Perceived Racial Discrimination and Psychological Distress Among

Asian American Adolescents: Moderating Roles of Family Racial

Socialization and Nativity Status

by

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#### ABSTRACT

This dissertation used the risk and resilience framework to examine the associations between perceived racial discrimination, family racial socialization, nativity status, and psychological distress. Regression analyses were conducted to test the links between perceived racial discrimination and psychological distress and the moderation on these associations by family racial socialization and nativity status. Results suggest, for U.S.-born adolescents, cultural socialization strengthened the relation between subtle racial discrimination and anxiety symptoms. In addition, promotion of mistrust buffered the relations of both subtle and blatant racial discrimination on depressive symptoms. For foreign-born adolescents, promotion of mistrust exacerbated the association between blatant racial discrimination and depressive symptoms. Overall, the findings revealed the detrimental effects of perceived racial discrimination on the mental health of Asian American adolescents, how some family racial socialization strategies strengthen or weaken the relation between perceived racial discrimination and psychological distress, and the different ways foreign-born and U.S-born adolescents may interpret racial discrimination and experience family racial socialization.

i

# DEDICATION

This dissertation is dedicated to Victor, Jacob, Noah, Baby B, Mom, and

Dad.

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iii

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### TABLE OF CONTENTS

rage
LIST OF TABLES ix
LIST OF FIGURES xii
INTRODUCTION1
LITERATURE REVIEW
Asian American's Unique Experiences of Racial
Discrimination5
Blatant and Subtle Racial Discrimination and
Psychological Adjustment7
Risk and Resilience Theoretical Framework13
Protective Factors14
Vulnerability Factors16
Family Racial Socialization18
Cultural Socialization/Pluralism19
Promotion of Mistrust25
Preparation for Bias
Nativity Status
Immigration Health Paradox
Racial Discrimination
Differences in the Interpretations of Racial
Discrimination41

# Page

Importance of Coping Resources41
Indices of Psychological Distress
The Present Study54
METHOD
Participants
Procedure
Measures
Perceived Racial Discrimination59
Family Racial Socialization60
Psychological Distress61
Ethnic Identity62
RESULTS
Missing Data Analysis63
Preliminary Analyses65
Descriptive Statistics and Bivariate Correlations65
Test of Main and Interaction Effects67
Nativity Status, Cultural Socialization, and Blatant
Racial Discrimination on Psychological Distress71
Depressive Symptoms71
Anxiety Symptoms72

Nativity Status, Cultural Socialization, and Subtle	
Racial Discrimination on Psychological Distress7	3
Depressive Symptoms7	3
Anxiety Symptoms7	3
Nativity Status, Promotion of Mistrust, and Blatant	
Racial Discrimination on Psychological Distress7	4
Depressive Symptoms7	4
Anxiety Symptoms7	6
Nativity Status, Promotion of Mistrust, and Subtle	
Racial Discrimination on Psychological Distress	
Depressive Symptoms7	6
Anxiety Symptoms7	7
Nativity Status, Preparation for Bias, and Blatant	
Racial Discrimination on Psychological Distress7	8
Depressive Symptoms7	8
Anxiety Symptoms7	9
Nativity Status, Preparation for Bias, and Subtle	
Racial Discrimination on Psychological Distress8	0
Depressive Symptoms8	0
Anxiety Symptoms8	0

Page

# Page

Summary				
Main Effects81				
Interaction Effects				
Post Hoc Analyses				
DISCUSSION				
Main Effects: Associations between Perceived				
Racial Discrimination and Psychological Distress				
Two-way Interactions: Moderating Role of Family				
Racial Socialization88				
Three-way Interactions: Moderating Role of Nativity Status90				
Limitations of the Current Study97				
Contributions to the Literature and Directions for				
Future Research				
Summary				
REFERENCES				
APPENDIX				
A Tables of Hierarchical Regressions Predicting				
Psychological Distress from Gender, Perceived Racial				
Discrimination, and Family Racial Socialization153				
B Measures166				

### LIST OF TABLES

le Page	Table
1. Descriptive Statistics of Study Variables127	1.
2. Correlations and Descriptive Statistics of Study Variables	2.
3. Correlations and Descriptive Statistics of Study Variables	3.
Separately for Foreign-born (Above Diagonal; $n = 55$ )	
and U.Sborn adolescents (Below Diagonal; $n = 99$ )129	
4. Descriptive Statistics and T-test Results of Study Variables Based	4.
on Nativity Status	
5. Summary of Hierarchical Regression Predicting Depressive	5.
Symptoms from Nativity Status, Blatant Racial	
Discrimination, and Cultural Socialization131	
6. Summary of Hierarchical Regression Predicting Anxiety	6.
Symptoms from Nativity Status, Blatant Racial	
Discrimination, and Cultural Socialization132	
7. Summary of Hierarchical Regression Predicting Depressive	7.
Symptoms from Nativity Status, Subtle Racial	
Discrimination, and Cultural Socialization133	
8. Summary of Hierarchical Regression Predicting Anxiety	8.
Symptoms from Nativity Status, Subtle Racial	
Discrimination, and Cultural Socialization	

Page	
9. Summary of Hierarchical Regression Predicting Depressive	
Symptoms from Nativity Status, Blatant Racial	
Discrimination, and Promotion of Mistrust	
10. Summary of Hierarchical Regression Predicting Anxiety	
Symptoms from Nativity Status, Blatant Racial	
Discrimination, and Promotion of Mistrust	
11. Summary of Hierarchical Regression Predicting Depressive	
Symptoms from Nativity Status, Subtle Racial	
Discrimination, and Promotion of Mistrust	
12. Summary of Hierarchical Regression Predicting Anxiety	
Symptoms from Nativity Status, Subtle Racial	
Discrimination, and Promotion of Mistrust	
13. Summary of Hierarchical Regression Predicting Depressive	
Symptoms from Nativity Status, Blatant Racial	
Discrimination, and Preparation for Bias139	
14. Summary of Hierarchical Regression Predicting Anxiety	
Symptoms from Nativity Status, Blatant Racial	
Discrimination, and Preparation for Bias140	
15. Summary of Hierarchical Regression Predicting Depressive	
Symptoms from Nativity Status, Subtle Racial	
Discrimination, and Preparation for Bias141	

# Table

# Page

# 16. Summary of Hierarchical Regression Predicting Anxiety

Symptoms from Nativity Status, Subtle Racial	
Discrimination, and Preparation for Bias142	2

### LIST OF FIGURES

Figure	Page
1.	Perceived racial discrimination interaction with cultural
	socialization on psychological distress143
2.	Perceived racial discrimination interaction with promotion
	of mistrust on psychological distress144
3.	Perceived racial discrimination interaction with preparation
	for bias on psychological distress145
4.	Hypothesized interaction between perceived racial discrimination
	and cultural socialization on psychological distress for
	foreign-born and U.Sborn adolescents146
5.	Hypothesized interaction between perceived racial discrimination
	and promotion of mistrust on psychological distress for
	foreign-born and U.Sborn adolescents147
6.	Hypothesized interaction between perceived racial discrimination
	and preparation for bias on psychological distress for
	foreign-born and U.Sborn adolescents148
7.	Curvilinear relation between preparation for bias and
	depressive symptoms149
8.	Cultural socialization as a moderator of the relationship between
	subtle racial discrimination and anxiety symptoms150

# Figure

ure	ıre	
9.	Promotion of mistrust as a moderator of the relationship between	

subtle racial discrimination and depressive symptoms	15	1
--	----	---

10. Promotion of mistrust as a moderator of the relationship between

blatant racial discrimination and depressive symptoms152	b	latant racial	discrimination	and depressive s	symptoms	.152
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#### Introduction

Many individuals in the United States (US) polarize racism into a "Black and White" issue, ignoring the discrimination and oppression faced by other racial groups, including Asian Americans (Liang, Li, & Kim, 2004). Discussions of racism are further complex for Asian Americans because they are viewed as the "model minority" – a high achieving racial group who do not experience racism (Wong & Halgin, 2006; Wu, 2002). However, Asian Americans have a long history of racism ranging from denied rights of citizenship, being forbidden to own land, and incarceration in internment camps (D. W. Sue & D. Sue, 2003). Modern forms of racism still include blatant messages such as racial slurs, threats, and physical harm, but also comprise of subtle messages including being viewed with suspicion, experiencing racial barriers, and incidents related to perceptions of being a model minority (Yoo, Steger, & Lee, 2010).

A growing body of literature suggests racism has deleterious physical and psychological health outcomes for Asian American adolescents and adults (Alvarez & Helms, 2001; Barry & Grilo, 2003; Gee, Spencer, Chen, Yip, & Takeuchi, 2007a; Gee, Spencer, Chen, Yip, & Takeuchi, 2007b; Greene, Way, & Pahl, 2006; Lam, 2007; Lee, 2003, 2005; Liang & Fassinger, 2008; Yoo & Lee, 2005; 2008). Cross-sectional studies have found that perceived racial discrimination is linked to lower self-esteem (Barry & Grilo, 2003; Liang & Fassinger, 2008), decreased life satisfaction (Yoo & Lee, 2005), higher levels of depression and anxiety (Lam, 2007; Lee, 2003, 2005), and higher negative affect (Yoo & Lee, 2005). For instance, among a national sample of Asian American adults, Gee and colleagues (2007b) found that perceived racial discrimination significantly increased the odds of having any depressive or anxiety disorder within the past 12 months. These relations were found after controlling for sociodemographic variables, acculturative stress, family cohesion, poverty, self-rated health, chronic physical health conditions, and social desirability bias. Further analyses revealed that Asian Americans who reported racial discrimination were at a twofold greater risk of having one disorder within the past 12 months, and a threefold greater risk of having two or more disorders. Thus, existing work demonstrates the positive relation between perceived racial discrimination and psychological distress for Asian Americans.

It is important to note, however, that some Asian Americans are resilient to perceived racial discrimination, whereas others are not. Previous studies have discussed the protective nature of various individual-level variables such as nativity status (Ying, Lee, & Tsai, 2000; Yoo & Burrola, 2009) and ethnic identity (Alvarez & Kimura, 2001; Lee, 2003; Noh & Kaspar, 2003; Yoo & Lee, 2005, 2008), with little consideration for broader ecological factors. For instance, Asian Americans are one of the fastest growing racial minority groups in the US (Nguyen & Huang, 2006) and live in geographically concentrated areas such as California, Hawaii, and New York (Kim & Yeh, 2002). In addition, 64% of all Asian Americans are foreign-born (U.S. Census Bureau, 2010). These ecological factors are particularly salient for Asian Americans as they may influence their racial experience along with implications for perceived racial discrimination on subsequent physical and mental health (Gee, Ro, Shariff-Marco, & Chae, 2009;

Ying et al., 2000; Yoo & Lee, 2008). It is also important to consider the family context as it shapes the nature and quality of social relationships, communication style, and strategies for dealing with conflict (Harrell, 2000). With respect to the family context, one factor that may protect Asian Americans from perceived racial discrimination may be the attitudes and beliefs about the meaning of race and racism that Asian American adolescents receive from their parents. This process, known as *family racial socialization*, has received increased attention in the research literature as an important familial factor for understanding resilience in children of color (Brega & Coleman, 1999; Coard & Sellers, 2005; Fischer & Shaw, 1999; Hughes et al., 2006; Neblett et al., 2008; Stevenson, Reed, Bodison, & Bishop, 1997).

Considering family racial socialization as a protective factor is consistent with the risk and resilience framework, which suggests that with the aid of particular resources, some individuals demonstrate a remarkable ability to sustain positive adjustment despite substantial risk (Masten, 2001). As such, guided by the risk and resilience framework, the present study examined the protective nature of family racial socialization strategies to which adolescents are exposed in the family context. *Resilience* refers to a dynamic process encompassing positive adaptation within the context of significant adversity (Luthar, Cicchetti, & Becher, 2000). Resilience scholars suggest that differences in outcomes in the context of adversity can be attributed in part to the presence or absence of psychological, social, and material resources, which are collectively known as protective factors (Masten, 2001). These protective factors operate to reduce

maladjustment and psychopathology and to promote greater psychological, emotional, and behavioral competence and well-being. Given the importance of family and its influence on child development (Bronfenbrenner, 1979; Garcia-Coll et al., 1996), it is important to examine how a family-level factor, such as family racial socialization, may attenuate the negative effects of perceived racial discrimination on adjustment.

Scholars (e.g., Hughes & Chen, 1999; Hughes & Johnson, 2001) have identified three family racial socialization strategies all of which serve distinct purposes, but have a common goal of socializing children of color with respect to the significance and meaning of race. These strategies go beyond general familial socialization as they are parental preparatory messages and practices that specifically focus on the topics of race, racism, and preparation for experiences of racial discrimination (Hughes & Chen, 1999). However, the current family racial socialization literature is limited because it focuses almost exclusively on the racial experience of African Americans (Barnes, 1980; Fischer & Shaw, 1999; Stevenson, 1994; Stevenson et al., 1997; Tatum, 1987) and it is unclear whether these processes are similar for other racial minorities, such as Asian Americans (see Alvarez, Juang, & Liang, 2006; Huynh & Fuglini, 2008; Tran & Lee, 2010, for exceptions). The present study used existing theoretical and conceptual frameworks to extend this work to Asian Americans. In sum, the current study examined each family racial socialization strategy as a potential moderator of the link between perceived racial discrimination and psychological distress among Asian American adolescents. Based on existing theory, some strategies were

hypothesized to serve a protective function, and others were hypothesized to exacerbate the negative effects of this risk.

The literature review begins with an overview of Asian American's unique experience of racial discrimination and its relations with overall adjustment. It will be followed by a brief summary of the risk and resilience framework, which provides the conceptual foundation for the goals of the present study. Next, the literature on family racial socialization will be reviewed, with a specific emphasis on each of the three family racial socialization strategies that will be examined in the current study. Specifically, each family racial socialization strategy will be introduced and existing empirical work in which it has been examined in relation to adjustment will be reviewed. In addition, the theoretical rationale that informs how the family racial socialization strategy may modify the association between perceived racial discrimination and psychological distress will be presented. Next, the role of nativity status will be discussed, with a conceptual reasoning presenting family racial socialization as a cultural resource that may benefit foreign-born Asian Americans more than U.S.-born Asian Americans. Finally, indices of psychological distress of interest and goals of the present study will be presented.

### **Literature Review**

#### Asian American's Unique Experiences of Racial Discrimination

Compared to the "old fashioned" type of racial discrimination characterized by overt, direct, and often intentional hatred, racial minorities frequently experience a contemporary form of racial discrimination that is subtle, indirect, and often disguised (Sue, Capodilupo, Torino, Bucceri, & Holder, 2007b). Some social scientists have suggested that racial discrimination and stereotyping operate under similar ideologies for all minority groups (Biernat, 2003; Jones, 1997). However, some researchers have argued that there may be qualitative differences of racial discrimination experienced by Asian Americans compared to African Americans and Latinos (Liang et al., 2004; Sue et al., 2007a; Yoo & Lee, 2005). These distinctions are important to explore because it is reasonable to expect that these unique experiences of racial discrimination may impact relations with psychological outcomes and influence family racial socialization strategies among Asian Americans.

A modest amount of research has focused on the conceptualization of racial discrimination experienced by Asian Americans (Liang et al., 2004; Sue et al., 2007a; Sue et al., 2007b; Yoo et al., 2010). These scholars suggest that Asian Americans may experience a broad range of racial discrimination that includes blatant and subtle racist messages. Blatant racial discrimination, although less prevalent, still occurs in the form of vandalism, intimidation and threats, aggravated assaults, harassment, and racial slurs (National Asian Pacific American Legal Consortium, 1999, 2002). Subtle racial discrimination is often difficult to identify because it operates automatically, implicitly, unconsciously, and unintentionally (Devine, 1989; Dovidio & Gaertner, 1986; Sue, 2005). Subtle racial discrimination is distinct from blatant racial discrimination as it often involves omissions, inactions, or a failure to help others, rather than a conscious desire to hurt others (Yoo et al., 2010). Asian Americans' experiences of subtle

racial discrimination also stem from the seemingly positive model minority stereotype; the belief that Asian Americans have embodied the "American dream", are hard-working, high achieving individuals with few psychological difficulties (Inman & Yeh, 2007). However, the perceived success of Asian Americans within the realms of education and hard work may conceal the real social, economic, and psychological difficulties encountered by Asian Americans (D. W. Sue, 1994). The model minority myth also perpetuates the belief that Asian Americans do not experience racial discrimination or have, in some way, overcome racial discrimination to achieve the "American dream." Perhaps their unique experiences of racial discrimination, including the pervasive model minority myth, are reasons why family racial socialization is not examined among Asian Americans. Further, these differences provide additional evidence that the current family racial socialization literature on African Americans cannot be generalized to Asian Americans.

#### **Blatant and Subtle Racial Discrimination and Psychological Adjustment**

For ethnic and/or racial minorities, discrimination is a lifelong struggle that can affect their health and well-being (Kessler, Mickelson, & Williams, 1999). Given that existing data demonstrates that blatant racial discrimination has been replaced by more subtle forms of discrimination (Dovidio & Gaertner, 1986; Pettigrew & Meertens, 1995; Spencer & Chen, 2004), researchers have focused on the social and psychological ramifications of both forms of racial discrimination. Existing research argues that blatant racial discrimination is a potential social risk factor of mental illness, is related to physical and

psychological well-being, and contributes to stress, depression, and anger in its victims (Chakraborty & McKenzie, 2002; Jones, 1997; Kim, 2002). For example, using data from a survey of studies examining racism, mental health researchers found that higher levels of blatant racial discrimination were related to lower levels of happiness, life satisfaction, self-esteem, and mastery or control (Williams, Neighbors, & Jackson, 2003). Among Asian American samples, blatant racial discrimination has been positively related to indices of psychological distress, such as depressive symptoms (Lam, 2007; Lee, 2003; Yoo et al., 2010). A smaller number of studies have examined the association between subtle racial discrimination and psychological adjustment. For example, Solorzano and colleagues (2000) examined the effects of microaggressions, a form of subtle racial discrimination, among a sample of African American college students. They found microaggressions were associated with a negative racial climate, and often fostered emotions of self-doubt, frustration, and isolation. Subtle racial discrimination has also been linked to depressive symptoms (Noh, Kaspar, & Wickrama, 2007) and anxiety symptoms (Yoo et al., 2010) among Asian samples. Sue (2003) argues that although subtle racial discrimination may seem innocuous or insignificant, it is "many times over more problematic, damaging, and injurious to persons of color than overt racist acts" (p. 48). There are several theoretical frameworks that may explain why subtle racial discrimination may be more damaging to an individual's mental health, compared to blatant racial discrimination.

According to Lazarus and Folkman's (1984) stress and coping model. situational ambiguity may influence an individual's stress levels. In situations when ambiguity is high (e.g., subtle racial discrimination), individual factors have an increased influence on the meaning of the event as compared to when the situation is unambiguous (e.g., blatant racial discrimination). In some situations, ambiguity results in increased stress levels, while in other situations, individuals seek out ambiguity as a way to decrease the impact of stress (Lazarus & Folkman). Blatant racial discrimination is clearly flagged as "racist" and is an obvious attack on the individual (e.g., "That was so racist!"), thus it is reasonable these acts may be positively related to psychological distress. The relative ambiguity of subtle racial discrimination, however, may be more harmful to an individual's mental health as it may lead an individual to spend more time thinking about the situation (e.g., "What did he/she mean by that comment?", "Was that racist?", "Am I imagining things?"). Thus, it is plausible that individuals experience more psychological distress when they encounter subtle racial discrimination, compared to blatant racial discrimination, because they spend more time ruminating about the situation.

Harrell's (2000) racism-related stress model suggests daily racism microstressors, a subtle form of racial discrimination, is a central part of understanding the dynamics of racism in contemporary America. Often unintentional, these daily experiences of racism may lead individuals to feel disrespected, objectified, or dehumanized (Harrell). Perhaps the most frustrating aspect of microstressors is that others may minimize these experiences or label

them as "non-racial". Harrell argues that daily experiences of subtle racial discrimination often occur throughout an individual's lifetime and the accumulation of these experiences contributes to their overall stress load and directly impacts their well-being.

Major and colleagues theorize that subtle racial discrimination is more harmful to self-esteem than blatant racial discrimination because subtle racial discrimination is more difficult to discount by the use of participants' negative feedback to racism (Crocker & Major, 1989; Major, Kaiser, & McCoy, 2003a; Major, Quinton, & Schmader, 2003b). Thus, subtle racial discrimination may damage an individual's self-esteem by increasing internal attributions of failure (e.g., "Is there something wrong with me that caused this person to treat me this way?"), whereas blatant racial discrimination is less likely to damage an individual's self-esteem by increasing external attributions of failure (e.g., "That person is so racist!").

Differentiating between blatant and subtle forms of perceived racial discrimination is important as they may have differential psychological effects for individuals of color (Yoo et al., 2010). A growing area of research has been dedicated to exploring the differences between blatant and subtle racial discrimination and their links to adjustment, and their findings provide evidence that both forms of racial discrimination are empirically distinct constructs. For example, Noh and colleagues (2007) examined differential effects of blatant and subtle racial discrimination on positive affect and depressive symptoms, and possible mediating roles of emotional arousal and cognitive appraisal, among a

sample of adult Korean immigrants living in Toronto, Ontario. Results indicated that blatant racial discrimination was negatively associated with positive affect, and subtle discrimination was positively associated with depressive symptoms. Effects of subtle racial discrimination on depressive symptoms were mediated by cognitive appraisal including frustration, intimidation, powerlessness, and helplessness. They argue that subtle racial discrimination may be more harmful to an individuals' well-being as it leads them to spend a great deal of cognitive energy questioning the interaction and its underlying meaning. Yoo, Steger, and Lee (2010) validated a measure of perceived racial discrimination developed to assess blatant and subtle racial experiences of Asian American college students living in the Southwest region of the US. The blatant racial discrimination subscale (e.g., In America, I am called names such as 'chink, gook, etc.') referred to instances of discrimination related explicitly to racial bias or stereotypes, whereas the subtle racial discrimination subscale (e.g., In America, I am overlooked because I'm Asian) referred to instances of discrimination related implicitly to racial bias or stereotypes. In support of Major and colleagues' (Crocker & Major, 1989; Major, Kaiser, & McCoy, 2003a; Major, Quinton, & Schmader, 2003b) notion of internal attributions of failure, results indicated that subtle racial discrimination was negatively associated with personal self-esteem. In addition, both blatant and subtle racial discrimination were positively associated with depression, anxiety, and stress. However, Yoo and colleagues' findings contradicted other existing work as blatant racial discrimination had

stronger positive correlations with these indices of psychological distress, compared to subtle racial discrimination.

These research findings and theoretical frameworks (Crocker & Major, 1989; Harrell, 2000; Lazarus & Folkman, 1984; Major et al., 2003a; Major et al., 2003b; Noh et al., 2007; Yoo et al., 2010) note that blatant and subtle perceived racial discrimination are theoretically and empirically distinct constructs. The present study examined the differential effects of blatant and subtle racial discrimination on adolescents' psychological distress. Based on existing theory (Crocker & Major, 1989; Harrell, 2000; Lazarus & Folkman, 1984; Major et al., 2003a; Major et al., 2003b), it is reasonable to suspect that subtle racial discrimination contributes more to psychological distress compared to blatant racial discrimination. Blatant racial discrimination is a direct attack on an individual and may lead to higher levels of depression and anxiety. Subtle racial discrimination is relatively ambiguous and an individual may not readily interpret these acts as "racist". The vagueness of subtle racial discrimination may lead an individual to ruminate about the situation, and may lead to higher levels of depressive and anxiety symptoms, compared to blatant racial discrimination. Said differently, subtle racial discrimination may be more stressful for an individual than blatant racial discrimination because it is more physically and mentally taxing. Thus, it was hypothesized that both blatant and subtle racial discrimination would be positively related to depressive and anxiety symptoms. However, based on theory that subtle racial discrimination may be more harmful to an individual's mental health, it was hypothesized that the positive relation to

both indices of psychological distress would be stronger for subtle racial discrimination, compared to blatant racial discrimination. Despite these proposed differential relations, however, it is clear that both blatant and subtle forms of racial discrimination are notable risks for ethnic and racial minorities. However, as with other risks, perceived racial discrimination does not affect individuals in the same way. Some ethnic and racial minorities demonstrate maladjustment when faced with racial discrimination while others seem to demonstrate little to no ill effects. The next section briefly outlines the risk and resilience theoretical framework and how it lends itself as a guide to examine the possible moderating effects of family racial socialization on the relation between perceived racial discrimination and psychological distress.

#### **Risk and Resilience Theoretical Framework**

The risk and resilience theoretical framework is based on the premise that some individuals have positive outcomes despite serious threats to adaptation or development (Masten, 2001). This framework provides a mechanism to understand the processes that account for these positive outcomes. For individuals to be considered resilient, two conditions are necessary (Masten, 1999; Masten & Coatsworth, 1998). First, there must be a past or current significant threat to an individual's development (Masten, 2001). Numerous risk factors, ranging from status variables such as socio-economic status to direct measures of exposure to maltreatment or violence, have been linked to developmental problems and, thus, would be considered significant threats (Masten & Garmezy, 1985; Masten & Wright, 1998). Second, to be considered resilient, individuals must achieve positive developmental outcomes despite a noted risk. The present study examined perceived racial discrimination as a notable risk to Asian American adolescents' psychological adjustment.

**Protective Factors.** Early research on resilience searched for protective factors that could explain differences in outcomes between children with healthy adjustment and their counterparts with relatively poorer adjustment (Luthar et al., 2000). Researchers noted that resilience may result from the presence of certain personal, familial, and social environmental factors (Masten & Garmezy, 1985; Werner & Smith, 1982, 1992). Recently, this body of literature has extended its focus to understanding underlying protective processes or *how* these factors may contribute to positive adjustment (Luthar, 1999). For instance, in the context of adversity, some resilience factors may stabilize the outcome, while others may enhance the outcome. In sum, these protective processes provide a variety of ways for individuals to adjust positively or even thrive in environments with recognized risk factors.

Luthar and colleagues (2000) have argued that protective factors differentially moderate the effects of adversity by serving as *protectivestabilizing*, *protective-enhancing*, or *protective-reactive* processes. *Protectivestabilizing* processes refer to factors that offer outcome stability despite increased risk. For example, Howard, Budge, and McKay (2010) found that family support provided a *protective-stabilizing* effect on the association between exposure to violence and symptoms of distress among a sample of inner-city urban high school students. Among students with low family support, higher exposure to violence was linked to greater symptoms of distress, whereas students with high availability of family support were not found to report higher symptoms of distress across levels of exposure to violence. This describes a *protectivestabilizing* process because individuals with high levels of family support did not report higher symptoms of distress despite an increase in exposure to violence.

Protective-enhancing processes refer to factors that enhance positive outcomes with increased risk. As an example of a *protective-enhancing* process, scholars have noted that family factors, such as positive parenting, high levels of warmth, and consistent disciplinary practices, can act as protective buffers against the negative impact of high-risk environments (e.g., Beyers, Loeber, Wickstrom, & Southamer-Loeber, 2001; Plybon & Kliewer, 2001). More specifically, family cohesion has a *protective-enhancing* moderating effect as it has been shown to counteract the negative impact of risk factors, especially for individuals in highrisk contexts. Plybon and Kliewer evaluated family cohesion as a potential moderator of the link between neighborhood type and externalizing behaviors among African American urban children. Among children living in the most impoverished neighborhoods, those with high levels of family cohesion had fewer behavior problems relative to their peers in low crime, low poverty neighborhoods. This is considered a *protective-enhancing* process because high levels of family cohesion offered increased protection against externalizing problems for individuals living in high-risk contexts and, importantly, led to *better* outcomes for those in high-risk contexts than for those in low-risk contexts.

*Protective-reactive* processes refer to factors that provide positive outcomes but less so when risk levels are high. For instance Lee, Su, and Yoshida (2005) examined the moderation of different coping strategies on the relation between intergenerational family conflict on well-being and adjustment in a sample of Asian American college students. They found that problem-solving coping served as a *protective-reactive* factor such that individuals who reported greater use of problem-solving coping had higher positive affect when family conflict was low but lower positive affect when family conflict was high. Thus, problem solving protected against poor outcomes when family conflict was relatively low but offered no advantage when family conflict was high. In other words, this protective factor was reactive to levels of family conflict.

