Role of Multiracial Resiliency on the Multiracial Risks - Psychological Adjustment Link Among Multiracial Adults

by

Preston Johnson

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Graduate Supervisory Committee:

Brandon (Hyung Chol) Yoo, Co-Chair
Alisia (Giac-Thao) Tran, Co-Chair
James Bludworth

ARIZONA STATE UNIVERSITY

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ABSTRACT

A growing body of research indicates that people of multiple racial lineages in the US encounter challenges to positive psychological adjustment because of their racial status. In response, they also exhibit unique resilience strategies to combat these challenges. In this study, the moderating roles of previously identified multiracial resilient factors (i.e., shifting expressions, creating third space, and multiracial pride) were examined in the associations between unique multiracial risk factors (i.e., multiracial discrimination, perceived racial ambiguity, and lack of family acceptance) and psychological adjustment (i.e., satisfaction with life, social connectedness, and distress symptoms) of multiracial adults. Drawing on risk and resilience theory, results first indicated that the multiracial risk factors (i.e., multiracial discrimination, perceived racial ambiguity, and lack of family acceptance) relate negatively with social connectedness and distress symptoms, but did not significantly relate with satisfaction with life. Additionally, a differential moderating effect for one multiracial resilient factor was found, such that the protective or exacerbative role of creating third space depends on the psychological outcome. Specifically, results suggest creating third space buffers (e.g., weakens) the association between multiracial discrimination and satisfaction with life as well as lack of family acceptance and satisfaction with life among multiracial adults. Results further suggest creating third space exacerbates (e.g., strengthens) the negative association between perceived racial ambiguity on social connectedness and distress symptoms as well as lack of family acceptance on social connectedness and distress symptoms. Moreover, no two-way interaction effects were found for either of the other multiracial resilient factors (i.e., shifting expressions and multiracial pride). This study

highlights the complex nature of racial identity for multiracial people, and the nuanced risk and resilience landscape encountered in the US.

Keywords: Multiracial, resilience, discrimination, distress.

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CHAPTER 1

INTRODUCTION

In 1967, the Supreme Court ruling, Loving v. Virginia, marked the end of a long history of anti-miscegenation laws - or court-mandated racial segregation in marriage and intimate relationships - in the US (Gilanshah, 1993). Since then, the population comprised of individuals with multiple racial lineages has exponentially grown from 1% of the total birth population in 1970 to 10% in 2013 (Parker, Morin, Horowitz, & Lopez, 2015). This growth trajectory is projected to triple the population of multiracial people - or individuals whose parents are from two or more racial groups - in the US from 8 million to 26 million by 2060 (Colby & Ortman, 2015). Despite these growing numbers, there is still limited number of empirical studies examining the unique racial experiences of multiracial individuals.

The research shows that mixed race individuals have uniquely racialized risks and resilient factors due to their multiple racial backgrounds. Their experiences with racial discrimination, for instance, can occur from both majority and minority groups (Giamo, Schmitt, & Outten, 2012; Root, 2003, p. 112). Similarly, multiracial individuals have reported being questioned by strangers based on their ambiguous appearance (Jackson 2013; Miville, Constantine, Baysden, & So-Lloyd, 2005) and feeling unacceptable to family members on the basis of their racial background (Comas-Diaz, 1996). These experiences of prejudice may not only include discrimination based on racial status (e.g., racism), but also based on skin tone (e.g., colorism), or the sociopolitical stratification which privileges “lightness” of skin tone for people of color (Hunter, 2007).

Multiracial individuals may also develop unique resilient factors to cope with these stressors by, for instance, shifting their racial expressions and identity (e.g., changing how they dress, act, or style their hair) to blend into different social settings (Khanna & Johnson, 2010; Miville et al., 2005). They may also create a safe and affirming space among those who share similar experiences and identity of being multiracial (Doyle & Kao, 2007; Jackson, 2012) and relying on feelings of pride toward one's multiracial status (Rockquemore, 1998; Salahuddin, & O'Brien, 2011). Despite the development of validated measures on multiracial individual's experiences, no quantitative study to my knowledge has examined the moderating role of these resilient factors on the link between multiracial risks and psychological adjustment of multiracial adults.

Multiracial Definition and Terminology

Although overlapping, there are some differences between the meaning of race and ethnicity. *Race* is a social construct ascribed to individuals based on common physical characteristics (e.g., skin color and facial features; Cokely, 2007) and in the US currently includes Asian/Asian American, Pacific Islander/Native Hawaiian, Hispanic/Latinx, Black/African American, Native American/Alaska Native, and White people. *Ethnicity* is a social construct wherein individuals characterize themselves and are characterized by others based on group traditions, customs, and values (e.g., language/dialect, music, and food; Cokley, 2007). It is important to note that the current study includes people of Hispanic/Latinx origins as a distinct racial category. This adjustment to the 2010 U.S. Census racial measure – which only included Asian/Asian American, Native Hawaiian/Pacific Islander, Black/African Americans, Native

American/Alaska Native, and White and recognized Hispanic/Latinx as an ethnic group - was made at the recommendation of the 2010 Census Race and Hispanic Origin Alternative Questionnaire Experiment (Compton et al., 2012). In their analyses, Compton and colleagues found that combining the Latinx/Hispanic origins question and the race question significantly reduced the number of Latinx/Hispanic people reporting "other race" while yielding no change to the number of Latinx/Hispanic people reporting overall.

The terminology used to describe persons of multiple racial and ethnic backgrounds is inconsistent in the literature (Aspinall, 2009). Labels such as biracial, multiracial, multiethnic, mixed parentage, and mixed heritage have been used somewhat interchangeably in research, public policy, and colloquial conversation. The term "multiracial" refers to an individual whose parents' racial backgrounds are from two or more racial groups (e.g., one Asian parent and one White parent; Root, 1996). This is distinct from the term "multiethnic", which can include individuals with two or more ethnic backgrounds with parents from one racial group (e.g., Chinese and Korean; Root & Kelley, 2003) or multiple racial groups (e.g., Chinese and Cuban). Previously, scholars have used the term "biracial" in reference to individuals in the multiracial category (Khanna, 2010). However, the prefix "multi" - as opposed to "bi" - remains inclusive to subsume individuals whose parents also occupy multiple racial lineages (Aspinall, 2009; Jackson, Yoo, Guevarra Jr, & Harrington, 2012). Given that the focus of this study is directed toward the experiences of racial risks and resilience and their impact on psychological adjustment, the term *multiracial* will be used moving forward.

History of Multiracial Studies

Recent reviews of the literature indicate that research examining the experiences of multiracial individuals is scarce (Edwards & Pedrotti, 2008; Shih & Sanchez, 2009). For example, Shih and Sanchez (2005) found only 53 studies (28 qualitative studies) in the general social sciences from 1976 to 2004. Furthermore, until 2006, only 18 articles had been published in counseling psychology journals (Edwards & Pedrotti, 2008). The study of race and racism in the US has largely centered on monoracial experiences (Richard, 2003). Consequently, multiracial individuals have encountered various experiences of monoracism - or the preference for singular racial categorization (Johnston & Nadal, 2010) – at the individual (e.g., challenges to racial authenticity; Jackson, 2013), institutional (e.g., affirmative action qualification; Sanchez, 2010), and cultural (e.g., omission of teaching cultural traditions; Collins, 2000) levels. Considering this oppressive history of multiracial individuals in the US, there is a lack of specified research attention on the uniquely racialized risks, and more importantly, resilience in navigating these experiences.

Historically, researchers have used different frameworks to describe and delineate the development of multiracial individuals (Renn, 2008; Rockquemore, Brunsma, & Delgado, 2009). This theoretical development began with scholars conceptualizing multiracial identities as pathological - referring to a multiracial identity as a state of mental crisis due to navigating dominant and marginalized identities concurrently (see Park, 1928; Stonequist, 1937). Next, theories of multiracial identity incorporated monoracial linear models of development, suggesting optimal pathways in racial identity development (see Atkinson, Morten, & Sue, 1979 and Helms, 1995; Renn, 2008).

Termed “the equivalent approach” (Rockquemore et al., 2009), these monoracial models often ignored unique and important aspects of multiracial identity development. Researchers then moved to “the variant approach” of multiracial identity development (Rockquemore et al., 2009), where multiracial individuals were considered distinct from monoracial groups. Poston (1990) and Root (1992) offered the first major contributions to this framework, addressing the developmental and sociopolitical flaws of the previous developmental approaches.

Scholars currently consider the interactive process between multiracial individuals and characteristics of their environment (e.g., diversity at school and media portrayal of race; Renn, 2012; Root, 1996) as fundamental to identity development. This shift has been broadly labeled “the ecological approach” (Rockquemore et al., 2009), wherein environmental influences (e.g., parental socialization and work) on the individual can be psychologically beneficial or detrimental. This theoretical frame is important because it: (a) considers a context-dependent understanding of multiracial individuals’ development, (b) does not assume an optimal racial status (e.g., monoracial, multiracial, or certain racial combinations over others), and (c) does not treat the experience of being multiracial as inherently problematic but instead focuses on subjective experiences. Using an ecological approach to racial identity development emphasizes the need to examine unique risks and, perhaps more importantly, resilient factors of multiracial individuals (Salahuddin & O’Brien, 2011; Smith, 2014; Yoo, Jackson, Guevarra Jr., Miller, & Harrington, 2016).

Multiracial Risk Factors and Psychological Adjustment

Some experiences in one's environment may thwart development toward well-being (Coll, et al., 1996; Masten, 2001). Otherwise known as a *risk factor*, these experiences are natural interactions between individuals and their context (e.g., sociopolitical attitudes and public policies). One example conceptualized by Johnston and Nadal (2010) is the experience of monoracism – or a general preference for singular racial categorization. This experience can conflict with the identity of multiracial individuals. Risk and resilience theory proposes that individuals encounter environmental threats, or risks, to their psychological development (Luthar, Cicchetti, & Becker, 2000 and Masten, 2001). Though research regarding the experiences of multiracial individuals is still growing, three unique multiracial risk factors have been commonly identified: 1) multiracial discrimination, 2) perceived racial ambiguity, and 3) lack of family acceptance. These specific risk factors represent key themes in the multiracial risk literature (see Shih & Sanchez, 2009 for meta-analysis; Jackson, 2012; Miville, et al., 2005), have been consistently reported across multiracial groups (e.g., Asian, Latinx, Black; Collins, 2000; Jackson, et al., 2013; Khanna, 2010), and have demonstrated negative associations with measures of psychological health such as positively related to negative affect, depression, anxiety (Salahuddin & O'Brien, 2011; Smith, 2014, Yoo, et al., 2016) as well as negatively related to self-esteem (Smith, 2014) and life satisfaction (Giamo, Schmitt, & Outten, 2012).

Multiracial Discrimination. This risk factor is defined by the racial prejudice experienced by multiracial individuals due to their mixed race background (Yoo et al., 2016). Examples of multiracial discrimination include being pressured to choose one of

their racial identities (Buckley & Carter, 2004), or feeling stressed from being denied their multiracial experience (Shih & Sanchez, 2005). Qualitative studies have shown that experiences of multiracial discrimination can lead to feelings of exclusion, hurt, and distress (Buckley & Carter, 2004; Miville et al., 2005). For example, Jackson (2012) found that all (N = 10) respondents reported feeling like an "outsider" from being treated differently due to their appearance and perceived cultural background (p. 16). In the validation of new measures capturing multiracial experiences, multiracial discrimination was positively related to depression, anxiety, stress, and negative affect and negatively related to social connectedness (Salahuddin & O'Brien, 2011; Yoo et al., 2016). Giamo and colleagues (2012) also reported that multiracial discrimination was negatively associated with satisfaction with life in a sample of U.S. and Canadian multiracial adults.

