findings demonstrate how African American students identified goals despite the ambiguous and potentially threatening nature of the stressor. Specifically, students cognitively set personal and partner goals for cultural learning (e.g., disconfirming stereotypes) and planned to use coping efforts to achieve such goals, which

included using emotional/behavioral control and using their personal characteristics as an education tool. Notably, the goal to disconfirm stereotypes is conceptually similar to the *Prove Them Wrong Syndrome* (PTW); a theory that was developed to exemplify the demographic characteristics of tenacious African American males seeking degrees in engineering (Moore, Madison-Colmore, & Smith, 2003). In response to the negative societal and environmental messages of their intellectual inferiority, Moore and colleagues (2003) highlight how these African American students display a “positive vigor in spite of adversity,” where these students do not shy away from adversity, but assumed a confident academic perspective marked by a determined and purposeful pursuit of academic endeavors. Aside from the relentless pursuit of personal academic goals, these researchers ascertained that a core dynamic of this syndrome are efforts to discredit critics of their academic potential, which is a mindset that aligns with the underlying goals of the aforementioned coping categories that emerged from the qualitative findings. An extension of the PTW syndrome that is specific to the academic context created in the current study is the notion that academic performance is not solely for the preservation of one’s own self, but also for one’s overall ingroup (e.g., “put on for my people”). In addition to goal attainment, the qualitative findings expounded upon the Sohl and Moyer (2009) conceptualization of a challenge-oriented mindset by illustrating how students positively interpreted their partner’s interpersonal differences (i.e., valuing the potential contributions of their White peer) and how they found confidence in their interpersonal adaptability (i.e., past interracial experiences bolstered their confidence to be able to manage the stress of their partner interaction). Altogether, these findings add



depth to our understanding of how African Americans may cognitively evaluate the meaning of anticipated racial stress.

Moreover, in attempting to understand why state-based challenge appraisals (and not threat appraisals) were significantly related to planned coping efforts, it is important to consider some of the inherent assumptions underlying one's intent to engage in approach style coping. Specifically, the student must perceive that there are coping resources available to them that are suitable for the situational demands of the racial stress; an assumption that is analogous to the 'secondary appraisal' construct defined by Folkman and colleagues (1986). Also, the student must optimistically perceive that they have some element of control over the anticipated stressor by using the available coping resources; an assumption that has been referred to as *action self-efficacy* (Schwarzer & Taubert, 2002). Together, these assumptions are reflective of an optimistic, efficacious, and goal-oriented mindset, which is consistent with the conceptual nature of a challenge appraisal. In other words, the ability to identify goals and have optimism about one's efficacy within a stressful situation understandably promotes of the use of approach coping. In contrast, the conceptual underpinning of the threat appraisal construct is reflective of perceived harm, anxiety, helplessness, and a lack of control in the face of adversity. Intuitively, this mindset is not promoting of coping efforts to "engage" with the stressor, but more consistent with efforts to "disengage" with the stressor, which is a coping response that was not assessed in the current study. Altogether, these findings demonstrate that though challenge and threat-oriented anticipatory cognition was evident in the current sample, the best predictor of engaging with racial stress and attempting to

minimize its interfere on work completion was one's embodiment of optimism, goal attainment, and overall self-confidence.

## COGNITIVE-AFFECTIVE EXPERIENCE AND PLANNED COPING (HYPOTHESES 2 and 3)

Two exploratory objectives of the current study were to examine the independent and interactive relevance of affect as predictors of planned coping efforts. The current study found that positive affect (and not negative affect) was significantly related to the planned coping efforts in that African American students with more positive affect (e.g., excited, determined, interested) were more likely to plan to use approach coping strategies to manage racial stress (*Hypothesis 2*). And, at different levels of positive affect, the relationship between state-based challenge appraisals and planned coping varied, indicating that students with higher endorsements of a challenge appraisal (e.g., optimism, envisioned goals, perceived control) and positive affect were most likely to plan to use situation-focused coping strategies to manage racial stress within the impending partner interaction (*Hypothesis 3*). This cognitive-affective interaction was not significant for self-focused coping; in other words, the positive relationship between challenge appraisals and self-focused coping remained relatively constant across different levels of positive affect.

Within the context of racial discrimination, the preponderance of literature has identified a positive relationship between perceived discrimination and negative affective states (Brown, Williams, Jackson et al., 2000; Carter & Forsyth, 2010; Chou, Asnaani, & Hofmann, 2012); however, there is one study (Carter & Forsyth, 2010) that found

ethnoracial minorities experienced higher rates of positive affect when directly exposed (rather than vicariously exposed) to a racially hostile work environment. Given the overwhelming display of racial discrimination's negative emotional consequences, it was expected that negative affect would be a more relevant factor within the proactive coping process. The current findings were inconsistent with this prediction in that positive affect was most relevant to how African American students proactively coped during the stress induction experiment. Moreover, other research that is consistent with the current findings has demonstrated that positive affect is associated with the proactive coping process (Greenglass & Fiksenbaum, 2009; Katter & Greenglass, 2013; Schwarzer & Taubert, 2002). However, a limitation of this literature is that it captures the occurrence of positive affect within proactive coping at the trait-level, thereby restricting our understanding of the dynamic momentary contribution of affect alluded to in the Aspinwall and Taylor (1997). Specifically, these studies have conceptualized and found evidence supporting positive affect as mediating the relationship between dispositional proactive coping (or a general approach to life events where efforts are targeted towards goal attainment and where situational demands are perceived more as a challenges than threat/harm) and psychological functioning (Greenglass & Fiksenbaum, 2009; Katter & Greenglass, 2013). And, within these conceptual models, the direct effects have revealed a positive relationship between dispositional proactive coping and positive affect.

In building upon these findings, the current study disentangles the broad construct of dispositional proactive coping into sub-categorical parts (i.e., cognition, affect, and coping efforts) and uniquely illustrates how the momentary expression of affect is related to planned coping efforts. Along these lines, literature has supported the positive

relationship between positive affect and approach coping by demonstrating that even in the face of stress, positive affect can facilitate adaptive self-regulatory responses, effective decision making, sustain coping efforts, replace resources that have been exhausted by the stress, and thwart the deleterious effects of negative affect (Hooper, Baker, McNutt, 2013; Lazarus, Kanner, & Folkman, 1980; Moskowitz, Shmueli-Blumberg, Acree, Folkman, 2012; Pavani, Le Vigouroux, Kop, Congrad, & Davier, 2015). For example, Pavani et al. (2015) found that high levels (and not low levels) of state-based positive affect predicted increased use of approach styles of coping (i.e., positive reappraisal, problem focused coping, and appreciation) in a community-based French sample. Such findings are consistent with the current study's demonstration that higher endorsements of positive state-based affect was related to greater intentions to use coping efforts to engage with racial stress (i.e., situation- and self-focused coping). Importantly, Pavani and colleagues suggests that positive affect may not solely be a *consequence* of dispositional proactive coping mindset (as conceptualized by Greenglass & Fiksenbaum, 2009; Katter & Greenglass, 2013), but rather a *determinant* of which actual proactive coping strategies are used.