**Vulnerability Factors.** Luthar and colleagues (2000) proposed similar labels for vulnerability effects (i.e., factors that lead to greater maladjustment when present). *Vulnerable-stable* processes refer to the factors that lead to general negative outcomes in individuals despite changing levels of risk (e.g., low versus high). That is, no matter the level of risk, the outcomes are negative among individuals with these vulnerability factors. For example, El-Sheikh and Elmore-Staton (2004) examined the vulnerability effect of parent-child conflict on the relation between marital conflict and child adjustment. They found that mother-child conflict is a *vulnerable-stable* factor for externalizing problems such that among families with either low or high marital conflict, children who reported higher levels of mother-child conflict exhibited higher levels of externalizing problems. Thus, regardless of levels of marital conflict, mother-

child conflict exacerbated the relation between marital conflict and child externalizing problems.

*Vulnerable-reactive* processes involve factors that are linked to negative outcomes, but only when risk levels are high. For example, El-Sheikh and Elmore-Staton (2004) found that father-child conflict was a vulnerable-reactive factor for both externalizing and internalizing problems. The *vulnerable-reactive* pattern suggested that higher levels of father-child conflict exacerbated the association between high levels of marital conflict and children's externalizing and internalizing behaviors. However, when marital conflict was low, fatherchild conflict did not intensify the relation between marital conflict and child problem behaviors. Thus, father-child conflict reacted to high levels of marital conflict.

As demonstrated by research previously discussed, complex interactive processes require the use of more elaborate labels to discuss risk and resilience processes (Luthar et al., 2000). These labels distinguish between "protective" and "vulnerability" processes while also describing the direction of the effects. The present study utilized a risk and resilience framework to understand the mechanisms (i.e., *protective-stabilizing*, *protective-enhancing*, *protectivereactive*, *vulnerability-stable*, or *vulnerability-reactive*) by which different family racial socialization strategies moderate the relation between perceived racial discrimination and psychological distress among a sample of Asian American adolescents. Existing work has identified family factors as potential protective factors (Masten & Garmezy, 1985; Werner & Smith, 1982, 1992). Consistent

with recent developments in the risk and resilience literature, the present study extended these findings and examined the processes by which this family-level factor may moderate links between risk and outcomes.

### **Family Racial Socialization**

In recent years, family racial socialization has been studied for its potential to promote positive development in racial and ethnic minority youth. Prevailing models of family racial socialization (i.e., Stevenson et al., 1994; Thornton, Chatters, Taylor, & Allen, 1990), however, were largely conceptualized based on the racial experience of African Americans, and it is unclear whether these processes would be similar for other racial minority groups. Hughes and Johnson (2001) proposed a model that could be generalized beyond the African American population. Based on existing theory and an empirical examination of their ideas, Hughes and Johnson presented a conceptual model of family racial socialization comprised of three dimensions: *cultural socialization/pluralism*, promotion of mistrust, and preparation for bias. Each dimension focuses on a specific family racial socialization strategy that parents utilize to transmit information, values, and perspectives about ethnicity and race to their children. Importantly, in recent work with Asian American adolescents, Tran and Lee (2010) provided empirical support for Hughes and Johnson's 3-factor family racial socialization model. In the sections that follow, each family racial socialization strategy will be reviewed along with existing empirical support demonstrating its links to adjustment. Explanations on how these family racial socialization strategies may work similarly (or not at all) for Asian American adolescents will be presented,

followed by a discussion of how the specific strategy may moderate the relation between perceived racial discrimination and psychological distress.

**Cultural Socialization/Pluralism.** Cultural socialization encompasses parental messages that teach children about their racial or ethnic group's culture, history, and heritage. For example, parents may discuss important historical or cultural figures, read culturally relevant books, celebrate cultural holidays, eat ethnic foods, or encourage children to use their family's native language (Hughes et al., 2006). Pluralism places an emphasis on diversity and awareness of other racial and ethnic groups. Parents teach children to appreciate all racial and ethnic groups and regard them as equal. For instance, parents may expose children to different groups' histories, traditions, and current experiences.

In previous studies, cultural socialization and pluralism were empirically indistinguishable (Hughes & Johnson, 2001; Tran & Lee, 2010). Researchers posit that perhaps messages about their own racial and ethnic group's history and culture co-occur with discussions about other racial and ethnic groups. Distinction between these strategies are further convoluted as existing work with this dimension of family racial socialization has exclusively focused on the role of cultural socialization and its link to various indices of adjustment.

A growing area of literature has focused on the link between cultural socialization and youth adjustment. Studies have documented positive associations between cultural socialization and positive adjustment (Bowman & Howard, 1985; Murry & Brody, 2002; Scott, 2003), and negative associations between cultural socialization and adjustment problems (Constantine &

Blackmon, 2002; Stevenson et al., 1997). For example, in a sample of African American preschool children and their families living in the eastern US, cultural socialization predicted better cognitive outcomes, better problem solving skills, and fewer behavioral problems (Caughy, O'Campo, Randolph, & Nickerson, 2002). Huynh and Fuligni (2008) examined differences and types of ethnic socialization messages reported by eleventh-grade adolescents from Mexican, Chinese, and European backgrounds attending ethnically diverse public high schools in the Los Angeles area. They found that positive cultural socialization messages accounted for the higher levels of academic motivation for Chinese and Mexican-origin adolescents, compared to their equally achieving European American peers. Recently, Hughes, Witherspoon, Rivas-Drake, and West-Bey (2009) examined the relationship between cultural socialization and youth adjustment among a sample of African American and European American early adolescents attending an integrated middle-class suburban school district in the northeastern region of the US. They found that cultural socialization was positively associated with academic and behavioral outcomes, and these associations were partially mediated by ethnic affirmation and self-esteem. Hughes and colleagues' findings highlight the mechanisms through which cultural socialization may influence youth outcomes. As discussed below, the positive effects of cultural socialization on youth adjustment may be due, in part, to its influence on more proximal processes such as identity formation.

A critical process during adolescence involves understanding one's membership in a racial and/or ethnic group. This process involves adolescents

taking an active role in reflecting on their own and others' views about their racial and/or ethnic group when deciding how important group membership is to their sense of self and when making choices about participating in group-relevant activities and settings (Hughes et al., 2009). Numerous studies have examined cultural socialization as a parental practice that may influence the process of racial and/or ethnic identity formation (Bowman & Howard, 1985; Hughes & Chen, 1997; Knight, Bernal, Garza, et al., 1993; Sanders Thompson, 1994; Stevenson, 1994; Thornton et al., 1990; Umaña-Taylor, Alfaro, Bámaca, & Guimond, 2009; Umaña-Taylor & Fine, 2004). Many studies are based on the idea that parents who emphasize issues related to race and/or ethnicity in their socialization practices will have children with a stronger or more advanced racial and/or ethnic identity. By purposefully highlighting culture and important people from their racial and/or ethnic group, parents increase children's awareness and knowledge of cultural traditions and values that encourage positive group attitudes. Previous studies have found associations between parents' cultural socialization practices and youth's racial and/or ethnic identity in African American, Mexican American, and Asian American samples.

Using a sample of middle-income African American mothers and their 9-10 year old children attending predominately European-American public schools in the suburbs of a northeastern city, Marshall (1995) found that children's report of cultural socialization was significantly related to their racial identity development. Specifically, parents who practiced cultural socialization had children who were further along in racial identity development. Stevenson (1995) found similar associations among a sample of inner-city African American adolescents living in the eastern US. McHale and colleagues (2006) examined cultural socialization with older and younger siblings in two-parent, working and middle-class African American families living in the eastern region of the US. They found distinctions between parents' cultural socialization practices such that only mothers' report of cultural socialization was positively related to youth ethnic identity. Previous studies have also noted the relations among cultural socialization and advanced stages of racial identity development, more positive group attitudes, and more group-oriented ethnic behaviors among African American adolescents and adults (Demo & Hughes, 1990; O'Connor, Brooks-Gunn, & Graber, 2000; Stevenson, 1995).

Among Mexican American samples, cultural socialization, measured by parental teachings about ethnic pride and cultural knowledge, was significantly related to elementary-aged children's knowledge about Mexican traditions and their reported preference for Mexican behaviors (Knight, Bernal, Garza, et al., 1993; Quintana & Vera, 1999). Umaña-Taylor and Fine (2004) examined the role of ecological factors, cultural socialization, and autonomy on Mexican-origin adolescents' ethnic identity achievement. Participants were recruited from public high schools in the Houston, Texas area, with the majority of participants attending a school with a large Latino population. They found that cultural socialization was directly and positively associated with adolescents' ethnic identity.

Recently, Tran and Lee (2010) examined relations among perceived family racial socialization (measured by cultural socialization/pluralism, promotion of mistrust, preparation for bias), ethnic identity, and social competence among a sample of late adolescent Asian American incoming undergraduate students from a large, public Midwestern university. They found that cultural socialization/pluralism was significantly positively related to social competence through ethnic identity, providing additional evidence of the positive associations between cultural socialization and ethnic identification among an Asian American sample.

Grounded in a risk and resilience framework, some scholars have argued that cultural socialization may protect youth from negative experiences associated with their minority status because it may boost ethnic identity, increase selfesteem, promote effective coping strategies, and enhance positive feelings about their racial and/or ethnic group (Harris-Britt, Valrie, Kurtz-Costes, & Rowley, 2007; Hughes & Chen, 1997; Miller, 1999; Phinney & Chavira, 1995; Stevenson et al., 1997). In a recent study, Harris-Britt and colleagues found that cultural socialization moderated the relation between perceived racial discrimination and self-esteem among a sample of African American adolescents recruited from two public middle schools in a rural town in the southeastern region of the US. Both schools were comprised of a majority of African American students from low and working-class families. Adolescents' reports of cultural socialization served as a *protective-stabilizing* factor, as perceptions of racial discrimination were associated with lower self-esteem for adolescents who reported minimal exposure to cultural socialization, whereas adolescents who reported more frequent cultural socialization did not seem to be negatively affected by perceived racial discrimination.

Although there is much diversity among Asian Americans, there are certain Asian cultural values and immigration characteristics that underlie similarities in family processes among many ethnic groups. In general, Asian Americans adhere to a set of common cultural values that reflect a collectivistic orientation fostering close family relationships and interdependence (Kim, Li, & Ng, 2005; Markus & Kitayama, 1991). In line with collectivistic coping theory, traditional Asian values encourage children to seek support from their families and community, thus strengthening the ties between members from their racial and/or ethnic group (Yeh, Arora, & Wu, 2006). Immigration characteristics are particularly salient for Asian Americans as 64% of all Asian Americans are foreign-born (U.S. Census, 2008). Research has noted that children of immigrant parents report more cultural socialization practices compared to children of US born parents (Tran & Lee, 2010).

Parents who emphasize their group's culture, history, or heritage may be instilling in their children more positive feelings about their racial and/or ethnic group membership, which may help children feel more connected to their social environment, have higher self-esteem, and be less likely to experience psychological distress when they experience varying levels of perceived racial discrimination. While cultural socialization may protect children from the psychological distress associated with experiences of racial discrimination, it is less likely that this family racial socialization practice will provide children with ways to cope with these negative experiences. Cultural socialization does not prepare children for experiences of racial discrimination, but rather teaches them to have pride and positive feelings about their racial and/or ethnic group. Therefore, racial and ethnic minority children who are armed with these resources will be able to sustain their well-being, be successful, and adapt to these negative situations.

It follows that cultural socialization may serve as a *protective-stabilizing* factor against the negative effects of perceived racial discrimination on Asian American adolescents' psychological distress. Therefore, adolescents who report high cultural socialization might report no difference in psychological distress when reporting low perceived racial discrimination compared to reporting high perceived racial discrimination. Alternatively, adolescents who report low cultural socialization may report more psychological distress (i.e., higher depressive and anxiety symptoms) with increased levels of perceived racial discrimination (see Figure 1 for illustration). This would provide support for cultural socialization as a *protective-stabilizing* factor such that, despite an increase in reported perceived racial discrimination, adolescents who report high levels of cultural socialization would not report increases in psychological distress.

**Promotion of Mistrust**. Promotion of mistrust messages refer to parental practices that emphasize the need for caution and distrust when interacting with members of other racial and/or ethnic groups (Hughes et al., 2006; Hughes &

Chen, 1999). Parents may communicate these messages of mistrust when they warn their children about other racial groups or barriers to opportunities based on their race and/or ethnicity. Promotion of mistrust strategies do not include messages that teach children how to cope with racial discrimination.

Little is known about the relation between promotion of mistrust messages and indices of adjustment because parents rarely endorse these items in surveybased studies or discuss them in response to open-ended questions (Hughes et al., 2006). In general, the existing work suggests that parents who emphasize a mistrust of other racial and/or ethnic groups have children with poorer academic and psychological outcomes. For example, Huynh and Fuligni (2008) examined the relation between family racial socialization (measured by cultural socialization, promotion of mistrust, and preparation for bias) and academic adjustment among a sample of Mexican, Chinese, and European-origin adolescents attending ethnically diverse public high schools in the Los Angeles area. They found that promotion of mistrust messages negatively predicted academic achievement among Chinese and Mexican-origin adolescents. Using an ethnically diverse sample of African American, Haitian, and other Caribbean island Black adolescent boys, Biafora, Warheit, Zimmerman, and Gil (1993) examined the relation between racial mistrust and deviant behaviors (e.g. starting fights, breaking things, robbery). Results suggested that adolescents who reported mistrust of other racial groups were also more likely to report delinquent behaviors. Caughy, Nettles, O'Campo, and Lohrfink (2006) examined the relations of family racial socialization (measured by cultural socialization,

promotion of mistrust, and preparation for bias) and various outcomes (e.g., cognitive development, language skills, and problem behaviors) among a sample of African American preschool children and their families living in the eastern US. They found that boys who received promotion of mistrust messages from their parents had more behavior problems compared to their peers. Recently, Tran and Lee (2010) examined relations among perceived family racial socialization (measured by cultural socialization/pluralism, promotion of mistrust, and preparation for bias), ethnic identity, and social competence among a sample of late adolescent Asian American incoming undergraduate students from a large, public Midwestern university. Consistent with previous research, they found that adolescents who reported more promotion of mistrust messages were more likely to have less social competence than their peers who did not receive similar messages.

There is a need for studies that examine the possible moderating effect of promotion of mistrust strategies on the relation between perceived racial discrimination and psychological adjustment because it is possible that this family racial socialization strategy is not the most adaptive approach to teach minority children about race and racism. Given the existing literature on the direct negative effects of promotion of mistrust on adjustment, the present study explored promotion of mistrust as a *vulnerable-stable* factor on the positive relation between perceived racial discrimination and Asian American adolescents' psychological distress. It is likely that promotion of mistrust strategies may strengthen the positive relation of perceived racial discrimination on

psychological distress as these messages do not provide advice for coping with or managing discrimination and difficult intergroup interactions (Hughes et al., 2006). It is reasonable to suspect that parents who have experienced racism and oppression may encourage their children to mistrust members from other racial and/or ethnic groups. This negative worldview may lead children to feel less connected to their social environment and be more likely to experience psychological distress when they experience racial discrimination. More troubling is that research has shown that cultural mistrust is negatively related to mental health seeking behaviors among African Americans (Whaley, 2001). In essence, these messages may be more damaging than they are helpful for minority children who are trying to understand and deal with racial discrimination.

It follows that promotion of mistrust may be a *vulnerable-stable* factor on the positive relation between perceived racial discrimination and Asian American adolescents' psychological distress. Therefore, adolescents who report high promotion of mistrust might report more psychological distress when reporting increased levels of perceived racial discrimination. Alternatively, adolescents who report low promotion of mistrust may report no difference in psychological distress when reporting low perceived racial discrimination compared to reporting high perceived racial discrimination (see Figure 2 for illustration). This would provide support for promotion of mistrust as a *vulnerable-stable* factor such that among adolescents who report increased levels of perceived racial discrimination, adolescents who report higher levels of promotion of mistrust messages would also report higher psychological distress. Thus, high levels of promotion of

mistrust messages were predicted to exacerbate the positive relation between perceived racial discrimination and psychological distress.

**Preparation for Bias**. Preparation for bias messages include parents' attempts to increase their children's awareness of racial prejudice and discrimination. These messages increase children's awareness of unfair treatment based on ethnicity and/or race and may also include strategies for coping with and overcoming racial discrimination (Hughes et al., 2006). For example, parents may discuss social stratification, marginalization and oppression of their racial and/or ethnic group, personal experiences of racial discrimination, examples of unfair treatment portrayed in the media, or how to recognize and cope with racial discrimination. Hughes and colleagues have argued that the preparation for bias strategy is conceptually and empirically distinguishable from the promotion of mistrust strategy because it includes messages that teach children how to cope with racial discrimination.

An increasing area of study has focused on the link between messages regarding preparation for bias and youth adjustment. Findings from these studies have provided mixed results, however some of the differences among findings may be due in part to varying sample characteristics (e.g., geographical location, diversity of community, age of child, parents' education, family income) within each study. Some studies contend that preparation for bias messages may be harmful to youth outcomes (Branscombe, Schmitt, & Harvey, 1999; Crocker, Luhtanen, Blaine, & Broadnax, 1994), while other note supportive aspects of preparation for bias messages (Bowman & Howard, 1985; Phinney & Chavira, 1995; Quintana & Vera, 1999; Scott, 2003; Stevenson, 1995). For instance, Marshall (1995) examined the relations among ethnic socialization (measured by cultural socialization and preparation for bias), ethnic identity, and academic achievement among a sample of African American mothers and their 9-10 year old children attending predominately European-American public schools in the suburbs of a northeastern city. Results indicated that mothers who reported greater levels of preparation for bias messages had children who tended to report lower levels of academic achievement. Marshall proposed that children who perform poorer in school may have parents who are sensitive to differential treatment that their children may be receiving because of their race and may be more likely to discuss these issues with them.

For some youth, however, preparation for bias messages has been related to positive outcomes. For example, among a sample of Mexican American children in second and sixth grade living in a moderately large city in central Texas, Quintana and Vera (1999) found that parents who discussed discrimination had children with greater knowledge about their ethnic group and a better understanding of prejudice. It is important to note that in their sample was diverse in terms of generational status and socioeconomic status. In addition, nearly half of the participants reported that at least one parent spoke Spanish at home. Adolescents whose parents prepared them for discrimination have also been found to demonstrate more effective coping strategies (Phinney & Chavira, 1995; Scott 2003). For instance, Scott examined the relations among preparation for bias messages, racial identity, and coping strategies among a sample of African American adolescents attending a small, private, and religious-oriented high school located in the southern region of the US. Results suggested that adolescents who received preparation for bias messages from their parents were more likely to describe proactive strategies for coping with racial discrimination such as seeking support and using direct problem solving strategies compared to their peers who did not receive these messages. Using 3-generation data from the National Survey of Black Americans, Bowman and Howard (1985) examined the relations between family racial socialization (which included measures of cultural socialization, pluralism, and preparation for bias), motivation, and academic achievement. They found that African American youth who were taught about racial barriers reported higher grades in school compared to their peers who reported being taught nothing about race.

Another possibility why existing research notes mixed finding is that the relationship between preparation for bias and adjustment is not linear, but rather the linear relationship between perceived racial discrimination and psychological distress differs based on the level of preparation for bias. Only a handful of studies, however, have examined this type of relationship. Using a sample of middle-class African American college students from the eastern-central region of the US, Fischer and Shaw (1999) found that the negative relation between perceived racial discrimination and overall mental health was significant at low levels of preparation for bias messages, but non-significant at high levels of preparation for bias messages. Thus, indicating that preparation for bias messages serves as a *protective-stabilizing* factor. Harris-Britt and colleagues (2007)

investigated the moderating effect of preparation for bias messages on the relation between perceived racial discrimination and self-esteem among a sample of African American early adolescents. Moderation results varied based on the level of preparation for bias messages. On the one hand, results indicated that low and high levels of preparation for bias messages served as a *vulnerable-stable* factor, as both levels were associated with a negative relation between perceived racial discrimination and self-esteem. On the other hand, moderate levels of preparation for bias served as a *protective-stabilizing* factor, as these adolescents did not seem to be negatively affected by perceived racial discrimination. The authors suggested that low levels of preparation for bias may leave adolescents ill prepared to understand racism along with lacking the ability to cope effectively with racism. Furthermore, high levels of preparation for bias may lead to negative feelings about their racial and/or ethnic group given the knowledge of others' biases towards their group. These negative feelings may also be intensified by experiences of discrimination. In addition, parents' overemphasis on racial barriers may lead adolescents to feel helpless over their social environment and consequently result in lower self-esteem. Moderate amounts of preparation for bias messages, alternatively, are related to higher self-esteem; Harris-Britt and colleagues suggest that perhaps when preparation for bias messages are not overemphasized, these messages protect adolescents' ego and sense of self when faced with discrimination.

It is important to note that because the racial discrimination experienced by Asian Americans may be qualitatively different compared to those of other racial and/or ethnic groups, it is also possible that these differences affect parents' preparation for bias messages. Given the innocuous disguise of subtle racial discrimination, it is plausible that parents are not aware they have experienced racial discrimination and thus may not feel that this is an essential topic to discuss with their children. It is also reasonable to suspect that Asian American parents may not discuss possible overt, negative experiences of discrimination, but instead discuss the positive and subtle messages that children may receive from others.

In line with Harris-Britt's (2007) study, the present study examined how the linear relationship between perceived racial discrimination and psychological distress may differ based on the level of preparation for bias. According to Harrell's (2000) racism-related stress model, parents who talk about social stratification, unfair treatment, and discrimination may help their children cope with these negative situations. Children may be taught to attribute unfavorable outcomes and experiences, such as racial discrimination, to external sources, thus protecting their self-esteem. In traditional Asian American families, children are expected to seek support and advice from parents and elder family members (Yeh et al., 2006). Consequently, children strengthen the relationships and interdependence among family members. Moderate levels of preparation for bias messages may help children understand that these experiences are normal and can be common occurrences for members of their racial and/or ethnic group, thus increasing their children's positive feelings about their racial and/or ethnic group membership. Armed with the knowledge, preparation, necessary coping skills,

and sense of connectedness, these children may be less likely to experience psychological distress when they are experiencing varying levels of perceived racial discrimination. However, it is also plausible that low and high levels of preparation for bias messages may lead to negative outcomes. Low levels of preparation for bias messages may leave adolescents unprepared to understand racism along with the inability to cope effectively with racism. Too much preparation for bias messages may lead to negative feelings about their racial and/or ethnic group given the knowledge of others' biases towards their group. In line with social identity theory (Tajfel & Turner, 2004), children may develop negative feelings about their racial and/or ethnic group with constant messages that their group is a target of prejudice and discrimination. Learning that their racial group is devalued by others may affect children's willingness to claim membership to that group, which may lead children to feel less connected to their social environment, have lower self-esteem, and be more likely to experience psychological distress when they experience varying levels of perceived discrimination. In addition, parents' overemphasis on racial barriers may lead adolescents to feel helpless over their social environment and consequently result in lower self-esteem. High levels of preparation for bias messages may also lead to children becoming hyper-vigilant about incidents of racial discrimination, leading to feelings of anxiety and depression (Harrell, 2000). Guided by Harris-Britt's (2007) findings and existing theoretical frameworks, the present study explored how the linear relationship between perceived racial discrimination and psychological distress differs based on the level of preparation for bias.

It follows that low and high levels of preparation for bias may be vulnerable-stable factors, and moderate levels of preparation for bias may be a *protective-stabilizing* factor, on the positive relation between perceived racial discrimination and Asian American adolescents' psychological distress. Therefore, adolescents who report either low or high levels of preparation for bias might report more psychological distress with increased levels of perceived racial discrimination. Alternatively, adolescents who report moderate levels of preparation for bias may report no difference in psychological distress when reporting low perceived racial discrimination compared to reporting high perceived racial discrimination (see Figure 3 for illustration). This would provide support for low and high levels of preparation for bias as *vulnerable-stable* factors such that among adolescents who report increased levels of perceived racial discrimination, adolescents who report low and high levels of preparation for bias messages might also report higher psychological distress. In addition, it would provide support for moderate levels of preparation for bias as a protectivestabilizing factor such that, despite an increase in reported perceived racial discrimination, adolescents who report moderate levels of preparation for bias may not report increases in psychological distress.

Family racial socialization strategies may also modify the association between perceived racial discrimination and psychological distress differently based on various contextual factors. For example, a growing area of literature has begun to examine the importance of individual-level factors, such as nativity status, on these relations. The following section outlines family racial socialization as a cultural resource that may benefit foreign-born Asian Americans more than U.S-born Asian Americans.

## **Nativity Status**

Immigration Health Paradox. Across various disciplines, researchers have noted an Immigration Health Paradox or evidence that immigrants are often healthier than their U.S.-born counterparts (Algeria et al., 2002; Escobar, Hoyos, & Gara, 2000; Gee, Ryan, Laflamme, & Holt, 2006; Grant et al., 2004; Takeuchi, Chun, & Gong, 2002; Vega, Kolody, Valle, & Hough, 1996). This paradox has been noted in Latino (e.g., Hunt, Morland, Barocas, Huckans, & Caal, 2002; Singh & Yu, 1996; Viruell-Fuentes, 2007), Caribbean Black (Feagin & McKinney, 2003; Kreiger, 2000; Lincoln, Chatters, Taylor, & Jackson, 2007; Williams, 2001), and Asian (Gee et al., 2006; Takeuchi et al., 2007; Yoo, Gee, & Takeuchi, 2009) immigrant samples. Researchers speculate that immigrants are often armed with cultural resources that serve as protective factors. However, a caveat exists such that as immigrants continue to reside in the US, these cultural resources decrease in protective value and may put individuals at risk for poorer health. For example, empirical studies have suggested that some immigrant groups may experience better mental health than U.S.-born individuals (Burnam, Hough, Karno, Escobar, & Telles, 1987; Takeuchi et al., 1998; Vega et al., 1998). However, as immigrants become more integrated into American life, their mental health deteriorates and becomes more similar to that of U.S.-born individuals.

Takeuchi and colleagues (2007) investigated the associations between immigration-related factors and mental health among a national sample of 2,095 Asian American adults. Data from the National Latino and Asian American Study, with a targeted sample of participants from Chinese, Filipino, and Vietnamese ancestry, was used to examine lifetime and 12-month rates of any depressive, anxiety, and substance abuse disorder. Overall, U.S-born individuals had the highest lifetime and 12-month rates of any disorder when nativity status, years in the US, age at time of immigration, and generational status were considered. Moreover, lifetime and 12-month rates of any psychiatric disorder were higher in second and third-generation participants compared to firstgeneration participants. Thus, as immigrants spend more time in the US, their health begins to deteriorate. Takeuchi and colleagues' findings illustrate the Immigration Health Paradox while challenging the notion of acculturation and its positive impact on immigrants' health.

Acculturation is the process of change immigrants experience as they come into direct contact with members of the host culture (Padilla & Perez, 2003). Acculturation models are based on the premise that as individuals acclimate to a new culture (e.g., learn the language and customs, gain more resources, and increase their social skills), they should also have improved health and adaptive coping. However, research across various disciplines has found the opposite effect, such that as an individual acculturates to the US culture, they face waning health. The Immigration Health Paradox has spurred a reconceptualization of acculturation and its assumptions.

Viruell-Fuentes (2007) argued that models of acculturation fail to acknowledge the interaction between culture, social structure, and well-being.

Based on her qualitative study with native-born and U.S.-born Mexican immigrant women, she proposed a conceptual model of immigrant health that acknowledges the impact of perceived racial discrimination. Study findings illustrated perceived racial discrimination as a potential pathway through which the health of immigrants and subsequent generations worsens over time.

**Racial Discrimination**. Researchers have begun to disentangle the role of racial discrimination in the Immigration Health Paradox. They speculate that longer residency in the US includes exposure to racial discrimination and other stressful life events that ultimately erode an individuals' physical and mental health. In regards to physical health, Gee, Ro, Gavin, and Takeuchi (2008) used data from the 2002 to 2003 National Latino Asian American Study (N = 1956) to examine the association between perceived racial discrimination and body mass index (BMI). Regression models found that reports of perceived racial discrimination were positively associated with BMI and obesity, above and beyond the effects of weight discrimination, age, gender, marital status, ethnicity, generation, employment, health status, and social desirability bias. Moreover, the association between perceived racial discrimination and BMI strengthened with increasing time in the US. Yoo, Gee, and Takeuchi (2009) examined the association between perceived discrimination (based on race and language) and the number of chronic health conditions among a national sample of 888 Asian American immigrants. They also investigated whether this relation was moderated by years in the US. They found that racial and language discrimination in seeking health care were significantly associated with increased

number of chronic health conditions after controlling for age, sex, education, family income, health insurance, primary language, nativity, and ethnicity. The relation between language discrimination and chronic health conditions was stronger for Asian immigrants who have lived in the US for 10 years or more compared to recently arrived immigrants.