Perceived Racial Ambiguity. This risk factor is defined as the unique experience of being questioned or wrongfully classified due to having an ambiguous racial appearance (e.g., skin color, hairstyle, facial features; Yoo et al., 2016). This can include being asked, "What are you?" which often leads to feelings of objectification and exclusion (Miville et al., 2005; Shih Sanchez, 2005). In a qualitative analysis, Jackson (2012) found that all of her participants (N = 10) were uncomfortable with the experience of being questioned by others. This included strangers staring, people guessing their racial background, and being forcibly placed into monoracial categories. Perceptions of racial ambiguity can also result in feelings of exoticization, exclusion, and feeling like an outsider, often leading to heightened distress and diminished social connectedness (Miville et al., 2005; Nadal et al., 2011; Suyemoto, 2004). In the validation of the Multiracial Experience Measure, Yoo and colleagues (2016) found in a sample of

multiracial adults that perceived racial ambiguity was positively related to depression, anxiety, and stress. Only recently have scholars validated a multiracial measure for this specific variable, thus, there have been few quantitative analyses containing perceived racial ambiguity.

Lack of Family Acceptance. Conceptualized as another risk factor, this is defined by the unique experience of feeling invalidated or denied by one's family members based on one's mixed race heritage (Salahuddin & O'Brien, 2011). This may be a particularly stressful experience because racial identity can largely be a process of reflected appraisal and socialization by the family unit (Root, 1990). In a qualitative secondary analysis of data collected from three multiracial adult focus groups, Nadal, Sriken, Davidoff, Wong, and McLean (2013) found common themes of racial discrimination within the participants' own family. For example, all participants endorsed feeling isolated from members of their family – especially when family members were monoracial. Another theme was that participants noticed favoritism within the family. Participants reported perceptions of family members favoring monoracial cousins because of their full heritage. Finally, all three focus groups reported having their racial authenticity or belongingness to their family questioned on the premise of their race. In quantitative studies, Salahuddin and O'Brien (2011) found lack of family acceptance due to participant's multiracial background was related to higher depression and lower self-esteem among multiracial adults. Lack of family acceptance may be a risk factor which diminishes one's sense of social connectedness, especially within the family. Evidence suggests that these experiences may also increase distress for individuals (Nadal et al.,

2011) though additional research regarding lack of family acceptance for multiracial individuals is limited.

Resilient Factors for Multiracial Individuals

In response to these racialized risk factors, multiracial individuals may engage in various ways to cope (Jackson, Wolven, & Aguilera, 2013; Salahuddin & O'Brien, 2011; Yoo et al., 2016). Otherwise referred to as *resilience*, the positive adaptation of individuals in spite of adversity has been characterized as a normal developmental process (Coll, et al., 1996; Masten, 2001). Thus, resilience is a natural characteristic which is only strengthened within the context of risk. The present study will focus on three identified multiracial resilient factors: 1) shifting expressions, 2) creating a third space, and 3) multiracial pride. These factors represent common themes found in qualitative reports of important strategies to combat negative multiracial experiences across mixed race combinations (Buckley & Carter, 2004; Collins, 2000; Miville, et al., 2005; Jackson, 2012; Khanna). Further, quantitative studies have provided a foundation to expand upon regarding these resilient variables (Binning, et al., 2009; Giamo, et al., 2012; Sanchez, Shih, & Garcia, 2009) and their associations with psychological health, adjustment, and well-being.

Shifting Expressions. This resilient factor is defined as the unique multiracial experience where one adjusts their racial self-identification and cultural expression to fit into a given context (Jackson et al., 2013; Rockquemore & Brunsma, 2002; Smith, 2014). For example, a White-Latinx multiracial individual may choose to identify as White among their White peers and as Latinx among their Latinx peers, changing their racial expression (e.g., style of dress and speech). In a qualitative analysis among 40 Black-

White biracial adults, for instance, Khanna and Johnson (2010) found that multiracial individuals used shifting expressions as a strategy to navigate different social contexts. For instance, participants reported concealing aspects of their racial identity and emphasizing aspects of their racial identity to fit in with different social groups and to escape prejudice from coworkers and classmates. Similarly, Jackson and colleagues (2013) found that among 24 multiethnic Mexican Americans in Arizona (i.e., individual with one Hispanic Mexican parent and one non-Hispanic parent of any other race), shifting expressions was a common strategy used in different contexts for different reasons. Participants reported physically and verbally associating with a particular racial group to avoid discrimination or dress in a way that was racially typical to avoid being questioned. In addition, Smith (2014) demonstrated in a sample of 149 multiracial adults that shifting expressions was positively related to self-reported quality of life. These reports suggest that shifting expressions may serve as a buffer to distress and encourage a social sense of belonging when faced with multiracial risk factors.

Creating Third Space. This multiracial resilience factor is the formation of a safe and affirming space to support one's multiracial identity (Yoo et al., 2016). For example, multiracial individuals may join multiracial specific clubs or organizations, form friendships with other multiracial individuals, or read more about multiracial experiences in literature, the news, or the internet. Studies have shown that active engagement in multiracial communities and multiracial social relationships are associated with positive psychological outcomes. Specifically, in a qualitative analysis among 15 multiracial Japanese individuals, Collins (2000) found that most participants felt rejected by both the dominant group and their respective minority groups. In response, to establish

a sense of belonging, they created social networks with other multiracial individuals and moved to environments more accepting of multiracial people. Jackson (2012) also found in her qualitative analysis of 10 multiracial individuals that participants actively sought other multiracial individuals, joined culturally diverse groups, and had a desire to travel to culturally diverse areas to create affirming communities for themselves. In another qualitative analysis among multiracial adults, Miville and colleagues (2005) found that respondents sought to learn about their multiracial heritage and develop relationships with other multiracial individuals when faced with multiracial discrimination. Creating third space may buffer the link between risk factors and distress by providing affirmation for one's multiracial experiences. It may also engender social connectedness among other multiracial individuals. Yoo and colleagues (2016) suggest evidence for this, where creating third space was positively related to amount of multiracial friends and racial diversity of friends.

Multiracial Pride. Conceptualized as another resilient factor, multiracial pride is defined as the extent to which a multiracial individual feels fulfillment from their mixed racial heritage (Salahuddin, 2008). For example, one may be resistant to the negative effects of discrimination if they have an affirmative view of their multiple racial backgrounds. Few studies have examined this resilient factor in multiracial individuals. Qualitative analyses suggested that multiracial individuals who appreciate all of their cultural heritages reported overcoming discrimination, hold strong interpersonal relationships, and consider their multiracial status as advantageous (Roberts-Clarke, Roberts, & Morokoff, 2004; Shih & Sanchez, 2005). In a quantitative analysis, Cheng and Lee (2009) found that multiracial adults (N = 57) scoring higher on multiracial pride

scored lower in multiracial identity conflict – or the extent to which one feels that their multiple racial identities contradict one another. Multiracial identity conflict has been shown to be positively related to distress (Jackson et al., 2012). Multiracial pride, therefore, may be a resilient factor that may reduce distress associated with multiracial risk factors through a heightened appreciation of racial differences (Salahuddin & O'Brien, 2011).

The Present Study

Considering the rapidly growing number of multiracial individuals in the US (see Colby & Ortman, 2015), the mental health needs of these populations are yet to be fully understood. Recent research attention suggests that the lived experiences of multiracial individuals can be unique and merit specific investigation, although the empirical literature in this area is limited. The purpose of this study is to directly examine how unique multiracial resilient factors (i.e., shifting racial expressions, creating third space, and multiracial pride) may moderate the link between unique multiracial risk factors (i.e., multiracial discrimination, perceived racial ambiguity and lack of family acceptance) and psychological adjustment (i.e., satisfaction with life, social connectedness, and distress symptoms) of multiracial adults (see Figure 1). Because this is the first moderation analysis related to psychological adjustment using validated measures for multiracial populations, the present study aims to focus on the risk and resilient factors which have been previously identified and are unique to multiracial communities.

Drawing on the risk and resilience theory (see Coll, et al., 1996, Luthar et al., 2000 and Masten, 2001), I hypothesize: (a) negative relationships between multiracial risk factors (i.e., multiracial discrimination, perceived racial ambiguity and lack of family

acceptance) and psychological adjustment (i.e., decreased satisfaction with life and social connectedness and increased distress symptoms), and (b) buffering effects of the multiracial resilient factors (i.e., shifting racial expressions, creating third space, and multiracial pride) on the link between multiracial risk factors and psychological adjustment. Specifically, I anticipate that higher scores for multiracial resilient factors (i.e., shifting racial expressions, creating third space, and multiracial pride) will predict a decreased relationship between multiracial risk factors (i.e., multiracial discrimination, perceived racial ambiguity and lack of family acceptance) and psychological adjustment.

CHAPTER 2

METHOD

Sample and Procedure

Multiracial participants were recruited using relevant university student listservs (e.g., undergraduate majors, graduate programs, and university organizations) from small colleges and major universities across the country, online member distribution listservs for national multiracial organizations (i.e., MAVIN Foundation, Multiracial Americans of Southern California, Swirl, and Biracial Families Network), Amazon Mechanical Turk, and social media outlets (e.g., Facebook). Participants completed an online survey, which took approximately 15 minutes to complete. The screening questionnaire assessed respondent eligibility (i.e., at least 18 years old and biological parents from at least two different racial groups). Those participants who qualify were sent an electronic informed consent form and survey (see Appendix I). I offered a $10 Amazon gift card every tenth participant to complete the survey in its entirety. Further, participants using the Amazon Mechanical Turk portal were incentivized with $1 for qualifying and completing the survey in its entirety. Utilizing Amazon Mechanical Turk for behavioral science research has been demonstrated to have similar demographic characteristics, reliability estimates, and validity in comparison to traditional survey convenience sampling methods (Paolacci, Chandler, & Iperirotis, 2010; Berinsky, Huber, & Lenz, 2012).

The participant recruitment goal was based off of an a priori power analysis using a free online calculator (Faul, Erdfelder, Lang, & Buchner, 2007). I entered a medium effect size ($f^2 = .15$) and included the following criterion: alpha level ($\alpha = .05$), minimum power ($1-\beta = .80$), with six predictor variables (i.e., multiracial discrimination, perceived

racial ambiguity, lack of family acceptance, shifting expressions, creating third space, and multiracial pride) and nine interaction terms of each risk factor with each resilient factor. This resulted in n_{min} = 139 participants to achieve appropriate power for the analysis. A total of 648 multiracial individuals living in the United States were recruited from online platforms (i.e., Amazon Mechanical Turk, university listservs from small colleges and major universities across the US, multiracial organization email lists, and social media posts) for the current study. After eliminating participants who did not meet the inclusion criteria, indicated being multiethnic and monoracial rather than multiracial, or who did not sufficiently respond to the attention check questions, the final number of participants used for the study analyses totaled 156. This majority of this sample were women (60%) with a mean age of 29.24 years (*SD* = 8.12) and an age range of 18 to 57 years. Participants were primarily born domestically (89.1% US born and 10.9% foreign born) and came from all regions of the US (West 45%, Midwest 22%, South 18%, and Northeast 14%). SES ranged in this sample as measured by education (i.e., high school 10%, trade school 3%, some college 28%, undergraduate degree 42%, and advanced degree 14%) and income (i.e., $19k or less 35%, $20k to $39k 17%, $40k to $59k 17%, $60k to $79K 16%, 80 to $99k 5%, and $100k or greater 10%.