Moreover, the broaden-and-build theory by Frederickson (1998) asserts that similar to typical response patterns (or action tendencies) associated with negative emotions (e.g., fear provoking escape-avoidant behavior or anger provoking attacking behavior), there are action tendencies that are incited by positive emotional states. For example, Frederickson (2001) describes that 'interest' (a type of positive emotion) has been shown to facilitate desires to explore, seek new information, and pursue opportunities for growth. The broaden-and-build theory proposes and evidence has

supported that the action tendencies often associated with positive affect include an increased generation of thoughts and actions that come to mind (or broadening) and the enhancement of personal resources (e.g., cognitive flexibility, creativity, resilience) that can be later utilized to manage future threats. Along these lines, Pavani and colleagues (2015) propose that broadened thoughts (e.g., increased cognitive flexibility and creativity) are a necessary cognitive precursor for one to implement approach coping strategies, like positive reappraisals. In line with this theory, the current study's findings demonstrated that the challenge appraisal dimension, which can potentially be conceptualized as a cognitive experience where individuals flexibly shifted their focus from the threat of racial stress to a more positive outlook/perspective (e.g., opportunities for self or partner growth), was significantly predictive of student's intentions to use approach styles of coping to manage anticipated racial stress. And, given that positive affect has been shown to stimulate such cognitive flexibility and creativity (Davis, 2009; Lin, Tsai, Lin, & Chen, 2014), a potential explanation for the significant challenge appraisal-positive affect interaction in the current study is that higher levels of positive affect facilitated a more broadened, flexible mindset for African American students that enabled them to feel more competent in their ability and more willing to utilize approach coping efforts in anticipation of racial stress.

Interestingly, the challenge appraisal-positive affect interaction was only a significant predictor of situation-focused coping and not of self-focused coping. A potential explanation for these findings could be the nature of perceived coping efficacy underlying these different methods of managing the impact of racial stress. Specifically, self-focused coping characterizes internally directed efforts to manage one's *own* reaction

to stress; in other words, self-regulation is a primary goal of implementing such strategies. Contrarily, situation-focused coping sets the goal beyond self-management and attempts to change the dynamics of the situation (e.g., partner's beliefs and/or behavior); a coping approach that assumes one is capable of influencing change over their environment. According to the broaden-and-build theory, positive affect enhances the thought-action relationship by promoting more flexible, creative, and efficient approaches to engaging with one's environment (Frederickson, 2001). In comparison to self-focused coping, an increased positive affective state (in conjunction with a challenge-oriented mindset) may be a more vital precursor for African American students to feel equipped in their attempt to change the dynamics of a racially stressful interaction. As previously noted, many of the students anticipated that the racial stress would be covert and ambiguous in nature, thus creating a potentially nebulous onset of racial stress during the group project. As such, an enhanced challenge-oriented mindset by-way of positive affect (e.g., flexibility, creativity) may be necessary for African American students to feel most efficacious in their ability to change such an anticipated environment. Contrarily, Interpersonal Adaptability (a subcategory of the Challenge Appraisal them) characterized a pattern of African American student's use of past encounters with racial stress to bolster a sense of momentary confidence in managing the anticipated racial stressor. It is possible that the student's familiarity with their own past reactions and the extent to which such experiences fostered confidence were not substantially enhanced by their level of positive affect, thereby nullifying the broadening effects of positive affect within the context of self-regulation. In other words, while positive affect-induced resources (e.g., creativity, flexibility, resiliency) may be essential

ingredients for creating a course of action to *change* an uncertain anticipated stressor, a challenge-oriented mindset alone (e.g., ‘I personally can handle this stressor because I have handled racial stress before’) may suffice as a predictor of student’s self-regulatory efforts in anticipation of racial stress.

Altogether, though the function of positive affect can often be overshadowed by an over-emphasis on the role of negative affect (Frederickson, 2004), the current findings accentuate that the expression positive affect can play a pivotal role in how African American students cope with racial stress. Importantly, the current study illustrates that the co-occurrence of positive affect and a challenge-oriented mindset can increase the willingness of this population to utilize approach coping strategies to alleviate the impact of racial stress within academic settings.

#### LIMITATIONS/FUTURE DIRECTIONS

##### INABILITY TO DETERMINE ADAPTIVE VS. MALADAPTIVE PREPARATION

Though the main objective of the current study is to identify how African American students prepare for anticipated racial discrimination, the methodology used to examine this objective does not allow for the delineation of adaptive versus maladaptive preparation. Conceptually, the current study primarily provides a snapshot into the anticipatory and preparatory experiences that precede the actual engagement with the stressor. According the Aspinwall and Taylor (1997) model, individuals must engage with the anticipated stressor to begin receiving feedback regarding the accuracy of their initial appraisal and the utility of the preliminary coping efforts. And, from this feedback, the individual is allowed to re-calibrate their cognitive, emotional, and behavioral

approaches to the now ongoing, present stressor. Given that the current study design did not allow African American students to actually test the validity of their cognition and planned behaviors, no firm conclusions can be drawn regarding the protective or potentially harmful nature of African Americans falling along the challenge appraisal-positive affect dimensions as well as the effectiveness of each planned coping strategy (e.g., self-focused and situation-focused coping). As such, future research can build upon the current study by expanding the stress induction methodology to include an opportunity for African American students implement their planned coping efforts and receive environmental feedback regarding the nature of the anticipated racial stress (e.g., its severity, malleability). The inclusion of environmental feedback will elaborate on the current findings in two important ways: 1) determine the flexibility of endorsed challenge appraisals and 2) illustrate the reliability between planned and *in vivo* coping efforts. Collectively, such empirical exploration would further bridge the gap between the pre-stressor preparatory and *in vivo* phases of the overall discrimination coping model.

Within the current study, the cognitive appraisal process both contributed to how African American students mentally simulated how the racial stress would unfold (e.g., optimism, perceived control, envisioned goals) as well as a functioned as an actual coping response (e.g., cognitive reappraisal). In order to better articulate the adaptive qualities of this anticipatory and preparatory process, future studies should examine the interaction between the nature of the racial stress and appraisal flexibility. For instance, as shown in the current study, higher challenge appraisals were related to greater intent to engage with the stressor using self-focused and situation-focused coping strategies. However, there is still little known about the experiential transition between the



anticipation and actual exposure to the racial stressor. Along these lines, the actual exposure could yield appraisal-consistent feedback where one's anticipated perception of control and goal attainability is supported by *in vivo* feedback (e.g., minimal racial stress, clear steps towards previously set goals) during the interracial encounter. Contrarily, appraisal-inconsistent feedback could also occur where one's anticipated ability to manage the onset of racial stress is counteracted by an ongoing interracial encounter where racial stress seems evident despite one's proactive coping efforts. Within the context of both types of environmental feedback, how stable does the initial appraisal process for African American students remain? For instance, does appraisal-inconsistent feedback weaken one's challenge appraisal and if so, is that an adaptive (e.g., a more realistic mindset) or maladaptive (e.g., reduces one's perceived control and heightens concerns about potential harm from the interaction) reappraisal process? Importantly, by examining the relationship between initial appraisals and *in vivo* reappraisals, it would better articulate the role of cognitive flexibility in the context of racial discrimination and provide opportunities for exploring how such flexibility is associated with the deleterious psychological and physical health consequences of perceived discrimination.