There is also growing evidence that nativity status moderates the relations between perceived racial discrimination and mental health. Using a sample of 3,012 Mexican-origin adults (ages 18-59) from California, Finch, Kolody and Vega (2000) found perceived discrimination was positively related to depression, although this relation was significant only for U.S.-born Mexican Americans. There was no effect found among foreign-born Mexican Americans.

Gee and colleagues (2006) examined the association between perceived racial discrimination and mental health status, and if this association varied with race/ethnicity or immigration status. Through the New Hampshire Racial and Ethnic Approaches to Community Health 2010 Initiative, the authors collected data from 666 African American and Mexican American participants. Approximately 59% and 100% of African American and Mexican American participants, respectively, were immigrants. Gee and colleagues found that perceived racial discrimination was associated with lower ratings of mental health above and beyond the effects of age, gender, education, employment, income, insurance, nativity, and ethnicity. Furthermore, the relations between perceived racial discrimination and mental health were stronger for immigrants who lived in the US longer compared to more recent immigrants.

Using a sample of Asian American adolescents, Benner and Kim (2009a) found a negative link between perceived racial discrimination and socioemotional (i.e., depressive symptoms, feelings of alienation and isolation within the family) and academic (i.e., grades and school engagement) outcomes. The authors collected longitudinal data from 444 Chinese American adolescents, with a majority of the sample (i.e., 75%) being U.S.-born. Perceived racial discrimination in early adolescence predicted depressive symptoms, alienation, school engagement, and grades in middle adolescence. Moreover, they found a persistent negative effect of acculturation on the association between perceived racial discrimination and developmental outcomes, such that adolescents who had a higher American orientation reported more harmful effects of perceived racial discrimination on their socio-emotional and academic outcomes. Taken together, these studies illustrate the complexity of the relationship between discrimination and outcomes, and how these associations may differ based on nativity status.

Although the prevailing literature demonstrates that immigrants report more racial discrimination with increasing time in the US (Goto, Gee, & Takeuchi, 2002), recent investigations extend beyond an examination of meanlevel differences in *amounts* of racial discrimination faced by each group and seek to investigate differences in each groups' *interpretation* of racial discrimination. Do minority immigrants interpret racial discrimination differently than their U.S.born counterparts? Can these differences help explain differences in physical and mental health between these groups?

#### Differences in the Interpretations of Racial Discrimination.

Preliminary evidence demonstrates that minority immigrants do interpret racial discrimination differently compared to their U.S.-born counterparts. One argument to explain the Immigration Health Paradox is that new immigrants are able to guard themselves against the negative mental health effects of racial discrimination by perceiving their negative experiences to stem from unfamiliarity with US culture, rather than their ethnicity or race (Gee et al., 2006). As immigrants acculturate to American culture, however, they may report more frequent experiences with and recognition of racial discrimination (Portes, Parker, & Cobas, 1980). To understand an experience as discriminatory, especially if it is subtle, an individual must be familiar with societal-based norms of equity and justice (Goto et al., 2002). Thus, as immigrants reside in the US longer, there seems to be a shift in their interpretation of unfair treatment. These experiences are no longer attributed to their newness to American culture. Rather, individuals begin to learn about their relative position in the US racial hierarchy and begin to identify these actions as discriminatory in nature (Gee et al., 2006).

Importance of Coping Resources. Another argument offered to explain the Immigration Health Paradox is that immigrants are armed with coping resources (i.e., cultural orientation, ethnic identity, specific coping strategies) that protect them from the negative effects of racial discrimination. One coping resource of interest is an individual's cultural orientation. Ying and colleagues (2000) proposed that racial discrimination has a weaker effect on foreign-born Asian American compared to U.S.-born Asian Americans because immigrants tend to retain a strong psychological connection to their country of origin and tend to not consider Americans as their primary reference group. Rather, they consider being "American" as an acquired identity. In contrast, U.S.-born Asian Americans consider themselves "American" by birth and also because they are more aligned with American society, culture, and values. Because racial discrimination is considered to be a direct threat to their identity and place in society, these experiences may lead to a stronger negative impact on their wellbeing.

Among Asian American samples, low ethnic identity has been identified as another coping resource that may benefit foreign-born individuals more than their U.S.-born counterparts. Using data from the National Latino and Asian American Study, Yip, Gee, and Takeuchi (2008) examined the link between racial and ethnic discrimination and psychological distress among 2,047 Asians (18 to 75 years of age). When examining the relations between discrimination and mental health, the authors took into account participants' age and nativity. Ethnic identity was tested as a moderator of these relations. Among Asian American immigrants, ethnic identity did not moderate the association between perceived racial discrimination and stress. For U.S.-born individuals, however, findings were mixed. Among individuals below the age of 30, they observed only main effects, such that more reports of discrimination was associated with more distress. For individuals between 31 and 40 years of age, the association between discrimination and distress was stronger for those with a strong ethnic identity. For individuals between 41 and 50 years of age, individuals with a strong ethnic

identity were less likely to report distress when they reported discrimination. Finally, for individuals over 51 years of age, they found ethnic identity exacerbated the negative relations between discrimination and stress. Their findings suggest that during certain developmental time periods, a strong ethnic identity may exacerbate the positive relation between perceived discrimination and stress for U.S.-born Asian Americans.

Yoo and Lee (2008) also found that ethnic identity exacerbated the positive association between perceived racial discrimination and psychological distress in a sample of U.S.-born, but not foreign-born Asian American college students. For U.S.-born Asian Americans, the positive relationship between perceived racial discrimination and negative affect was stronger for individuals with high ethnic identity. In contrast, for foreign-born Asian Americans, the positive relationship between perceived racial discrimination and negative affect was stronger for individuals with low ethnic identity. They surmised that foreignborn Asian Americans' focus on their culture of origin protected them from the negative experiences of racial discrimination in the US.

Taken together, these studies illustrate how cultural orientation and low ethnic identity serve as coping resources that may protect immigrants from the negative effects of racial discrimination. Indeed, individuals' focus on their culture of origin may be a protective factor as their experiences with racial discrimination are not viewed as an attack on their identity. Relatedly, ethnic identity may also play an important role as lower levels of ethnic identity seem to buffer the negative effects of racial discrimination. Individuals who have higher ethnic identity may be more likely to report ethnic and racial discrimination, and they may also react more negatively to such events.

Specific coping strategies may be another resource that benefit recent immigrants, but overtime, may diminish in protective value. A growing area of literature notes that coping styles may differ based on acculturation, and to an extent, nativity status (see Yoo & Jeon, 2008 for an overview). Cross cultural studies differentiate between *external* and *internal* coping strategies. *External* coping strategies are individuals' attempts to engage in an active and ongoing negotiation with the stressful environment. When faced with racial discrimination, individuals may seek support from others including assistance, advice, or information. *Internal* coping strategies are individuals' attempts to adapt to the environment by making personal changes. For example, individuals may use cognitive restructuring to attribute experiences of racial discrimination to the stress associated with their minority status rather than as a direct attack. Or, they may accept racial discrimination as a part of life as a racial minority in the US.

Existing research demonstrates that individuals with a strong collectivistic orientation are less likely to utilize external coping strategies; rather, they are more likely to use internal coping strategies that focus on accommodating and reframing their source of stress (Heppner et al., 2006; Yeh & Wang, 2000). The preference for internal coping strategies may be due to the strong value placed on harmony and relationships with others (Inman & Yeh, 2006; Yeh et al., 2006). Taylor and colleagues (2004) found that Asian Americans were less likely to use

social support (i.e., an external coping strategy) to cope with general stress as compared to European Americans because they were concerned about the relational ramifications of seeking support, including creating tension, losing face, receiving criticism, and making the situation worse. Yoo and Jeon (2008) found that Asian American college students who were more acculturated (as measured by higher English proficiency) were less likely to use internal coping strategies (i.e., cognitive restructuring and acceptance coping), while more enculturated individuals (i.e., higher comfort and interactions with peers of same ethnic background) were more likely to use cognitive restructuring (i.e., an internal coping strategy). These findings are consistent with existing theory that Asian Americans who are less acculturated (and perhaps also foreign-born) are more likely to use internal coping strategies as they are consistent with their values on relationships and harmony with others (Inman & Yeh, 2006).

Finally, family racial socialization may be another cultural resource that may benefit recent immigrants (i.e., foreign-born) more than their U.S.-born counterparts. In a broad sense, family racial socialization can teach individuals various coping strategies to deal with racial discrimination. Cultural socialization, or messages that teach children about their racial or ethnic group's culture, history, and heritage, may boost ethnic identity and serve as an internal coping strategy. When faced with racial discrimination, individuals may draw upon their positive feelings about their racial and/or ethnic group as a way to cope with the situation. Promotion of mistrust refers to parental practices that emphasize the need for caution and distrust when interacting with members of other racial and/or

ethnic groups (Hughes et al., 2006; Hughes & Chen, 1999), and may serve as an external coping strategy. This strategy differs from the others given that it does not include messages that teach children how to cope with racial discrimination. Preparation for bias includes parents' attempts to increase their children's awareness of unfair treatment based on race and/or ethnicity and may also include strategies for coping with and overcoming racial discrimination (Hughes et al., 2006), and may be an external coping strategy. For example, parents may encourage children to cope with racial discrimination by confronting the perpetrator or seeking assistance from an adult. These differences among family racial socialization strategies, in terms of coping strategies (i.e., external or internal), may be a reason why these strategies have differential effects on outcomes. Nativity status further adds to this complex relationship such that foreign-born Asian Americans may be more likely to use and benefit from internal coping strategies (i.e., cultural socialization) while U.S.-born Asian Americans may utilize external coping strategies (i.e., promotion of mistrust, preparation for bias).

Nativity status may also be an important predictor of family racial socialization strategies. It has been noted that recent immigrant families tend to report greater cultural socialization (see Hughes et al., 2006, for review; Tran & Lee, 2010). Among immigrant families, parents were raised in their native society and maintain strong ties to their country of origin (Fuligni, Hughes, & Way, 2009). Thus, parents believe it is particularly important to teach their children about family cultural norms, values, and traditions (Knight et al., 1993;

Umaña - Taylor & Fine, 2004). Furthermore, U.S.-born adolescents who are potentially more acculturated may resist parents' cultural socialization strategies (Tran & Lee, 2010) as they identify as "American", over their ethnic and/or racial identities. Little is known about promotion of mistrust strategies among immigrant families. There are currently no empirical studies that have examined the prevalence of immigrant parents warning their children about other racial and/or ethnic groups. It is plausible that immigrant families practices promotion of mistrust less frequently because they want their children to have positive experiences in the US. Similar to promotion of mistrust strategies, little is known about preparation for bias practices among immigrant families. It is possible that immigrant parents do not prepare their children for racial bias because they lack the historical experience with American discrimination. However, as with promotion of mistrust strategies, they may be optimistic about succeeding in a new country and consequently, they may de-emphasize discrimination against their racial and/or ethnic group (Fuligni et al., 2009).

Collectively, these studies illustrate the importance of examining nativity status in studies of perceived racial discrimination, family racial socialization, and psychological distress. Previous studies examining the link between perceived racial discrimination and mental health have not addressed the potential role of family racial socialization and nativity status. There is a need for studies examining potential differences in associations between perceived racial discrimination, family racial socialization, and mental health outcomes for foreign-born and U.S.-born Asian American adolescents. Consequently, given these set of findings that indicate some coping resources that once worked for immigrants no longer are adaptive for U.S.-born individuals, it was expected that the hypothesized associations for the three family racial socialization strategies would be stronger for foreign-born adolescents (i.e., protective function of cultural socialization, maladaptive function of promotion of mistrust, and maladaptive function of high levels of preparation for bias), but may function in opposite patterns for U.S.-born adolescents (i.e., maladaptive function of cultural socialization, adaptive function of promotion of mistrust, and protective function of moderate levels of preparation for bias).

As such, for foreign-born Asian American adolescents, it was hypothesized that cultural socialization would protect them from the negative effects of perceived racial discrimination as these messages would strengthen their cultural orientation and connection to their country of origin. Acts of racial discrimination would not be related to psychological distress as foreign-born individuals do not consider these actions threatening to their identity. Moreover, cultural socialization is an internal coping strategy and may be more likely utilized by foreign-born individuals because of their strong collectivistic orientation and values. Therefore, it was hypothesized that cultural socialization would serve as a *protective-stabilizing* factor against the negative effects of perceived racial discrimination on foreign-born Asian American adolescents' psychological distress. Thus, foreign-born adolescents who report high cultural socialization would report no difference in psychological distress when reporting low perceived racial discrimination compared to reporting high perceived racial discrimination. Alternatively, foreign-born adolescents who report low cultural socialization would report more psychological distress (i.e., higher depressive and anxiety symptoms) when reporting increased levels of perceived racial discrimination (see Figure 4 for illustration).

Second, it was hypothesized that promotion of mistrust would serve as a risk factor for foreign-born adolescents as these messages would increase their trepidation about life in the US. Experiences of racial discrimination would be positively related to psychological distress and messages that promote caution about other racial and/or ethnic groups would compound the fear and anxiety surrounding these negative experiences. Furthermore, promotion of mistrust is an external coping strategy and may not be adaptive for foreign-born individuals as it conflicts with their collectivistic values and beliefs. Therefore, it was hypothesized that promotion of mistrust would be a *vulnerable-stable* factor on the positive relation between perceived racial discrimination and foreign-born Asian American adolescents' psychological distress. Thus, foreign-born adolescents who report high promotion of mistrust would report more psychological distress when reporting increased levels of perceived racial discrimination. Alternatively, foreign-born adolescents who report low promotion of mistrust would report no difference in psychological distress when reporting low perceived racial discrimination compared to reporting high perceived racial discrimination (see Figure 5 for illustration).

Third, it was hypothesized that preparation for bias would also be a risk factor for foreign-born adolescents as these messages would foster a bleak

outlook on life in the US. Immigrant parents who warn their children about racial discrimination and stereotypes may do more harm than good as these messages do not depict an optimistic view about life, success, and race relations in the US. In addition, preparation for bias is an external coping strategy and clashes with the collectivistic orientation of foreign-born individuals. Therefore, it was hypothesized that preparation for bias would be a *vulnerable-stable* factor on the positive relation between perceived racial discrimination and foreign-born Asian American adolescents' psychological distress. Therefore, foreign-born adolescents who report high preparation for bias would report more psychological distress when reporting increased levels of perceived racial discrimination. Alternatively, foreign-born adolescents who report low preparation for bias would report no difference in psychological distress when reporting low perceived racial discrimination (see Figure 6 for illustration).

For U.S.-born adolescents, it was hypothesized that cultural socialization would exacerbate the positive association between perceived racial discrimination and psychological distress as these messages would increase their ethnic identity. An individual with a strong ethnic identity may be more likely to identify racial discrimination, and they may also react more negatively to such events. Therefore, it was hypothesized that cultural socialization would be a *vulnerablestable* factor on the positive relation between perceived racial discrimination and U.S.-born Asian American adolescents' psychological distress. Therefore, U.S.born adolescents who report high cultural socialization would report more psychological distress when reporting increased levels of perceived racial discrimination. Alternatively, U.S.-born adolescents who report low cultural socialization would report no difference in psychological distress when reporting low perceived racial discrimination compared to reporting high perceived racial discrimination (see Figure 4 for illustration).

Second, it was hypothesized that promotion of mistrust would buffer the negative effects of perceived racial discrimination on psychological distress as these messages may be viewed as an adaptive external coping skill. Parental messages that caution children about intergroup relations may lead children to have a certain level of consciousness about discrimination, leading them to not feel quite as vulnerable to these negative acts. Therefore, it was hypothesized that promotion of mistrust would serve as a *protective-stabilizing* factor against the negative effects of perceived racial discrimination on U.S.-born Asian American adolescents' psychological distress. Thus, U.S.-born adolescents who report high promotion of mistrust would report no difference in psychological distress when reporting low perceived racial discrimination compared to reporting high perceived racial discrimination. Alternatively, U.S.-born adolescents who report low promotion of mistrust would report more psychological distress (i.e., higher depressive and anxiety symptoms) when reporting increased levels of perceived racial discrimination (see Figure 5 for illustration).

Third, it was hypothesized that moderate levels of preparation for bias would be a protective factor for U.S.-born adolescents. Moderate amounts of preparation for bias would serve a protective function as it adequately prepares U.S.-born adolescents for experiences of racial discrimination while providing them with coping resources to deal with these situations. Therefore, it was hypothesized that moderate levels of preparation for bias would serve as a *protective-stabilizing* factor against the negative effects of perceived racial discrimination on U.S.-born Asian American adolescents' psychological distress. Thus, U.S.-born adolescents who report moderate levels of preparation for bias would report no difference in psychological distress when reporting low perceived racial discrimination compared to reporting high perceived racial discrimination. Alternatively, U.S.-born adolescents who report low or high preparation for bias would report more psychological distress (i.e., higher depressive and anxiety symptoms) when reporting increased levels of perceived racial discrimination (see Figure 6 for illustration).

### **Indices of Psychological Distress**

Psychological distress was measured by depressive and anxiety symptoms. Depressive and anxiety symptoms were chosen as indicators of psychological outcomes because they are two of the most prevalent current mental health problems (Weary & Edwards, 1994), they frequently co-occur (Maser & Cloninger, 1990), and they have been found to be associated with discrimination in previous work (Cassidy, O'Connor, Howe, & Warden, 2004; Corning, 2002; Gee et al, 2007b; Lam, 2007; Lee, 2003; 2005; Noh & Kaspar, 2003). It may also be particularly important to examine depressive and anxiety symptoms among Asian American adolescents as studies suggest that they are at an increased risk for depression and anxiety compared to European American adolescents (Kim &

Chun, 1993; Okazaki, 1997). Moreover, Asian American females between the ages of 15 and 24 have the highest suicide rate compared to other racial groups (U.S. Department of Health and Human Services, 2001).

When examining the discrimination-adjustment relationship, previous research points to the importance of distinguishing between different types of psychological adjustment (Cassidy et al., 2004; Corning, 2002). For instance, Corning examined self-esteem as a moderator of the relation between perceived discrimination and psychological distress among a sample of female European American college students. Results indicated that students who reported higher levels of perceived discrimination were more likely to report higher levels of depressive symptoms, but not anxiety symptoms. Gee and colleagues (2007b) examined the relation between perceived racial discrimination and mental disorders (e.g., any DSM-IV disorder, depressive disorder, or anxiety disorder) among a nationwide sample of Asian Americans. They found that Asian Americans who reported higher levels of perceived racial discrimination were more likely to report a disorder related to anxiety or depression. However, the relation between perceived discrimination and health was stronger for depressive disorders than for anxiety disorders. These findings suggest that the relation between perceived discrimination and psychological distress may differ based on the index of distress that is examined.

Theoretical and empirical work suggests that depressive and anxiety symptoms are characterized by distinct cognitive features (Beck, 1976; L.A. Clark & Watson, 1991). Depressive symptoms, for instance, are associated with

thoughts organized around themes of loss and personal deficiency, whereas anxiety symptoms are associated with thoughts focused on danger and future threat (Beck, 1976; Beck & Emery, 1985; Joiner, Katz, & Lew, 1999). Perceived racial discrimination such as name calling, teasing, racial slurs could lead to depressive symptoms. These experiences could also lead to increased anxiety symptoms as individuals may feel less socially connected to their ethnic and/or racial group, be particularly fearful of racial discrimination, or be overly cautious around other ethnic and/or racial groups.

# The Present Study

The present study used a risk and resilience framework (Luther et al., 2000; Masten, 2001) to build on the recent theory and research on perceived racial discrimination, family racial socialization, nativity status, and psychological distress. Family racial socialization was examined as a multidimensional construct, with the possibility that different family racial socialization strategies (i.e., cultural socialization, promotion of mistrust, and preparation for bias) protect against or exacerbate the positive relation between perceived racial discrimination (i.e., blatant and subtle racial discrimination) and psychological distress (i.e., depressive and anxiety symptoms). Nativity status was examined as an additional moderator, such that the moderation of family racial socialization strategies on the relation between perceived racial discrimination and psychological distress may differ for foreign-born and U.S.-born Asian American high school students.

In sum, the present study had three goals: (1) examine the link between perceived racial discrimination (i.e., blatant racial discrimination, subtle racial discrimination) and psychological distress (i.e., depressive symptoms, anxiety symptoms); (2) identify family racial socialization strategies that protect against or exacerbate the positive relation between perceived racial discrimination and psychological distress; and (3) investigate how the moderation of family racial socialization strategies on association between perceived racial discrimination and psychological distress may differ for foreign-born and U.S.-born Asian American adolescents.

To address the study's first goal, it was hypothesized that blatant and subtle racial discrimination would be differentially associated with levels of depressive and anxiety symptoms. Specifically, it was hypothesized that both blatant and subtle racial discrimination would be positively related to depressive and anxiety symptoms. However, based on previous research that due to its relative ambiguity, subtle racial discrimination contributes to more psychological distress compare to blatant racial discrimination, it was hypothesized that the positive relation to both indices of psychological distress would be stronger for subtle racial discrimination, compared to blatant racial discrimination.

To address the study's second goal, the degree to which family racial socialization strategies modify the association between perceived racial discrimination and psychological distress were examined. However, the specific hypotheses for the study's second goal are conditional based on the study's third goal because they were further modified by nativity status. Given the previous

literature on family racial socialization strategies, it follows that cultural socialization might serve as a *protective-stabilizing* factor against the negative effects of perceived racial discrimination on Asian American adolescents' psychological distress. Therefore, adolescents who report high cultural socialization may report no difference in psychological distress when reporting low perceived racial discrimination compared to reporting high perceived racial discrimination. Alternatively, adolescents who report low cultural socialization may report more psychological distress (i.e., higher depressive and anxiety symptoms) when reporting increased levels of perceived racial discrimination. The present study also examined promotion of mistrust as a *vulnerable-stable* factor such that this family racial socialization strategy may exacerbate the positive relation between perceived racial discrimination and psychological distress. Therefore, adolescents who report high promotion of mistrust might report more psychological distress when reporting increased levels of perceived racial discrimination. Alternatively, adolescents who report low promotion of mistrust may report no difference in psychological distress when reporting low perceived racial discrimination compared to reporting high perceived racial discrimination. Low and high levels of preparation for bias were examined as vulnerable-stable factors, and moderate levels of preparation for bias as a *protective-stabilizing* factor, on the positive relation between perceived racial discrimination and Asian American adolescents' psychological distress. Therefore, adolescents who report either low or high levels of preparation for bias might report more psychological distress when reporting increased levels of

perceived racial discrimination. Alternatively, adolescents who report moderate levels of preparation for bias may report no difference in psychological distress when reporting low perceived racial discrimination compared to reporting high perceived racial discrimination.

To address the study's third goal, nativity status was examined as a second potential moderator. It was expected that the hypothesized associations for the three family racial socialization strategies would be stronger for foreign-born adolescents but may function in opposite patterns for U.S.-born adolescents. As such, for foreign-born Asian American adolescents, it was hypothesized that cultural socialization would serve as a *protective-stabilizing* factor. This is based on the premise that cultural socialization would protect foreign-born individuals from the negative effects of perceived racial discrimination as these messages would strengthen their cultural orientation and connection to their country of origin. Second, it was hypothesized that promotion of mistrust would serve as a *vulnerable-stable* factor as these messages would increase foreign-born individuals' trepidation about life in the US. Third, it was hypothesized that preparation for bias would also be a *vulnerable-stable* factor for foreign-born adolescents as these messages would foster a bleak outlook on life in the US.

For U.S.-born adolescents, it was hypothesized that cultural socialization would serve as a *vulnerable-stable* factor. Thus, cultural socialization was hypothesized to exacerbate the positive association between perceived racial discrimination and psychological distress as these messages would increase U.S.born adolescents' ethnic identity may lead them to react more negatively to such events. Second, it was hypothesized that promotion of mistrust would serve as a *protective-stabilizing factor* as these messages may be viewed as an adaptive coping skill for U.S.-born adolescents as it increases children's levels of consciousness about racial discrimination. Third, it was hypothesized that moderate levels of preparation for bias would serve as a *protective-stabilizing* factor as these messages would adequately prepare U.S.-born adolescents for experiences of discrimination. Low and high levels of preparation for bias would serve as vulnerable-stable factors.

Finally, all analyses controlled for adolescents' ethnic identity as reports of cultural socialization are highly correlated with reports of ethnic identity (Bowman & Howard, 1985; Hughes & Chen, 1997; Knight et al., 1993; Sanders Thompson, 1994; Stevenson, 1994; Thornton et al., 1990; Umaña-Taylor & Fine, 2004; Umaña-Taylor et al., 2009). Controlling for ethnic identity provided stronger evidence that significant moderation effects are due to cultural socialization practices and not adolescents' ethnic identity.

### Method

### **Participants**

Data were taken from a larger study designed to examine adolescents' experiences of racial discrimination, their coping strategies, and overall mental health. Adolescents were self-identified Asian American students from a public high school in the Southwest. This school was purposely selected for its large enrollment of Asian American students. Student enrollment consistent of 55% European American, 21% Latino, 11% African American, 11% Asian American, and 2% Native American students. Adolescents in the current study ranged from 14 to 19 years (M = 16). Of the 156 participants (72 males, 84 females), 27% were Chinese (n = 42), 21% were Asian Indian (n = 33), 15% were Korean (n = 23), 14% were Vietnamese (n = 22), 10% were Multiracial (n = 16), 7% were Filipino (n = 11), and 6% were other Asian ethnicities. Ninety-nine participants self-identified as U.S.-born Asian Americans, 55 self-identified as Asian American immigrants, and 2 participants did not report their nativity status. Fifty-two of participants' parents obtained a graduate degree, 54 earned a college degree, 12 had some college education, 14 earned a high school diploma, and 10 completed some high school but did not graduate. Finally, participants reported their parents' average income ranged from \$45,000 – 59,999.

# Procedure

Informed written parental consent and adolescent assent was obtained from all participants. Data collection was conducted during a lunch period in a designated area on the school campus. Participants received school supplies (e.g., pencils, t-shirts, and water bottles) and a pizza lunch for their participation. After completion of the survey, all participants were debriefed in person and provided with a written debriefing form that explained the purpose of the study. The university's human subjects committee approved all procedures.

## Measures

**Perceived Racial Discrimination**. The Subtle and Blatant Experiences of Racism Scale for Asian American College Students (SABR-A<sup>2</sup>; Yoo & Lee, 2009) was used to measure perceived blatant and subtle racial discrimination. The 8-items of the SABR-A<sup>2</sup> are rated on a 5-point scale ranging from "*almost never*" to "*almost always*," with higher scores representing greater perceived racial discrimination. Blatant racial discrimination (B-DISC; 4 items) items included statements such as "In America, I am called names such as, 'chink, gook, etc.' because I'm Asian" and "In America, I am told 'you speak English so well' because I am Asian." Subtle racial discrimination (S-DISC; 6 items) items included statements such as, "In America, I am viewed with suspicion because I'm Asian" and "In America, I am viewed with suspicion because I'm Asian." Recently, Yoo and colleagues (2010) validated the SABR-A<sup>2</sup> in three studies across two different regions of the US. In the current study alpha coefficients were .65 and .81, for blatant and subtle racial discrimination subscales, respectively.

**Family Racial Socialization**. Lifetime and past-year family racial socialization was measured using Hughes and Johnson's (2001) measure of family racial socialization. Instructions asked participants to, "Please indicate if one or more of your parents have ever engaged in each of the following activities, and if so, how frequently over the past 12 months." Participants reported on items from the three components of family racial socialization: cultural socialization/pluralism (C-SOC; 5 items), promotion of mistrust (P-MIST; 3 items), preparation for bias (P-BIAS; 8 items). As stated earlier, cultural socialization/pluralism refers to family racial socialization strategies that encompass messages that teach children about their group's culture, history, and heritage (e.g., "Encouraged you to read books about your racial/ethnic group?").

Promotion of mistrust refers to family racial socialization strategies that caution or warn children about other groups (e.g., "Done or said things to keep you from trusting people of other races/ethnicities?"). Preparation for bias refers to family racial socialization strategies that teach children about prejudice and discrimination (e.g., "Talked to you about racial/ethnic stereotypes, prejudice, and/or discrimination against people of your racial/ethnic group?"). If participants indicated that their parents engaged in a family racial socialization practice (0 = no, 1 = yes), they also reported how frequently the practice occurred in the last 12 months. For instance, participants were asked if their parents talked "about racial/ethnic stereotypes, prejudice, and/or discrimination against people of your racial/ethnic group?" If they reported "yes", then they were prompted to respond how frequently over the past 12 months (1 = never to 5 = very often) the strategy occurred. The subscales of Hughes and Johnson's (2001) family racial socialization measure have demonstrated good internal reliability ( $\alpha = .79-.80$ ) when used with Asian American populations (Benner & Kim, 2009b, Tran & Lee, 2010). Alpha coefficients in this study were .81, .73, and .86, for cultural socialization, promotion of mistrust, and preparation for bias subscales, respectively.