Moreover, there were 19 different self-reported multiracial combinations with the five largest being Latinx/White (26.9%), Black/White (17.9%), Asian/White (12.2%), Native American/White (7.1%), and Asian/Pacific Islander (5.8%). The multiracial combinations further stratified by minority-White racial combinations (75%) and minority-minority racial combinations (25%).

Measures

Demographic information. Demographic items included participant's age, gender, race, ethnic identification, biological parents' racial group memberships, generational status in the US, current zip code, primary zip code growing up, socio-economic status (i.e., educational attainment and personal income).

Multiracial Risk Factors. Multiracial risk factors, including Multiracial Discrimination (M-Disc), Perceived Racial Ambiguity (P-Ambig), and Lack of Family Acceptance (L-Family), were measured using subscales from two measures, 1) the Multiracial Experience Measure (MEM; Yoo et al., 2016) and the Multiracial Challenges and Resilience Scale (MCRS; Salahuddin & O'Brien 2011). M-Disc and P-Ambig were measured using subscales from the MEM (Yoo et al., 2016). These 5-item subscales are prompted with the phrase "Due to my multiracial background…" The M-Disc subscale contains items such as: "I am picked on for not looking or acting like a certain racial group" and "I am pressured to pick a race." The P-Ambig subscale contains items such as: "I get asked 'What are you?'" and "People say I'm exotic." Participants respond using a 5-point Likert-type scale ranging from 1 (*almost never*) to 5 (*almost always*), where higher scores indicate a greater experience of multiracial risk. Both the Multiracial Discrimination and Perceived Ambiguity subscales have demonstrated strong internal consistency (α = .78 and .84; Yoo et al., 2016).

L-Family was measured using the subscale from the MCRS (Salahuddin & O'Brien 2011). This subscale contains items such as: "Someone in my family made a hurtful statement about one of the racial group(s) with whom I identify." and "A family member said something negative about Multiracial/Biracial people." Participants respond

using a 5-point Likert-type scale ranging from 1 (*almost never*) to 5 (*almost always*), where higher scores indicate a greater experience of multiracial risk. This has been adjusted from the subscale's original participant response format, which combined frequency and stressfulness (e.g., this happened to me and I was extremely upset by it). This has been altered because it may confound the frequency of an experience with the stressfulness of an experience (Yoo, Steger, & Lee, 2010). The new response format was adjusted to match that of the MEM risk factors. The Lack of Family Acceptance subscale has demonstrated strong internal consistency ($\alpha = .82$; Salahuddin & O'Brien 2011).

Multiracial Resilience. Similar to multiracial risk factors, multiracial resilient factors were measured using subscales from the two measures of multiracial experiences: MEM and the MCRS. It is important to note that the MEM resilience subscales were measured in frequency of behavior (e.g., never and always), and the MCRS resilience subscale measures attitude (e.g., agree and disagree).

Multiracial resilient factors, including Shifting Expressions (S-Express), Creating Third Space (T-Space), and Multiracial Pride (M-Pride), were measured using subscales from the same two multiracial measures for the risk factors, 1) the MEM (Yoo et al., 2016) and the MCRS (Salahuddin & O'Brien 2011). S-Express and T-Space were measured using subscales from the MEM (Yoo et al., 2016). Using the same prompt, "Due to my multiracial background…" The S-Express subscale contains items such as "I change the way that I racially describe myself to other people" and "I shift how I racially express my identity around certain people (e.g., talk and dress)." The T-Space subscale contains items such as: "I connect to other multiracial individuals through the internet (e.g., Facebook and Myspace)" and "I am active in multiracial organizations or groups."

Participants respond using a 5-point Likert-type scale ranging from 1 (*almost never*) to 5 (*almost always*), where higher scores indicate a greater experience of multiracial resilience. Both the S-Express and T-Space subscales have demonstrated strong internal consistency (α = .87 and .81; Yoo et al., 2016).

M-Pride was measured using the subscale of the MCRS (Salahuddin, & O'Brien, 2011). This subscale includes items such as: "I love being multiracial" and "I wish I was NOT multiracial (reverse-scored)." The subscale was prompted with, "Based on your experience as a multiracial person, please indicate how strongly you agree or disagree with each of the following statements." Participants responded using a 6-point Likert-type scale ranging from 1 (*strongly disagree*) to 6 (*strongly agree*), where higher scores indicate greater feelings of multiracial pride. The M-Pride subscale has demonstrated adequate internal consistency (α = .80) and has been linked positively to related constructs: self-esteem (*r* = .22), social connectedness (*r* = .35), and ethnic identity (*r* = .40; Salahuddin, & O'Brien, 2011).

Psychological Adjustment. In the present study, psychological adjustment was measured using multiple outcomes including satisfaction with life, social connectedness, and distress symptoms (i.e., affective distress, somatic distress, and performance difficulty).

Overall satisfaction with life was measured using the Satisfaction with Life Scale (SwLS; Diener, Emmons, Larsen, & Griffin, 1985). The SwLS is a 5-item measure designed to assess global life satisfaction; defined as overall subjective quality of life. Responses are indicated using a Likert-type scale ranging from 1 (strongly disagree) to 7 (strongly agree), where a higher score indicates higher satisfaction with life. Items

include: “I am satisfied with my life.” and, “If I could live my life over, I would change almost nothing.” The SwLS has demonstrated strong psychometric properties (α = .87; Diener, Emmons, Larsen, & Griffin, 1985), including for multiracial populations (α = .87; Smith, 2014).

Social connectedness was measured using the Social Connectedness Scale (SCS; Lee, & Robbins, 1995). This 8-item instrument is designed to measure the general emotional distance between the self and others (e.g., close friends, peers, or family). Participants respond using a 6-point Likert scale ranging from 1 (*strongly disagree)* to 6 (*strongly agree*) to items such as: “I don’t feel related to anyone” and “Even among my friends, there is no sense of brother/sisterhood”. All items are negatively worded, thus, lower scores indicate a greater level of social connectedness. The SCS has demonstrated strong psychometric properties (α = .91; Lee & Robbins, 1995) including with multiracial populations (α = .93; Salahuddin & O’Brien, 2011).

Distress symptoms was measured using the Hopkins Symptom Checklist-21 (HSCL-21; Green, Walkey, McCormick, & Taylor, 1988). This 21-item measure is made up of three, seven-item subscales: Affective Distress, Somatic Distress, and Performance Difficulty. Items for each subscale include: “feeling blue”, “soreness of your muscles”, and “trouble concentrating” respectively. Participants to the prompt “over the past month” using a 4-point Likert scale ranging from 1 (*not at all*) to 4 (*extremely*), with higher scores indicating greater levels of distress. These scores will be analyzed as a sum score. The HSCL-21 has demonstrated good internal consistency with alphas for the subscales .91, .88, and .83, and .77 for the full scale (Morgan, Ness, & Robinson, 2003). The HSCL-21 has correlated significantly with other measures of distress (Green,

Walkey, McCormick, & Taylor, 1988) and been used with racial minority populations (Morgan, Ness, & Robinson, 2003; Su, Lee, & Vang, 2005; Yoo, Miller, & Yip, 2015).

CHAPTER 3

RESULTS

Preliminary Analyses

Table 1 presents the mean scores, standard deviations, correlations and reliability estimates for all variables of interest for the current study. All scales exhibited acceptable internal consistency ($\alpha s \geq .78$). First, means, standard deviations, skewness, kurtosis, and internal consistency of main continuous variables in the study were examined. Correlations, ANOVAs, and t-tests were used to investigate whether any criterion variables (i.e., satisfaction with life, social connectedness, and distress symptoms) tended to vary as a function of any demographic variables (i.e., age, gender, generational status in the U.S., current U.S. region, socio-economic status, and online survey source). The significance of any covarying demographic variables were analyzed at the 5% alpha level. Age was found to significantly correlate with social connectedness ($r = .26$, $p < .05$) as well as distress symptoms ($r = -.30$, $p < .05$). Similarly, a t-test revealed that there was a significant difference in distress symptoms for participants surveyed through Amazon Mechanical Turk ($M = 2.03$, $SD = .81$) compared to those surveyed through Qualtrics ($M = 1.79$, $SD = .49$); $t(139) = -2.15$, $p < .05$. Finally, two ANOVAs revealed that participants varied in their reported social connectedness based on generational status (i.e., foreign born, first generation, second generation, third generation, or other; $F(1, 151) = 5.36$, $p < .05$) as well as their satisfaction with life based on U.S. region (i.e., West, Midwest, South, and Northeast; $F(1, 147) = 2.68$, $p < .05$). Thus age, online survey source (i.e., platform), generational status (i.e., foreign born, first generation, second generation, third generation, or other), and U.S. region (i.e., West, Midwest, South, and

Northeast) were controlled in the main moderation analysis. Because generational status and U.S. region were categorical variables with more than two groups, one dichotomous variable was created for each group (e.g., 0 = does not live in the West region and 1 = lives in the West region) and entered into the regression model (Draper & Smith, 2014).

Next, I examined the main variables for the assumptions of normality, linearity, multicollinearity, and homoscedasticity for a regression analysis. I tested for normality by examining outliers, skewness, and kurtosis. This examination of the descriptive statistics indicated that there were no outliers (e.g., no standard Z scores between -3.29 and 3.29; Tabachnick & Fidell, 2007) as well as satisfactory skewness and kurtosis scores (between -1 and 1; Tabachnick & Fidell, 2007). Results from simple regression analyses between the main variables (M-Disc, P-Ambig, L-Family, S-Express, T-Space, and M-Pride) and the outcome variables (satisfaction with life, social connectedness, and distress symptoms) and an examination of the scatterplots of residual scores indicated a satisfaction of the assumption of linearity. Next, multicollinearity was examined by ensuring the tolerance and variance inflation factor (VIF) scores met regression analysis standards (tolerance > .02, VIF < 10; Tabachnick & Fidell, 2007). Finally, the assumption of homoscedasticity was determined to be satisfactory by ensuring that the scatterplot of the independent variables' residual scores fall randomly at all levels of the independent variable between 3 and -3 on the scatterplot (Tabachnick & Fidell, 2007).

Missing data. I examined missing data first by analyzing the main variables for missingness. All main variables indicated an acceptable level of missingness (i.e., ≤ 5%) except the full HSCL-21 (7.7%). Given that the HSCL-21 total scale missingness was a combination of acceptable subscale levels of missingness (affective distress 1.3%,

somatic distress 5%, and performance difficulty 1.9%) I elected to preserve the data. Next, I conducted Little's missing completely at random (MCAR) test in SPSS. After creating a new variable where 1 = missing item and 0 = full item, the results indicated that the data were in fact missing completely at random.