Similarly, by exploring the experiential transition between the anticipation of and actual exposure to racial stress, it would provide insight into the stability of coping efforts. When selecting preliminary coping efforts, Aspinwall and Taylor (1997) proposed that individuals attempt to conserve coping resources while also selecting coping strategies that are appropriate for the severity of the stressor. Given that the current study solely assessed planned coping efforts, future research should examine whether African American's planned course of action is truly an indicator of *in vivo*

coping and illustrate how strategy selection and overall coping efficacy are impacted by the environmental feedback they receive. Particularly, it would be important to determine how African Americans reconfigure their initial coping plans to meet *in vivo* situational demands and determine whether shifts along the challenge appraisal-positive affect dimension remains the best indicator of this reconfiguration process.

Finally, the future assessment of *in vivo* coping would determine whether the challenge appraisal-positive affect-planned coping relationships are protective against the harmful effects of racial discrimination. More specifically, such empirical study could examine how the pre-stressor preparation (in the forms of initial appraisal and planned coping) impacts the coping efficacy during an African American's interaction with a racially insensitive peer. For example, the optimism and perceived control evident in one's anticipatory mindset could either enhance or hinder one's coping efforts when confronted with appraisal-inconsistent situations. Though some studies suggest that this inconsistency (or the underestimation of severity and perceived control) can decrease proactive efforts to manage stress (Sansone & Berg, 1993; Vitaliano, Russo, & Maiuro, 1987), another possibility is that recognizing low controllability over future outcomes early in the appraisal process can be protective against emotional and physiological distress by allowing individuals to more realistically plan and execute coping efforts that are contextually appropriate (Aspinwall & Taylor, 1997). Altogether, the aforementioned advancements in the study of proactive coping with racial discrimination would better articulate whether the preparatory experience identified in the current study empowers African Americans to adaptively respond to racial stress and protect themselves against its deleterious effects.

## RESTRICTED APPLICABILITY OF THE RACIAL STRESSOR

The stress induction in the current study included African American students believing they were about to engage with a racially insensitive peer on a group project. Notably, the stress induction experiment did not readily provide any alternative options that would allow students to disengage or avoid the racial stress, such as being able to switch partners or the opportunity to select a different project topic. The absence of such alternatives is a limitation of the current study in that the findings do not capture what cognitive and affective experiences contribute to coping efforts to disengage from or avoid the anticipated racial stress. In light of these methodological limitations, it remains unclear whether challenge appraisals are a true reflection of student's initial appraisals of racial stress or whether challenge appraisals are better characterized as a readjustment to the situational demands of the study. In other words, it is possible that by restricting the stress induction to only include student efforts to engage with (rather than disengage with) the racial stressor, it may have created a unique pressure on students to identify attainable goals, to draw upon past experiences to bolster a sense of interpersonal adaptability, and to assume an overall optimistic view of the impending partner interaction. However, when encountering racial stress without such restrictions, the increased volitional ability may enable to students to assume a broader range of cognition and endorse a greater range of affect.

Future research should broaden the assessment of coping to extend beyond approach-focused strategies. In making such adjustments, research would directly build

upon the current findings by determining: 1) the extent to which students *choose* to engage with the racial stressor despite knowledge of other coping options, and 2) whether challenge appraisals remain the best cognitive predictor of decisions to engage with the stressor. Also, in light of prior evidence describing experiences of racial discrimination as threatening and potentially harmful (Berger & Sarnya, 2015), such methodological changes may better reveal the role that threat appraisals play in the proactive coping process, as perceived threat/harm has been associated with more avoidant responses to stress (Folkman et al., 1986). Altogether, by providing students with greater volitional ability within the study's methodology (e.g., more coping options for managing the onset of racial stress), it would create greater opportunities for correlating cognition and affect to different anticipatory coping experiences, which ultimately enhances the applicability of the proactive coping model across various types of racial stressors.

#### LIMITED GENERALIZABILITY OF SAMPLE

The external validity of the current findings is also limited by the use of a convenience sample (i.e., African American college students between ages 18-25). Particularly, the use of a college-aged sample restricts the applicability of these findings to African American emerging adults, thereby leaving questions regarding the generalizability of these findings to different age cohorts. Though no study to date has evaluated the intergenerational differences in proactive coping within the context of racial discrimination, evidence has shown that there are age disparities in the health outcomes associated with racial discrimination (Beatty Moody, Waldstein, Tobin, et al., 2016; Spence, Wells, Graham, & George, 2016), which demonstrates that racial stress is experienced differently across age cohorts. Given that the current sample is restricted to

emerging adults, future research can inform the intergenerational applicability of the current study's findings by exploring the relevance of the challenge appraisal-positive affect-planned coping relationships among older and younger-aged populations. Importantly, such research would help to better understand the developmental trajectory of the proactive coping model within the context of racial stress.

In addition to age, the demographic characteristics of the current sample limits the applicability of these findings to African Americans who do not experience clinically significant difficulties related to racial discrimination. In other words, the current findings should be interpreted as normative, non-pathological responses to anticipated racial stress given that no psychological symptom measures were used to determine the diagnostic status of the current sample. However, there is burgeoning literature that highlights the debilitating effects of racial discrimination among ethnoracial minorities (e.g., Racial Battle Fatigue- Smith, Allen, & Danley, 2007; Racial Trauma- Carter, 2007). In drawing upon the well-established relationship between perceived discrimination and negative psychological outcomes (e.g., anxiety and depression), future research can begin to explore the applicability of the proactive coping model within populations where the anticipation of threat is a hallmark of a clinical diagnosis, such as an anxiety disorder. More specifically, the construct of chronic worry is a core feature of Generalized Anxiety Disorder that characterizes a tendency to become uncontrollably apprehensive about the occurrence of future negative events (Soto, Dawson-Andoh, & BeLue, 2011). Given that chronic worry is reflective of an anticipatory mindset intent on developing a coping strategy for upcoming events, future research can explore the generalizability of the current findings within a clinical sample that is marked by their tendency to view future

stressors through a threat appraisal lens. Such research would evaluate the capacity of this clinical population to experience challenge appraisals and positive affect in anticipation of racial stress and capture the extent to which this population plans to engage with racial stress, which would collectively inform the course of treatment for African Americans who are debilitated by their anticipatory experiences of racial stress.