**Psychological Distress**. Participants completed the short-form version of the Depression Anxiety Stress Scale (DASS-21; Henry & Crawford, 2005) to assess their levels of depression, anxiety, and stress over the past week. The 21 items of the DASS-21 are rated on a 4-point scale ranging from "*did not apply to me at all*" to "*applied to me very much, or most of the time*," with higher scores

representing participants' negative emotional state. Consistent with the theoretical framework, the present study only used the depression and anxiety subscales. Depressive symptom items included statements such as, "I felt I wasn't worth much as a person," and "I couldn't seem to experience any positive feelings at all." Anxiety symptom items included statements such as, "I felt close to a panic," and "I was worried about situations in which I might panic and make a fool of myself." This measure was originally validated based on a large, general adult population from the United Kingdom. However, the DASS-21 has been used with Asian immigrant samples suggesting evidence of validity and adequate reliability estimates (e.g., Norton, 2007; Oei, Lin, & Raylu, 2008; Southam-Gerow, Chorpita, Miller, & Gleacher, 2008). In the present study, alpha coefficients were .85 and .82, for depressive and anxiety symptoms subscales, respectively.

Ethnic Identity. Adolescents' ethnic identity was measured using the Multigroup Ethnic Identity Measure (MEIM; Phinney, 1992). The MEIM consists of 14 items that are rated on a 4-point scale ranging from "strongly disagree" to "strongly agree," with higher scores representing a more positive ethnic identity. Sample items include, "I am happy that I am a member of my ethnic group" and "I have a lot of pride in my ethnic group and its accomplishments." The MEIM has been used widely with various Asian groups (Kiang, Yip, Gonzales-Backen, Witkow, & Fuligni, 2006; Lee, 2003; Yoo & Lee, 2005). In the present study, the alpha coefficient was .86.

62

#### Results

The results are organized according to the study's three goals: (1) examine the link between perceived racial discrimination (i.e., blatant racial discrimination and subtle racial discrimination) and psychological distress (i.e., depressive symptoms and anxiety symptoms), (2) identify family racial socialization strategies that protect against or exacerbate the positive relation between perceived racial discrimination and psychological distress, and (3) investigate how the moderation of family racial socialization strategies on associations between perceived racial discrimination and psychological distress may differ for foreign-born and U.S.-born Asian American adolescents. Missing data analysis and preliminary analyses will be described before results of these study goals are discussed.

### **Missing Data Analysis**

For the measure of family racial socialization, review of the data suggested that perhaps participants may have been confused with the instructions. Specifically, participants who answered "no" to the lifetime experience of family racial socialization should not have provided an answer to the follow-up question assessing the frequency of family racial socialization in the past year. To correct for this, the data were coded such that for participants who answered "no" to the lifetime experience question and answered "never" to the past year follow-up question were assigned a value of "0". Participants who answered "no" to the lifetime experience question, but answered the follow-up question with a response ranging from 2 (rarely) to 5 (very often), were coded as missing due to error.

Participants who answered "yes" to the lifetime question, were coded according to the coding scheme; ranging from 1 (never in the past year) to 5 (very often). Thus, for the total sample, response options for the family racial socialization measure were rescaled to range from 0 to 5. After data were recoded, a review of the missing data for the measure of family racial socialization indicated that there were approximately 219 missing values out of a possible 4,992 items, or 4-12 cases missing (less than 10%) at the scale level.

Examination of missing data of the variables of interest indicated that there were 282 missing values out of a possible 12,948 items, or 2-16 cases missing (approximately less than 10%) at the scale level. Although the original sample size was 156, the final analyses used listwise deletion and sample sizes ranged from 135 for models with cultural socialization as a moderator, 138 for models with promotion of mistrust as a moderator, 137 for models with preparation for bias as a moderator. Listwise deletion removed participants from final analyses who did not report ethnic identity (n = 4), nativity status (n = 2), blatant racial discrimination (n = 2), subtle racial discrimination (n = 3), cultural socialization (n = 16), promotion of mistrust (n = 13), preparation for bias (n =15), depressive symptoms (n = 4), and anxiety symptoms (n = 4).

Each regression model temporarily selected cases in which there were no missing cases on any variable of interest. For example, model one predicted depressive symptoms from nativity status, blatant racial discrimination, and cultural socialization, with gender and ethnic identity as covariates. Only cases that had scale scores for nativity status, blatant racial discrimination, cultural socialization, gender, ethnic identity, and depressive symptoms were selected. This subset of the sample, centering of variables using model-specific statistics, and computation of interaction terms were unique to this model and its regression analyses.

## **Preliminary Analyses**

All analyses controlled for adolescents' ethnic identity as reports of cultural socialization are highly correlated with reports of ethnic identity (e.g., Hughes & Chen, 1997; Knight et al. 1993; Umaña-Taylor et al., 2009). Controlling for ethnic identity was thought to provide stronger evidence that significant moderation effects are due to cultural socialization practices and not adolescents' ethnic identity. In addition, because existing literature demonstrates that the process of family racial socialization may differ for boys and girls (Bowman & Howard, 1985), preliminary analyses were conducted to examine the two and three-way interactions between perceived racial discrimination, gender, and family racial socialization strategies on psychological distress, without nativity status in the models (see Appendix A). Significant interactions did not emerge, but there were significant main effects. Therefore, in addition to ethnic identity, gender was included as a covariate to the final models.

## **Descriptive Statistics and Bivariate Correlations**

Mean item scores, standard deviations, potential range, range, skewness, and kurtosis for the variables of interest are presented in Table 1. Composite scores were formed by calculating the mean score for individuals who had at least 70% of item responses. Potential range indicates the range of possible responses for each measure while the range indicates the low and high scores for each composite. The distributions of all variables were examined for normality. There were no variables that exceeded cutoffs of 2 and 7 for skewness and kurtosis values, respectively (Tabachnick & Fidell, 2006). According to initial analyses, all variables were normally distributed.

Bivariate correlations are presented in Table 2. Blatant racial discrimination, subtle racial discrimination, cultural socialization, promotion of mistrust, and preparation for bias were significantly and positively related to depressive symptoms and anxiety symptoms. As adolescents reported higher levels of both types of perceived racial discrimination and all types of family racial socialization strategies, they also tended to report higher levels of depressive symptoms and anxiety symptoms. Steiger's (1980) modified z statistic produced by the DEPCOR program (Hittner & May, 1998; Silver, Hittner, & May, 2006) was used to assess if there were actual statistical differences between the correlations between type of perceived racial discrimination (i.e., blatant racial discrimination, subtle racial discrimination) and psychological distress (i.e., depressive symptoms, anxiety symptoms). This method is considered more appropriate than the common Fisher's test of correlational difference because the study correlations are dependent with one element in common and from the same sample. Further, Steiger's modified z statistic controls Type I error. Only one statistical difference was found. As expected, the correlation between subtle racial discrimination and depression (r = .31) was larger than the correlation between blatant racial discrimination and depression at trend level (r = .19), t

(128) = 1.74, p < .10. The correlation between subtle racial discrimination and anxiety (r = .38) was not statistically different than the correlation between blatant racial discrimination and anxiety (r = .35), t (128) = .46, ns.

Bivariate correlations, separately for foreign-born and U.S.-born adolescents, are presented in Table 3. For foreign-born adolescents, subtle racial discrimination, promotion of mistrust, and preparation for bias were significantly and positively related to depressive symptoms. Blatant racial discrimination and cultural socialization were positively related to depressive symptoms at trend level. Cultural socialization and preparation for bias were significantly and positively related to anxiety symptoms. For U.S.-born adolescents, subtle racial discrimination and promotion of mistrust was significantly and positively related to depressive symptoms. Blatant racial discrimination, subtle racial discrimination, cultural socialization, promotion of mistrust, and preparation for bias were significantly and positively related to anxiety symptoms.

Finally, means, standard deviations, and t-test results for study variables based on nativity status are presented in Table 4. To test for group differences based on nativity status on study variables of interest, I conducted eight independent t-tests with a Bonferroni adjustment (p = .05/8 = .01). No significant differences emerged indicating that mean scores on study variables were not statistically different based on nativity status.

#### **Test of Main and Interaction Effects**

The present study followed the guidelines by Aiken and West (1991) to examine the unique contribution of each moderator (i.e., nativity status, cultural

socialization, promotion of mistrust, preparation for bias) on the relation between perceived racial discrimination (i.e., blatant racial discrimination, subtle racial discrimination) and psychological distress (i.e., depressive symptoms, anxiety symptoms). A total of 12 hierarchical regression models were tested: six models predicting depressive symptoms (i.e., one model for each of the two types of perceived racial discrimination and one of the three hypothesized family racial socialization moderators) and six models predicting anxiety symptoms. Nativity status was included in all models as a dichotomous moderator. Models were run separately by type of perceived racial discrimination to address issues of multicollinearity as these subscales were significantly and positively correlated (r = .68, p < .05). All dichotomous variables (i.e., gender, nativity status) were contrast coded (i.e., -.5 female, .5 male; -.5 foreign-born, .5 U.S.-born), while continuous variables were mean centered. Dichotomous variables were recoded in this manner as a way to center the variable while still retaining a 1-unit change between groups. The VIF index, with acceptable values being under 10, also was examined to measure the impact of multicollinearity (Aiken & West).

McClelland and Judd (1993) note that interactions are difficult to detect in studies with small samples and such models carry a high probability of Type II error or an incorrect conclusion of a non-significant effect when there is a true effect. Consequently, the following analyses did not use a Bonferroni adjustment. Rather, a p < .05 significance value and evaluation of the effect size ( $\Delta R^2$ ) was used to determine the how much variance the two-way interaction effects and three-way interaction effects contributed to the model. For all models, an effect size of .02 was selected as the criterion for a small overall effect (Cohen, 1988). To calculate the criterion for  $\Delta R^2$  for each step, .02 was multiplied by the number of interactions in that step (Aiken & West, 1991). For example, for cultural socialization and promotion of mistrust models, a  $\Delta R^2$  of .06 or greater ( $\Delta R^2 = .02$ X 3 interactions) for Step 3 and a  $\Delta R^2$  of .02 ( $\Delta R^2 = .02$  X 1 interaction) or greater for Step 4 was selected as the criterion for a small overall effect. For preparation for bias models, a  $\Delta R^2$  of .10 or greater ( $\Delta R^2 = .02$  X 5 interactions) for Step 3 and a  $\Delta R^2$  of .04 or greater ( $\Delta R^2 = .02$  X 2 interactions) in Step 4 was selected as the criteria for a small overall effect.

For cultural socialization and promotion of mistrust models, Step 1 of each regression model included the covariates (i.e., gender, ethnic identity). Step 2 included nativity status, a perceived racial discrimination variable (e.g., B-DISC), and one family racial socialization strategy (e.g., C-SOC) as main effects. Step 3 included 3 two-way interaction terms, which were the product terms of nativity status, the perceived racial discrimination variable, and the family racial socialization strategy of interest (e.g., nativity x B-DISC; nativity x C-SOC; B-DISC x C-SOC). Step 4 included the three-way interaction term, which was the product of nativity status, the perceived racial discrimination variable, and the family racial socialization strategy of interest (e.g., nativity x B-DISC; nativity x C-SOC; B-DISC x C-SOC). Step 4 included the three-way interaction term, which was the product of nativity status, the perceived racial discrimination variable, and the family racial socialization strategy of interest (e.g., nativity x B-DISC x C-SOC). In total, four cultural socialization models and four promotion of mistrust models were tested.

Because previous findings suggest that the linear relation between perceived racial discrimination and psychological health varies across levels of

preparation for bias (Harris-Britt et al., 2007), preparation for bias models also included its squared term (P-BIAS<sup>2</sup>; square of the centered mean value). This squared term was entered in step two as a main effect. Step 3 included 5 two-way interaction terms, or the product terms of nativity status, the perceived racial discrimination variable, preparation for bias, and the squared term of preparation for bias (e.g., nativity x B-DISC; B-DISC x P-BIAS; B-DISC x P-BIAS<sup>2</sup>; nativity x P-BIAS, nativity x P-BIAS<sup>2</sup>). Finally, 2 three-way interaction terms, or the product of nativity status, the racial discrimination variable, and the squared term of preparation for bias (e.g., nativity x B-DISC x P-BIAS; nativity x B-DISC x P-BIAS<sup>2</sup>), were entered in Step 4. A significant two-way interaction between the perceived racial discrimination variable and the quadratic term would suggest that the linear relation between perceived racial discrimination and psychological distress varies across levels of preparation for bias while a significant three-way interaction would suggest that the two-way interaction between perceived racial discrimination and preparation for bias on psychological distress differs based on nativity status (Aiken & West, 1991). In total, four preparation for bias models were tested.

For significant interaction terms, simple slope analyses were performed to determine if the regression slopes were significantly different from zero (Aiken & West, 1991). Significant regression slopes were created using predicted values for low (-1 SD) and high (+ 1 SD) values of the variables to be plotted. For example, regression slopes of significant two-way interaction terms (i.e., S-DISC x C-SOC) were plotted using predicted values for low and high scores on the

family racial socialization strategy of interest and low and high perceived racial discrimination. Regression slopes of significant three-way interaction (i.e., S-DISC x nativity x C-SOC) were also plotted using predicted values for low and high family racial socialization strategy on low and high perceived racial discrimination, but they were graphed separate for foreign-born and U.S.-born Asian American adolescents.

The following sections outline the regression analyses examining the relation between perceived racial discrimination (i.e., blatant racial discrimination, subtle racial discrimination) and psychological distress (i.e., depressive symptoms, anxiety symptoms) and the potential moderating effects of nativity status (i.e., foreign-born, U.S.-born) and family racial socialization strategies (i.e., cultural socialization, promotion of mistrust, preparation for bias) on these relations. Sections are organized by type of family racial socialization strategy and type of perceived racial discrimination. Within each section, the regressions for depressive symptoms and anxiety symptoms are explained separately.

# Nativity Status, Cultural Socialization, and Blatant Racial Discrimination on Psychological Distress

**Depressive Symptoms.** In Step 1, the covariates (i.e., gender, ethnic identity) were not significantly associated with depressive symptoms ( $R^2 = .02$ ; F [2, 132] = 1.20, p = .31; see Table 5). Step 2 indicated a significant change in  $R^2$ , for the main effects of nativity status, blatant racial discrimination, and cultural socialization ( $R^2 = .09$ ;  $\Delta R^2 = .07$ ; F [5, 129] = 2.59, p < .05); however, only one

variable contributed significantly to this model. As expected, Asian American adolescents perceiving high levels of blatant racial discrimination reported greater depressive symptoms. Step 3 did not produce a significant change in  $R^2$  ( $R^2 = .11$ ;  $\Delta R^2 = .01$ ; *F* [8, 126] = 1.84, *p* = .08), indicating that the two-way interactions did not make a significant contribution to the prediction of depressive symptoms. Step 4 did not produce a significant change in  $R^2$  ( $R^2 = .11$ ;  $\Delta R^2 = .00$ ; *F* [9, 125] = 1.63, *p* = .11), indicating that the three-way interaction did not account for unique variance.

**Anxiety Symptoms.** When anxiety symptoms was examined as the dependent variable, Step 1 indicated that the covariates were not significantly associated with anxiety symptoms ( $R^2 = .01$ ; F [2, 132] = .95, p = .39; see Table 6). Step 2 indicated a significant change in  $R^2$ , for the main effects of nativity status, blatant racial discrimination, and cultural socialization ( $R^2 = .21$ ;  $\Delta R^2 = .20$ ; F [5, 129] = 6.85, p < .05); however, only two variables significantly contributed to the model. In support of the study's hypothesis, Asian American adolescents who reported perceiving higher levels of blatant racial discrimination also tended to report greater anxiety symptoms. Asian American adolescents who reported more cultural socialization also reported more anxiety symptoms. Step 3 was significant, but did not produce a significant change in  $R^2$  ( $R^2 = .24$ ;  $\Delta R^2 = .03$ ; F [8, 126] = 4.84, p < .05), indicating that the two-way interactions did not make a significant contribution to the prediction of anxiety symptoms. Step 4 was significant, but did not produce a significant change in  $R^2$  ( $R^2 = .24$ ;  $\Delta R^2 = .00$ ; F

[9, 125] = 4.33, p < .05), indicating that the three-way interaction did not account for unique variance.

# Nativity Status, Cultural Socialization, and Subtle Racial Discrimination on Psychological Distress

**Depressive Symptoms.** In Step 1, the covariates (i.e., gender, ethnic identity) were not significantly associated with depressive symptoms ( $R^2 = .02$ ; *F* [2, 132] = 1.20, *p* = .31; see Table 7). Step 2 indicated a significant change in  $R^2$ , for the main effects of nativity status, subtle racial discrimination, and cultural socialization ( $R^2 = .14$ ;  $\Delta R^2 = .12$ ; *F* [5, 129] = 4.14, *p* < .05); however, only one variable contributed significantly to this model. As expected, Asian American adolescents perceiving high levels of subtle racial discrimination reported greater depressive symptoms. Step 3 was significant, but there was not a significant the two-way interactions did not make a significant contribution to the prediction of depressive symptoms. Step 4 was significant, but did not produce a significant change in  $R^2$  ( $R^2 = .15$ ;  $\Delta R^2 = .00$ ; *F* [9, 125] = 2.53, *p* < .05), indicating that the two-way interaction did not account for unique variance.

Anxiety Symptoms. When anxiety symptoms was examined as the dependent variable, Step 1 indicated that the covariates were not significantly associated with anxiety symptoms ( $R^2 = .01$ ; F[2, 132] = .95, p = .39; see Table 8). Step 2 indicated a significant change in  $R^2$ , for the main effects of nativity status, subtle racial discrimination, and cultural socialization ( $R^2 = .21$ ;  $\Delta R^2 = .20$ ; F[5, 129] = 6.70, p < .05); however, only two variables contributed significantly

to the model. As hypothesized, Asian American adolescents who reported perceiving higher levels of subtle racial discrimination also tended to report greater anxiety symptoms. Asian American adolescents who reported more cultural socialization also reported more anxiety symptoms. Step 3 was significant, but there was not a significant change in  $R^2$  ( $R^2 = .24$ ;  $\Delta R^2 = .02$ ; *F* [8, 126] = 4.83, *p* < .05) indicating that the two-way interactions did not make a significant contribution to the prediction of anxiety symptoms. Step 4 produced a significant change in  $R^2$  ( $R^2 = .26$ ;  $\Delta R^2 = .03$ ; *F* [9, 125] = 4.92, *p* < .05). Therefore, there was a significant three-way interaction between nativity status, subtle racial discrimination, and cultural socialization ( $\beta = .21$ , *SE* = .10, *sr*<sup>2</sup> = .03, *p* < .05), such that for U.S.-born adolescents who reported high cultural socialization, there was a significant positive association between subtle racial discrimination and anxiety symptoms, *t* (86) = 4.51, *p* < .05, but not for U.S.-born adolescents who reported low cultural socialization, *t* (86) = 1.56, *ns* (see Figure

8). Thus, in support of the study's hypothesis, high levels of cultural socialization exacerbated the positive relation between subtle racial discrimination and anxiety symptoms for U.S.-born adolescents. Inconsistent with the study's hypothesis, the interaction was not significant for foreign-born adolescents.

# Nativity Status, Promotion of Mistrust, and Blatant Discrimination on Psychological Distress

**Depressive Symptoms.** Step 1 indicated that the covariates were not significantly associated with depressive symptoms ( $R^2 = .02$ ; *F* [2, 135] = 1.67, *p* = .19; see Table 9). Step 2 indicated a significant change in  $R^2$ , for the main

effects of nativity status, blatant racial discrimination, and promotion of mistrust  $(R^2 = .10; \Delta R^2 = .07; F [5, 132] = 2.83, p < .05);$  however, only one variable contributed significantly to this model. Asian American adolescents who reported more promotion of mistrust also reported more depressive symptoms. Step 3 was significant, but there was not a significant change in  $R^2$  ( $R^2 = .12$ ;  $\Delta R^2 = .02$ ; F [8, [129] = 2.13, p < .05) indicating that the two-way interactions did not make a significant contribution to the prediction of depressive symptoms. Step 4 produced a significant change in  $R^2$  ( $R^2 = .15$ ;  $\Delta R^2 = .03$ ; F [9, 128] = 2.42, p < .05). Therefore, there was a significant three-way interaction between nativity status, blatant racial discrimination, and promotion of mistrust ( $\beta = -.25$ , SE = .12,  $sr^2 = .03$ , p < .05), such that for foreign-born adolescents who reported high promotion of mistrust, there was a significant positive association between blatant racial discrimination and depressive symptoms, t (48) = 2.00, p < .05, but not for foreign-born adolescents who reported low promotion of mistrust, t (48) = .31, ns (see Figure 9). As expected, high levels of promotion of mistrust exacerbated, and low levels of promotion of mistrust protected against, the positive relation between blatant racial discrimination and depressive symptoms for foreign-born adolescents. For U.S.-born adolescents who reported low levels of promotion of mistrust, there was a significant positive association between blatant racial discrimination and depressive symptoms, t (88) = 2.33, p < .05, but not for U.S.born adolescents who reported high levels of promotion of mistrust, t (88) = .12, ns. Therefore, in support of the study's hypothesis, high levels of promotion of

mistrust protected against the positive relation between blatant racial discrimination and depressive symptoms for U.S.-born adolescents.

Anxiety Symptoms. When anxiety symptoms was examined as the dependent variable, Step 1 indicated that the covariates were not significantly associated with anxiety symptoms ( $R^2 = .02$ ; F[2, 135] = 1.58, p = .21; see Table 10). Step 2 indicated a significant change in  $R^2$ , for the main effects of nativity status, blatant racial discrimination, and promotion of mistrust ( $R^2 = .17$ ;  $\Delta R^2 = .15$ ; F[5, 132] = 5.51, p < .05); however, only one variable contributed significantly to this model. As expected, Asian American adolescents who reported perceiving higher levels of blatant racial discrimination also tended to report greater anxiety symptoms. Step 3 was significant, but there was not a significant change in  $R^2$  ( $R^2 = .18$ ;  $\Delta R^2 = .01$ ; F[8, 129] = 3.50, p < .05) indicating that the two-way interactions did not make a significant change in  $R^2$  ( $R^2 = .21$ ;  $\Delta R^2 = .03$ ; F[9, 128] = 3.78, p < .05), however follow-up simple slope tests of the three-way interactions were not significant.

# Nativity Status, Promotion of Mistrust, and Subtle Discrimination on Psychological Distress

**Depressive Symptoms.** In Step 1, the covariates were not significantly associated with depressive symptoms ( $R^2 = .02$ ; F[2, 135] = 1.67, p = .19; see Table 11). Step 2 indicated a significant change in  $R^2$ , for the main effects of nativity status, subtle racial discrimination, and promotion of mistrust ( $R^2 = .12$ ;  $\Delta R^2 = .09$ ; F[5, 132] = 3.45, p < .05); however only one variable contributed

significantly to the model. As hypothesized, Asian American adolescents perceiving high levels of subtle racial discrimination reported greater depressive symptoms. Step 3 was significant, but did not produce a significant change in  $R^2$  $(R^2 = .16; \Delta R^2 = .05; F[8, 129] = 3.08, p < .05)$ , indicating that the two-way interactions did not make a significant contribution to the prediction of depressive symptoms. Step 4 produced a significant change in  $R^2$  ( $R^2 = .19$ ;  $\Delta R^2 = .03$ ; F [9, 128] = 3.25, p < .05). Therefore, there was a significant three-way interaction between nativity status, subtle racial discrimination, and promotion of mistrust ( $\beta$ = -.23, SE = .12,  $sr^2 = .03$ , p < .05), such that for U.S.-born adolescents who reported low levels of promotion of mistrust, there was a significant positive association between subtle racial discrimination and depressive symptoms, t (88) = 2.02, p < .05, but not for U.S.-born adolescents who reported high levels of promotion of mistrust, t (88) = .02, ns (see Figure 10). Thus, in support of the study's hypothesis high levels of promotion of mistrust protected against the positive relation between subtle racial discrimination and depressive symptoms for U.S.-born adolescents. Inconsistent with the study's hypothesis, the interaction was not significant for foreign-born adolescents.

Anxiety Symptoms. When anxiety symptoms was examined as the dependent variable, Step 1 indicated that the covariates were not significantly associated with anxiety symptoms ( $R^2 = .02$ ; F[2, 135] = 1.58, p = .21; see Table 12). Step 2 indicated a significant change in  $R^2$ , for the main effects of nativity status, subtle racial discrimination, and promotion of mistrust ( $R^2 = .17$ ;  $\Delta R^2 = .14$ ; F[5, 132] = 5.23, p < .05); however, only one variable contributed

significantly to this model. As expected, Asian American adolescents who reported perceiving higher levels of subtle racial discrimination also tended to report greater anxiety symptoms. Step 3 was significant, but did not produce a significant change in  $R^2$  ( $R^2 = .18$ ;  $\Delta R^2 = .01$ ; *F* [8, 129] = 3.41, *p* < .05),

indicating that the two-way interactions did not make a significant contribution to the prediction of anxiety symptoms. Step 4 was significant, but did not produce a significant change in  $R^2$  ( $R^2 = .18$ ;  $\Delta R^2 = .00$ ; F [9, 128] = 3.03, p < .05),

indicating that the three-way interaction did not account for unique variance.

# Nativity Status, Preparation for Bias, and Blatant Discrimination on

# **Psychological Distress**

**Depressive Symptoms.** In Step 1, the covariates were not significantly associated with depressive symptoms ( $R^2 = .02$ ; F[2, 134] = 1.13, p = .33; see Table 13). Step 2 indicated a significant change in  $R^2$ , for the main effects of nativity status, blatant racial discrimination, preparation for bias, and the squared term of preparation for bias ( $R^2 = .12$ ;  $\Delta R^2 = .10$ ; F[6, 130] = 2.82, p < .05); however, only three variables contributed significantly to this model. As expected, Asian American adolescents perceiving high levels of blatant racial discrimination reported greater depressive symptoms. Adolescents who reported more preparation for bias also reported more depressive symptoms. Also, the squared term of preparation for bias was negatively related to depressive symptoms, indicating that the linear relation between preparation for bias and depressive symptoms increases, then curves downward, similar to an upside-down U. Thus, when preparation for bias levels were low and high, depressive

symptoms were low; when preparation for bias levels were moderate, depressive symptoms were high (see Figure 7). Step 3 did not produce a significant change in  $R^2$  ( $R^2 = .14$ ;  $\Delta R^2 = .02$ ; F [11, 125] = 1.79, p = .06), indicating that the twoway interactions did not make a significant contribution to the prediction of depressive symptoms. Step 4 did not produce a significant change in  $R^2$  ( $R^2 = .15$ ;  $\Delta R^2 = .02$ ; F [13, 123] = 1.69, p = .07), indicating that the three-way interactions did not account for unique variance.

Anxiety Symptoms. When anxiety symptoms was examined as the dependent variable, Step 1 indicated that the covariates were not significantly associated with anxiety symptoms ( $R^2 = .02$ ; F [2, 134] =1.53, p = .22; see Table 14). Step 2 indicated a significant change in  $R^2$ , for the main effects of nativity status, blatant racial discrimination, and preparation for bias ( $R^2 = .21$ ;  $\Delta R^2 = .19$ ; F[6, 130] = 5.91, p < .05; however, only two variables contributed significantly to this model. In support of the study's hypothesis, Asian American adolescents perceiving high levels of blatant racial discrimination reported greater anxiety symptoms. Adolescents who reported more preparation for bias also reported more anxiety symptoms. Step 3 was significant, but did not produce a significant change in  $R^2$  ( $R^2 = .26$ ;  $\Delta R^2 = .04$ ; F [11, 125] = 3.89, p < .05), indicating that the two-way interactions did not make a significant contribution to the prediction of anxiety symptoms. Step 4 was significant, but did not produce a significant change in  $R^2$  ( $R^2 = .28$ ;  $\Delta R^2 = .02$ ; F [13, 123] = 3.65, p < .05), indicating that the three-way interactions did not account for unique variance.