Moderation Analysis

I conducted three hierarchical regression analyses following the procedure of Aiken and West's (1991) to investigate the hypothesis that the resilient factors (i.e., S-Express, T-Space, and M-Pride) will moderate the association between multiracial risk factors (i.e., M-Disc, P-Ambig, and L-Family) and psychological adjustment (i.e., satisfaction with life, social connectedness, and distress symptoms). I first standardized the covariates, predictor, and moderating variables that were continuous – a step which reduces multicollinearity (Aiken & West, 1991; Frazier, Tix, & Barron, 2004). Then, I computed the interaction terms for the moderation variables. Given the high intercorrelation of the predictor variables (M-Disc, P-Ambig, and L-Family; see Table 1) the regression models were split by predictor variable. This approach reduces Type I error inflation and requires nine separate models – each of the three predictor variables by each of the three dependent variables.

In Step 1, I entered significant demographic variables (i.e., age, platform, generational status, and current U.S. region) as covariates into the regression models. In Step 2, I entered the standardized predictor variable (e.g., M-Disc) and each standardized moderating variable (i.e., S-Express, T-Space, and M-Pride) to test for the unique main effects above and beyond the covariates. In Step 3, I entered the combinations of two-way interactions (e.g., M-Disc × S-Express, M-Disc × T-Space, and M-Disc × M-Pride)

to test for moderation effect. This process was repeated for each predictor variable (i.e., M-Disc, P-Ambig, and L-Family) and for each outcome variable (i.e., satisfaction with life, social connectedness, and distress symptoms). Next, I plotted the regression slopes of significant two-way interactions with predicted values for high (+1 SD) and low (-1 SD) multiracial resilient factors on multiracial risk factors. To determine if the regression slopes differ from zero, I used a simple slope analysis with simultaneous multiple regression (Aiken & West, 1991).

M-Disc × Resilient Factors

Satisfaction with life. In Step 1, neither age (β = .08, *t* = .91, *p* = .37), platform (β = -.07, *t* = -.76, *p* = .45), generational status (foreign born (β = .05, *t* = .56, *p* = .58), first generation (β = .07, *t* = .77, *p* = .44), second generation (β = .04, *t* = .38, *p* = .71), third generation (β = .01, *t* = -.01, *p* = .99), other (β = -.04, *t* = -.43, *p* = .67)), nor U.S. region (North (β = .61, *t* = 1.63, *p* = .11), Midwest (β = .50, *t* = 1.62, *p* = .11), South (β = .25, *t* = .87, *p* = .38), Northeast (β = .36, *t* = 1.32, *p* = 1.90)) were statistically significant at the 5% alpha level (R^2 = .07), *F*(11, 132) = .95, *p* = .50 (see Table 2). In Step 2, Contrary to hypothesis one, M-Disc (β = -.17, *t* = -1.52, *p* = .13) did not have a significant main effect on satisfaction with life. As theoretically anticipated M-Pride (β = .27, *t* = 2.82, *p* = .01) had a statistically significant main effect on satisfaction with life; however, S-Express (β = .01, *t* = .02, *p* = .98) and T-Space (β = -.27, *t* = -.24, *p* = .81) did not have statistically significant main effects (R^2 = .17; ΔR^2 = .09), *F*(15, 128) = 1.72, *p* = .06.

In Step 3, as hypothesized, the unique two-way interaction of M-Disc × T-Space (β = .24, *t* = 2.45, *p* = .02). This interaction uniquely predicted 3.8% of the variance in

satisfaction with life above and beyond the other covariates, predicting variables and two-way interaction combinations. A simple slope analysis for this interaction at the ± 1 SD level indicated that for those reporting low T-Space, M-Disc was negatively associated with satisfaction with life (β = -.43, t = -3.06, p = .01, while for those reporting high T-Space, M-Disc was not associated with satisfaction with life (β = -.07, t = -.56, p = .58; R^2 = .14, F(14, 151) = 1.63, p = .08; see Figure 2). These results suggest that T-Space may buffer the association between M-Disc and satisfaction with life. Contrary to the hypothesis though, the other two-way interactions, M-Disc × S-Express (β = -.16, t = -1.58, p = .12) and M-Disc × M-Pride (β = .01, t = .01, p = .99), were not statistically significant at the 5% alpha level (R^2 = .21; ΔR^2 = .04), F(18, 125) = 1.81, p = .03 (see Table 2).

Social connectedness. In Step 1, age (β = .27, t = 3.24, p = .01) and one generational status group (third generation (β = .21, t = 2.25, p = .03)) were statistically significant at the 5% alpha level, while platform (β = -.12, t = -1.23, p = .22), the other generational status groups (foreign born (β = -.01, t = -.15, p = .88), first generation (β = -.09, t = -1.02, p = .31), second generation (β = .01, t = .12, p = .91), other (β = -.01, t = -.06, p = .96)) and U.S. region (West (β = .04, t = .10, p = .92), Midwest (β = -.02, t = -.09, p = .93), South (β = .02, t = .06, p = .95), Northeast (β = -.11, t = -.43, p = .67)) were not significant (R^2 = .17), F(11, 130) = 2.40, p = .01 (see Table 2). In Step 2, as hypothesized, M-Disc (β = -.46, t = -5.16, p = .01) had a significant main effect on social connectedness. Further, as theoretically anticipated M-Pride (β = .19, t = 2.55, p = .01) had a statistically significant main effect on satisfaction with life; however, S-Express (β

= -.10, t = -1.10, p = .27) and T-Space (β = -.01, t = -.11, p = .91) did not have statistically significant main effects (R^2 = .45; ΔR^2 = .33), F(8, 131) = 13.29, p = .01.

In Step 3, Contrary to my hypothesis, none of the unique two-way interactions were significant at the 5% alpha level for social connectedness: M-Disc × S-Express (β = .01, t = .03, p = .97), M-Disc × T-Space (β = -.04, t = -.54, p = .59), nor M-Disc × M-Pride (β = -.04, t = -.50, p = .62); (R^2 = .46; ΔR^2 = .30), F(15, 126) = 7.27, p = .01 (see Table 2).

Distress symptoms. In Step 1, age (β = .27, t = 3.24, p = .01) and one generational status group (third generation (β = .21, t = 2.25, p = .03)) were statistically significant at the 5% alpha level, while platform (β = -.12, t = -1.23, p = .22), the other generational status groups (foreign born (β = -.01, t = -.15, p = .88), first generation (β = -.09, t = -1.02, p = .31), second generation (β = .01, t = .12, p = .91), other (β = -.01, t = -.06, p = .96)) and U.S. region (West (β = .04, t = .10, p = .92), Midwest (β = -.02, t = -.09, p = .93), South (β = .02, t = .06, p = .95), Northeast (β = -.11, t = -.43, p = .67)) were not significant (R^2 = .17), F(11, 130) = 2.40, p = .01 (see Table 2). In Step 2, as hypothesized, M-Disc (β = -.46, t = -5.16, p = .01) had a significant main effect on distress symptoms. Further, as theoretically anticipated M-Pride (β = .19, t = 2.55, p = .01) had a statistically significant main effect on distress symptoms. Neither S-Express (β = -.10, t = -1.10, p = .27) nor T-Space (β = -.01, t = -.11, p = .91) had a statistically significant main effect (R^2 = .46; ΔR^2 = .30), F(15, 126) = 7.27, p = .01.

In Step 3, Contrary to my hypothesis, none of the unique two-way interactions were significant at the 5% alpha level for social connectedness: M-Disc × S-Express (β = .01, t = .03, p = .97), M-Disc × T-Space (β = -.04, t = -.54, p = .59), nor M-Disc × M-

Pride (β = -.04, t = -.50, p = .62); (R^2 = .47; ΔR^2 = .003), F(18, 123) = 5.98, p = .01 (see Table 2).

P-Ambig × Resilient Factors

Satisfaction with Life. In Step 1, neither age (β = .08, t = .92, p = .36), platform (β = -.03, t = -.25, p = .80), generational status (foreign born (β = .05, t = .57, p = .57), first generation (β = .07, t = .77, p = .44), second generation (β = .04, t = .39, p = .70), third generation (β = .02, t = .16, p = .87), other (β = -.04, t = -.43, p = .67)), nor U.S. region (North (β = .61, t = 1.64, p = .10), Midwest (β = .49, t = 1.61, p = .11), South (β = .25, t = .87, p = .39), Northeast (β = .35, t = 1.32, p = .19) were statistically significant at the 5% alpha level (R^2 = .07), F(11, 133) = .97, p = .48 (see Table 3). In Step 2, contrary to hypothesis one, P-Ambig (β = -.19, t = -1.90, p = .06) did not have a significant main effect on satisfaction with life. As theoretically anticipated M-Pride (β = .35, t = 3.72, p = .01) had a statistically significant main effect on satisfaction with life, while S-Express (β = -.05, t = -.49, p = .63) and T-Space (β = -.02, t = -.17, p = .87) did not (R^2 = .18; ΔR^2 = .11), F(15, 129) = 1.89, p = .03.

In Step 3, Contrary to my hypothesis, none of the unique two-way interactions were significant at the 5% alpha level for satisfaction with life: P-Ambig × S-Express (β = .19, t = 1.89, p = .06), P-Ambig × T-Space (β = -.17, t = -1.73, p = .09), nor P-Ambig × M-Pride (β = .05, t = .52, p = .61), (R^2 = .21; ΔR^2 = .03), F(18, 126) = 1.87, p =.02 (see Table 3).

Social Connectedness. In Step 1, age (β = .27, t = 3.25, p = .01) and one generational status group (third generation (β = .21, t = 2.25, p = .03)) were statistically significant at the 5% alpha level, while platform (β = -.12, t = -1.23, p = .22), the other

generational status groups (foreign born (β = -.01, *t* = -.16, *p* = .88), first generation (β = -.09, *t* = -1.02, *p* = .31), second generation (β = .01, *t* = .12, *p* = .91), other (β = -.01, *t* = -.06, *p* = .96)) and U.S. region (West (β = .04, *t* = .10, *p* = .92), Midwest (β = -.02, *t* = -.08, *p* = .93), South (β = .02, *t* = .06, *p* = .95), Northeast (β = -.11, *t* = -.43, *p* = .67)) were not significant (R^2 = .17), *F*(11, 131) = 2.42, *p* = .01 (see Table 3). In Step 2, as hypothesized, P-Ambig (β = -.17, *t* = -2.05, *p* = .04) had a significant main effect on social connectedness. Further, as theoretically anticipated M-Pride (β = .32, *t* = 3.86, *p* = .01) had a statistically significant main effect on social connectedness. Contrary to my expectations, S-Express (β = -.27, *t* = -3.07, *p* = .01) revealed a negative main effect with social connectedness, while T-Space (β = -.13, *t* = -1.33, *p* = .19) did not have a statistically significant main effect (R^2 = .36; ΔR^2 = .19), *F*(15, 127) = 4.84, *p* = .01.