Finally, despite efforts to increase the recruitment of African American male college students, the overall sample was majority female (71%). The undersampling of African American males may not fully capture their anticipatory and preparatory experiences with anticipated racial discrimination, thereby functioning as a limitation of the current study. Notably, there are gender disparities in how racial discrimination is experienced with there to be a greater frequency of perceived racial discrimination among African American males of lower socioeconomic backgrounds (Neblett, Bernard, & Banks 2016). Furthermore, due to the low sampling of African American males, the current study was unable to capture the unique elements of proactively coping that may differ based upon gender. Given that there are racial prejudices and stereotypes that vary by gender (e.g., Black men- dangerous, aggressive, violent; Black women- “Black mammy, jezebel/promiscuity, angry Black woman; Sawyer, DeLapp, & Williams, 2016; Williams et al., 2012), future research can build upon the current findings by examining gender specific coping experiences within a proactive coping framework. Specifically, future studies can examine whether there are anticipatory thoughts (with particular attention to types of anticipated prejudice or mistreatment), state-based affect, and preparatory coping behaviors that vary by gender and explore whether these disparities in thought, feeling, and behavior are influenced by the gender of the anticipated perpetrator

of racial stress (e.g., are there specific anticipatory thoughts are common among Black women when anticipating racial stress from a White male). Collectively, such future study would identify any gender specific considerations when attempting to provide support for African Americans who are anticipating encounters with racial stress.

#### BIDIRECTIONALITY OF AFFECT AND PLANNED COPING

The current study utilized the conceptual framework characterizes affect as a contributing factor that interacts with the initial appraisal process to influence preliminary coping efforts. In other words, coping is considered the by-product of the anticipatory cognitive and emotion experience. Contrarily, other conceptual models, particularly models focused on emotion regulation, arrange emotion as the core feature of one's coping experiences, as it has been conceptualized that "individuals influence which emotions they have, when they have them, and how they experience and express these emotions" (Gross, 1998, p. 275). As such, the current study's conceptual approach only captures a unidirectional relationship between affect and planned coping; however, a limitation of the current study is that these findings do not capture the bidirectional relationship where one's behavioral preparation for racial stress (e.g., planned coping efforts) can also influence the state of one's affective experience. Therefore, future research should explore the affective regulation process that African Americans engage in as they anticipate racial discrimination. Specifically, by including additional state-based affect assessments throughout the transition from anticipating to actual exposure to racial stress, it will capture fluctuations in affect and examine how state-based cognition and behavioral preparation contribute to the process of affect regulation.

#### IMPLICATIONS

Most literature has focused on the use of post-stressor coping efforts to manage the harmful effects of racial discrimination in African Americans. In moving beyond the post-stressor models of racial discrimination (e.g., Clark et al., 1999; Harrell, 2000), recent advancements have begun identifying how stigmatized individuals *proactively* cope in anticipation of racial discrimination (see Appendix B). The current study builds upon this proactive coping literature by combining different domains of psychology (e.g., social, positive, and clinical psychology) within a novel mixed-methods design to provide greater specificity to our understanding of the cognitive and emotional experience that precedes coping efforts to engage with future threats of racial stress. Specifically, the type of racial stress in the current study seems most analogous, in terms of real-world application, to interracial interactions that occur in work-related settings (e.g., job, school). In such settings, interracial interactions are often a necessity for most African Americans (e.g., academic/work-related projects) and the avoidance of these interactions may not be possible or could result in unwanted consequences (e.g., limited work productivity). The current findings showed that, when confronted with such racial stress, challenge appraisals (perceived optimism, control, goal attainability) and positive affect are important psychological resources that promote using coping efforts to minimize the effects of racial adversity while persevering through the interracial interaction.

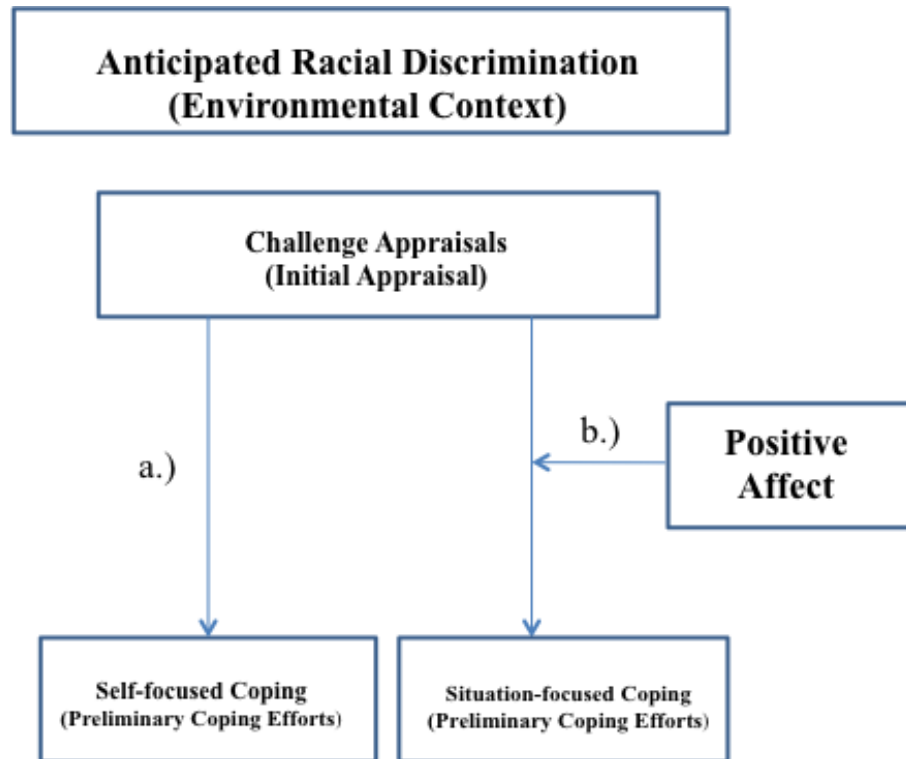
Importantly, the current findings provide targets for the social support and psychosocial treatment that stigmatized individuals, like the current sample of African American students, can receive when struggling to cope with racially hostile work environments. Though these individuals may be anticipating threat/harm to one's self and experiencing negative affect (e.g., anxiety, anger), the current study suggests that the best



indicator of how African American students plan to engage with racial stress is the presence of a challenge-oriented mindset. As such, care providers (e.g., clinicians) may choose to evaluate, for example, the degree of control one feels they have over the effects of anticipated racial stress and whether they have identified attainable goals that provide motivation for encountering such stress. And, in the event that individuals are lacking in their expression of this mindset, it subsequently provides an opportunity for care providers to explore the ability of these individuals to reconfigure their initial appraisal of anticipated stress to better align with a mindset that encourages their use of approach coping strategies to manage racial stress. Notably, the current findings demonstrate that the expression of a challenge-oriented mindset is most vital when African American students desire to *engage with* racial stress and *persist through* the interracial encounter using approach coping; a mindset that may not be as relevant if alternative coping efforts are desired (e.g., avoidance, confrontation). Also, it is worth noting that threat-oriented cognition and the expression of negative affect should not be minimized or attempted to be amended as this may cause African Americans to feel this element of their experience is invalidated (Hays, 2009). However, the current findings demonstrate that if the primary goal is to persevere through a racially stressful environment using approach coping strategies, the expression of a challenge-oriented mindset and positive affect are important assessment foci and represent a preparatory experience that could be the target of care/treatment processes (e.g., helping African American students identify attainable goals for the interracial interaction). Finally, the current study captured how African American students planned to implement approach coping strategies to manage racial stress. Though the adaptive qualities of these strategies were not evaluated, prior

literature has demonstrated that certain strategies (e.g., cognitive reappraisal, emotion/behavioral regulation) are associated with positive health outcomes (see Appendix A). As such, African Americans (along with their support networks) may draw upon the current findings to help inform their course of action for managing anticipated racial threats.