# Nativity Status, Preparation for Bias, and Subtle Discrimination on

# **Psychological Distress**

**Depressive Symptoms.** In Step 1, the covariates were not significantly associated with depressive symptoms ( $R^2 = .02$ ; F [2, 134] = 1.13, p = .33; see Table 15). Step 2 indicated a significant change in  $R^2$ , for the main effects of nativity status, subtle racial discrimination, preparation for bias, and the squared term of preparation for bias ( $R^2 = .15$ ;  $\Delta R^2 = .13$ ; F [6, 130] = 3.71, p < .05); however, only two variables contributed significantly to this model. As expected, Asian American adolescents perceiving high levels of subtle racial discrimination reported greater depressive symptoms. The squared term of preparation for bias was negatively related to depressive symptoms, indicating that the linear relation between preparation for bias and depressive symptoms increases, then curves downward, similar to an upside-down U. Thus, when preparation for bias levels were low and high, depressive symptoms were low; when preparation for bias levels were moderate, depressive symptoms were high (see Figure 7). Step 3 was significant, but did not produce a significant change in  $R^2$  ( $R^2 = .17$ ;  $\Delta R^2 = .02$ ; F [11, 125] = 2.27, p < .05), indicating that the two-way interactions did not make a significant contribution to the prediction of depressive symptoms. Step 4 was significant, but did not produce a significant change in  $R^2$  ( $R^2 = .17$ ;  $\Delta R^2 = .00$ ; F [13, 123] = 1.91, p < .05), indicating that the three-way interactions did not account for unique variance.

**Anxiety Symptoms.** When anxiety symptoms was examined as the dependent variable, Step 1 indicated that the covariates were not significantly

associated with anxiety symptoms ( $R^2 = .02$ ; F[2, 134] = 1.53, p = .22; see Table 16). Step 2 indicated a significant change in  $R^2$ , for the main effects of nativity status, subtle racial discrimination, preparation for bias, and the squared term of preparation for bias ( $R^2 = .21$ ;  $\Delta R^2 = .18$ ; F[6, 130] = 5.57, p < .05); however, only two variables contributed significantly to the model. As hypothesized, Asian American adolescents perceiving high levels of subtle racial discrimination reported greater anxiety symptoms. Adolescents who reported more preparation for bias also reported more anxiety symptoms. Step 3 was significant, but did not produce a significant change in  $R^2$  ( $R^2 = .23$ ;  $\Delta R^2 = .03$ ; F[11, 125] = 3.48, p <.05), indicating that the two-way interactions did not make a significant contribution to the prediction of anxiety symptoms. Step 4 was significant, but did not produce a significant change in  $R^2$  ( $R^2 = .26$ ;  $\Delta R^2 = .03$ ; F[13, 123] =3.34, p < .05), indicating that the three-way interactions did not account for unique variance.

# **Summary**

**Main Effects**. In support of the study's hypothesis, as adolescents reported higher levels of both types of perceived racial discrimination, they also tended to report higher levels of depressive symptoms and anxiety symptoms. As expected, the correlation between subtle racial discrimination and depressive symptoms was larger than the correlation between blatant racial discrimination and depression symptoms at trend level. In the regression models, cultural socialization predicted anxiety symptoms, while promotion of mistrust predicted depressive symptoms. Preparation for bias predicted both depressive and anxiety symptoms, but in a curvilinear manner. More specifically, when preparation for bias levels were low and high, depressive symptoms were low; but, when preparation for bias messages were moderate, depressive symptoms were high.

Interaction Effects. Three significant three-way interactions emerged. In support of the study's hypothesis, high levels of cultural socialization exacerbated the positive relation between subtle racial discrimination and anxiety symptoms for U.S.-born adolescents. When examining promotion of mistrust as a moderator, high promotion of mistrust exacerbated the positive relation between blatant racial discrimination and depressive symptoms for foreign-born adolescents. In contrast, for U.S.-born adolescents, high promotion of mistrust protected against the negative effects of blatant racial discrimination on depressive symptoms. Finally, high promotion of mistrust emerged as a protective factor against the negative effect of subtle racial discrimination on depressive symptoms for U.S.-born adolescents.

#### **Post Hoc Analyses**

Post hoc power analyses were conducted because there was not sufficient data available from past research to estimate a priori effect sizes and power. Using G\*Power 3 (Faul, Erdfelder, Bchner, & Lang, 2009), the post hoc power analyses determined the likelihood of detecting the significant interaction effects given the sample size, effect sizes, and alpha level. The incremental effect of the three-way interaction of nativity, subtle racial discrimination, and cultural socialization on anxiety symptoms was observed at .03 (see Table 8), above and beyond covariate, main effects, and two-way interaction effects. Given the sample size of 135 and an alpha set at .05, it was determined that the study had power of .51 to detect the hypothesized three-way interaction effect.

The incremental effect of the three-way interaction of nativity, blatant racial discrimination, and promotion of mistrust on depressive symptoms was observed at .03 (see Table 9), above and beyond covariate, main effects, and two-way interaction effects. Given the sample size of 138 and an alpha set at .05, it was determined that the study had power of .52 to detect the hypothesized three-way interaction effect.

Finally, the incremental effect of the three-way interaction of nativity, subtle racial discrimination, and promotion of mistrust on depressive symptoms was observed at .03 (see Table 11), above and beyond covariate, main effects, and two-way interaction effects. Given the sample size of 138 and an alpha set at .05, it was determined that the study had power of .52 to detect the hypothesized three-way interaction effect.

Power of .51 and .52 is lower than the usually recommended level of .80, but as noted by McClelland and Judd (1993), interactions are difficult to detect in studies with small samples and such models carry a high probability of Type II error. In this study, a sample size of 270 would be needed to reach power of .80 to detect the hypothesized three-way interaction effects. Power analyses were also conducted on non-significant models, to illustrate their low power. The results are presented in the notes section of each table. Overall, the nonsignificant models' power ranged from .05 to .38.

83

## Discussion

The present study used the risk and resilience framework (Luthar et al., 2000; Masten, 2001) to build on theory and research surrounding perceived racial discrimination, family racial socialization, nativity status, and psychological distress. Family racial socialization was examined as a multidimensional construct, with the possibility that different family racial socialization strategies (i.e., cultural socialization, promotion of mistrust, preparation for bias) protect against or exacerbate the positive relation between perceived racial discrimination (i.e., subtle racial discrimination, blatant racial discrimination) and psychological distress (i.e., depressive symptoms, anxiety symptoms). Nativity status was examined as an additional moderator, such that the moderation of the relation between perceived racial discrimination and psychological distress by family racial socialization strategies may differ for foreign-born and U.S.-born Asian American adolescents.

The discussion is organized by the three study goals: (1) main effects, or the association between perceived racial discrimination and psychological distress; (2) two-way interactions, or the moderating role of family racial socialization strategies on the relation between perceived racial discrimination and psychological distress; and (3) three-way interactions, or the moderating role of nativity status on the relations between perceived racial discrimination, family racial socialization strategies, and psychological distress.

84

# Main Effects: Associations between Perceived Racial Discrimination and Psychological Distress

The present study highlights the importance of examining the link between perceived racial discrimination and psychological distress among Asian American adolescents. Largely viewed as the model minority, Asian Americans are often overlooked in studies that examine the detrimental effects of racial discrimination (Wong & Halgin, 2006; Wu, 2002). The myth that Asian Americans are high achieving and do not experience racial discrimination, or are somehow immune to their negative effects, have resulted in a dearth of research with this population. The present study underscores the negative association of perceived racial discrimination on the mental health of Asian American adolescents.

Study main effects investigated the association between perceived racial discrimination and psychological distress. Specifically, it was hypothesized that both blatant and subtle racial discrimination would be positively related to depressive and anxiety symptoms. However, based on empirical findings and theoretical frameworks (Crocker & Major, 1989; Harrell, 2000; Lazarus & Folkman, 1984; Major et al., 2003a; Major et al., 2003b; Noh et al., 2007; Yoo et al., 2010) that subtle racial discrimination may be more harmful to an individual's mental health, it was hypothesized that the positive relation to both indices of psychological distress would be stronger for subtle racial discrimination, compared to blatant racial discrimination.

Overall, the results provided partial support for the study's hypotheses. As hypothesized, Asian American adolescents who reported higher perceived

blatant racial discrimination reported more depressive and anxiety symptoms. This supports stress and coping theory (Lazarus & Folkman, 1984), such that blatant racial discrimination is clearly flagged as "racist" and is an obvious attack on the individual (e.g., "That was so racist!"), thus leading to more depressive and anxiety symptoms. In support of the study's hypothesis, Asian American adolescents who reported higher perceived subtle racial discrimination reported more depressive and anxiety symptoms. These findings are also consistent with the stress and coping literature (Lazarus & Folkman, 1984) that suggests subtle racial discrimination is ambiguous and may lead an individual to ruminate about the situation (e.g., "What did he/she mean by that comment?", "Was that racist?", "Am I imagining things?"). In addition, there was statistical support that subtle racial discrimination may be more harmful to an individual than blatant racial discrimination, such that there was a stronger positive association at trend level between subtle racial discrimination and depressive symptoms compared to blatant racial discrimination and depressive symptoms. This supports the notion that subtle racial discrimination is more harmful to an individual than blatant racial discrimination possibly due to subtle racial discrimination being more physically and mentally taxing.

Another possibility to explain this finding draws upon rejection sensitivity theory (Downey & Feldman, 1996; Downey, Khouri, & Feldman, 1997). According to rejection sensitivity theory, rejection experienced by individuals can lead them to feel anxious about future possible rejections and leave them feeling disconnected and psychologically taxed. For example, Mendoza-Denton, Downey, Purdie, Davis, and Pietzak (2002) found that experiences of racial discrimination lead African American adolescents to anxiously expect, readily perceive, and intensely react to status-based rejection. Perhaps initial experiences of racial discrimination lead to more depressive and anxiety symptoms, and this subsequent negative mental health increases an individual's sensitivity to racial discrimination. Thus, it is plausible that the relation between perceived racial discrimination and indices of psychological distress is cyclical in nature, such that experiences of racial discrimination may lead to more psychological distress, which ultimately results in more sensitivity to future rejections based on race. Rejection sensitivity theory may lend itself as an explanation of the stronger positive association between subtle racial discrimination and depressive symptoms compared to blatant racial discrimination and depressive symptoms. Perhaps when Asian American adolescents experience subtle racial discrimination, the ambiguity of the situation leads them to ruminate about the situation, thus experiencing more depressive symptoms. This deleterious mental health may lead to adolescents' increased sensitivity to future experiences of racial discrimination, resulting in more depressive symptoms, thus compounding their already poor mental health. Although rejection sensitivity theory may provide another explanation to the study findings, the nature of the cross-sectional and correlational design of the current investigation limits the directionality between study variables.

87

#### **Two-way Interactions: Moderating Role of Family Racial Socialization**

The second goal of the present study was to examine if different family racial socialization strategies protect against or exacerbate the positive relation between perceived racial discrimination and psychological distress. Two-way interactions were still explored although it was expected that these associations would be further modified by nativity status. Based on previous literature on family racial socialization, it was possible that cultural socialization may serve as a *protective-stabilizing* factor against the negative effects of perceived racial discrimination on Asian American adolescents' psychological distress. Second, it was plausible that promotion of mistrust could be a *vulnerable-stable* factor on these associations. Finally, it was possible that low and high levels of preparation for bias might be *vulnerable-stable* factors, and moderate levels of preparation for bias could be a *protective-stabilizing* factor, on the positive relation between perceived racial discrimination and psychological distress. However, none of the models tested produced significant two-way interactions. There are several possible explanations for why these family racial socialization strategies did not moderate the relation between perceived racial discrimination and psychological distress.

One possibility is that the family racial socialization strategies measured in the current study might moderate the relations of other types of racial stressors on psychological distress. According to Harrell's racism-related stress model (2001), there are multiple ways that racial discrimination may be experienced. For example, individuals may experience racism-related stress through observing their

family and close friends' experience racial discrimination (i.e., vicarious racism experiences), viewing stereotypic portrayals of their ethnic and/or racial group in the media (i.e., collective experiences), and learning about the history of inequality faced by their ethnic and/or racial group (i.e., transgenerational transmission). Perhaps, in this context, the family racial socialization strategies captured in Hughes and Johnson's (2001) measure would moderate the relation between some of these other types of racism-related stressors and psychological distress. For instance, "talked to someone else about racial/ethnic discrimination when you could hear them" is a preparation for bias item that may moderate the relation between vicarious racism experiences and psychological distress. "Explained something on TV to you that showed discrimination against your racial/ethnic group" is another preparation for bias item, but it may moderate the relation between collective experiences and psychological distress. "Talked to you about important people or events in the history of your racial/ethnic group" is a cultural socialization item and "told you to avoid another racial/ethnic group because of its members' prejudice against your racial/ethnic group" is a promotion of mistrust item that may moderate the relation between transgenerational transmission and psychological distress. Thus, specificity of exact family racial socialization messages that may moderate the relation of various types of racial stressors and psychological distress needs to be disentangled. This would further our understanding of the multiple ways racial discrimination may be experienced and types of racial socialization messages parents can transmit that may buffer the negative effects on psychological health.

89

Also, the lack of significant two-way interactions may also suggest that there are other important contextual variables to consider. Asian Americans are a diverse group of individuals who trace their roots to 1 or more of 24 Asian countries of origin or ethnic groups (Yeh, Chang, Hall, & Okazaki, 2004). The diversity of Asian ancestry in the US is demonstrated by nativity, generational status, different languages, religion, acculturation, and reasons for immigration. It is plausible that these varied group differences can significantly influence the interaction between perceived racial discrimination and family racial socialization on psychological distress. As such, the present study chose to examine nativity status as an individual-level contextual variable based on the premise that foreignborn adolescents may have qualitatively different interpretations of racial discrimination and experiences with family racial socialization compared to their U.S.-born counterparts (Gee et al., 2006).

#### **Three-way Interactions: Moderating Role of Nativity Status**

An important contribution of this study was the investigation of the role of nativity status on the relations between perceived racial discrimination, family racial socialization, and psychological distress. Previous studies (Algeria et al., 2002; Escobar et al., 2000; Gee et al., 2006; Grant et al., 2004; Takeuchi et al., 2002; Vega et al., 1996) have noted that immigrants are often healthier than their U.S.-born counterparts based on reasons such as different interpretations of racial discrimination (Gee et al., 2006) and adaptive coping resources (Inman & Yeh, 2006; Yeh & Wang, 2000; Ying et al., 2000; Yip et al., 2008; Yoo & Lee, 2008). Based on previous research, it was argued that family racial socialization, as a coping resource, may also benefit foreign-born individuals more than their U.S.born counterparts. As such, it was expected that the hypothesized associations for the three family racial socialization strategies would be stronger for foreign-born adolescents, but may function in opposite patterns for U.S.-born adolescents. Specifically, for foreign-born adolescents, it was hypothesized that cultural socialization would serve as a *protective-stabilizing* factor against the negative effects of perceived racial discrimination on psychological distress. Moreover, it was hypothesized that promotion of mistrust and preparation for bias would serve as vulnerable-stable factors. For U.S.-born adolescents, it was hypothesized that cultural socialization would exacerbate the positive association between perceived racial discrimination and psychological distress, thus serving as a vulnerablestable factor. Furthermore, it was hypothesized that promotion of mistrust would be a *protective-stabilizing* factor and buffer the negative effects of perceived racial discrimination on psychological distress. Finally, low and high levels of preparation for bias were hypothesized to be *vulnerable-stable* factors while moderate levels of preparation for bias were hypothesized to be a *protective*stabilizing factor.

Overall, the results from the current study provided partial support for these hypotheses. In support of the study's hypothesis, cultural socialization emerged as a risk factor for U.S.-born adolescents such that high levels of this family racial socialization strategy exacerbated the negative association between subtle racial discrimination and anxiety symptoms. However, there was no significant change in reports of anxiety symptoms with increased subtle racial discrimination when U.S.-born adolescents reported low levels of cultural socialization. Thus, results provide evidence of cultural socialization as a *vulnerable-stable* factor for U.S.-born adolescents. For U.S.-born adolescents who report increased subtle racial discrimination, high levels of parental messages that teach about their racial and/or ethnic group's culture, history, and heritage was related to higher reports of anxiety symptoms. Previous research argues that cultural socialization may influence the process of racial and/or ethnic identity formation (Bowman & Howard, 1985; Hughes & Chen, 1997; Knight et al., 1993; Sanders Thompson, 1994; Stevenson, 1994; Thornton et al., 1990, Umaña-Taylor & Fine, 2004; Umaña-Taylor et al., 2009), such that parents who emphasize issues related to race and/or ethnicity in their socialization practices will have children with a stronger or more advanced racial and/or ethnic identity. A majority of theory and research on ethnic identity (Phinney, 1990) posits that ethnic identity unconditionally protects against the deleterious effects of discrimination, as supported by previous research with African Americans (Sellers & Shelton, 2003; Simons et al., 2002; Wong, Eccles, & Sameroff, 2003). The present study findings challenge previous research as high levels of cultural socialization (and essentially a stronger ethnic identity) exacerbated the positive relation between subtle racial discrimination and anxiety. Rather, results corroborate with a modest number of findings (Greene et al., 2006; Lee, 2005; Yoo & Lee, 2008) that suggests ethnic identity may not always be protective for Asian Americans dealing with racial discrimination. According to social identity theory, high levels of cultural socialization may increase ethnic identity. Ethnic

identity enhances the in-group versus out-group distinction, which in turn may intensify the salience and importance of an individual's ethnicity. Ethnic and/or racial discrimination may be particularly detrimental to Asian Americans with high ethnic identity as these negative experiences are viewed as both a personal attack and as an attack on their ethnic and/or racial group. It is also plausible that U.S.-born adolescents, compared to their foreign-born counterparts, have a deeper understanding of issues related to race and racism. Thus, parental messages that teach them about their culture are not sufficient enough to protect them from the negative effects of racial discrimination. Perhaps these adolescents need more direct methods to help them cope with racial discrimination. Future research should explore other strategies, such as specific problem solving, negotiation strategies, or collective actions against racism, as these may be more beneficial for U.S-born Asian American adolescents.

Turning to promotion of mistrust models, the hypothesized exacerbating effect for foreign-born adolescents and buffering effect for U.S.-born adolescents was partially supported. In line with the study's hypothesis, high promotion of mistrust exacerbated the positive relation between blatant racial discrimination and depressive symptoms for foreign-born adolescents. However, when foreign-born adolescents reported low levels of promotion of mistrust, there was no significant change in reports of depressive symptoms with increased levels of blatant racial discrimination, thus providing evidence of promotion of mistrust as a *vulnerable-stable* factor. For foreign-born adolescents who experience increased levels of blatant racial discrimination, high levels of parental messages

93

that encourage wariness or distrust around other racial and/or ethnic groups was related to higher reports of depressive symptoms. It is plausible that for foreignborn adolescents, promotion of mistrust messages further adds to their acculturative stress rather than helping them gain more knowledge and adaptive coping resources to properly deal with and understand issues surrounding race and racism. Thus, blatant racial discrimination, accompanied by parents' warning of other racial and/or ethnic groups, may result in adolescents feeling unhappy about life in the US and wary around others, resulting in more depressive symptoms.

For U.S.-born adolescents, low levels of promotion of mistrust exacerbated the positive relation between both subtle and blatant racial discrimination and depressive symptoms. However, there was no significant change in reports of depressive symptoms with increased levels of subtle and blatant racial discrimination when U.S.-born adolescents reported high levels of promotion of mistrust. Together, these findings suggest promotion of mistrust is a *protective-stabilizing* factor when dealing with racial discrimination for U.S.-born adolescents. Thus, high levels of parental messages that encourage wariness or distrust around other racial and/or ethnic groups protected U.S.-born adolescents from the negative effects of both types of racial discrimination on depressive symptoms. These findings are inconsistent with existing literature (Biafora et al., 1993; Caughy et al., 2006; Huynh & Fuligni, 2008; Tran & Lee, 2010) that suggests promotion of mistrust is a family racial socialization strategy that leads to poorer academic and psychological outcomes. Perhaps the influence of

promotion of mistrust messages is conditional based on the racial group. Lee (2003) noted that ethnic and racial minorities use a variety of coping strategies and resources to protect themselves from discrimination. Having a level of sensitivity or not trusting other racial and/or ethnic groups may be seen as a way for U.S.-born Asian Americans to protect them from acts of racial discrimination. For instance, U.S.-born individuals may avoid situations and circumstances that might expose them to discrimination. It is plausible that in this context, developing a consciousness about racial discrimination or a level of caution around others may be viewed as a positive coping method as individuals are not completely vulnerable to acts of racial discrimination. Furthermore, parental messages that emphasize the need for caution when interacting with members of other racial and/or ethnic groups may help U.S.-born adolescents interpret and understand messages of racial discrimination. Subtle racial discrimination, in particular, is relatively ambiguous, but it is possible that U.S.-born adolescents who are warned about other racial and/or ethnic groups have the ability to detect its subtle nuances. Perhaps, because these adolescents are able to detect the racist undertones in messages that perhaps seem trivial, harmless, or sometimes positive, they are better equipped to cope with these experiences. Also, individuals who are more cautious around other ethnic and/or racial groups may not spend as much time ruminating about these negative experiences, compared to their counterparts who are ill-prepared to deal with these situations. As such, U.S.-born individuals who report higher levels of promotion of mistrust may not experience high levels of psychological distress.

95

Contrary to study hypotheses for both foreign-born and U.S.-born adolescents, preparation for bias did not emerge as a significant moderator of the association between perceived racial discrimination and psychological distress. Although not initially hypothesized, it is also worth noting that only evidence of curvilinear main effects of preparation for bias and depressive symptoms emerged, such that low and high levels of preparation for bias were related to lower depressive symptoms while moderate levels were related to higher depressive symptoms. Thus, when U.S.-born adolescents reported either no preparation for bias messages or high levels of preparation for bias messages, they tended to report less depressive symptoms. However, when U.S.-born adolescents reported moderate levels of preparation for bias messages, they tended to report more depressive symptoms. There are several reasons why twoway or three-way interactions did not emerge. First, the last step of the preparation for bias models included two control variables, three main effect, 5 two-way interactions, and 2 three-way interactions. A model with this many predictors and a relatively small sample size (i.e., n = 139) has low power to detect significant effects. Future studies with larger samples and greater power should continue to examine preparation for bias as a potential moderator of these associations. Future research should also continue to find evidence of preparation for bias moderating the relation between perceived racial discrimination and psychological outcomes in a curvilinear manner, as currently there is only a modest amount of existing empirical research demonstrating these effects. It is also important to note that there is a broad range of preparation for bias practices

among Asian American families and their prevalence vary based on children's individual-level factors. For example, Phinney and Chavira (1995) found that only 22.2% of Japanese American parents endorsed talking about racial discrimination with their adolescent children (M = 16.7 years). Tran and Lee (2010) found proportions of lifetime practices related to preparation for bias ranged from 38.9% to 74.3% among their study participants (M = 18.54). The difference in reported rates between the two studies may be related to adolescent's age. As previously mentioned, parents of older children are more likely to report preparation for bias messages at higher rates than those of parents of younger children (Hughes & Chen, 1997). Perhaps Tran and Lee's study participants reported higher rates of preparation for bias as they more frequently received these messages from their parents as adolescents prepared to enroll in a large, diverse university. It is also possible that the preparation for bias items are rather vague as many of the items tap into blatant racial discrimination and prejudice, and the items were difficult to distinguish from the promotion of mistrust items.

## Limitations of the Current Study

There are limitations of this study that should be kept in mind when interpreting these results. First, the data were cross-sectional, thereby limiting the ability to draw conclusions regarding causation. Thus, the data could equally suggest that individuals with more depressive symptoms are simply more likely to perceive subtle racial discrimination. Future studies should be longitudinal in order to examine how perceived racial discrimination is related to psychological distress over time, and the roles of family racial socialization and nativity status. Longitudinal research may also help determine if racial discrimination prompts family racial socialization or if family racial socialization precedes experiences of racial discrimination and prepares children to deal with these experiences. As research suggests, parents adapt their family racial socialization strategies to their children's age and cognitive skills (Hughes & Chen, 1997), thus it is reasonable to suspect that parents' messages about race and racism may change as adolescents become young adults. It would also be interesting to examine the relations between perceived racial discrimination, family racial socialization, and psychological distress as foreign-born adolescents become more embedded into American culture. Perhaps there is a particular developmental period in which the protective nature of nativity status begins to decline, such as in early adulthood.

Second, the present study examined family racial socialization strategies among adolescent Asian Americans with specific socio-demographic characteristics as participants attended a suburban public high school in the Southwest. This is important to note as data were gathered from only one high school, limiting the ability to generalize beyond the characteristics of that high school including student and community characteristics. The high school has a diverse study body; of the 3,400 enrolled students, 55% were European American, 21% were Latino, 11% were African American, 11% were Asian, and 2% were Native American. Moreover, the surrounding community has distinct characteristics as well, such that it is a new and fast-growing suburban area. The Asian American population, in particular, is also unique such that many are upper-middle class families as indicated by higher family income and parents' advanced levels of education. Previous research has found socio-demographic factors, such as income, geographic location, education, and neighborhood, are related to the likelihood of parents' usage of racial socialization messages (Thronton et al., 1990). It is possible that parental racial socialization strategies differ in this context compared to one in which there is a predominate enrollment of ethnic and/or racial minorities. For instance, parents raising children in a strictly racially homogenous community may find deliberate racial socialization messages to be unnecessary, while families who live in predominately European-American communities may feel more pressure to discuss race-related issues with their children (Hughes et al., 2006). Future research should examine these associations in a variety of contexts (e.g., predominately European American, predominately ethnic and/or racial minorities, different geographic areas) as a way to examine the role of socio-demographic variables on the prevalence of family racial socialization strategies.

Third, it is also important to note that findings from the current study are limited to middle-adolescent Asian Americans' perceptions of parental racial socialization strategies. It is vital for future research to consider other sources of racial socialization, such as extended family, peers, teachers, and the media (Lesane-Brown, Brown, Caldwell, & Sellers, 2006; Levin, VanLaar, & Foote, 2006; Sanders Thompson, 1994), as these are salient aspects of adolescents' lives. For example, Asian American families typically have collectivistic values and tend to use extended family for material and emotional support (Yeh, Hunter, Madan-Bahel, Chiang, & Arora, 2004). Consequently, Asian Americans are more likely to live in multi-generational households resulting in extended family members becoming highly influential in Asian American youths' lives (Nguyen & Huang, 2007). These extended family relationships serve as a unique opportunity for grandparents, for instance, to serve as socialization agents within the home. Peers may be other sources of racial socialization. As youth enter adolescence, peers become increasingly important and it is reasonable to suspect that they will have a strong influence on adolescents' racial beliefs and attitudes (About & Doyle, 1996; Phinney & Rotheram, 1987). Existing research generally examines racial socialization within the context of children and their parents; therefore it is relatively unclear how other sources may influence racial socialization. Other sources may differ in regards to their racial socialization messages and needs to be examined by future research.

Fourth, adolescent self-reports were used for all measures. Other reporters (such as parents, siblings) on family racial socialization practices would contribute to this area of research by providing various perspectives of this family-level factor as well as reducing shared method variance. Future research should also consider using new approaches to collect data as survey-based measures fail to capture critical aspects of parents' racial socialization strategies. For example, adolescent self-report does not assess the acceptance or rejection of parental socialization messages (Tran & Lee, 2010). Further, parent self-report does not capture racial socialization messages that parents are unaware of engaging in or unwilling to report (Hughes et al., 2008). A comprehensive investigation of family racial socialization would incorporate both parent and

youth perspectives. This approach would thereby increase knowledge on congruencies, internalization, and correlates of Asian American parent and adolescent reports of family racial socialization (Tran & Lee). Researchers further argue that other approaches to data collection, including a mixed method of quantitative and qualitative data, may provide a more detailed understanding of family racial socialization (Hughes et al., 2008). This mixed approach would enable researchers to gain an overall perspective of family racial socialization strategies through survey-based measures in addition to the detailed information gathered from interviews.

Fifth, there is some concern about the ability to make comparisons across models because each regression model temporarily selected cases in which there were no missing cases on any variable of interest. As such, the subset of the sample, centering of variables using model-specific statistics, and computation of interaction terms were all unique to each model and its regression analyses. The decision to create unique groups was based on issues of power and to center the variables correctly. It is also important to note that the group means only varied slightly (i.e., cultural socialization models, n = 137; promotion of mistrust models, n = 140; preparation for bias models, n = 139). Although it could pose issues for comparisons across groups based on issues such as selection effects, I believe it was the best choice given the sample, missing data, and type of analyses.