In Step 3, as hypothesized, the unique two-way interaction of P-Ambig × T-Space (β = -.17, *t* = -2.04, *p* = .04) was shown to be significant at the 5% alpha level. This interaction uniquely predicted 2.1% of the variance in social connectedness above and beyond the other covariates, predicting variables and two-way interaction combinations. A simple slope analysis for this interaction at the ± 1 SD level indicated that for those reporting low T-Space, P-Ambig was not associated with social connectedness (β = .00, *t* = .01, *p* = .99), while for those reporting high T-Space, P-Ambig was negatively associated with social connectedness (β = -.34, *t* = -2.75, *p* = .01; R^2 = .29, *F*(14, 135) = 4.02, *p* = .01; see Figure 4). Contrary to the hypothesis though, the other two-way interactions, P-Ambig × S-Express (β = .03, *t* = .30, *p* = .77) and P-Ambig × M-Pride (β = -.01, *t* = -.14, *p* = .89), were not statistically significant at the 5% alpha level (R^2 = .39; ΔR^2 = .03), *F*(9, 133) = 8.37, *p* = .01 (see Table 3).

Distress Symptoms. In Step 1, age (β = -.32, *t* = -3.76, *p* = .01), platform (β = .21, *t* = 2.14, *p* = .03), and one generational status group (third generation (β = -.19, *t* = -2.04, *p* = .04)) were statistically significant at the 5% alpha level, while the other generational status groups (foreign born (β = -.02, *t* = -.20, *p* = .84), first generation (β = -.00, *t* = -.04, *p* = .97), second generation (β = -.03, *t* = -.30, *p* = .77), other (β = .04, *t* = .50, *p* = .62)) and U.S. region (West (β = -.20, *t* = -.58, *p* = .56), Midwest (β = -.17, *t* = -.58, *p* = .56), South (β = -.28, *t* = -1.09, *p* = .28), Northeast (β = -.04, *t* = -.15, *p* = .88)) were not significant (R^2 = .20), *F*(11, 123) = 2.83, *p* = .01 (see Table 3). In Step 2, as hypothesized, P-Ambig (β = .19, *t* = 2.15, *p* = .03) had a significant main effect on distress symptoms. Further, as theoretically anticipated M-Pride (β = -.26, *t* = -3.24, *p* = .01) had a statistically significant main effect on distress symptoms. Contrary to my expectations, S-Express (β = .35, *t* = 4.01, *p* = .01) revealed a positive main effect with distress symptoms, while T-Space (β = .09, *t* = .94, *p* = .35) did not have a statistically significant main effect (R^2 = .42; ΔR^2 = .22), *F*(15, 119) = 5.70, *p* = .01.

In Step 3, as hypothesized, the unique two-way interaction of P-Ambig × T-Space (β = .18, *t* = 2.06, *p* = .04) on distress symptoms was shown to be significant at the 5% alpha level. This interaction uniquely predicted 2% of the variance in social connectedness above and beyond the other covariates, predicting variables and two-way interaction combinations. A simple slope analysis for this interaction at the ± 1 SD level indicated that for those reporting low T-Space, P-Ambig was not associated with distress symptoms (β = .08, *t* = .83, *p* = .41), while for those reporting high T-Space, P-Ambig was positively associated with distress symptoms (β = .63, *t* = 6.00, *p* = .01; R^2 = .45, *F*(14, 123) = 7.07, *p* = .01; see Figure 6). Contrary to the hypothesis though, the other

two-way interactions, P-Ambig × S-Express (β = -.05, *t* = -.55, *p* = .58) and P-Ambig × M-Pride (β = -.14, *t* = -1.75, *p* = .08), were not statistically significant at the 5% alpha level; (R^2 = .45; ΔR^2 = .03), *F*(18, 116) = 5.22, *p* = .01 (see Table 3).

L-Family × Resilient Factors

Satisfaction with Life. In Step 1, three U.S. regions (West (β = 1.28, *t* = 2.46, *p* = .02), Midwest (β = 1.08, *t* = 2.47, *p* = .02), and Northeast (β = .85, *t* = 2.34, *p* = .02)) were statistically significant at the 5% alpha level while age (β = .12, *t* = 1.31, *p* = .19), platform (β = -.10, *t* = -.92, *p* = .36), generational status (foreign born (β = .01, *t* = .13, *p* = .89), first generation (β = .11, *t* = 1.11, *p* = .27), second generation (β = .14, *t* = 1.44, *p* = .15), third generation (β = .03, *t* = .32, *p* = .75), and other (β = -.05, *t* = -.57, *p* = .57)), and the South U.S. region (β = .75, *t* = 1.92, *p* = .06) were not significant; (R^2 = .11), *F*(11, 129) = 1.40, *p* = .18 (see Table 4). In Step 2, contrary to hypothesis one, L-Family (β = .10, *t* = .98, *p* = .33) did not have a significant main effect on satisfaction with life. As theoretically anticipated M-Pride (β = .35, *t* = 3.66, *p* = .01) had a statistically significant main effect on satisfaction with life. Moreover, S-Express (β = -.13, *t* = -1.20, *p* = .23) and T-Space (β = -.09, *t* = -.80, *p* = .43) did not have a statistically significant main effect (R^2 = .20; ΔR^2 = .09), *F*(15, 125) = 2.10, *p* = .01.

In Step 3, as hypothesized, the unique two-way interaction of L-Family × T-Space (β = .20, *t* = 2.17, *p* = .03) was shown to be significant at the 5% alpha level. This interaction uniquely predicted 2.9% of the variance in satisfaction with life above and beyond the other covariates, predicting variables and two-way interaction combinations. A simple slope analysis for the interaction at the ± 1 SD level indicated that for those reporting low T-Space, L-Family was negatively associated with satisfaction with life (β

= -.25, t = -1.72, p = .05), while for those reporting high T-Space, L-Family was not associated with satisfaction with life (β = .04, t = .33, p = .74; R^2 = .12, F(14, 134) = 1.35, p = .19; see Figure 3). Contrary to the hypothesis though, the other two-way interactions, L-Family × S-Express (β = -.11, t = -1.17, p = .25) and L-Family × M-Pride (β = -.05, t = -.61, p = .54), were not statistically significant at the 5% alpha level (R^2 = .23; ΔR^2 = .03), F(18, 122) = 2.06, p = .01 (see Table 4).

Social Connectedness. In Step 1, age (β = .29, t = 3.42, p = .01) and one generational status group (third generation (β = .21, t = 2.27, p = .03)) were statistically significant at the 5% alpha level, while platform (β = -.16, t = -1.60, p = .11), the other generational status groups (foreign born (β = -.01, t = -.06, p = .96), first generation (β = -.11, t = -1.19, p = .24), second generation (β = .07, t = .80, p = .43), other (β = -.02, t = -.17, p = .86)), and U.S. region (West (β = -.02, t = -.04, p = .97), Midwest (β = -.08, t = -.19, p = .85), South (β = -.01, t = -.02, p = .98), and Northeast (β = -.08, t = -.24, p = .81)) were not significant (R^2 = .19), F(11, 127) = 2.73, p = .01 (see Table 4). In Step 2, as hypothesized, L-Family (β = -.25, t = -2.74, p = .01) had a significant main effect on social connectedness. Further, as theoretically anticipated M-Pride (β = .23, t = 2.87, p = .01) had a statistically significant main effect on social connectedness. Contrary to my expectations, S-Express (β = -.20, t = -2.24, p = .03) revealed a negative main effect with social connectedness, while T-Space (β = -.09, t = -.98, p = .33) did not have a statistically significant main effect (R^2 = .41; ΔR^2 = .22), F(15, 123) = 5.68, p = 01.

In Step 3, as hypothesized, the unique two-way interaction of L-Family × T-Space (β = -.17, t = -2.15, p = .03) was shown to be significant at the 5% alpha level. This interaction uniquely predicted 2.2% of the variance in social connectedness above and

beyond the other covariates, predicting variables and two-way interaction combinations. A simple slope analysis for this interaction at the ± 1 SD level indicated that for those reporting low T-Space, L-Family was not associated with social connectedness (β = -.14, t = -1.10, p = .27), while for those reporting high T-Space, L-Family was negatively associated with social connectedness (β = -.54, t = -5.15, p = .01; R^2 = .42, F(14, 131) = 6.68, p = .01; see Figure 5). Contrary to the hypothesis though, the other two-way interactions, L-Family × S-Express (β = .01, t = .10, p = .92) and L-Family × M-Pride (β = -.08, t = -1.10, p = .27), were not statistically significant at the 5% alpha level (R^2 = .44; ΔR^2 = .03), F(18, 120) = 5.23, p = .01 (see Table 4).

Distress Symptoms. In Step 1, age (β = -.33, t = -3.80, p = .01), platform (β = .23, t = 2.26, p = .03), and one generational status group (third generation (β = -.19, t = -2.04, p = .04)) were statistically significant at the 5% alpha level, while the other generational status groups (foreign born (β = -.03, t = -.37, p = .71), first generation (β = .02, t = .18, p = .86), second generation (β = -.06, t = -.70, p = .49), other (β = .05, t = .54, p = .59)) and U.S. region (West (β = -.09, t = -.17, p = .86), Midwest (β = -.05, t = -.13, p = .90), South (β = -.19, t = -.52, p = .60), Northeast (β = .01, t = .02, p = .99)) were not significant (R^2 = .20), F(11, 120) = 2.80, p = .01 (see Table 4). In Step 2, as hypothesized, L-Family (β = .30, t = 3.22, p = .01) had a significant main effect on distress symptoms. Further, as theoretically anticipated M-Pride (β = -.16, t = -2.05, p = .04) had a statistically significant main effect on distress symptoms. Contrary to my expectations, S-Express (β = .29, t = 3.11, p = .01) revealed a positive main effect with distress symptoms, while T-Space (β = .05, t = .56, p = .57) did not have a statistically significant main effect (R^2 = .45; ΔR^2 = .25), F(15, 116) = 6.43, p = .01.

In Step 3, as hypothesized, the unique two-way interaction of L-Family × T-Space (β = .19, t = 2.40, p = .02) was shown to be significant at the 5% alpha level. This interaction uniquely predicted 2.5% of the variance in distress symptoms above and beyond the other covariates, predicting variables and two-way interaction combinations. A simple slope analysis for this interaction at the ± 1 SD level indicated that for those reporting low T-Space, L-Family was not associated with distress symptoms (β = .08, t = .66, p = .51), while for those reporting high T-Space, L-Family was positively associated with distress symptoms (β = .63, t = 6.00, p = .01; R^2 = .45, F(14, 123) = 7.07, p = .01; see Figure 7). Contrary to the hypothesis though, the other two-way interactions, L-Family × S-Express (β = .09, t = 1.00, p = .32) and L-Family × M-Pride (β = -.04, t = -.56, p = .58), were not statistically significant at the 5% alpha level (R^2 = .50; ΔR^2 = .05), F(18, 113) = 6.34, p = .01 (see Table 4).

CHAPTER 4

DISCUSSION

As hypothesized, multiracial individuals who perceived higher levels of multiracial risk factors (i.e., multiracial discrimination, perceived racial ambiguity, and lack of family acceptance) generally reported lower levels of psychological adjustment (i.e., lower satisfaction with life, lower social connectedness, and higher distress symptoms). In particular, each multiracial risk factor predicted lower levels of social connectedness and higher levels of distress symptoms. Therefore, multiracial people reporting higher experiences of discrimination based on their multiracial status, being perceived as racially ambiguous, and feeling unaccepted by their family due to their multiracial background tend to feel less socially connected and more symptoms of distress.