Altogether, the current study illustrates how African Americans may attempt to empower themselves against racial stress. Specifically, a challenge appraisal-positive affect dimension emerged as the best predictor of the degree to which African American students planned to engage with racial stress. Importantly, these cognition-emotion-coping relationships (as shown in Figure 3) can be utilized to more comprehensively capture the full experience of discrimination-related coping and enhance the therapeutic care provided to this population in two ways: 1) inform the assessment of the anticipatory experience of discrimination (e.g., perceived controllability, goal attainability) and 2) provide viable options for African Americans to be proactive agents against anticipated stress (e.g., self- and situation-focused coping strategies).



*Figure 3.* An updated model of proactive coping within context of anticipated racial discrimination. Model builds upon an existing model by Aspinwall and Taylor (1997). (a) African American students with high endorsements of challenge appraisals (e.g., perceived control, goal attainability) were more likely to plan to use self-focused coping strategies to manage anticipated racial discrimination (b) African American students with high endorsements of challenge appraisals and positive affect (e.g., excited, determined, interested) were most likely to plan to use situation-focused coping strategies to manage anticipated racial discrimination.

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## Appendix

**Appendix A.** Studies showing the effects of Reactive Coping on the relationship between Perceived Discrimination and Psychological Outcomes within African Americans

Authors/Date	Sample	Reactive Coping Strategy	Measure	Outcomes	Design	Significant Main Effects of coping on PO	Mediating/Moderating effects of coping on the relationship of discrimination to outcomes
Barnes & Lightsey, Jr. (2006)	114 AA college students	Problem-Solving Seeking Social Support Avoidance	Coping Strategies Indicator (CSI; Amirkhan, 1990)	Perceived Stress (PS)  Life Satisfaction (LS)	Regression	(NEG) Problem-Solving on PS  (POS) Avoidance on PS  (NEG) Avoidance on LS	No significant mediating/moderating effects
Fischer & Shaw (1999)	119 AA college students	Racial Socialization Beliefs  Racial Socialization Experiences	SORS-A (Stevenson, 1994)  TERS (Stevenson et al., 1998)	Mental Health Index (MHI)  Self-Esteem (SE)	Regression	No main effects examined	(Moderation) Racial Socialization Experiences X Discrimination on MHI. Low Racial Socialization Experiences + High Discrimination had lower MHI.
Gaylord-Harden & Cunningham (2009)	268 AA early adolescents	Active coping strategies  Distraction strategies	HICUPS; Program for Prevention Research, 1999)	Depressive symptoms (DS)	Correlation,  Regression	(NEG-Correlation) Avoidant Coping on AS  (POS- Correlation) Communalism on	(Moderation) Communalism X Discrimination on AS. High Discrimination + High Communalism

		Avoidance strategies		Anxiety symptoms (AS)		AS	related to more AS.
		Support seeking				(POS Correlation) Emotional debriefing on AS	
		Emotional debriefing				(POS-Regression)	
		Spiritually-centered coping	Y-ACSI; Gaylord-Harden & Utsey, unpublished			Emotional debriefing on DS	
		Communalistic coping				(NEG-Regression) Communalistic on DS	
						(POS-Regression)	
						Active Coping on DS	
						(NEG-Regression)	
						Avoidant Coping on DS	
Gerrard et al., 2012 (Study 1)	100 AA young adult community sample	Substance Use Coping	Modified version of brief COPE scale (Carver, 1997)	Substance use willingness (SW)	Regression	(POS) Substance coping on SW	(Moderation) Substance Coping X Discrimination on SW. High Discrimination + High Substance Coping related to more SW
Gerrard et al., 2012 (Study 2)	139 AA	Substance Use Coping	Averaging responses to two items: "I drink alcohol or take drugs,	Substance use willingness (SW)	Regression	(POS) Substance coping on SW	(Moderation) Substance Coping X Discrimination on SW. High Discrimination +

			in order to think less” or “..., in order to feel better”				High Substance Coping related to more SW
Gerrard et al., 2012 (Study 3)	800 AA adolescents	Substance Use Coping	8 items: “Using alcohol [drugs] help me...[with cope with emotions]”	Self-reported Substance Use (SU)	Regression, longitudinal	(POS) Substance coping on SU	(Moderation) Substance Coping X Discrimination on SU. High Discrimination + High Substance Coping related to more SW
McNeil et al., 2014	487 heterosexual AA couples	Spousal support	Spousal Specific Support Scales (Culp & Beach, 1998)	Depressive symptoms (DS)	Regression	Not examined	(Moderation) Spousal Support X Discrimination on DS ‘only’ for male partners. Spousal Support buffered effects of discrimination for men.
Pittman, 2011	366 AA adults	Active anger coping	1 dichotomous item about losing temper	Psychological distress (PD)	Regression	(POS) Active Anger on PD (POS) Active Anger on GW	(Moderation) Active Anger X Discrimination on PD. High Active Anger + Discrimination had higher PD.
		Passive anger coping	1 item asking frequency of getting angry	General well-being (GW)			(Moderation) Active Anger X Acute Discrimination on GW. High Active Anger + Discrimination had

Thompson Sanders, 2006	156 community-dwelling adults (70 AA)	Approach Coping Avoidance Coping	Coping Response Inventory (Moos, 1993)	Re-experiencing symptoms (RS) Avoidance symptoms (AS)	Regression	(POS) Logical Analysis (Approach coping subscale) on RS  (NEG) Cognitive Avoidance (Avoidance Coping Subscale) on RS  (POS) Cognitive Avoidance (Avoidance Coping Subscale) on AS	lower GW.  No mediating/ moderating effects examined
Seaton et al., 2014	314 AA adolescents	Active coping style Distraction coping style Avoidant coping style Support seeking subscale	Children's Coping Strategies Checklist (Ayers et al., 1996)	Depressive symptoms (DS)	SEM	(NEG) Active coping on DS  (POS) Distraction coping on DS  (POS) Avoidant Coping on DS	(Mediation) Avoidant coping mediated Discrimination on DS.
Utsey et al., 2000	213 AA college students	Problem-solving Seeking social support	Coping Strategy Indicator (Amirkhan, 1990)	Self-esteem (SE) Life Satisfaction	Regression	(NEG) Avoidance coping on SE  (NEG) Avoidance	No mediating/ moderating effects were examined