Finally, there are some statistical concerns regarding the significant and positive correlations among the family racial socialization strategies, as this may

be an indication that the strategies are not distinct constructs. As noted in Table 2, cultural socialization was positively related to promotion of mistrust (r = .48, p< .01), cultural socialization was also positively related to preparation for bias (r =.68, p < .01), and promotion of mistrust was positively related to preparation for bias (r = .71, p < .01). Although the present study does not have statistical evidence that these three strategies were distinct in this sample, Tran and Lee (2010) also used Hughes and Johnson's (2001) racial socialization measures with Asian American adolescents, and found evidence of a 3-factor solution. Interestingly, they also found significant positive correlations between cultural socialization and preparation for bias (r = .52, p < .01), and promotion of mistrust and preparation for bias (r = .54, p < .01), but not between cultural socialization and promotion of mistrust (r = .14, ns). It is important to note that despite these positive correlations between the family racial socialization strategies found in the present study, different patterns of relations to indices of psychological distress emerged in the regression analyses. For example, cultural socialization predicted anxiety symptoms, but not depressive symptoms. Promotion of mistrust only predicted depressive symptoms, but not anxiety symptoms. Preparation for bias predicted both depressive and anxiety symptoms. Overall, these main effects may suggest that although the three family racial socialization strategies are capturing shared experiences, they have different relations to psychological distress. For instance, it is plausible that cultural socialization, although meant to build cultural pride and a feeling of uniqueness, may actually cause individuals more anxiety because as feel different from their peers. This dissimilarity may be particularly

detrimental during the adolescent years. It is possible that promotion of mistrust is related to more depressive symptoms because adolescents identify with these other racial and/or ethnic groups in their school. Perhaps their parents have cautioned them to stay away from individuals from the same ethnic and/or racial groups as their friends or dating partners. Also, preparation for bias messages could foreseeably be related to both indices of psychological distress as children begin to understand that their racial and/or ethnic group is a target for discrimination. Future research should continue to examine Hughes and Johnson's racial socialization measure with Asian American samples to find additional support of a 3-factor model and identify their correlates.

## **Contributions to the Literature and Directions for Future Research**

Despite these limitations, the current study offers several contributions to the literature on family racial socialization. This was the first study to examine the moderating effects of different family racial socialization strategies on the relation between perceived racial discrimination and psychological distress among Asian American adolescents. Further, it was the first study to examine nativity status as a moderator of the associations between perceived racial discrimination, family racial socialization, and psychological distress. Study findings illustrate that the patterns of relations among these variables may differ for foreign-born and U.S.-born Asian American adolescents in important ways. For example, cultural socialization, or parental messages that teach about their racial and/or ethnic group's culture, history, and heritage, strengthened the positive relation between subtle racial discrimination and anxiety symptoms for U.S.-born adolescents, but not for foreign-born adolescents. Moreover, differential effects of promotion of mistrust were found such that high levels of promotion of mistrust, or parental messages that encourage wariness or distrust of other racial and/or ethnic groups, strengthened the positive relation between blatant racial discrimination and depressive symptoms for foreign-born adolescents. However, high levels of promotion of mistrust protected U.S.-born adolescents from the negative relation between both types of racial discrimination (i.e., blatant and subtle) and depressive symptoms. There seems to be qualitative differences in the interpretation of racial discrimination and experiences with family racial socialization between foreign-born and U.S.-born adolescents. The present investigation highlighted some key differences between these groups and may guide future research in this area.

The present investigation extends the current work on family racial socialization by drawing attention to the promotion of mistrust strategy. Although previous studies have linked promotion of mistrust to negative outcomes, the present study cautiously illustrates how this family racial socialization strategy may be a protective factor for U.S.-born Asian Americans. It is plausible that, in this context, U.S.-born Asian American adolescents use promotion of mistrust as an adaptive coping mechanism. Perhaps having a level of sensitivity or not trusting other racial and/or ethnic groups protects U.S.-born Asian American adolescents from acts of racial discrimination. This consciousness about racial discrimination paired with the cautiousness around others may be particularly adaptive for these youth as they are not completely vulnerable to these negative

acts. Clearly, future research needs to continue its investigation of promotion of mistrust strategies as the current findings are the first of its kind and challenge existing research findings. It may be particularly important to learn more about how and when parents use this strategy. Are the messages explicit and based on prejudice and stereotypes or are these messages transmitted implicitly? Hughes and colleagues' (2010) qualitative data on family racial socialization found that promotion of mistrust emerged as cautions and warning about other groups. Unlike cultural socialization and preparation for bias messages, promotion of mistrust messages were often transmitted in brief exchanges. Some messages compared the beliefs and practices of their own to group to those of another group, while other emphasized promoting affiliation with peers (and sometimes romantic relationships) from one's own ethnic and/or racial background. Interestingly, the participants rarely explicitly endorsed practicing this strategy. Rather, they were mentioned as a verbal slip or statement that was later retracted. These findings illustrate the difficulty in gathering data on promotion of mistrust practices, as parents may consider this family racial socialization strategy to be a negative type of message to transmit to their children. In-depth interviews may also fail to capture parents' honest opinions and practices of this strategy, as parents may not feel comfortable endorsing these behaviors to interviewers of a different ethnic and/or racial background. Future studies should continue to investigate the prevalence of promotion of mistrust strategies, how parents transmit these messages, its links to indices of adjustment, and groups for which

this family racial socialization strategy may have a protective influence on the negative effects of perceived racial discrimination on psychological adjustment.

Although Hughes and Johnson's (2001) racial socialization measure is commonly used in racial socialization studies and there is evidence of validity and reliability with Asian American samples (Tran & Lee, 2010), perhaps future research should explore a new family racial socialization measure, specific for Asian American families. The participants in the present study reported low prevalence rates of all three family racial socialization. It is unclear if Asian American parents do not consider racial socialization to be an important aspect of parenting, generally spend little time talking with their children about race, or if they are using other strategies not captured in Hughes and Johnson's measure. Qualitative work in this area would be useful to uncover the various strategies that Asian American parents are using to discuss and prepare their children for racial discrimination. Perhaps the knowledge gained from in-depth interviews could build the foundation for a new measure specifically developed for Asian American families. It would also be useful for this new measure to capture the qualitative difference in experiences of racial discrimination experienced by Asian Americans (e.g., subtle, and often positive, racist messages), as these differences may influence the type of racial socialization messages and their correlates. Based on the existing literature on family racial socialization strategies, the unique racial experiences of Asian Americans, Asian American cultural values, and collectivistic coping strategies, it is plausible that unique racial socialization strategies among Asian American families may surround

106

messages that promote social support, teach acceptance of racial discrimination, and encourage success. The promotion of success strategy is based on the collectivistic attitudes and interdependence among family members, thus it encourages the use of family and social networks as sources of support. The teaching acceptance of racial discrimination strategy is drawn from Asian values related to emotional self-control and forbearance, thus it focuses on teaching children than discrimination is a part of life, but the expectation is that children retain their composure during these highly emotional encounters. Finally, the encouragement of success strategy is informed by Asian Americans unique experiences with racial discrimination and the traditional Asian values of family recognition through achievement. To prepare children for incidents of racial discrimination, parents teach children to use these negative events to channel emotions towards excelling academically or vocationally. The premise is that success is a way to counteract and overcome experiences of racial discrimination. These are just a few racial socialization strategies that may be unique to Asian American families. It is important for future research to explore these and other possible family racial socialization strategies to create a new measure unique to Asian American families.

Researchers should also consider the limitations of likert-type scales as these response options may not be best choice for furthering our knowledge about the racial socialization process in families. For example, reports that a racial socialization strategy occurs "frequently" does not necessarily mean that this strategy has more impact on an individual compared to other strategies that they report as occurring "rarely". It is plausible for an individual to recall a single parental message that critically influenced how they understand issues surrounding race and racism. Perhaps future research should explore both the frequency of racial socialization messages along with their impact or influence on an individual's racial experience to gain a broader perspective on these processes.

Future research should also examine the how family racial socialization strategies may moderate the association between perceived racial discrimination and positive adjustment outcomes, such as self-esteem or social competence. Garcia-Coll and colleagues (1996) argue that mainstream theoretical frameworks should expand to emphasize social position (e.g., social class, ethnicity, and race) and the social stratification system as it related to child development. They also note that many studies among ethnic and racial minority children often emphasize negative developmental outcomes, thus continuing the belief that minority children's development is often abnormal or unfavorable compared to those of European American children. Researchers should continue to examine how contextual factors influence developmental pathways of children of color, but strive to examine these processes' effects on positive developmental outcomes.

Future research should also examine potential differences among foreignborn and U.S.-born Asian American parents' racial socialization strategies. It is plausible that varying life experiences, cultural orientation, and experiences with racial discrimination shape the messages Asian American parents are transmitting to their children. For instance, foreign-born Asian American parents' cultural socialization messages may focus on ethnic-specific historical figures, traditions, and stories from their home country. U.S.-born Asian American parents, however, may draw from their up-brining in the US and emphasize the important roles of Asian Americans throughout U.S. history. By identifying qualitative differences between foreign-born and U.S.-born parents' racial socialization practices, future research may shed light on how these differing processes influence various outcomes among their children.

Finally, future studies should examine how the moderating role of family racial socialization strategies on the association between perceived racial discrimination and psychological distress differ by gender. Existing literature demonstrates that the process of family racial socialization may differ for boys and girls (Bowman & Howard, 1985), therefore it is plausible that two and three-way interactions exist between perceived racial discrimination, gender, and family racial socialization strategies on psychological distress. In the present study's preliminary analyses some trend-level standardized effects emerged when gender was examined as an additional moderator, without nativity status in the models. These findings suggest that with a larger sample, these effects might reach statistical significance. Although beyond the scope of the current study, future studies could continue to contribute to the literature on family racial socialization strategies by examining how these processes differ by gender.

## Summary

Research has begun to disentangle the complex association between perceived racial discrimination and well-being of Asian Americans. On the one hand, research has demonstrated the significant deleterious effects of racism on

the physical and psychological health outcomes for Asian American adolescents and adults (e.g., Gee et al., 2007a; Gee et al., 2007b; Greene et al., 2006; Lee, 2003, 2005; Yoo & Lee, 2005; 2008). On the other hand, investigations have also illustrated a remarkable sense of resilience among some Asian Americans such that some are able to have positive outcomes despite these negative experiences (e.g., Lee, 2005; Ying et al., 2000; Yoo & Burrola, 2009; Yoo & Lee, 2005, 2008). Guided by the risk and resilience framework, the current investigation is one of the first to examine the complex relations among perceived racial discrimination, nativity status, family racial socialization strategies, and psychological distress among Asian American adolescents. The findings highlight the possible detrimental effects of both subtle and blatant racial discrimination on adolescents' mental health. Further, the present study illustrates the importance of understanding family racial socialization in Asian American families as a multidimensional construct that may protect against or exacerbate the positive relation between perceived racial discrimination and psychological distress. Moreover, the findings further imply that individual-level characteristics, such as nativity status, may be particularly meaningful in this area of research. Although there is still more research needed to understand family racial socialization among Asian American families, the current study's contributions to the literature are vital as they illustrate that the complexities among perceived racial discrimination and psychological distress may depend family racial socialization as well as individual-level characteristics.

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Measure	М	SD	n	Potential Range <sup>a</sup>	Range	Skew	Kurtosis
1. Gender <sup>b</sup>			156				
2. Ethnic identity	3.02	.48	152	1.0-4.0	1.5-4.0	38	.24
3. Nativity <sup>c</sup>			154				
4. B-DISC	1.96	.86	154	1.0-5.0	1.0-4.8	.94	.45
5. S-DISC	2.03	.89	153	1.0-5.0	1.0-5.0	.95	.59
6. C-SOC	1.45	1.14	140	1.0-5.0	0.0-4.4	.54	54
7. P-MIST	1.02	1.14	143	1.0-5.0	0.0-4.3	.92	18
8. P-BIAS	1.25	1.06	141	1.0-5.0	0.0-4.3	.71	21
9. DEP	1.68	.64	152	1.0-4.0	1.0-3.7	.97	.24
10. ANX	1.62	.60	152	1.0-4.0	1.0-3.6	.91	.00

Descriptive Statistics of Study Variables

Table 1

Note. B-DISC = Blatant racial discrimination, S-DISC = Subtle racial discrimination, C-SOC = Cultural socialization, P-MIST = Promotion of Mistrust, P-BIAS = Preparation for bias, DEP = Depressive symptoms, ANX = Anxiety symptoms.

<sup>a</sup> Indicates range of each variable, not of each scale <sup>b</sup> -.5 = female, .5 = male

<sup>c</sup> - .5 =foreign-born, .5 =U.S.-born

Та	bl	le	2

Correlations of Study Variables

Measure	1	2	3	4	5	6	7	8	9	10
1. Gender <sup>a</sup>										
2. Ethnic identity	10									
3. Nativity <sup>b</sup>	02	.06								
4. B-DISC	$.18^{*}$	04	03							
5. S-DISC	.06	02	01	$.68^{**}$						
6. C-SOC	04	.14	.12	.22*	.35**					
7. P-MIST	09	.02	$.18^{*}$	.34**	.39**	$.48^{**}$				
8. P-BIAS	07	08	$.15^{\dagger}$	.42**	.51**	.68**	.71**			
9. DEP	11	01	.02	.19*	.31**	.21*	$.27^{*}$	$.22^{*}$		
10. ANX	09	.06	.06	.35**	.38**	.35**	.27**	.34**	.64**	

128

 $\overline{Note}$ . Listwise N = 128. B-DISC = Blatant racial discrimination, S-DISC = Subtle racial discrimination, C-SOC = Cultural socialization, P-MIST = Promotion of Mistrust, P-BIAS = Preparation for bias, DEP = Depressive symptoms, ANX = Anxiety symptoms.

symptoms. <sup>a</sup> - .5 = female, .5 = male <sup>b</sup> - . 5 = foreign-born, .5 = U.S.-born <sup>†</sup> p < .10, \* p < .05, \*\* p < .01

Ta	ble	3
		-

Measure	1	2	$\frac{n - 77}{3}$	4	5	6	7	8	9
1. Gender <sup>a</sup>		.08	05	01	.06	20	09	.02	02
2. Ethnic identity	22*		.04	03	.21	16	.19	14	.00
3. B-DISC	$.28^{*}$	08		.51**	.23	.36*	$.40^{**}$	.26 <sup>†</sup>	.22
4. S-DISC	.09	01	.73**		.38**	.52**	.47**	$.40^{**}$	.24
5. C-SOC	09	.09	$.22^{*}$	.34**		$.40^{**}$	.65**	.28 <sup>†</sup>	.45**
6. P-MIST	04	.10	.35**	.35**	$.50^{**}$		$.78^{**}$	$.30^{*}$	.24
7. P-BIAS	06	03	.45**	.54**	.69**	.67**		.39**	.39**
8. DEP	19 †	.08	.16	$.27^{*}$	.17	$.25^{*}$	.13		.67**
9. ANX	12	.10	.42**	.45**	$.28^{*}$	$.28^{*}$	.31**	.62**	

*Correlations and Descriptive Statistics of Study Variables Separately for Foreign-born (Above Diagonal;* n = 55) *and U.S.-born (Below Diagonal;* n = 99)

*Note*. B-DISC = Blatant racial discrimination, S-DISC = Subtle racial discrimination, C-SOC = Cultural socialization, P-MIST = Promotion of Mistrust, P-BIAS = Preparation for bias, DEP = Depressive symptoms, ANX = Anxiety symptoms.

symptoms. <sup>a</sup> - .5 = female, .5 = male <sup>†</sup> p < .10, <sup>\*</sup> p < .05, <sup>\*\*</sup> p < .01

Tal	ble	4

	Total Sample	Foreign-born	U.Sborn	T-test results
Gender <sup>a</sup>	156 (72 males, 84 females)	55 (25 males, 30 females)	99 (46 males, 53 females)	
Ethnic identity	M = 3.02, SD = .51	M = 2.99, SD = .52	M = 2.99, SD = .51	t(148) = .01, ns
B-DISC	M = 1.97, SD = .87	M = 2.02, SD = .75	M = 1.90, SD = .92	t(150) = .86, ns
S-DISC	M = 2.06, SD = .92	M = 2.12, SD = .90	M = 2.01, SD = .94	t(149) = .72, ns
C-SOC	M = 1.46, SD = 1.17;	M = 1.23, SD = 1.13;	M = 1.58, SD = 1.19;	t(136) = -1.50, ns
	n = 140	<i>n</i> = 49	n = 90	
$\operatorname{Low}^{b}$	n = 27 (19%)	n = 11 (22%)	n = 15 (17%)	
Mean	n = 82 (59%)	n = 28 (57%)	n = 58 (65%)	
High <sup>c</sup>	n = 31 (22%)	n = 10 (20%)	n = 16 (18%)	
P-MIST	M = 1.05, SD = 1.18;	M = .90, SD = 1.16;	M = 1.46, SD = 1.17;	t(139) = -1.17, ns
	<i>n</i> = 143	n = 50	<i>n</i> = 91	
$Low^b$	n = 60 (42%)	n = 24 (48%)	n = 35 (38%)	
Mean	n = 56 (39%)	n = 18 (36%)	n = 37 (41%)	
High <sup>c</sup>	n = 27 (19%)	n = 8 (16%)	n = 19 (21%)	
P-BIAS	M = 1.28, SD = 1.07;	M = 1.11, SD = 1.06;	M = 1.38, SD = 1.07;	t(137) = -1.39, ns
	n = 141	n = 49	n = 90	
$\operatorname{Low}^{b}$	n = 24 (17%)	n = 12 (24%)	n = 16 (18%)	
Mean	n = 90 (64%)	n = 29 (59%)	n = 59 (66%)	
High <sup>c</sup>	n = 27 (19%)	n = 8 (16%)	n = 15 (17%)	
DEP	M = 1.68, SD = .65	M = 1.66, SD = .65	M = 1.67, SD = .64	t(148) =03, ns
ANX	M = 1.60, SD = .59	M = 1.59, SD = .65	M = 1.60, SD = .57	t(148) =11, ns

Descriptive Statistics and T-test Results of Study Variables Based on Nativity Status

*Note*. B-DISC = Blatant racial discrimination, S-DISC = Subtle racial discrimination, C-SOC = Cultural socialization, P-MIST = Promotion of Mistrust, P-BIAS = Preparation for bias, DEP = Depressive symptoms, ANX = Anxiety symptoms. <sup>a</sup> - .5 = female, .5 = male <sup>b</sup> Low group = group means were at least 1 SD lower than total sample's mean

<sup>c</sup> High group = group means were at least 1 SD higher than total sample's mean

Variable	В	SE B	β	df	F	$R^2$	$\Delta F$	$\Delta R^2$
Step 1								
Constant	1.68	.06						
Gender	17	.11	13					
Ethnic identity	03	.11	03	132	1.20	.02		
Step 2				152	1.20	.02		
Constant	1.67	.06						
Gender	21†	.11	16					
Ethnic identity	07	.11	05					
Nativity	.01	.11	.01					
B-DISC	$.15^{*}$	.07	.20					
C-SOC	.08	.05	.15					
Step 3				129	2.59*	.09	3.47*	.07
Constant	1.68	.06						
Gender	20†	.11	16					
Ethnic identity	07	.12	06					
Nativity	.00	.11	.00					
B-DISC	$.18^{*}$	.07	.24					
C-SOC	$.09^{\dagger}$	.05	.17					
Nativity x B-DISC	13	.15	09					
Nativity x C-SOC	09	.10	08					
B-DISC x C-SOC	.01	.05	.02					
Step 4				126	$1.84^{\dagger}$	.11	.64	.01
Step 1								
Constant	1.67	.06						
Gender	20†	.11	16					
Ethnic identity	07	.12	05					
Nativity	.01	.12	.01					
B-DISC	.18*	.07	.24					
C-SOC	$.09^{\dagger}$	.05	.17					
Nativity x B-DISC	13	.15	09					
Nativity x C-SOC	09	.10	08					
B-DISC x C-SOC	.02	.07	.04					
Nativity x B-DISC x C-SOC	03	.14	02	105	1.60	1.1	0.4	0.0
				125	1.63	.11	.04	.00

Summary of Hierarchical Regression Predicting Depressive Symptoms from Nativity Status, Blatant Racial Discrimination, and Cultural Socialization

*Note*. Listwise N = 135. <sup>†</sup> p < .10, <sup>\*</sup> p < .05. B-DISC = Blatant racial discrimination, C-SOC = Cultural socialization. Power (last step) = .05.

Variable	В	SE B	β	df	F	$R^2$	$\Delta F$	$\Delta R^2$
Step 1								
Constant	1.62	.05						
Gender	12	.11	10					
Ethnic identity	.07	.11	.05	132	.95	.01		
Step 2				152	.95	.01		
Constant	1.61	.05						
Gender	18 <sup>†</sup>	.10	15					
Ethnic identity	.01	.10	.01					
Nativity	.04	.10	.03					
B-DISC	.24***	.06	.34					
C-SOC	$.12^{**}$	.04	.23				ata ata ata	
Step 3				129	6.85***	.21	10.64***	.20
Constant	1.61	.05						
Gender	21 <sup>*</sup>	.10	18					
Ethnic identity	.03	.10	.02					
Nativity	.02	.10	.02					
B-DISC	.22**	.06	.31					
C-SOC	.14**	.05	.27					
Nativity x B-DISC	.08	.13	.05					
Nativity x C-SOC	17 <sup>†</sup>	.09	16					
B-DISC x C-SOC	.04	.05	.07					
				126	$4.84^{***}$	.24	1.38	.03
Step 4								
Constant	1.62	.05						
Gender	22*	.10	18					
Ethnic identity	.02	.10	.02					
Nativity	.00	.10	.00					
B-DISC	.22**	.06	.32					
C-SOC	$.14^{**}$	.05	.27					
Nativity x B-DISC	.07	.13	.05					
Nativity x C-SOC	17 <sup>†</sup>	.09	17					
B-DISC x C-SOC	.01	.06	.01					
Nativity x B-DISC x C-SOC	.08	.12	.08		***			
				125	4.33***	.24	.46	.00

Summary of Hierarchical Regression Predicting Anxiety Symptoms from Nativity Status, Blatant Racial Discrimination, and Cultural Socialization

*Note*. Listwise N = 135. <sup>†</sup> p < .10, <sup>\*</sup> p < .05, <sup>\*\*</sup> p < .01, <sup>\*\*\*</sup> p < .001. B-DISC = Blatant racial discrimination, C-SOC = Cultural socialization. Power (last step) = .05.

Variable	В	SE B	β	df	F	$R^2$	$\Delta F$	$\Delta R^2$
Step 1								
Constant	1.68	.06						
Gender	17	.11	13					
Ethnic identity	03	.11	03	132	1.20	.02		
Step 2				132	1.20	.02		
Constant	1.67	.06						
Gender	19 <sup>†</sup>	.11	15					
Ethnic identity	06	.11	05					
Nativity	.02	.11	.01					
S-DISC	$.22^{**}$	.06	.31					
C-SOC	.05	.05	.10	100	**		c 01**	10
Step 3				129	4.14**	.14	6.01**	.12
Constant	1.68	.06						
Gender	18 <sup>†</sup>	.11	14					
Ethnic identity	06	.11	05					
Nativity	.02	.11	.01					
S-DISC	.26***	.07	.36					
C-SOC	.06	.05	.11					
Nativity x S-DISC	13	.14	09					
Nativity x C-SOC	06	.10	05					
S-DISC x C-SOC	03	.05	05		**			
Step 4				126	2.85**	.15	.74	.02
Constant	1.68	.06						
Gender	18	.11	14					
Ethnic identity	07	.11	05					
Nativity	.03	.12	.02					
S-DISC	.26***	.07	.36					
C-SOC	.06	.05	.11					
Nativity x S-DISC	13	.14	09					
Nativity x C-SOC	06	.10	05					
S-DISC x C-SOC	02	.06	03					
Nativity x S-DISC x C-SOC	04	.11	03					
				125	$2.53^{*}$	.15	.12	.00

Summary of Hierarchical Regression Predicting Depressive Symptoms from Nativity Status, Subtle Racial Discrimination, and Cultural Socialization

*Note*. Listwise N = 135. <sup>†</sup> p < .10, <sup>\*</sup> p < .05, <sup>\*\*</sup> p < .01, <sup>\*\*\*</sup> p < .001. S-DISC = Subtle racial discrimination, C-SOC = Cultural socialization. Power (last step) = .05.

Variable	В	SE B	β	df	F	$R^2$	$\Delta F$	$\Delta R^2$
Step 1								
Constant	1.62	.05						
Gender	12	.11	10					
Ethnic identity	.07	.11	.05	132	.95	.00		
Step 2				132	.95	.00		
Constant	1.61	.05						
Gender	14	.10	11					
Ethnic identity	.02	.10	.02					
Nativity	.03	.10	.03					
S-DISC	.24***	.06	.35					
C-SOC	$.10^{*}$	.05	.19		***		***	
Step 3				129	7.00***	.21	10.88***	.20
Constant	1.62	.05						
Gender	16	.10	13					
Ethnic identity	.01	.10	.01					
Nativity	.02	.10	.01					
S-DISC	.21**	.06	.31					
C-SOC	.13**	.05	.25					
Nativity x S-DISC	.13	.12	.09					
Nativity x C-SOC	17†	.09	16					
S-DISC x C-SOC	.00	.05	.01					
Stop 4				126	4.83***	.24	1.17	.02
Step 4								
Constant	1.63	.05						
Gender	$18^{\dagger}$	.10	15					
Ethnic identity	.02	.10	.02					
Nativity	05	.10	04					
S-DISC	.20**	.06	.30					
C-SOC	.13**	.05	.26					
Nativity x S-DISC	.09	.12	.07					
Nativity x C-SOC	18*	.09	18					
S-DISC x C-SOC	03	.05	06					
Nativity x S-DISC x C-SOC	.21*	.10	.19	107	4.00***		1 <b>-</b> - *	
				125	4.92***	.26	$4.56^{*}$	.03

Summary of Hierarchical Regression Predicting Anxiety Symptoms from Nativity Status, Subtle Racial Discrimination, and Cultural Socialization

*Note*. Listwise N = 135. <sup>†</sup> p < .10, <sup>\*</sup> p < .05, <sup>\*\*</sup> p < .01, <sup>\*\*\*</sup> p < .001. S-DISC = Subtle racial discrimination, C-SOC = Cultural socialization. Power (last step) = .51.

Variable	В	SE B	β	df	F	$R^2$	$\Delta F$	$\Delta R^2$
Step 1								
Constant	1.67	.05						
Gender	20†	.11	16					
Ethnic identity	04	.11	03	135	1.67	.02		
Step 2				155	1.07	.02		
Constant	1.67	.06						
Gender	20†	.11	15					
Ethnic identity	06	.10	05					
Nativity	.00	.11	.00					
B-DISC	.10	.07	.13					
P-MIST	$.11^*$	.05	.19	120	$2.83^{*}$	10	2 51*	07
Step 3				132	2.83	.10	3.54*	.07
Constant	1.69	.06						
Gender	17	.11	13					
Ethnic identity	08	.11	06					
Nativity	.01	.11	.01					
B-DISC	$.14^{\dagger}$	.08	.19					
P-MIST	$.11^{*}$	.05	.21					
Nativity x B-DISC	09	.16	06					
Nativity x P-MIST	.04	.10	.04					
B-DISC x P-MIST	07	.05	13	120	0.10*	10	06	02
Step 4				129	2.13*	.12	.96	.02
Constant	1.67	.06						
Gender	14	.11	11					
Ethnic identity	06	.10	05					
Nativity	09	.12	07					
B-DISC	.16*	.08	.21					
P-MIST	$.09^{\dagger}$	.05	.17					
Nativity x B-DISC	11	.16	07					
Nativity x P-MIST	.10	.11	.09					
B-DISC x P-MIST	.02	.06	.04					
Nativity x B-DISC x P-MIST	25*	.11	26					
2				128	$2.42^{*}$	.15	$4.33^{*}$	.03

Summary of Hierarchical Regression Predicting Depressive Symptoms from Nativity Status, Blatant Racial Discrimination, and Promotion of Mistrust

*Note*. Listwise N = 138.  $^{\dagger} p < .10$ ,  $^{*} p < .05$ . B-DISC = Blatant racial discrimination, P-MIST = Promotion of mistrust. Power (last step) = .52.