These results is consistent with the results of previous multiracial research including both qualitative (see Shih & Sanchez, 2005; Miville et al., 2005; Jackson, 2012) and quantitative (Salahuddin & O'Brien, 2011; Yoo et al., 2016) studies. Curiously though, none of the multiracial risk factors significantly predicted lower levels of satisfaction with life. This lack of association is inconsistent with previous findings (e.g., Smith, 2014). It's been found that socioeconomic status (e.g., education and income) associates positively with measures of psychological well-being including life satisfaction (Kaplan, Shema, & Leite, 2008). It is possible that because the current sample in this study were significantly higher in educational status than the national average, they systematically experience higher levels of satisfaction with life than the general multiracial population. Moreover, it may be that satisfaction with life is a

positive, intra-personal – or within one's self – measure of psychological adjustment, and these multiracial risk factors may better predict negative intra-personal measures of psychological adjustment (e.g., distress symptoms) and interpersonal – or between the self and others – measures of psychological adjustment (e.g., social connectedness).

The results were mixed for the second hypothesis. Although it was anticipated that the previously identified multiracial resilient factors (i.e., shifting expressions, creating third space, and multiracial pride) would moderate (e.g., weaken) the association between the multiracial risk factors (i.e., multiracial discrimination, perceived racial ambiguity, and lack of family acceptance) and psychological adjustment (i.e., lower satisfaction with life, lower social connectedness, and higher distress symptoms), a differential effect for creating third space was found - such that the moderating (e.g., protective or exacerbative) role of specific resilient factors depended on the psychological outcome. Further, no moderating role for either shifting expressions or multiracial pride was found.

Creating Third Space

Creating third space displayed six out of nine statistically significant two-way interaction effects at the 5% alpha level. Of these significant two-way interactions, the results suggest a differential effect of creating third space as a moderating variable – such that it appears to depend on the psychological adjustment outcome whether the moderating role was buffering (e.g., protective) or exacerbating (e.g., worsening). First, two statistically significant two-way interaction were found for satisfaction with life. As hypothesized, these results suggest that creating third space may serve as a buffer (i.e. high creating third space predicts a higher levels of satisfaction with life in the presence

of multiracial discrimination) for encounters with multiracial discrimination on satisfaction with life. These results are consistent with the literature on creating third space (Collins, 2000; Jackson, 2012), which suggest that forming a multiracial-affirmative space serves as a protective factor against discrimination. However, the buffering role of creating third space on multiracial discrimination and psychological adjustment may be limited given that a significant interaction was only found with one of three psychological outcomes. Similarly, results suggest creating third space also buffers the link between lack of family acceptance and satisfaction with life. Specifically, multiracial individuals who seek multiracial-affirming environments in response to feeling unaccepted by their family based on their multiracial status experience higher levels of overall life satisfaction. This is consistent with the literature on creating third space (Rockquemore, 1998; Collins, 2000; Jackson, 2012), which suggest that active engagement with multiracial-supportive settings is a positive and validating experience. Further results suggest, though, that creating third space may also yield costs to psychological adjustment.

Second, inconsistent with the hypothesis, results suggest creating third space worsens the effects of perceived racial ambiguity and lack of family acceptance on social connectedness for multiracial adults. In other words, in the presence of being perceived as racially ambiguous (e.g., being asked “where are you from?” or “what are you?”) and feeling unaccepted by one’s family (e.g., making jokes about multiracial people or favoritism toward monoracial family members), multiracial individuals who actively engage in a multiracial-affirmative environment tend to feel less socially connected. These findings are inconsistent with the literature (Rockquemore, 1998; Collins, 2000;

Jackson, 2012) which indicate that creating third space is a relieving and validating experience in the presence of discrimination. One possible explanation for the inconsistent findings is that exploring multiracial affirmative environments may reinforce messages of social exclusion or "other-ness" from being perceived as racially ambiguous or estrangement from the family. Another possible explanation is that consequence of creating third space depends on the method of creating third space. For example, creating third space may support social connectedness when building a network of multiracial-affirming friends, but exacerbate for social connectedness to read literature or social media in solitude. The exacerbative role of creating third space was also revealed with symptoms of distress.

Third, inconsistent with the hypothesis, results suggest that creating third space also worsens the effects of perceived racial ambiguity and lack of family acceptance on distress symptoms for multiracial adults. More precisely, multiracial individuals who seek multiracial-affirming environments in response to being perceived as racially ambiguous and feeling unaccepted by their family based on their multiracial status experience higher symptoms of distress. This is inconsistent with the literature where respondents reliably report finding and engaging with a multiracial-affirming environment to be a relieving resilient behavior (Collins, 2000; Jackson, 2012). For example, Binning and colleagues (2009) found that with 182 multiracial high school students in Southern California creating third space was positively associated with psychological well-being, social connectedness, and social engagement and negatively associated with stress. One possible explanation could be that creating third space is useful when experiences of lack of acceptance originate from distal interpersonal

interactions (e.g., colleagues or strangers), but is harmful when the lack of acceptance comes from proximal interpersonal interactions (e.g., family or close friends). Another possible explanation is that creating third space may be beneficial in more multiracial-dense areas (see Binning et al., 2009), while the current sample reported on average a 3.5% multiracial population in their current zip code.

Overall, these results suggest that actively engaging in a multiracial-affirmative environments in response to experiences of prejudice and unacceptance based on one's multiracial status has costs and benefits as it pertains to psychological adjustment. Specifically, these results suggest that creating third space as a resilient factor may bolster positive intra-personal qualities – for example protecting one's overall life satisfaction in the presence of discrimination and not being acceptable by family. This, though, may come at the cost of interpersonal adjustment (i.e., feelings of social connectedness) and negative intra-personal qualities (i.e., symptoms of distress). More specifically to the present study, actively engaging in a multiracial-affirmative environment in response to being exoticized, being seen as an "other", or objectified (i.e., perceived racial ambiguity) also intensifies the feelings of social disconnection as well as distress.

Shifting Expressions

Contrary to the hypothesis, shifting expressions did not moderate any of the multiracial risk factors on psychological adjustment outcomes. This conflicts with the literature which illustrates multiracial people utilizing shifting expressions to avoid or defuse experiences of prejudice (Miville et al., 2005; Khanna & Johnston, 2010; Jackson et al., 2013). It may be that shifting expression is not enough to combat multiracial risk

factors alone. For example, Sanchez, Shih and Garcia (2009) demonstrated that the positive or negative role of shifting expressions depends on one's level of dialectical self-views – or ability to view the self in different ways. Another possibility is that shifting racial expression may buffer the risk factors in the current study, but on different outcomes related to psychological health such as self-esteem. For instance, studies have demonstrated that multiracial individuals viewed their multiple racial identities as an important psychological asset as it pertains to fitting in and building relationships (Roberts-Clarke, et al., 2004). Shifting racial expressions therefore, may help frame their multiracial status as a strength when encountering questions of perceived racial ambiguity, and thus increase their self-esteem.

Multiracial Pride

Inconsistent with the hypothesis, multiracial pride did not moderate any of the multiracial risk factors on psychological adjustment outcomes. This appears to conflict with the literature that has shown the feelings of pride in multiple racial backgrounds can help in building strong relationships, overcoming discrimination, and is commonly viewed as advantageous (Cheng & Lee, 2009; Roberts-Clarke, Roberts, & Morokoff, 2004). While previous research has outlined the ameliorative influence of multiracial feelings of pride (Salahuddin & O'Brien, 2011) it may be that the feeling pride in one's multiracial status is not enough for coping with multiracial discrimination, perceived racial ambiguity, and lack of family acceptance. Another possibility is that multiracial pride may be important in coping with other risk factors such as others' surprise or disbelief of racial ancestry or disconnection from family and friends (Salahuddin & O'Brien, 2011). Though the research on pride is sparse with multiracial individuals, the

literature regarding racial and ethnic pride among monoracial individuals has demonstrated extensive positive outcomes (see Phinney, 1990; Smith & Silva, 2011), including lower negative affect (Yoo & Lee, 2008), self-esteem (Chang, Han, Lee, & Qin, 2015), and depression (Jones & Galliher, 2007; Lee, 2005).

Limitations

It is important to acknowledge the potential limitations of the current study. First, the relatively small sample size of the current study may have limited the findings. A post hoc power analysis was conducted using the free online calculator (GPower; Faul, Erdfelder, Lang, & Buchner, 2007). Sample sizes ranging from 131 to 143 were used for the statistical power analyses with 18 predictor variables (i.e., 11 covariates, 4 main effects, and 3 interaction effects per model). Following the Cohen (1992) conventions for small (f^2 = .02), medium (f^2 = .15), and large (f^2 = .35) effect sizes at a 5% alpha level, the power analyses indicated a range of power from (.22) to (.45). These scores fall below the recommended power of .80.

Additionally, the sample of the current study was primarily White multiracial individuals (75%), which may limit the generalizability of the results. The exclusion of minority-minority multiracial people has been noted as a research bias in the study of multiracial individuals (Rondilla, Guevarra & Spickard, 2017), and may also limit the nuanced results that are unique to minority-minority multiracial individuals. People of minority-minority multiracial status often have darker skin tones (Hunter, 2007) and thus, may experience different treatment in society. Likewise, the sample of this study reported relatively high socio-economic status for education (i.e., 56% undergraduate degree or higher) and low for income (*Med* = $20k to $39k) as compared to the national average

(33% undergraduate degree or higher; *Med* = $55K; U.S. Census Bureau, 2016; U.S. Census Bureau, 2018). Although in the current study, socio-economic status did not correlate with outcome measures, higher education can be related to other variables (e.g., career opportunity and social mobility; Kaplan, Shema, & Leite, 2008) which may not generalize to multiracial people in lower socio-economic positions, and may systematically effect their experiences of psychological adjustment.

Finally, the cross-sectional nature of this studies design limits the ability to make causal claims. Although the interpretations of the current study suggest that there is a moderating effect of multiracial resilience factors on experiences of multiracial risk factors and psychological adjustment, longitudinal data and experimental designs are required to claim this causal hypothesis. Despite its limitations, this study may provide a substantive foundation for future researchers.

Future Directions

Scholars aiming to expand on this line of research may consider including additional or alternative variables within the ecological framework to bolster our understanding of multiraciality in the US. For example, scholars may differentiate between subtle and blatant experiences of racism, the role of the origin of perceived discrimination (e.g., difference from family, friends, or strangers), or different applications of coping strategies (e.g., reflective coping, suppressive coping, or reactive coping). This may help to parse the differential effects of creating third space.

Additionally, future research may explore possible three-way interactions that may further delineate the differential effects of multiracial risk and resilience. For example, creating third space may exhibit exacerbative qualities on social connectedness

and distress symptoms for multiracial people who report low levels of multiracial pride, but may reveal buffering qualities for those with high levels of multiracial pride. Previous scholars have begun to explore these three-way interactions on non-validated measures (Sanchez, Shih, & Garcia, 2009), but it is vital to continue to augment the literature on the racialized risk and resilient factors for multiracial individuals. The present study contributes some of the first quantitative risk and resilience analyses to the quantitative literature for multiracial individuals, and the results continue to point out the distinct and nuanced nature of multiracial identity development.