Avoidance

(LS)

coping on LS

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*Note.* AA African Americans; POS Positive Linear Relationship indicating that there is a main effect such that higher coping behavior is associated with more of a psychological outcome; NEG Negative Linear Relationship indicating that there is a main effect such that higher coping behavior is associated with less of a psychological outcome

**Appendix B. Studies showing the relationship between Proactive Coping and Discrimination**

Authors/Date	Sample	Proactive Coping Strategy	Measure	Outcome
Mallet & Swim (2005) Study 1	101 college women with BMI of $\geq 25$ (no ethnicity breakdown provided)	Primary Control	Participants told to create virtual reality video for an attractive male.  Primary Control measured by time spent preparing for video (e.g., planning introduction, grooming)	(POS) Threat Appraisals and Primary Control
Mallet & Swim (2005) Study 2	62 college women with BMI of $\geq 25$ (no ethnicity breakdown provided)	Primary Control  Information Seeking  Self-presentation  Attention to situation  Attention to interaction  Secondary Control  Attention to self	Daily Diary Forms  Rated the use of these strategies on a 6-point scale	(POS) Anticipated Discrimination and Primary Control    (POS) Anticipated Discrimination and Secondary Control
Mallet & Swim (2009)	77 AA college students	Self-focused coping  Situation-focused coping  Avoidance	Retrospective Reports of Proactive Coping: Rated the use of 14 proactive coping strategies on a 7-point scale.    Reports of Daily Proactive Coping: When anticipating	Self-focused coping reported more than other coping strategies on both types of measurement.    (POS) Primary Appraisals with each proactive coping

			discrimination, rated the use of 14 proactive coping strategies on a 7-point scale.	strategy on both types of measurement.
McGonagle & Hamblin (2014)	332 adults who work at least 30 hrs. and endorsed at least one chronic illness (No ethnicity breakdown provided)	Concealing Behaviors	Rated the use of 3 concealing behaviors (i.e., managing appearance, minimizing importance of illness, trying to hide symptoms) on a 4-point scale	(POS) Previous Discrimination and Compensatory Behaviors.
			Rated the use of 3 compensatory behaviors (e.g., working longer hours/extra to prove oneself) on a 4-point scale.	(POS) Anticipated Discrimination and Compensatory Behaviors.
		Compensatory Behaviors		
Shelton et al. (2005)	54 ethnic minority college students (27 AA)	Self-disclosure	Rated the disclosure of self-relevant information during interactions on a 7-point scale.	(POS) Expectation of prejudice and self-disclosure when interacting with a White roommate.

*Note.* AA African Americans; POS Positive Linear Relationship indicating that there is a main effect such that higher coping behavior is associated with more of the outcome variable; NEG Negative Linear Relationship indicating that there is a main effect such that higher coping behavior is associated with less of outcome variable

## Appendix C. Stress induction experiment materials

### Step 1: Reading Materials

Instructions:

Please *closely* read the passage below, as you will need this information for your group activity.

“Although Black students begin school with standardized test scores that are not too far behind those of their White counterparts, almost immediately a gap begins to appear that, by the sixth grade in most school districts, is two full grade levels. There have been encouraging increases in the number of African Americans completing high school or its equivalence in recent years: 77% for Black students versus 83% for White students. And there have been modest advances in the number of African American high school graduates enrolling in college, although these have not been as substantial as in other groups. Perhaps most discouraging has been the high dropout rate of African American college students: Those who do not finish college within six years is 62%, compared with a national dropout rate of 41%. And there is evidence of lower grade performance among those who do graduate of, on average, two thirds of a letter grade lower than those of other graduating students. On predominantly White campuses, Black students are also underrepresented in math and the natural sciences. Although historically Black colleges and universities now enroll only 17% of the nation’s Black college students, they produce 42% of all Black BS degrees in natural science. At the graduate level, although Black women have recently shown modest gains in PhDs received, the number awarded to Black men has declined over the past decade more than for any other subgroup in society.” (excerpt from Steele, 1997, p.614-615)

### Step 2: Partner Introductory Video

Participants were told that they and their partner would record a brief introductory video by responding to the following prompt, “Describe ways you have been exposed to diversity and culture in your life, particularly within academic and/or school settings. Also, describe your impressions of group work and multicultural courses.”

#### Partner’s Video Script:

Hello my name is [name] and I am currently a freshman here at the UofL. I am from a small town in Eastern Kentucky and went to a small high school where everyone knew everyone. My grades were pretty good in high school and I was involved in all kinds of sports. I would say that I come from a hometown where there is a lot of culture; we have a lot of ‘Southern’ pride. For instance, my whole town often gets together to celebrate a lot of old historical events that happened near my hometown.

So, college life...that has been a bit of a transition. So far the work has not been the problem. To be truthful... when I got to UofL, I was most surprised and a bit uncomfortable with all the ethnic people on campus when I arrived mainly because of my experience with these folks in high school and I had seen some crazy things recently on t.v. Actually, the first Black people I ever saw was when I got to high school. I didn’t have many classes with them, but I did realize that they really didn’t try at school and a lot of them didn’t even graduate. But, I do have a Black

friend from home and we typically hang out to play sports. Honestly, that's what most of them did at my school. But you know...I think its great that so many of them actually made it to college.

So, since we are going to be working together, I should probably say a little bit about how I like group work to go. I typically enjoy group work as long as I trust that my partners will not make me do all the work. I have had some bad experiences in high school when I had to work with some of those folks who didn't try and I was left to do everything. When working in groups, I find that I tend to take the leader role and I expect other group members to carry their weight. In my experience (including my brief time in college), I typically prefer to work with people like me because those who don't try often waste my time.

'Oh yea...and those multicultural courses. Well I am guessing that's kind of like the class I am taking for my cultural diversity requirement.' I am currently fulfilling that requirement, but I *sort of* feel that my professor is out to make me feel guilty for being white. I'm White—so what? It isn't like I asked for it... I have always tried to treat others the way I wish to be treated. Other than the guilt trip, this class has been pretty easy so far so I can get this requirement out of the way, so that I can get to the real college work. Well, I think that's everything. Looking forward to working with you.

### **Step 3: Group project**

You will be given 15 minutes to collaborate with your partner and brainstorm campus-wide solutions for improving the graduation rates among African American students at [on this campus].

## Appendix D. Quantitative Measures

### State-based Cognitive Appraisals (Stress Appraisal Measure, Wong, 1990)

Instructions: Participants were first asked to rate their current level of stress on a scale of 1 (I am NOT at all stressed) to 4 (I am very stressed). Next, they were asked to, "Please answer the following questions based on how stressful you feel it will be to work with your partner."