Variable	В	SE B	β	df	F	$R^2$	$\Delta F$	$\Delta R^2$
Step 1								
Constant	1.60	.05						
Gender	15	.10	13					
Ethnic identity	.08	.10	.07	135	1.58	.02		
Step 2				155	1.50	.02		
Constant	1.60	.05						
Gender	19†	.10	16					
Ethnic identity	.05	.09	.05					
Nativity	.04	.10	.03					
B-DISC	22***	.06	.31					
P-MIST	.07	.04	.14	132	5.51**	.17	7.97**	.15
Step 3				152	5.51	.17	1.91	.15
Constant	1.61	.05						
Gender	19 <sup>†</sup>	.10	16					
Ethnic identity	.05	.10	.04					
Nativity	.03	.10	.03					
B-DISC	$.20^{**}$	.07	.29					
P-MIST	$.09^{\dagger}$	.05	.17					
Nativity x B-DISC	.09	.14	.07					
Nativity x P-MIST	05	.09	05					
B-DISC x P-MIST	03	.04	06	100	<b>a r</b> 0**	10	20	0.1
Step 4				129	3.50**	.18	.30	.01
Constant	1.59	.05						
Gender	16	.00	13					
Ethnic identity	.07	.10	.06					
Nativity	.11	.12	.00					
B-DISC	.22**	.07	.32					
P-MIST	.07	.05	.13					
Nativity x B-DISC	.08	.14	.06					
Nativity x P-MIST	.01	.10	.01					
B-DISC x P-MIST	.06	.06	.12					
Nativity x B-DISC x P-MIST	25*	.11	27					
				128	$3.78^{***}$	.21	$5.14^{*}$	.03

Summary of Hierarchical Regression Predicting Anxiety Symptoms from Nativity Status, Blatant Racial Discrimination, and Promotion of Mistrust

*Note*. Listwise N = 138. <sup>†</sup> p < .10, <sup>\*</sup> p < .05, <sup>\*\*\*</sup> p < .01, <sup>\*\*\*</sup> p < .001. B-DISC = Blatant racial discrimination, P-MIST = Promotion of mistrust. Power (last step) = .52.

Variable	В	SE B	β	df	F	$R^2$	$\Delta F$	$\Delta R^2$
Step 1								
Constant	1.67	.05						
Gender	20	.11	16					
Ethnic identity	04	.11	03	135	1.67	.02		
Step 2				155	1.07	.02		
Constant	1.67	.05						
Gender	19 <sup>†</sup>	.11	15					
Ethnic identity	06	.10	05					
Nativity	.00	.11	.00					
S-DISC	$.14^{*}$	.06	.20					
P-MIST	$.09^{\dagger}$	.05	.16	100	0.45**	10	** <del></del> **	0.0
Step 3				132	3.45**	.12	4.55**	.09
Constant	1.71	.06						
Gender	15	.11	12					
Ethnic identity	06	.10	04					
Nativity	.00	.11	.00					
S-DISC	$.20^{**}$	.08	.29					
P-MIST	$.10^{\dagger}$	.06	.18					
Nativity x S-DISC	14	.15	10					
Nativity x P-MIST	.06	.11	.05					
S-DISC x P-MIST	11 <sup>*</sup>	.05	20		• • • **		• • •	~ ~
Step 4				129	3.08**	.16	2.30	.05
Constant	1.67	.06						
Gender	16	.11	13					
Ethnic identity	06	.10	05					
Nativity	.13	.13	.10					
S-DISC	.23**	.08	.32					
P-MIST	.05	.06	.10					
Nativity x S-DISC	15	.15	11					
Nativity x P-MIST	.13	.12	.15					
S-DISC x P-MIST	04	.06	07					
Nativity x S-DISC x P-MIST	23*	.12	23					
				128	3.25**	.19	$4.02^{*}$	.03

Summary of Hierarchical Regression Predicting Depressive Symptoms from Nativity Status, Subtle Racial Discrimination, and Promotion of Mistrust

*Note*. Listwise N = 138. <sup>†</sup> p < .10, <sup>\*</sup> p < .05, <sup>\*\*</sup> p < .01. S-DISC = Subtle racial discrimination, P-MIST = Promotion of mistrust. Power (last step) = .52.

Variable	В	SE B	β	df	F	$R^2$	$\Delta F$	$\Delta R^2$
Step 1								
Constant	1.60	.05						
Gender	15	.10	13					
Ethnic identity	.08	.10	.07	135	1.58	.02		
Step 2				155	1.30	.02		
Constant	1.60	.05						
Gender	16	.10	13					
Ethnic identity	.05	.10	.04					
Nativity	.04	.10	.03					
S-DISC	$.20^{**}$	.06	.30					
P-MIST	.07	.05	.14					
				132	5.23***	.17	$7.52^{***}$	.14
Step 3								
Constant	1.63	.06						
Gender	14	.10	11					
Ethnic identity	.06	.10	.05					
Nativity	.02	.10	.02					
S-DISC	$.18^{*}$	.07	.28					
P-MIST	$.10^{\dagger}$	.05	.19					
Nativity x S-DISC	.10	.14	.07					
Nativity x P-MIST	05	.10	05					
S-DISC x P-MIST	05	.04	10					
				129	3.41**	.18	.48	.01
Step 4								
Constant	1.62	.06						
Gender	14	.10	12					
Ethnic identity	.06	.10	.05					
Nativity	.05	.12	.04					
S-DISC	$.19^{*}$	.07	.28					
P-MIST	.09	.06	.17					
Nativity x S-DISC	.09	.14	.07					
Nativity x P-MIST	03	.12	02					
S-DISC x P-MIST	03	.06	07					
Nativity x S-DISC x P-MIST	05	.11	05					
-				128	3.03**	.18	.17	.00

Summary of Hierarchical Regression Predicting Anxiety Symptoms from Nativity Status, Subtle Racial Discrimination, and Promotion of Mistrust

*Note*. Listwise N = 138. <sup>†</sup> p < .10, <sup>\*</sup> p < .05, <sup>\*\*</sup> p < .01, <sup>\*\*\*</sup> p < .001. S-DISC = Subtle racial discrimination, P-MIST = Promotion of mistrust. Power (last step) = .05.

Variable	В	SE B	β	df	F	$R^2$	$\Delta F$	$\Delta R^2$
Step 1								
Constant	1.65	.05						
Gender	16	.11	13					
Ethnic identity	.00	.11	.00	104	1.10			
Step 2				134	1.13	.02		
Constant	1.76	.07						
Gender	15	.11	12					
Ethnic identity	02	.11	02					
Nativity	04	.11	03					
B-DISC	.13†	.07	.18					
P-BIAS	.15*	.06	.26					
P-BIAS <sup>2</sup>	10*	.04	23					
Step 3				130	$2.82^{*}$	.12	3.61***	.10
Constant	1.75	.08						
Gender	16	.12	13					
Ethnic identity	.02	.12	.02					
Nativity	02	.16	02					
B-DISC	.14	.09	.19					
P-BIAS	.17*	.07	.28					
$P-BIAS^2$	.17 11 <sup>†</sup>	.07	25					
Nativity x B-DISC	.03	.16	.02					
Nativity x P-BIAS	10	.10	02					
Nativity x P-BIAS <sup>2</sup>	03	.10	08					
B-DISC x P-BIAS	03	.10	05 .19					
B-DISC x P-BIAS <sup>2</sup>			09					
B-DISC X P-BIAS	02	.04	09	125	$1.79^{\dagger}$	.14	.62	.02
Step 4				125	1.79	.14	.02	.02
Constant	1.74	.08						
Gender	15	.12	12					
Ethnic identity	.01	.11	.01					
Nativity	01	.16	01					
B-DISC	.09	.11	.12					
P-BIAS	$.15^{*}$	.07	.25					
P-BIAS2	12*	.05	27					
Nativity x B-DISC	.13	.22	.09					
Nativity x P-BIAS	07	.13	06					
Nativity x P-BIAS <sup>2</sup>	.02	.11	.03					
B-DISC x P-BIAS	$.15^{\dagger}$	.08	.28					
B-DISC $\times$ P-BIAS <sup>2</sup>	.04	.08	.19					
Nativity x B-DISC x P-BIAS	20	.17	19					
Nativity x B-DISC x P-BIAS <sup>2</sup>	10	.16	24					
· · · · ·		-		123	$1.69^{\dagger}$	.15	1.13	.02

Summary of Hierarchical Regression Predicting Depressive Symptoms from Nativity Status, Blatant Racial Discrimination, and Preparation for Bias

*Note*. Listwise N = 137. <sup>†</sup> p < .10, <sup>\*</sup> p < .05, <sup>\*\*\*</sup> p < .001. B-DISC = Blatant racial discrimination, P-BIAS = Preparation for bias, P-BIAS<sup>2</sup> = Preparation for bias, squared term. Power (last step) = .38.

Variable	В	SE B	β	df	F	$R^2$	$\Delta F$	$\Delta R^2$
Step 1								
Constant	1.59	.05						
Gender	13	.10	11					
Ethnic identity	.10	.10	.09	104	1.50			
Step 2				134	1.53	.02		
Constant	1.66	.07						
Gender	14	.10	12					
Ethnic identity	.09	.09	.07					
Nativity	.00	.10	.00					
B-DISC	.21**	.06	.30					
P-BIAS	.17**	.06	.29					
$P-BIAS^2$	06 <sup>†</sup>	.04	16					
Step 3				130	5.91***	.21	7.94***	.19
Constant	1.65	.07						
Gender	19 <sup>†</sup>	.10	16					
Ethnic identity	.13	.10	.11					
Nativity	03	.10	03					
	03 .22 <sup>**</sup>							
B-DISC	.22 .19 <sup>**</sup>	.08	.32 .34					
P-BIAS P-BIAS <sup>2</sup>		.06						
	07	.05	18					
Nativity x B-DISC	.21	.14	.15					
Nativity x P-BIAS	12	.12	11					
Nativity x P-BIAS <sup>2</sup>	.02	.09	.03					
B-DISC x P-BIAS	.13*	.07	.26					
B-DISC x P-BIAS <sup>2</sup>	06	.04	28	125	3.89***	26	1.36	04
Step 4				123	3.89	.26	1.50	.04
Constant	1.65	.07						
Gender	18†	.10	15					
Ethnic identity	.12	.10	.10					
Nativity	04	.14	03					
B-DISC	.13	.10	.18					
P-BIAS	.17**	.06	.30					
P-BIAS2	09 <sup>†</sup>	.00	22					
Nativity x B-DISC	.41*	.19	.30					
	08	.19	.30 07					
Nativity x P-BIAS Nativity x P-BIAS <sup>2</sup>								
	.09	.10	.14					
B-DISC x P-BIAS D DISC $x$ D DIAS <sup>2</sup>	.17*	.07	.34					
B-DISC x P-BIAS <sup>2</sup>	.05	.07	.24					
Nativity x B-DISC x P-BIAS	12	.15	12					
Nativity x B-DISC x P-BIAS <sup>2</sup>	22	.14	54	123	3.65***	.28	2.00	.02
				143	5.05	.20	2.00	.02

Summary of Hierarchical Regression Predicting Anxiety Symptoms from Nativity Status, Blatant Racial Discrimination, and Preparation for Bias

*Note*. Listwise N = 137. <sup>†</sup> p < .10, <sup>\*</sup> p < .05, <sup>\*\*</sup> p < .01, <sup>\*\*\*</sup> p < .001. B-DISC = Blatant racial discrimination, P-BIAS = Preparation for bias, P-BIAS<sup>2</sup> = Preparation for bias, squared term. Power (last step) = .38.

Variable	В	SE B	β	df	F	$R^2$	$\Delta F$	$\Delta R^2$
Step 1								
Constant	1.65	.05						
Gender	16	.11	13					
Ethnic identity	.00	.11	.00	124	1.10	02		
Step 2				134	1.13	.02		
Constant	1.77	.07						
Gender	13	.11	11					
Ethnic identity	04	.10	03					
Nativity	04	.11	03					
S-DISC	$.20^{**}$	.07	.28					
P-BIAS	$.12^{\dagger}$	.06	.20					
P-BIAS <sup>2</sup>	10*	.04	24		**		**	
Step 3				130	3.71**	.15	4.94**	.13
Constant	1.78	.08						
Gender	15	.11	12					
Ethnic identity	04	.11	03					
Nativity	06	.16	05					
S-DISC	$.18^{\dagger}$	.10	.26					
P-BIAS	.10 .12 <sup>†</sup>	.07	.20					
$P-BIAS^2$	14 <sup>*</sup>	.07	33					
Nativity x S-DISC	06	.00	04					
Nativity x P-BIAS	10	.13	08					
Nativity x P-BIAS <sup>2</sup>	01	.10	01					
S-DISC x P-BIAS	.06	.07	.12					
S-DISC x P-BIAS <sup>2</sup>	.11	.07	.05					
	.11	.05	.05	125	$2.27^{*}$	.17	.61	.02
Step 4								
Constant	1.78	.08						
Gender	15	.11	12					
Ethnic identity	05	.11	04					
Nativity	05	.16	04					
S-DISC	.21	.19	.29					
P-BIAS	$.12^{\dagger}_{*}$	.07	.20					
P-BIAS2	14*	.06	33					
Nativity x S-DISC	12	.24	08					
Nativity x P-BIAS	10	.13	08					
Nativity x $P$ -BIAS <sup>2</sup>	.01	.12	.02					
S-DISC x P-BIAS	.08	.08	.15					
S-DISC x P-BIAS <sup>2</sup>	.00	.06	01					
Nativity x S-DISC x P-BIAS	08	.17	08					
Nativity x S-DISC x P-BIAS <sup>2</sup>	.04	.12	.10		*			
				123	$1.91^{*}$	.17	.11	.00

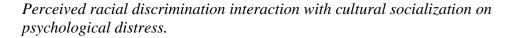
Summary of Hierarchical Regression Predicting Depressive Symptoms from Nativity Status, Subtle Racial Discrimination, and Preparation for Bias

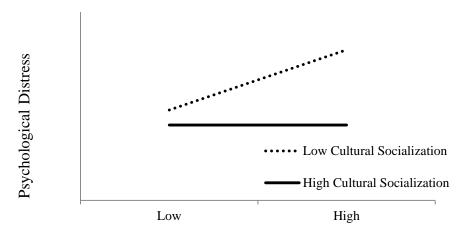
*Note*. Listwise N = 137. <sup>†</sup> p < .10, <sup>\*</sup> p < .05, <sup>\*\*</sup> p < .01. S-DISC = Subtle racial discrimination, P-BIAS = Preparation for bias, P-BIAS<sup>2</sup> = Preparation for bias, squared term. Power (last step) = .05.

Variable	В	SE B	β	df	F	$R^2$	$\Delta F$	$\Delta R^2$
Step 1								
Constant	1.59	.05						
Gender	13	.10	11					
Ethnic identity	.10	.10	.09					
Step 2				134	1.53	.02		
Constant	1.67	.07						
Gender	10	.10	09					
Ethnic identity	.08	.10	.07					
Nativity	01	.10	01					
S-DISC	.19**	.06	.28					
P-BIAS	.16 <sup>**</sup>	.06	.28					
$P-BIAS^2$	07 <sup>†</sup>	.00	16					
	07	.04	10	130	5.57***	.21	7.45***	.18
Step 3								
Constant	1.66	.07						
Gender	13	.10	11					
Ethnic identity	.09	.10	.08					
Nativity	07	.14	06					
S-DISC	.22*	.09	.32					
P-BIAS	.18**	.06	.32					
$P-BIAS^2$	08	.00	20					
Nativity x S-DISC	.11	.14	.08					
Nativity x P-BIAS	12	.14	11					
Nativity x P-BIAS <sup>2</sup>	12							
		.09	.08					
S-DISC x P-BIAS	.11	.07	.23					
S-DISC x P-BIAS <sup>2</sup>	05	.04	23	125	3.48***	.23	.98	.03
Step 4				125	5.40	.25	.90	.05
Constant	1.65	.07						
Gender	10	.10	08					
Ethnic identity	.12	.10	.10					
Nativity	01	.15	01					
S-DISC	.30**	.11	.44					
P-BIAS	.20**	.06	.36					
P-BIAS2	07	.05	17					
Nativity x S-DISC	14	.21	10					
Nativity x P-BIAS	13	.12	12					
Nativity $x P$ -BIAS <sup>2</sup>	08	.12	12					
S-DISC x P-BIAS	08 .12 <sup>†</sup>	.07	12					
S-DISC x P-BIAS <sup>2</sup>	.12 10 <sup>†</sup>	.07	.23 48					
Nativity x S-DISC x P-BIAS	10 .06	.05	48 .06					
Nativity x S-DISC x P-BIAS <sup>2</sup>	.14	.11	.35	102	3.34***	24	2 20	02
				123	3.34	.26	2.20	.03

Summary of Hierarchical Regression Predicting Anxiety Symptoms from Nativity Status, Subtle Racial Discrimination, and Preparation for Bias

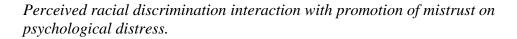
*Note*. Listwise N = 137. <sup>†</sup> p < .10, <sup>\*</sup> p < .05, <sup>\*\*</sup> p < .01, <sup>\*\*\*</sup> p < .001. S-DISC = Subtle racial discrimination, P-BIAS = Preparation for bias, P-BIAS<sup>2</sup> = Preparation for bias, squared term. Power (last step) = .55.

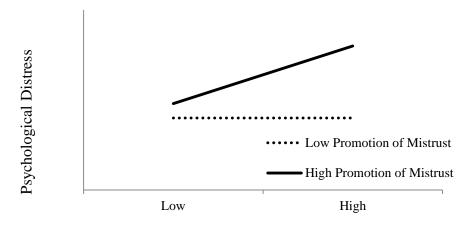




Perceived Racial Discrimination

*Note*: Perceived Racial Discrimination indicates both blatant and subtle racial discrimination; Psychological Distress indicates both depressive and anxiety symptoms.

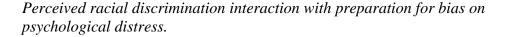


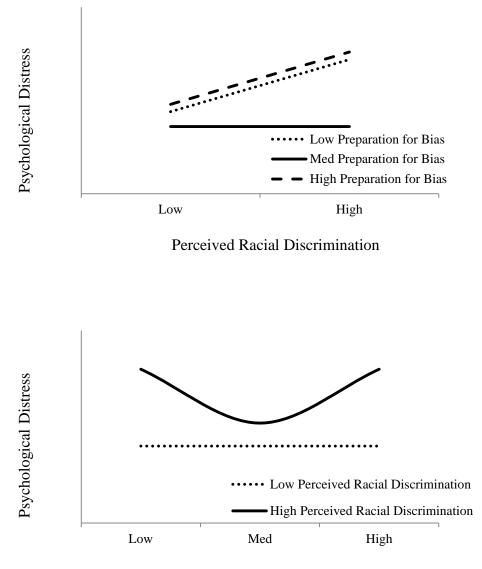


Perceived Racial Discrimination

*Note*: Perceived Racial Discrimination indicates both blatant and subtle racial discrimination; Psychological Distress indicates both depressive and anxiety symptoms.

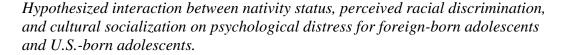
Figure 3

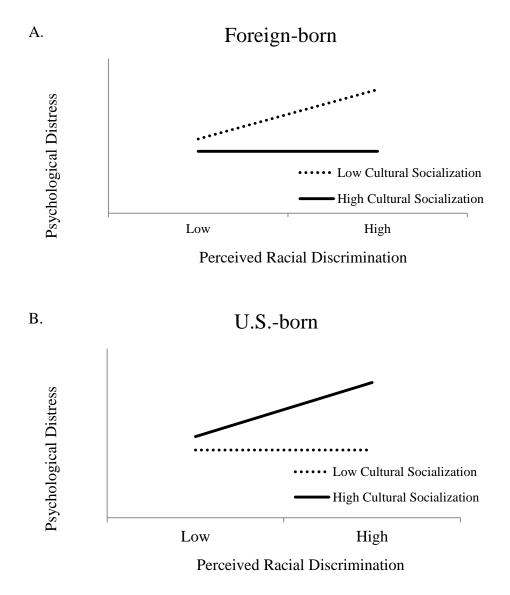




Preparation for Bias

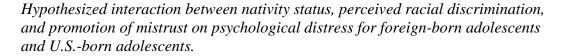
*Note*: Perceived Racial Discrimination indicates both blatant and subtle racial discrimination; Psychological Distress indicates both depressive and anxiety symptoms. Figures A and B represent the same interaction, but graphed in alternate ways.

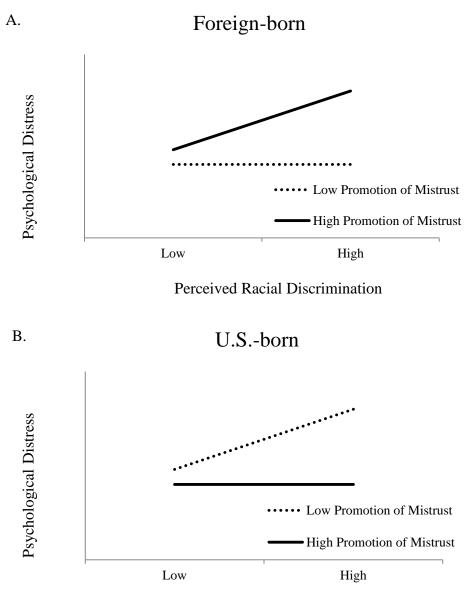




*Note*: Perceived Racial Discrimination indicates both blatant and subtle racial discrimination; Psychological Distress indicates both depressive and anxiety symptoms.

Figure 5

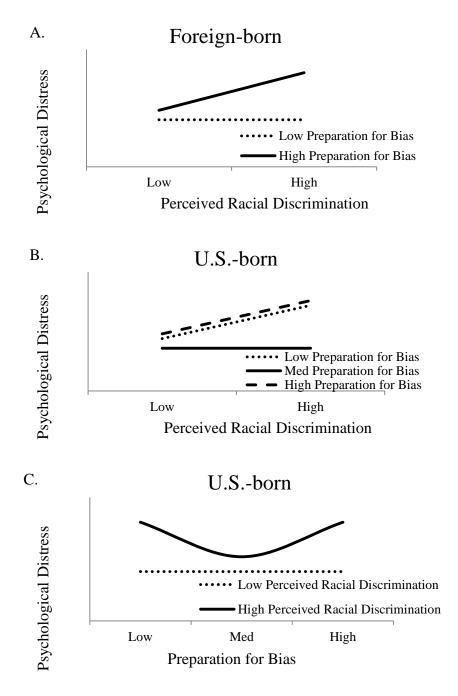




Perceived Racial Discrimination

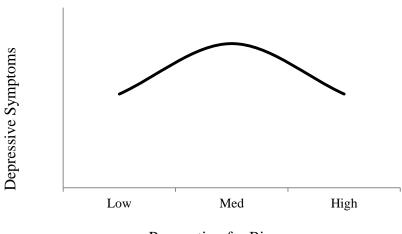
*Note*: Perceived Racial Discrimination indicates both blatant and subtle racial discrimination; Psychological Distress indicates both depressive and anxiety symptoms.

# Hypothesized interaction between nativity status, perceived racial discrimination, and preparation for bias on psychological distress for foreign-born adolescents.

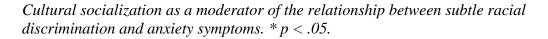


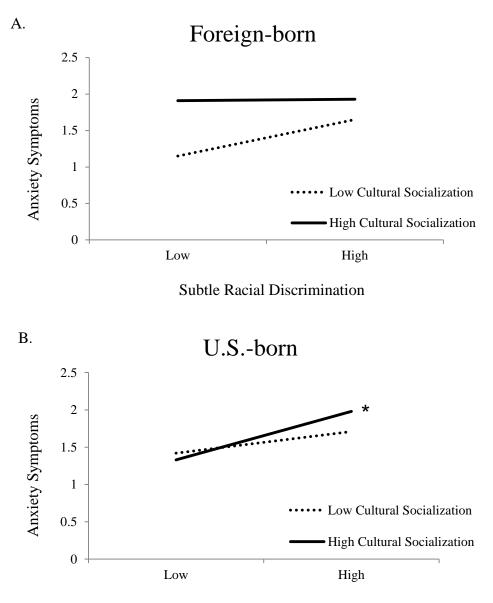
*Note*: Perceived Racial Discrimination indicates both blatant and subtle racial discrimination; Psychological Distress indicates both depressive and anxiety symptoms. Figures B and C represent the same interaction, but graphed in alternate ways.

# Curvilinear relation between preparation for bias and depressive symptoms.



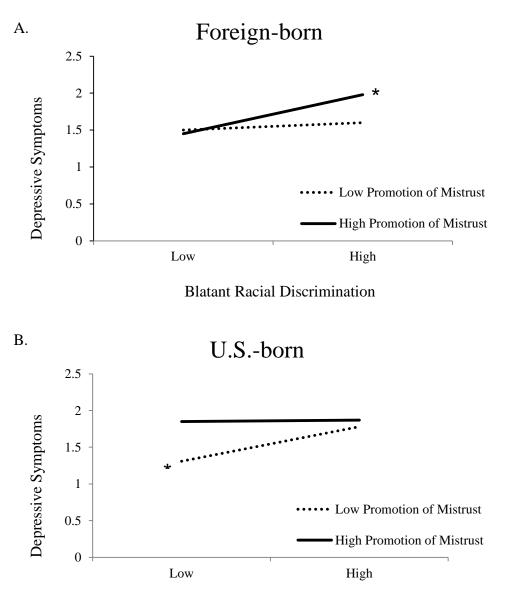
Preparation for Bias





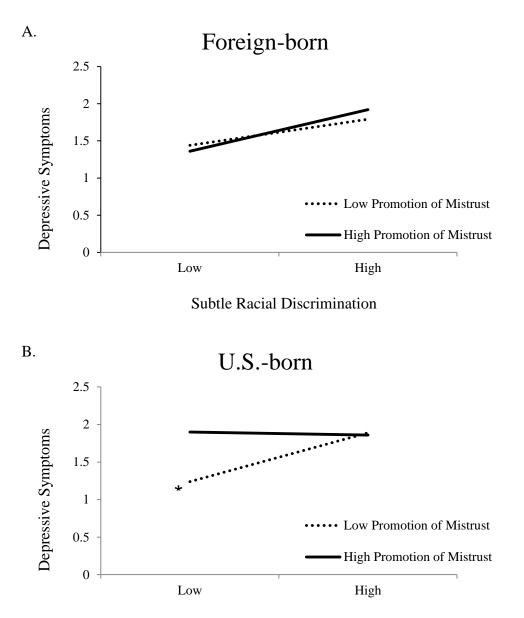


# Promotion of mistrust as a moderator of the relationship between blatant racial discrimination and depressive symptoms. \* p < .05.





Promotion of mistrust as a moderator of the relationship between subtle racial discrimination and depressive symptoms. \* p < .05.



Subtle Racial Discrimination

# APPENDIX A

TABLES OF HIERARCHICAL REGRESSIONS PREDICTING PSYCHOLOGICAL DISTRESS FROM GENDER, PERCEIVED RACIAL DISCRIMINATION, AND FAMILY RACIAL SOCIALIZATION

Variable	В	SE B	β	df	F	$R^2$	$\Delta F$	$\Delta R^2$
Step 1								
Constant	1.70	.06						
Ethnic identity	04	.11	03	125	1.5	00		
Step 2				135	.15	.00		
Constant	1.69	.05						
Ethnic identity	09	.11	07					
Gender	20†	.11	16					
B-DISC	$.17^{**}$	.06	.23					
C-SOC	.07	.05	.13					
				132	3.56**	.10	4.69**	.10
Step 3								
Constant	1.69	.06						
Ethnic identity	08	.12	06					
Gender	20†	.11	16					
B-DISC	$.17^{*}$	.07	.23					
C-SOC	.07	.05	.13					
Gender x B-DISC	.05	.13	.03					
Gender x C-SOC	03	.10	03					
B-DISC x C-SOC	.00	.05	.00					
				129	$2.02^{\dagger}$	.10	.06	.00
Step 4								
Constant	1.69	.06						
Ethnic identity	06	.12	05					
Gender	17	.11	13					
B-DISC	$.16^{*}$	.07	.22					
C-SOC	.09	.05	.16					
Gender x B-DISC	.08	.13	.05					
Gender x C-SOC	04	.10	03					
B-DISC x C-SOC	.04	.06	.07					
Gender x B-DISC x C-SOC	19†	.11	16					
				128	$2.14^{*}$	.12	$2.81^{\dagger}$	.02

Summary of Hierarchical Regression Predicting Depressive Symptoms from Gender, Blatant Racial Discrimination, and Cultural Socialization

*Note*. Listwise N = 137. <sup>†</sup> p < .10, <sup>\*</sup> p < .05, <sup>\*\*</sup> p < .01. B-DISC = Blatant racial discrimination, C-SOC = Cultural socialization.