Finally, future researchers may consider examining the role of skin color and perceived phenotype in multiracial individuals' experiences of multiracial risk and utilization of resilient factors. Skin complexion is perhaps the primary feature used to determine racial classification by others (Keith & Monroe, 2016), and has been demonstrated to related with higher experiences of discrimination (e.g., lower wages and education; Espino & Franz 2002; Hill, 2000; Keith & Herring, 1991; Rondilla & Spickard, 2007) and lower ethnic identity (Hughes & Hertel, 1990). Previous research with monoracial individuals has identified group identity typicality – or a person's sense of how prototypical they are with their in-group (Ashmore, Deaux, & McLaughlin-Volpe, 2004) – and colorism – or the differential treatment of an individual due to the "lightness" of their skin tone (Hunter, 2007) – to have substantial intra-personal (e.g., ethnic identity; Santos & Updegraff, 2014) and interpersonal (e.g., perceived as less authentic or more assimilated to American culture; Mason, 2004; Hunter, 2005) consequences. Moreover, Brunsma and Rockquemore (2001) identified sentiments among their biracial (Black-White) respondents (N = 177), that other's perception of their

phenotype was a key factor in their identity development process. Considering the diverse phenotypic appearances of multiracial populations, it is integral to consider this area in future multiracial scholarship.

Clinical Implications

The results of this study may hold value to clinicians working with multiracial populations. Based on these results, clinicians should consider attending to multiracial client's use of engaging in multiracial-affirmative environments as a resilient strategy. Specifically, clinicians can explore specific risk factors (e.g., blatant discrimination, subtle discrimination, or unacceptance from the family system) which may motivate the process of creating third space. If the client has experienced blatant multiracial discrimination or experiences leading them to feel unacceptable to their families, clinicians can recommend multiracial readings or organizations to help bolster their satisfaction with life. It is also important to consider the possible costs of exploring affirmative environments as a strategy to combat discrimination.

If a multiracial client's primary concern is frequently being perceived as racially ambiguous, clinicians should be sensitive to how creating an affirming space as a resilient strategy may exacerbate feelings of social disconnectedness and satisfaction with life. Clinicians may also be particularly thoughtful about experiences of prejudice from within the family system. While finding a multiracial-affirmative environment may yield the intra-personal benefits of overall life satisfaction, it's important to consider that this may come at the expense of intensifing the distress from the feeling of not being accepted by their family, as well as the feelings of social disconnection.

Conclusion

The findings of the present study reiterate the complex and largely context-dependent process of identity development for multiracial individuals. While previous research has uncovered common racialized risk and resilient factors for multiracial people, few studies have quantitatively explored these dynamic processes. The complexity of these processes are illustrated in this study, where the protective or exacerbative qualities of one commonly identified multiracial resilient factors (i.e., creating third space) seemed to vary by psychological adjustment outcome (i.e., satisfaction with life, social connectedness, and distress symptoms). Future research is still needed in this area to further delineate these processes, and to help guide multiracial people and service professionals (e.g., counselors and advisors) in the development of positive identity and well-being.

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Table 1

Scale Means, Standard Deviations, Internal Reliability, and Intercorrelations

Scale	1	2	3	4	5	6	7	8	9
1. M-Disc	-								
2. P-Ambig	.45*	-							
3. L-Family	.73*	.30*	-						
4. S-Express	.58*	.25*	.49*	-					
5. T-Space	.49*	.33*	.49*	.41*	-				
6. M-Pride	-.17*	.25*	-.22	-.03	-.03	-			
7. SwLS	-.19*	-.05	-.01	-.12	-.01	.34*	-		
8. SCS	-.62*	-.19*	-.51*	-.46*	-.31*	.34*	.24*	-	
9. Distress	.56*	.24*	.51*	.51*	.33*	-.28*	-.22*	-.71*	-
M	2.36	3.26	2.26	2.59	2.67	4.46	4.94	4.27	1.89
SD	.87	.91	1.03	.94	.95	.91	1.28	1.34	.68
α	.87	.85	.87	.85	.82	.78	.88	.96	.95

Note. $N = 129$, after listwise deletion. M-Disc = multiracial discrimination; P-Ambig = perceived racial ambiguity; L-Family = lack of family acceptance; S-Express = shifting racial expressions; T-Space = creating third space; M-Pride = multiracial pride; SwLS = Satisfaction with Life Scale; SCS = Social Connectedness Scale; Distress = Hopkins Symptoms Checklist-21 Scale.

*$p < .05$.

Table 2

Testing Multiracial Resilience as a Moderator of Multiracial Discrimination

	Satisfaction with Life				Social Connectedness				Distress Symptoms			
Variable	B	SE B	β	sr^2	B	SE B	β	sr^2	B	SE B	β	sr^2
Constant	3.63	.96			4.72	.82			1.87	.42		
Age	.01	.11	.01	.000	.20	.10	.16	.019	-.12	.05	-.19	.026
Platform	.23	.28	.10	.004	-.05	.24	-.02	.000	.10	.13	.08	.003
West Region	1.13	.87	.47	.011	-.19	.75	-.07	.000	-.17	.38	-.13	.001
Midwest Region	1.23	.88	.41	.012	-.33	.76	-.10	.001	-.18	.39	-.11	.001
South Region	.49	.89	.15	.002	-.39	.77	-.12	.001	-.25	.40	-.14	.002
Northeast Region	.98	.89	.29	.008	-.42	.77	-.12	.001	-.09	.39	-.05	.000
Foreign Born	.12	.36	.03	.001	.00	.32	.00	.000	-.07	.16	-.03	.001
First Generation	.22	.33	.06	.003	-.31	.28	-.08	.005	-.02	.15	-.01	.000
Second Generation	-.05	.38	-.01	.000	-.20	.33	-.05	.002	.03	.17	.01	.000
Third Generation	-.31	.29	-.11	.007	.30	.25	.10	.006	-.09	.13	-.06	.002
Other	-.15	.41	-.03	.001	.14	.35	.03	.001	-.01	.18	-.01	.000

Table 2

Variable	Satisfaction with Life				Social Connectedness				Distress Symptoms			
	B	SE B	β	sr^2	B	SE B	β	sr^2	B	SE B	β	sr^2
Constant	3.63	.96			4.72	.82			1.87	.42		
M-Disc	-.21	.13	-.17	.015	-.57	.12	-.45*	.107	.21	.06	.33*	.056
S-Express	-.02	.14	-.02	.000	-.13	.12	-.10	.005	.15	.06	.24	.030
T-Space	-.06	.13	-.05	.001	-.01	.12	-.01	.000	.02	.06	.03	.000
M-Pride	.33	.12	.27	.052	.26	.10	.20*	.028	-.11	.05	-.16*	.018
M-Disc x S-Express	-.20	.12	-.16	.016	.00	.11	.00	.000	.02	.06	.03	.001
M-Disc x T-Space	.31	.13	.24*	.038	-.06	.11	-.04	.001	.10	.06	.15	.014
M-Disc x M-Pride	.00	.11	.00	.000	-.05	.10	-.04	.001	-.01	.05	-.01	.000

Note. Platform = online survey source; M-Disc = multiracial discrimination; S-Express shifting expressions; T-Space = creating third space; M-Pride = multiracial pride.
* $p < .05$.

Table 3

Testing Multiracial Resilience as a Moderator of Perceived Racial Ambiguity

	Satisfaction with Life				Social Connectedness				Distress Symptoms			
Variable	B	SE B	β	sr^2	B	SE B	β	sr^2	B	SE B	β	sr^2
Constant	4.21	.98			5.02	.91			1.61	.45		
Age	.07	.11	.06	.003	.24	.10	.19	.028	-.13	.05	-.21	.034
Platform	.05	.28	.02	.000	.01	.26	.00	.000	.20	.13	.16	.011
West Region	.75	.89	.31	.004	-.57	.82	-.23	.002	.03	.41	.02	.000
Midwest Region	.78	.90	.26	.005	-.65	.83	-.20	.003	.01	.41	.01	.000
South Region	-.03	.91	-.01	.000	-.71	.84	-.22	.004	-.08	.42	-.04	.000
Northeast Region	.64	.91	.19	.003	-.82	.84	-.23	.005	.09	.41	.05	.000
Foreign Born	.33	.36	.08	.005	-.02	.34	-.00	.000	-.10	.17	.05	.002
First Generation	.36	.33	.10	.007	-.25	.30	-.07	.003	-.05	.16	-.03	.000
Second Generation	.14	.38	.03	.001	-.17	.35	-.04	.001	.04	.18	.02	.000
Third Generation	-.04	.27	-.01	.000	.30	.25	.10	.007	-.12	.13	-.08	.004
Other	-.04	.40	-.01	.000	.22	.37	.05	.002	-.08	.18	.03	.001

Table 3

Variable	Satisfaction with Life				Social Connectedness				Distress Symptoms			
	B	SE B	β	sr^2	B	SE B	β	sr^2	B	SE B	β	sr^2
Constant	4.21	.98			5.02	.91			1.61	.45		
P-Ambig	-.25	.13	-.21	.023	-.25	.12	-.19*	.021	.17	.06	.26*	.037
S-Express	-.05	.13	-.04	.001	-.36	.12	-.28*	.047	.21	.06	.32*	.061
T-Space	.04	.14	.03	.000	-.11	.13	-.08	.004	.03	.06	.04	.001
M-Pride	.46	.12	.37*	.096	.40	.11	.31*	.069	-.19	.05	-.28*	.056
P-Ambig x S-Express	.23	.12	.19	.022	.03	.11	.03	.000	-.03	.06	-.05	.001
P-Ambig x T-Space	-.19	.11	-.17	.019	-.21	.10	-.17*	.021	.10	.05	.18*	.020
P-Ambig x M-Pride	.06	.11	.05	.002	-.01	.10	-.01	.000	-.09	.05	-.14	.015

Note. Platform = online survey source; P-Ambig = perceived racial ambiguity = multiracial discrimination; S-Express shifting expressions; T-Space = creating third space; M-Pride = multiracial pride.
* $p < .05$.