Original Measure	Adapted Measure
1. I have the ability to overcome stress	1. I have the ability to overcome <i>this</i> stress
2. I can positively attach stressors	2. I can positively attach <i>this</i> stressor
3. I have what it takes to beat stress	3. I have what it takes to beat <i>this</i> stress
4. I am eager to tackle problems	4. I am eager to tackle <i>this</i> problem
5. I feel I can become stronger after experiencing stress	5. I feel I can become stronger after experiencing <i>this</i> stress
6. I have the skills necessary to overcome stress	6. I have the skills necessary to overcome <i>this</i> stress
7. I am excited about the potential outcome	7. I am excited about <i>this</i> potential outcome
8. I perceive stress as threatening	8. I perceive <i>this</i> stress as threatening
9. I feel totally helpless	9. I feel totally helpless
10. I feel anxious	10. I feel anxious
11. Stressful events impact me greatly	11. <i>This</i> stressful event impacts me greatly
12. It is beyond my control	12. It is beyond my control
13. The outcome of stressful events is negative	13. The outcome of stressful <i>this</i> event is negative
14. The event has serious implications for my life	14. <i>This</i> event has serious implications for my life
15. Stress has a negative impact on me	15. Stress has a negative impact on me
16. There are long-term consequences as a result of stress	16. There are long-term consequences as a result of <i>this</i> stress
17. There is someone I can turn to for help	17. There is someone I can turn to for help
18. There is help available to me	18. There is help available to me
19. No one has the power to overcome stress	19. No one has the power to <i>this</i> overcome stress
20. I understand that stress has important consequences	20. I understand that <i>this</i> stress has important consequences
21. I will overcome problems	21. I will overcome problems
22. I have resources available to me to overcome stress	22. I have resources available to me to overcome stress
23. My problems cannot be resolved	23. My problems cannot be resolved
24. I don't know anyone who can provide	24. I don't know anyone who can provide

---

help

help

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Note. Items 1-7 make-up the Challenge appraisal subscale and Items 8-12 make-up the Threat appraisal scale

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### State-based affect (PANAS-X; Clark & Watson, 1994)

Instructions: This scale consists of a number of words and phrases that describe different feelings and emotions. Read each item and then mark the appropriate answer in the space next to that word. Indicate to what extent you feel this way **right now, that is, at the present moment**. Use the following scale to record your answers.

- 
- |                            |            |             |                   |
|----------------------------|------------|-------------|-------------------|
| 1. Cheerful                | 16. sad    | 31. active  | 46. angry at self |
| 2. disgusted               | 17. calm   | 32. guilty  | 47. enthusiastic  |
| 3. attentive               | 18. afraid | 33. joyful  | 48. downhearted   |
| 4. bashful                 | 19. tired  | 34. nervous | 49. sheepish      |
| 5. sluggish                | 20. amazed | 35. lonely  | 50. distressed    |
| 6. daring                  | 21. shaky  | 36. sleepy  | 51. blameworthy   |
| 7. surprised               | 22. happy  | 37. excited | 52. determined    |
| 8. strong                  | 23. timid  | 38. hostile | 53. frightened    |
| 9. scornful                | 24. alone  | 39. proud   | 54. astonished    |
| 10. relaxed                | 25. alert  | 40. jittery | 55. interested    |
| 11. irritable              | 26. upset  | 41. lively  | 56. loathing      |
| 12. delighted              | 27. angry  | 42. ashamed | 57. confident     |
| 13. inspired               | 28. bold   | 43. at ease | 58. energetic     |
| 14. fearless               | 29. blue   | 44. scared  | 59. concentrating |
| 15. disgusted<br>with self | 30. shy    | 45. drowsy  | 60. dissatisfied  |
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Note: Positive Affect: Items 3, 8, 13, 25, 31, 37, 39, 47, 52, 55. Negative Affect: Items 11, 18, 26, 32, 34, 38, 40, 42, 44, 50

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### Planned Coping Efforts (adapted from Malett & Swim, 2009)

Instructions: Before you interact with your partner, how likely are you to use the following behaviors to influence your interaction with him/her?" (Rate on a scale of 1 indicating "Not at all" to 7 indicating "Very much")

Original Measure	Adapted Measure
1. I will pay close attention to my own behavior or performance in a situation where I might be the target of racism	1. While working with my partner, I will pay close attention to my own behavior or performance when I think I might be the target of discrimination
2. I will monitor my own thoughts in a situation where I might be the target of racism	2. While working with my partner, I will monitor my own thoughts when I think I might be the target of discrimination
3. I will try to regulate my emotions when I think I might be the target of racism	3. While working with my partner, I will try to regulate my emotions when I think I might be the target of discrimination
4. I will try to maintain self-control when I think I might be the target of racism	4. While working with my partner, I will try to maintain self-control when I think I might be the target of discrimination
5. While speaking to someone who was not African American, I will pay close attention to what the other person is doing (e.g., eye contact, body position) because it will tell me more about how she or he felt than what is said	5. While speaking to my partner, I will pay close attention to what my partner is doing (e.g., eye contact, body position) because it will tell me more about how she or he felt than what is said
6. I will pay close attention to elements of the environment (e.g., what's going on behind or around my partner) when interacting with people who are not African American.	6. I will pay close attention to elements of the environment (e.g., what's going on behind or around my partner) when interacting with my partner.
7. I will try to maintain eye contact when I have a conversation	7. I will try to maintain eye contact when I have a conversation
8. I will pay attention to information that tells me about the potential for future discrimination	8. I will pay attention to information that tells me about the potential for future discrimination
9. I will pay close attention to how an interaction with another person is developing and will try to imagine what other paths it might take, good or bad	9. I will pay close attention to how an interaction with my partner is developing and will try to imagine what other paths it might take, good or bad
10. When I sense that another person does not like African Americans, I will try to educate that person about my group	10. If I sense that my partner does not like me because of a personal characteristic (e.g., my race), I will try to educate that person about my group
11. When I am not around other African Americans, I will try to change the way I normally communicate to fit what seems to be appropriate in a particular situation (e.g., using more formal language around my partner).	11. While working with my partner, I will try to change the way I normally communicate to fit what seems to be appropriate in a particular situation (e.g., using more formal language around my partner).
12. When I sense that another person does not like African Americans, I will try to emphasize parts of myself that are not being called into question, but are positive	12. If I sense that my partner does not like me because of a personal characteristic (e.g.,



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- (e.g., if my intelligence is insulted, I will emphasize my appearance)
13. I will try to avoid interactions where I might encounter racism to minimize the amount of stress I might experience.
14. I will try to leave interactions where I might encounter racism as soon as possible to minimize the amount of stress I might experience.
- my race), I will try to emphasize parts of myself that are not being called into question, but are positive (e.g., if my intelligence is insulted, I will emphasize my appearance)
13. I will try to spend as little time with my partner as possible if I feel that I am a target of discrimination to minimize the amount of stress I might experience
14. If I feel that I might encounter discrimination, I will try to end the group activity as soon as possible (e.g., talking less) to minimize the amount of stress I might experience.
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Note. Items 1-4 make-up the Self-focused coping scale and Items 5-12 make-up the Situation-focused scale.