Variable	В	SE B	β	df	F	$R^2$	$\Delta F$	$\Delta R^2$
Step 1								
Constant	1.63	.05						
Ethnic identity	.07	.10	.06	125	4.1	00		
Step 2				135	.41	.00		
Constant	1.62	.05						
Ethnic identity	.01	.10	.00					
Gender	17†	.10	14					
B-DISC	.24***	.06	.35					
C-SOC	.12**	.04	.23					
				132	9.04***	.22	11.89***	.21
Step 3								
Constant	1.62	.05						
Ethnic identity	.02	.10	.02					
Gender	18†	.10	15					
B-DISC	.25***	.06	.36					
C-SOC	$.12^{**}$	.04	.23					
Gender x B-DISC	12	.11	09					
Gender x C-SOC	04	.09	03					
B-DISC x C-SOC	.03	.05	.06		***			
Step 4				129	5.40***	.23	.63	.01
-	1.62	05						
Constant	1.62	.05	00					
Ethnic identity	.03	.10	.02					
Gender	17 .25 <sup>***</sup>	.10	14					
B-DISC	.25	.06	.37					
C-SOC	.12**	.04	.24					
Gender x B-DISC	11	.11	08					
Gender x C-SOC	04	.09	04					
B-DISC x C-SOC	.04	.05	.08					
Gender x B-DISC x C-SOC	06	.10	05	100	4 7 4***	22	22	00
				128	$4.74^{***}$	.23	.33	.00

Summary of Hierarchical Regression Predicting Anxiety Symptoms from Gender, Blatant Racial Discrimination, and Cultural Socialization

*Note*. Listwise N = 137. <sup>†</sup> p < .10, <sup>\*\*</sup> p < .01, <sup>\*\*\*</sup> p < .001. B-DISC = Blatant racial discrimination, C-SOC = Cultural socialization.

Variable	В	SE B	β	df	F	$R^2$	$\Delta F$	$\Delta R^2$
Step 1								
Constant	1.70	.06						
Ethnic identity	04	.11	03	125	15	00		
Step 2				135	.15	.00		
Constant	1.69	.05						
Ethnic identity	08	.11	06					
Gender	19 <sup>†</sup>	.11	14					
S-DISC	.23***	.06	.32					
C-SOC	.05	.05	.09					
				132	$5.46^{***}$	.14	7.23***	.14
Step 3								
Constant	1.70	.06						
Ethnic identity	09	.11	07					
Gender	18 <sup>†</sup>	.11	14					
S-DISC	.24***	.06	.34					
C-SOC	.05	.05	.09					
Gender x S-DISC	04	.13	03					
Gender x C-SOC	.02	.10	.01					
S-DISC x C-SOC	04	.05	07					
				129	3.19**	.15	.28	.01
Step 4								
Constant	1.70	.06						
Ethnic identity	09	.11	07					
Gender	16	.11	13					
S-DISC	.24***	.06	.33					
C-SOC	.06	.05	.10					
Gender x S-DISC	03	.13	02					
Gender x C-SOC	.02	.10	.02					
S-DISC x C-SOC	04	.05	06					
Gender x S-DISC x C-SOC	07	.11	06					
				128	$2.82^{**}$	.15	.38	.00

Summary of Hierarchical Regression Predicting Depressive Symptoms from Gender, Subtle Racial Discrimination, and Cultural Socialization

*Note*. Listwise N = 137. <sup>†</sup> p < .10, <sup>\*\*</sup> p < .01, <sup>\*\*\*</sup> p < .001. S-DISC = Subtle racial discrimination, C-SOC = Cultural socialization.

Variable	В	SE B	β	df	F	$R^2$	$\Delta F$	$\Delta R^2$
Step 1								
Constant	1.63	.05						
Ethnic identity	.07	.10	.06	135	.41	.00		
Step 2				155	.41	.00		
Constant	1.62	.05						
Ethnic identity	.01	.10	.01					
Gender	14	.09	12					
S-DISC	.24***	.06	.35					
C-SOC	$.10^{*}$	.04	.19		***		***	
Step 3				132	8.91***	.21	11.71***	.21
Constant	1.62	.05						
Ethnic identity	.01	.10	.01					
Gender	14	.10	12					
S-DISC	.24***	.06	.36					
C-SOC	$.10^{*}$	.04	.19					
Gender x S-DISC	06	.11	04					
Gender x C-SOC	.01	.09	.01					
S-DISC x C-SOC	.00	.05	.00					
				129	5.02***	.21	.08	.00
Step 4								
Constant	1.62	.05						
Ethnic identity	.01	.10	.01					
Gender	16	.10	14					
S-DISC	.25***	.06	.36					
C-SOC	$.10^{*}$	.04	.18					
Gender x S-DISC	08	.11	06					
Gender x C-SOC	.01	.09	.01					
S-DISC x C-SOC	01	.05	02					
Gender x S-DISC x C-SOC	.08	.10	.08					
				128	$4.48^{***}$	.22	.76	.01

Summary of Hierarchical Regression Predicting Anxiety Symptoms from Gender, Subtle Racial Discrimination, and Cultural Socialization

*Note*. Listwise N = 137. p < .05, p < .001. S-DISC = Subtle racial discrimination, C-SOC = Cultural socialization.

Variable	В	SE B	β	df	F	$R^2$	$\Delta F$	$\Delta R^2$
Step 1								
Constant	1.69	.05						
Ethnic identity	04	.11	03	138	.12	.00		
Step 2				156	.12	.00		
Constant	1.68	.05						
Ethnic identity	08	.10	07					
Gender	20	.11	16					
B-DISC	$.12^{\dagger}_{}$	.07	.17					
P-MIST	$.09^{\dagger}$	.05	.17		sk sk		**	
Step 3				135	3.72**	.10	4.91**	.10
Constant	1.69	.06						
Ethnic identity	09	.10	07					
Gender	18	.11	14					
B-DISC	.13*	.07	.18					
P-MIST	$.11^{*}$	.05	.20					
Gender x B-DISC	.14	.13	.10					
Gender x P-MIST	07	.10	06					
B-DISC x P-MIST	07	.05	15					
Step 4				132	$2.84^{**}$	.13	1.59	.03
-								
Constant	1.70	.06						
Ethnic identity	09	.10	07					
Gender	17	.11	13					
B-DISC	.13*	.07	.18					
P-MIST	.11*	.05	.20					
Gender x B-DISC	.15	.13	.10					
Gender x P-MIST	07	.10	06					
B-DISC x P-MIST	07	.05	14					
Gender x B-DISC x P-MIST	03	.10	03	101	0.40*	12	00	00
				131	$2.48^{*}$	.13	.08	.00

Summary of Hierarchical Regression Predicting Depressive Symptoms from Gender, Blatant Racial Discrimination, and Promotion of Mistrust

*Note*. Listwise N = 140. <sup>†</sup> p < .10, <sup>\*</sup> p < .05, <sup>\*\*</sup> p < .01. B-DISC = Blatant racial discrimination, P-MIST= Promotion of mistrust.

Variable	В	SE B	β	df	F	$R^2$	$\Delta F$	$\Delta R^2$
Step 1								
Constant	1.62	.05						
Ethnic identity	.09	.10	.08	138	.78	.00		
Step 2				150	.78	.00		
Constant	1.61	.05						
Ethnic identity	.05	.09	.04					
Gender	19*	.10	16					
B-DISC	.23***	.06	.33					
P-MIST	.07	.04	.14					
Step 3				135	7.32***	.18	9.45***	.17
Constant	1.60	.05						
Ethnic identity	.05	.09	.04					
Gender	19*	.10	16					
B-DISC	.24***	.06	.35					
P-MIST	.07	.04	.14					
Gender x B-DISC	01	.12	01					
Gender x P-MIST	13	.09	13					
B-DISC x P-MIST	01	.04	02					
~ .				132	4.61***	.20	.99	.02
Step 4								
Constant	1.60	.05						
Ethnic identity	.05	.09	.04					
Gender	20†	.10	17					
B-DISC	.24***	.06	.36					
P-MIST	.07	.05	.14					
Gender x B-DISC	01	.12	01					
Gender x P-MIST	13	.09	13					
B-DISC x P-MIST	01	.05	03					
Gender x B-DISC x P-MIST	.01	.09	.01					
				131	$4.00^{***}$	.20	.02	.00

Summary of Hierarchical Regression Predicting Anxiety Symptoms from Gender, Blatant Racial Discrimination, and Promotion of Mistrust

*Note*. Listwise N = 140. <sup>†</sup> p < .10, <sup>\*</sup> p < .05, <sup>\*\*\*</sup> p < .001. B-DISC = Blatant racial discrimination, P-MIST = Promotion of mistrust.

Variable	В	SE B	β	df	F	$R^2$	$\Delta F$	$\Delta R^2$
Step 1								
Constant	1.69	.05						
Ethnic identity	04	.11	03	120	10	00		
Step 2				138	.12	.00		
Constant	1.68	.05						
Ethnic identity	09	.10	07					
Gender	20†	.11	15					
S-DISC	.16*	.06	.22					
P-MIST	.08	.05	.14					
1 1110 1		100		135	4.43**	.12	5.86**	.12
Step 3				100	1119	.12	2.00	.12
Constant	1.73	.06						
Ethnic identity	07	.10	06					
Gender	15	.11	12					
S-DISC	.19**	.06	.26					
P-MIST	$.11^{*}$	.05	.20					
Gender x S-DISC	.00	.13	.00					
Gender x P-MIST	05	.10	04					
S-DISC x P-MIST	12*	.05	22		**		÷	
Step 4				132	3.60**	.16	2.31 <sup>†</sup>	.04
Constant	1.73	.06						
Ethnic identity	07	.10	05					
Gender	13	.10	11					
S-DISC	13 .18 <sup>**</sup>	.07	.25					
P-MIST	.10	.07	.20					
Gender x S-DISC	.01	.03	.20					
Gender x P-MIST	04	.13	04					
S-DISC x P-MIST	04 11 <sup>*</sup>	.10	04 20					
Gender x S-DISC x P-MIST	11 04	.03	20 04					
Genuer x S-DISC x F-MISI	04	.10	04	131	3.15**	.16	.18	.00
				131	5.15	.10	.10	.00

Summary of Hierarchical Regression Predicting Depressive Symptoms from Gender, Subtle Racial Discrimination, and Promotion of Mistrust

*Note*. Listwise N = 140. <sup>†</sup> p < .10, <sup>\*</sup> p < .05, <sup>\*\*</sup> p < .01. S-DISC = Subtle racial discrimination, P-MIST= Promotion of mistrust.

Variable	В	SE B	β	df	F	$R^2$	$\Delta F$	$\Delta R^2$
Step 1								
Constant	1.62	.05						
Ethnic identity	.09	.10	08	120	70	01		
Step 2				138	.78	.01		
Constant	1.61	.05						
Ethnic identity	.04	.09	.04					
Gender	16 <sup>†</sup>	.10	14					
S-DISC	.20***	.06	.31					
P-MIST	.07	.04	.13					
				135	$6.60^{***}$	.16	$8.50^{***}$	.16
Step 3								
Constant	1.62	.05						
Ethnic identity	.05	.09	.04					
Gender	15	.10	13					
S-DISC	.22***	.06	.33					
P-MIST	.08	.05	.15					
Gender x S-DISC	.01	.12	.01					
Gender x P-MIST	12	.09	11					
S-DISC x P-MIST	04	.04	07					
				132	$4.20^{***}$	.18	1.00	.02
Step 4								
Constant	1.62	.05						
Ethnic identity	.04	.09	.04					
Gender	19 <sup>†</sup>	.11	16					
S-DISC	.23***	.06	.35					
P-MIST	.07	.05	.14					
Gender x S-DISC	01	.12	01					
Gender x P-MIST	13	.09	13					
S-DISC x P-MIST	05	.05	10					
Gender x S-DISC x P-MIST	.08	.09	.09					
				131	$3.77^{**}$	.19	.80	.01

Summary of Hierarchical Regression Predicting Anxiety Symptoms from Gender, Subtle Racial Discrimination, and Promotion of Mistrust

*Note*. Listwise N = 140.  $^{\dagger} p < .10$ ,  $^{**} p < .01$ ,  $^{***} p < .001$ . S-DISC = Subtle racial discrimination, P-MIST= Promotion of mistrust.

Variable	В	SE B	β	df	F	$R^2$	$\Delta F$	$\Delta R^2$
Step 1								
Constant	1.67	.05						
Ethnic identity	01	.11	01	137	.00	.00		
Step 2				137	.00	.00		
Constant	1.77	.07						
Ethnic identity	05	.10	04					
Gender	15	.11	12					
B-DISC	.15*	.07	.21					
P-BIAS	$.15^{*}$	.06	.24					
$P-BIAS^2$	10*	.04	24					
	110			133	3.77**	.12	4.71**	.12
Step 3								
Constant	1.74	.08						
Ethnic identity	.00	.11	.00					
Gender	05	.15	04					
B-DISC	$.17^{\dagger}$	.09	.24					
P-BIAS	$.14^{*}$	.06	.24					
$P-BIAS^2$	11*	.05	26					
Gender x B-DISC	.16	.15	.11					
Gender x P-BIAS	.00	.13	.00					
Gender x $P$ -BIAS <sup>2</sup>	11	.10	16					
B-DISC x P-BIAS	.13 <sup>†</sup>	.08	.23					
B-DISC $\times P$ -BIAS <sup>2</sup>	03	.00	14					
D-DISC XI -DIAS	05	.04	14	128	$2.33^{*}$	.15	.90	.03
Step 4								
Constant	1.74	.08						
Ethnic identity	.00	.11	.00					
Gender	05	.16	04					
B-DISC	.12	.09	.16					
P-BIAS	.16*	.07	.26					
P-BIAS2	11*	.05	25					
Gender x B-DISC	.26	.18	.18					
Gender x P-BIAS	.01	.13	.01					
Gender x P-BIAS <sup>2</sup>	03	.10	05					
B-DISC x P-BIAS	03 .15 <sup>†</sup>	.10	03 .27					
B-DISC x P-BIAS B-DISC x P-BIAS <sup>2</sup>	.13	.08 .06	.27					
Gender x B-DISC x P-BIAS								
	21	.16	20					
Gender x B-DISC x P-BIAS <sup>2</sup>	08	.11	17	126	$2.34^{*}$	.18	2 21	.03
				126	2.34	.18	2.21	.03

Summary of Hierarchical Regression Predicting Depressive Symptoms from Gender, Blatant Racial Discrimination, and Preparation for Bias

*Note*. Listwise N = 139. <sup>†</sup> p < .10, <sup>\*</sup> p < .05, <sup>\*\*</sup> p < .01. B-DISC = Blatant racial discrimination, P-BIAS = Preparation for bias, P-BIAS<sup>2</sup> = Preparation for bias, squared term.

Variable	В	SE B	β	df	F	$R^2$	$\Delta F$	$\Delta R^2$
Step 1								
Constant	1.61	.05						
Ethnic identity	.11	.10	.09	107		00		
Step 2				137	1.11	.00		
Constant	1.67	.06						
Ethnic identity	.08	.09	.07					
Gender	14	.10	12					
B-DISC	.21***	.06	.31					
P-BIAS	.16**	.06	.29					
$P-BIAS^2$	07†	.04	16					
				133	7.57***	.22	9.12***	.21
Step 3								
Constant	1.64	.07						
Ethnic identity	.11	.09	.10					
Gender	20	.14	17					
B-DISC	.28***	.08	.40					
P-BIAS	.17**	.06	.29					
P-BIAS <sup>2</sup>	- $.08^{\dagger}$	.05	19					
Gender x B-DISC	.03	.13	.02					
Gender x P-BIAS	15	.11	13					
Gender x P-BIAS <sup>2</sup>	.02	.09	.03					
B-DISC x P-BIAS	$.14^{*}$	.07	.28					
B-DISC x P-BIAS <sup>2</sup>	05	.04	23					
				128	4.45***	.26	1.26	.04
Step 4								
Constant	1.63	.07						
Ethnic identity	.11	.10	.09					
Gender	22	.14	19					
B-DISC	.25**	.08	.37					
P-BIAS	.16**	.06	.28					
P-BIAS2	07	.05	18					
Gender x B-DISC	.13	.16	.10					
Gender x P-BIAS	13	.12	12					
Gender x P-BIAS <sup>2</sup>	.05	.09	.08					
B-DISC x P-BIAS	.13†	.07	.26					
B-DISC x P-BIAS <sup>2</sup>	01	.05	05					
Gender x B-DISC x P-BIAS	.03	.14	.03					
Gender x B-DISC x P-BIAS <sup>2</sup>	11	.10	26					
				126	3.79***	.27	.61	.01

Summary of Hierarchical Regression Predicting Anxiety Symptoms from Gender, Blatant Racial Discrimination, and Preparation for Bias

*Note*. Listwise N = 139. <sup>†</sup> p < .10, <sup>\*</sup> p < .05, <sup>\*\*</sup> p < .01, <sup>\*\*\*</sup> p < .001. B-DISC = Blatant racial discrimination, P-BIAS = Preparation for bias, P-BIAS<sup>2</sup> = preparation for bias, squared term.

Variable	В	SE B	β	df	F	$R^2$	$\Delta F$	$\Delta R^2$
Step 1								
Constant	1.67	.05						
Ethnic identity	01	.11	01	137	.00	.00		
Step 2				157	.00	.00		
Constant	1.78	.07						
Ethnic identity	06	.10	05					
Gender	13	.11	11					
S-DISC	.21**	.07	.30					
P-BIAS	$.11^{\dagger}$	.06	.19					
$P-BIAS^2$	11**	.04	25					
Step 3				133	4.87***	.16	6.08***	.16
-		. –						
Constant	1.79	.07						
Ethnic identity	06	.11	05					
Gender	05	.15	04					
S-DISC	.18	.09	.25					
P-BIAS	$.11^{\dagger}$	.07	.19					
P-BIAS <sup>2</sup>	14*	.06	33					
Gender x S-DISC	03	.14	02					
Gender x P-BIAS	.06	.13	.05					
Gender x P-BIAS <sup>2</sup>	09	.09	13					
S-DISC x P-BIAS	.06	.07	.11					
S-DISC x P-BIAS <sup>2</sup>	.02	.05	.07	100	0.65**	17	50	00
Step 4				128	2.65**	.17	.52	.02
Constant	1.79	.07						
Ethnic identity	06	.11	05					
Gender	09	.15	07					
S-DISC	.16 <sup>†</sup>	.09	.23					
P-BIAS	.13†	.07	.22					
P-BIAS2	12*	.06	29					
Gender x S-DISC	.10	.18	.07					
Gender x P-BIAS	.08	.13	.07					
Gender x P-BIAS <sup>2</sup>	.00	.11	.03					
S-DISC x P-BIAS	.02	.08	.09					
S-DISC x P-BIAS <sup>2</sup>	.01	.05	.06					
Gender x S-DISC x P-BIAS	10	.16	10					
Gender x S-DISC x P-BIAS <sup>2</sup>	07	.10	17					
	.07		• • •		2.45**	.19	1.36	.02

Summary of Hierarchical Regression Predicting Depressive Symptoms from Gender, Subtle Racial Discrimination, and Preparation for Bias

*Note*. Listwise N = 139. <sup>†</sup> p < .10, <sup>\*\*</sup> p < .05, <sup>\*\*</sup> p < .01, <sup>\*\*\*</sup> p < .001. S-DISC = Subtle racial discrimination, P-BIAS = Preparation for bias, P-BIAS<sup>2</sup> = Preparation for bias, squared term.

						2		2
Variable	В	SE B	β	df	F	$R^2$	$\Delta F$	$\Delta R^2$
Step 1								
Constant	1.61	.05						
Ethnic identity	.11	.10	.09	107		0.1		
Step 2				137	1.11	.01		
Constant	1.68	.06						
Ethnic identity	.07	.09	.06					
Gender	11	.10	09					
S-DISC	$.20^{**}$	.06	.29					
P-BIAS	.16**	.06	.28					
$P-BIAS^2$	$07^{\dagger}$	.04	17		***		o <b>o o</b> •***	•
Step 3				133	6.95***	.21	8.35***	.20
Constant	1.65	.07						
Ethnic identity	.07	.10	.06					
Gender	17	.13	14					
S-DISC	.25**	.08	.37					
P-BIAS	.17**	.06	.29					
$P-BIAS^2$	09†	.05	22					
Gender x S-DISC	01	.12	01					
Gender x P-BIAS	11	.12	10					
Gender x P-BIAS <sup>2</sup>	.04	.08	.07					
S-DISC x P-BIAS	.12	.00	.25					
S-DISC $\times P$ -BIAS <sup>2</sup>	05	.07	22					
S-DISC XT-DIAS	05	.04	22	128	3.93***	.24	.93	.03
Step 4								
Constant	1.66	.07						
Ethnic identity	.07	.10	.06					
Gender	15	.14	13					
S-DISC	.26**	.08	.39					
P-BIAS	$.16^{*}$	.06	.28					
P-BIAS2	$10^{\dagger}$	.05	24					
Gender x S-DISC	08	.17	06					
Gender x P-BIAS	13	.12	11					
Gender x P-BIAS <sup>2</sup>	01	.10	02					
S-DISC x P-BIAS	$.13^{\dagger}$	.07	.27					
S-DISC x P-BIAS <sup>2</sup>	05	.05	23					
Gender x S-DISC x P-BIAS	.02	.14	.02					
Gender x S-DISC x P-BIAS <sup>2</sup>	.05	.09	.13					
				126	3.31**	.24	.38	.01

Summary of Hierarchical Regression Predicting Anxiety Symptoms from Gender, Subtle Racial Discrimination, and Preparation for Bias

*Note*. Listwise N = 139. <sup>†</sup> p < .10, <sup>\*</sup> p < .05, <sup>\*\*</sup> p < .01, <sup>\*\*\*</sup> p < .001. S-DISC = Subtle racial discrimination, P-BIAS = Preparation for bias, P-BIAS<sup>2</sup> = Preparation for bias, squared term.

APPENDIX B

MEASURES

# Subtle and Blatant Experiences of Racism Scale for Asian American College Students (SABR-A<sup>2</sup>; Yoo & Lee, 2009).

Instructions: The following statements are general racial situations that you personally may have encountered. Read each situation and answer the questions using the following rating scales.

Note: Again, the term "Asians" is used to include all Asians living in the U.S. including immigrants, U.S. born, and adoptees.

#### S = subtle racial discrimination

S – Subtle Taetar disermination					
B = blatant racial discrimination	Almost never	Once in a while	Sometimes	Often or frequent	Almost always
<ol> <li>In America, I am treated differently because I'm Asian.</li> <li>(S)</li> </ol>	0	0	0	0	0
2. In America, I am viewed with suspicion because I'm Asian. (S)	0	0	0	0	0
3. In America, I am expected to excel in academics because I'm Asian. (S)	0	0	0	0	0
4. In America, I find it difficult to date some people because I'm Asian. (S)	0	0	0	0	0
5. In America, I am called names such as, "chink, gook, etc." because I'm Asian. (B)	0	0	0	0	0
6. In America, I am told "you speak English so well" because I'm Asian. (S)	0	0	0	0	0
7. In America, I am overlooked because I'm Asian. (S)	Ο	0	Ο	0	Ο
8. In America, I have been physically assaulted because I'm Asian. (B)	0	0	0	0	0
9. In America, I am made fun of because I'm Asian. (B)	Ο	0	Ο	0	Ο
10. In America, I am faced with barriers in society because I'm Asian. (B)	0	0	0	0	0

		Eve your		In the past year				
	CS = cultural socialization PM = promotion of mistrust PB = preparation for bias	Yes	No	Never	Rarely	Sometimes	Often	very Otten
•	Talked to you about others who may try to limit you because of race/ethnicity? (PB)	0	0	0	0	0	0	(
•	Encouraged you to read books about other racial/ethnic goups? (CS)	0	0	0	0	0	0	(
	Told you that you must be better in order to get the same rewards given to others because of race/ethnicity? (PB)	0	0	0	0	0	0	(
	Told you to avoid another racial/ethnic group because of its members' prejudice against your racial/ethnic group? (PM)	0	0	0	0	0	0	(
	Talked to you about racial/ethnic stereotypes, prejudice, and/or discrimination against people of your racial/ethnic group? (PB)	0	0	0	0	0	0	(
	Talked to you about important people or events in the history of racial/ethnic groups other than your own? (CS)	0	0	0	0	0	0	(
	Explained something on TV to you that showed discrimination against your racial/ethnic group? (PB)	0	0	0	0	0	0	(
	Done or said things to encourage you to keep a distance from people of other races/ethnicities? (PM)	0	0	0	0	0	0	(
	Talked to you about unfair treatment that occurs due to race/ethnicity? (PB)	0	0	0	0	0	0	(
).	Encouraged you to read books about your racial/ethnic group? (CS)	0	0	Ο	0	0	0	0
1.	Talked to you about discrimination against people of a racial/ethnic group other than your own? (PB)	0	0	0	0	0	0	(
2.	Done or said things to keep to you from trusting people of other races/ethnicities? (PM)	0	0	0	0	0	0	
3.	Talked to someone else about racial/ethnic discrimination when you could hear them? (PB)	0	0	0	0	0	0	
4.	Done or said things to show you that all people are equal regardless of race/ethnicity? (CS)	0	0	0	0	0	0	
5.	Talked to you about expectations other might have about your abilities based on your race/ethnicity? (PB)	0	0	0	0	0	0	
6.	Talked to you about important people or events in the history of your racial/ethnic group? (CS)	0	0	0	0	0	0	

# Family Racial Socialization (Hughes & Johnson, 2001).

Instructions: Please indicate if one or more of your parents have ever engaged in each of the following activities, and if so, how frequently over the past 12 months.

Instructions: Please read each statement and indicate h <u>over the past week</u> . There are no right or wrong answ statement.				
D = depressive symptoms A = anxiety symptoms S = stress symptoms	Did not apply to me at all	Applied to me to some degree, or some of the time	Applied to me to a considerable degree, or a good part of time	Applied to me very much, or most of the time
1. I found it hard to wind down (A)	Ο	0	0	0
2. I was aware of dryness of my mouth (S)	0	0	Ο	0
3. I couldn't seem to experience any positive feeling at all (D)	0	0	Ο	0
4. I experienced breathing difficulty (e.g., excessively rapid breathing, breathlessness in the absence of physical exertion) (A)	Ο	0	0	Ο
5. I found it difficult to work up the initiative to do things (D)	0	0	Ο	0
6. I tended to over-react to situations (S)	Ο	0	Ο	0
7. I experienced trembling (e.g., in the hands) (S)	0	0	0	0
8. I felt that I was using a lot of nervous energy (A)	0	0	0	0
9. I was worried about situations in which I might panic and make a fool of myself (A)	0	0	0	0
10. I felt that I had nothing to look forward to (D)	0	0	0	0
11. I found myself getting agitated (S)	0	0	0	0
12. I found it difficult to relax (A)	0	0	0	0
<ul><li>13. I felt down-hearted and blue (D)</li><li>14. I was intolerant of anything that kept me from getting on with what I was doing (S)</li></ul>	0 0	0 0	0 0	0 0
15. I felt I was close to panic (A)	0	0	0	0
16. I was unable to become enthusiastic about anything (D)	Ο	0	Ο	0
17. I felt I wasn't worth much as a person (D)	Ο	0	Ο	0
18. I felt that I was rather touchy (S)	0	0	Ο	0
19. I was aware of the action of my heart in the absence of physical exertion (e.g., sense of heart rate increase, heart missing a beat) (A)	0	0	0	Ο
20. I felt scared without any good reason (S)	0	0	Ο	0
21. I felt that life was meaningless (D)	0	0	Ο	0

Depression, Anxiety, Stress Scale (DASS-21; Henry & Crawford, 2005).

Instructions: Please read each statement and indicate how much the statement applied to you

169

Multiethnic	Ethnic	Identity	Measure	(MEIM:	Phinnev.	1995).

Instructions: Using the scale below, indicate the extent to which you agree or disagree with each item. Please be open and honest in your responding.

	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree
1. I understand pretty well what my ethnic group membership means to me, in terms of how to relate to my group and others.	Ο	0	0	0
2. In order to learn more about my ethnic background, I have often talked to other people about my ethnic group.	Ο	0	0	0
3. I participate in cultural practices of my own ethnic group, such as special food, music, or customs.	Ο	0	0	0
4. I think a lot about how my life is affected by my ethnic group membership.	Ο	0	0	0
5. I am happy that I am a member of my ethnic group.	0	0	0	0
6. I have a clear sense of my ethnic background and what it means for me.	Ο	0	0	0
7. I really have not spent much time trying to learn more about the culture and history of my ethnic group.	0	Ο	0	0
8. I am active in organizations or social groups that include mostly members of my ethnic group.	Ο	Ο	0	0
9. I have a strong sense of belonging to my ethnic group.	0	0	0	0
10. I have a lot of pride in my ethnic group and its accomplishments.	Ο	0	0	0
11. My ethnicity is an important reflection of who I am.	0	Ο	Ο	0
12. I am not very clear about the role of my ethnicity in my life.	0	Ο	Ο	0
13. I have spent time trying to find out more about the history, traditions, and customs of my ethnic group.	Ο	0	0	0
14. I regret that I am a part of my ethnic group.	0	0	Ο	Ο
15. I feel good about my cultural or ethnic background.	0	0	0	0