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## CURRICULUM VITA

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**EDUCATION & TRAINING:**

B.A., Psychology and African American Studies (Minor)  
University of North Carolina at Chapel Hill  
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MA., Clinical Psychology  
University of Louisville  
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Ph.D., Clinical Psychology  
University of Louisville  
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**AWARDS:** Stanley Murrell Scientist-Practitioner Award- 5/2016  
University of Louisville  
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Junior Clinician Award- 5/2015  
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Professional Service Award- 5/2015  
University of Louisville  
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Distinguished Pass on Preliminary Examination- 5/2015

Title: "Preparing for Racial Discrimination: Moving Beyond Reactive Coping in African Americans"  
University of Louisville  
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Phi Beta Kappa member- 4/2012  
University of North Carolina at Chapel Hill  
Alpha of North Carolina chapter

PROFESSIONAL SOCIETIES:

2012-present Association for Behavioral & Cognitive Therapies (ABCT)  
2015-present Kentucky Psychological Association

PUBLICATIONS (PEER-REVIEWED ARTICLES):

DeLapp, R.C.T., Chapman, L.K., & Williams, M.T. (2015). Psychometric Properties of a brief version of the Penn State Worry Questionnaire in African Americans and European Americans. *Psychological Assessment*.

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PUBLICATIONS (BOOK CHAPTERS):

Sawyer, B., DeLapp, R.C.T., & Williams, M.T. (in press). Community Violence Exposure and Racial Discrimination as Barriers to Treatment: Implications for African American Males in Counseling. In *African American Male Series, Counseling African American Males: Effective Therapeutic Interventions and Approaches* (2<sup>nd</sup> Edition), W. Ross, ed.

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Williams, M. & DeLapp, R. (2016, July 14). Tuning Out. *Slate*.

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#### NATIONAL MEETING PRESENTATIONS (TALKS):

DeLapp, R.C.T, Ching, T.H.W., Cloudy, J., Sawyer, B.A., & Williams, M.T. (2016, March). Discriminatory Attribution Styles and Psychological Outcomes among Ethnoracial Minority College Students. Southern Society of Philosophy and Psychology, 2016 Annual Meeting, Louisville, KY.

DeLapp, R.C.T. & Williams, M.T. (2014, November). Navigating Professional Issues Faced by Black Psychologists: The Presence and Impact of Racial Microaggressions. Presented at the African Americans in Behavioral Therapy SIG, ABCT, Philadelphia, PA.

DeLapp, R.C.T., Walerius, D., & Rosen, P.J. (2014, June) Cross Generational Parenting: How to Manage Difficult Child Behaviors. Presented at the KIPDA Grandparent Raising Grandchildren Conference, Louisville, KY.

#### NATIONAL MEETING PRESENTATIONS (POSTERS):

DeLapp, R.C.T. & Williams, M.T. (2016, October). Preparing for Racial Discrimination: The Role of Anticipatory Cognition among African American college students. Presented at the African Americans in Behavioral Therapy SIG at ABCT, New York, NY.

DeLapp, C.L., DeLapp, R.C.T., Williams, M.T. (2016, October). Making Diversity Matter: Comparing Students Attitudes About Multicultural Coursework. Presented at the African Americans in Behavioral Therapy SIG at ABCT, New York, NY.

DeLapp, R.C.T., Ching, T.H.W., Cloudy, J., Sawyer, B.A., & Williams, M.T. (2015, November). Discriminatory Attribution Styles and Psychological Outcomes among Ethnoracial Minority College Students. Presented at the African Americans in Behavioral Therapy SIG at ABCT, Chicago, IL. Awarded 'Best Poster Award' for the African Americans in Behavioral Therapy SIG.

DeLapp, R.C.T & Chapman, L. C. (2014, November). Comparison of Chronic Worry in African American and Non-Hispanic White College Students Using a Brief Version of the Penn State Worry Questionnaire. Presented at ABCT, Philadelphia, PA.

DeLapp, R.C.T., Davis, D.M., Combs, J., Williams, M.T. (2014, November). Psychometric Properties of the Disgust Scale-Revised: Preliminary Findings in an African American and European American College Sample. Presented at the African Americans in Behavioral Therapy SIG, Philadelphia, PA.

DeLapp, R.C.T., Keen, A., Buckner, E.V., Richards, A., & Chapman, L.K. (2013, November). Individual Characteristics Related to the Psychological Symptoms of At-risk Inner City Youth. Presented at the African Americans in Behavioral Therapy SIG, ABCT, Nashville, TN.

Bahojb-Nouri, L., Richards, A., DeLapp, R.C.T., Buckner, E.V., Chapman, L.K. (2013, November). The Impact of the Gentleman's Academy on Anger and Related Constructs in African American Youth with a History of Delinquency. Presented at the African Americans in Behavioral Therapy SIG, ABCT, Nashville, TN.

DeLapp, R.C.T., Petrie, J., & Chapman, L.K. (2013, June). Predictive Quality of Fearfulness in Childhood Anxiety. Presented at the Black Graduate Conference for Psychology, Chapel Hill, NC.

Sawyer, B., DeLapp, R.C.T., Dager, A., Pearlson, G., Bruno, J., Leen, S., Raskin, S., Tennen, H., Austad, C., Fallahi, C., & Wood, R. (2013, June). A cross-cultural examination of motivations for substance use among college students. Presented at the Black Graduate Conference for Psychology, Chapel Hill, N.C.

DeLapp, R.C.T., Petrie, J., Richards, A., Davis, D., Bahojb-Nouri, L., Buckner, E., & Chapman, L. K. (2012, November). Patterns of fear in African American urban youth: A factor analysis of Fear Survey Schedule — Revised in a community-based African American youth sample. Presented at the African Americans in Behavioral Therapy SIG, ABCT, National Harbor, MD.

Bucker, E., Steever, A., DeLapp, R.C.T., Bahojb-Nouri, L., Petrie, J., Richards, A., & Chapman, L. K. (2012, November). An examination of the factor structure of the BDI-II in a community-based sample of African Americans. Presented at the African Americans in Behavioral Therapy SIG, ABCT, National Harbor, MD.

DeLapp, R.C.T., Sikich, L., Bodfish, J., & Dichter, G. (2011, November). Aripiprazole's effects on the linkage between repetitive and restrictive behaviors and executive function in high functioning autism. Presented at the Sigma Xi Annual Meeting & International Research Conference, Raleigh, NC.

#### REFEREED JOURNALS

June 2015	BMC Psychiatry
September 2014	BMC Psychiatry
July 2014	BMC Psychiatry