Table 4

Testing Multiracial Resilience as a Moderator of Lack of Family Acceptance

Variable	Satisfaction with Life				Social Connectedness				Distress Symptoms			
	B	SE B	β	sr^2	B	SE B	β	sr^2	B	SE B	β	sr^2
Constant	2.17	1.25			3.68	1.13			2.29	.56		
Age	.08	.11	.07	.003	.24	.10	.19	.028	-.10	.05	-.17	.021
Platform	.17	.27	.07	.002	.13	.225	.05	.001	.04	.13	.03	.000
West Region	2.60	1.23	1.10	.028	.61	1.11	.24	.001	-.53	.55	-.41	.004
Midwest Region	2.72	1.25	.95	.030	.54	1.13	.18	.001	-.56	.56	-.36	.004
South Region	1.89	1.26	.59	.014	.32	1.14	.10	.000	-.57	.57	-.31	.005
Northeast Region	2.57	1.26	.74	.026	.48	1.14	.13	.001	-.47	.57	-.25	.003
Foreign Born	-.04	.37	-.01	.000	.11	.34	.02	.000	-.12	.17	-.05	.002
First Generation	.20	.32	.06	.003	-.27	.29	-.08	.004	-.06	.15	-.03	.001
Second Generation	.34	.39	.08	.005	.18	.35	.04	.001	-.11	.18	-.05	.002
Third Generation	-.13	.27	-.05	.001	.29	.24	.10	.007	-.06	.12	-.04	.001
Other	-.13	.40	-.03	.001	.09	.36	.02	.000	-.04	.18	.02	.000

Table 4

Variable	Satisfaction with Life				Social Connectedness				Distress Symptoms			
	B	SE B	β	sr^2	B	SE B	β	sr^2	B	SE B	β	sr^2
Constant	2.17	1.25			3.68	1.13			2.29	.56		
L-Family	.10	.14	.08	.003	-.26	.12	-.19*	.021	.18	.06	.26*	.035
S-Express	-.19	.13	-.16	.014	-.25	.12	-.19*	.021	.19	.06	.29*	.045
T-Space	-.07	.13	-.06	.002	-.16	.12	-.12	.008	.04	.06	.06	.002
M-Pride	.41	.11	.34*	.080	.31	.10	.24*	.041	-.11	.05	-.17*	.021
L-Family x S-Express	-.15	.13	-.11	.009	.01	.12	.01	.000	.06	.06	.08	.004
L-Family x T-Space	.28	.13	.20*	.030	-.25	.12	-.17*	.021	.14	.06	.19*	.025
L-Family x M-Pride	-.07	.12	-.05	.002	-.12	.11	-.08	.006	-.03	.06	-.04	.001

Note. Platform = online survey source; L-Family = lack of family acceptance; S-Express shifting expressions; T-Space = creating third space; M-Pride = multiracial pride.
* $p < .05$.

Figure 1. Conceptual model 1 for the current study.

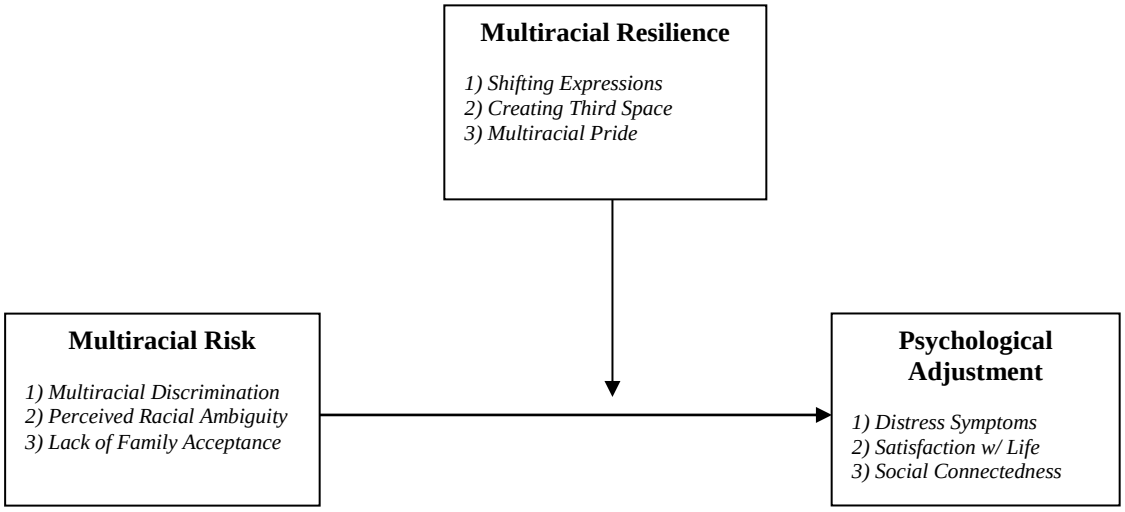
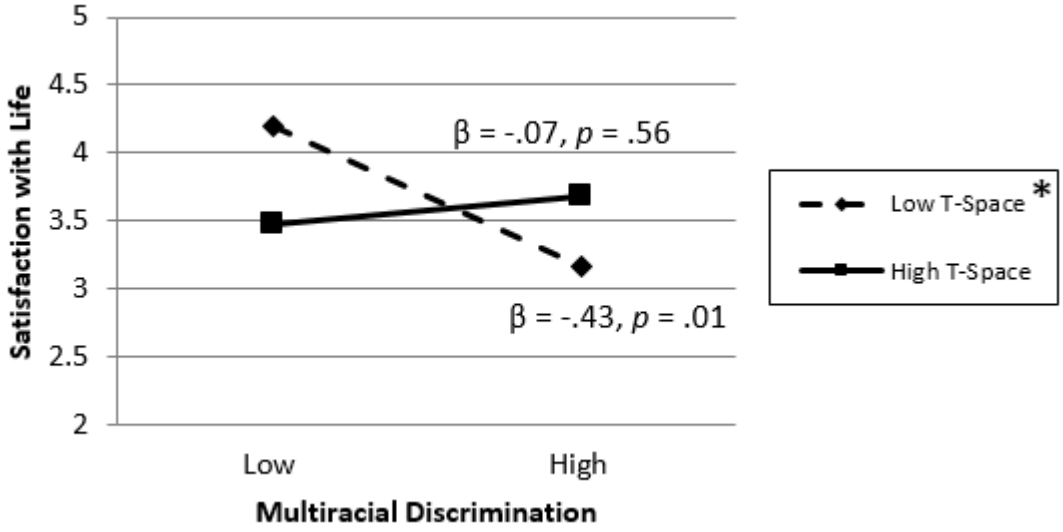
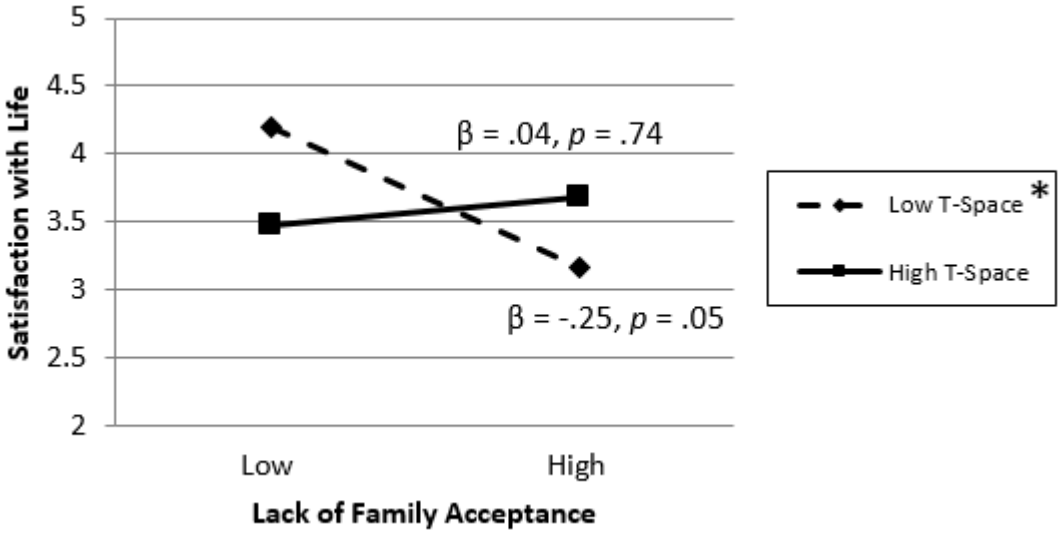


Figure 2. Interaction effect between M-Disc and T-Space on satisfaction with life.



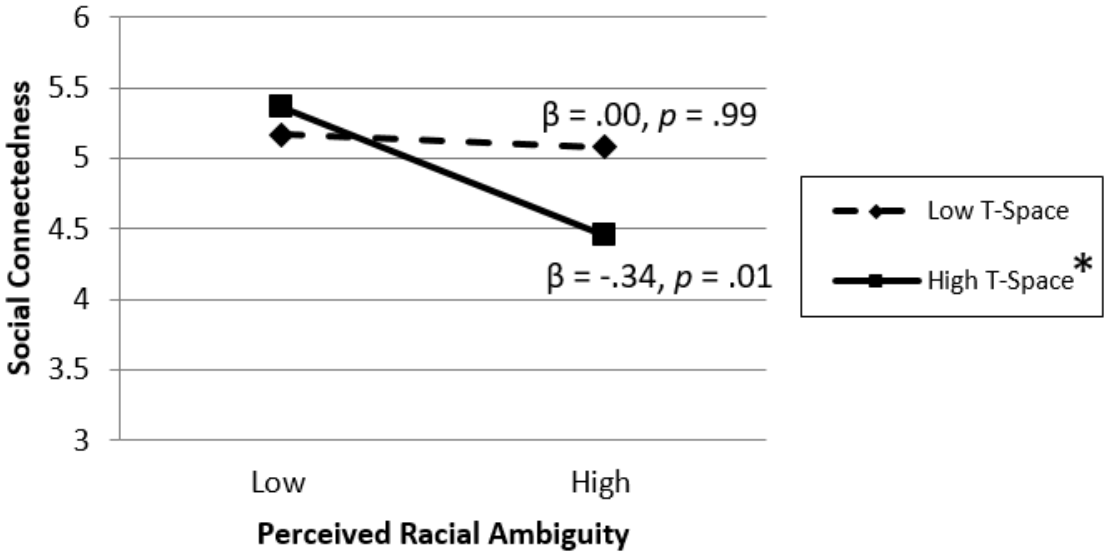
Notes: M-Disc = multiracial discrimination; T-Space = creating third space
* $p < .05$

Figure 3. Interaction effect between L-Family and T-Space on satisfaction with life.



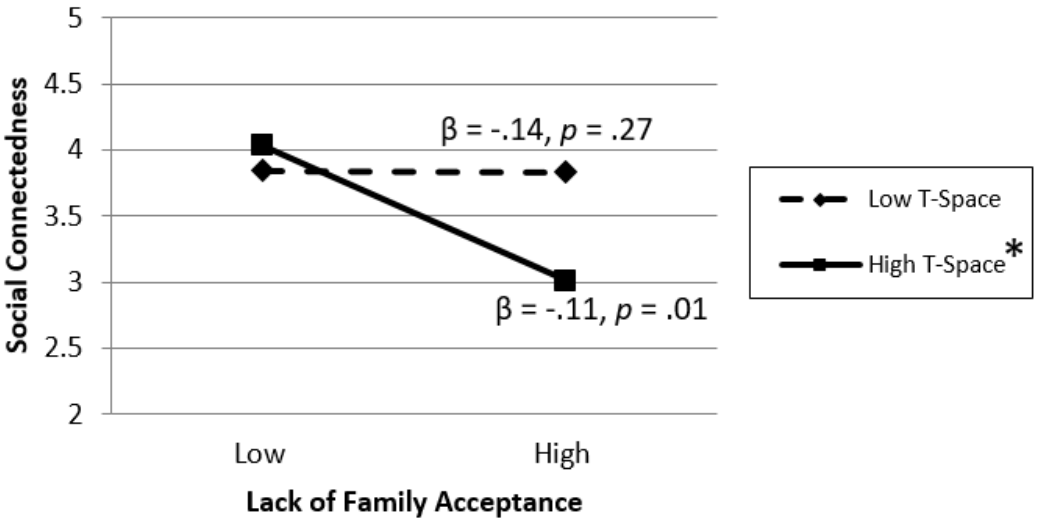
Notes. L=Family = lack of family acceptance; T-Space = creating third space
* $p < .05$

Figure 4. Interaction effect between P-Ambig and T-Space on social connectedness.



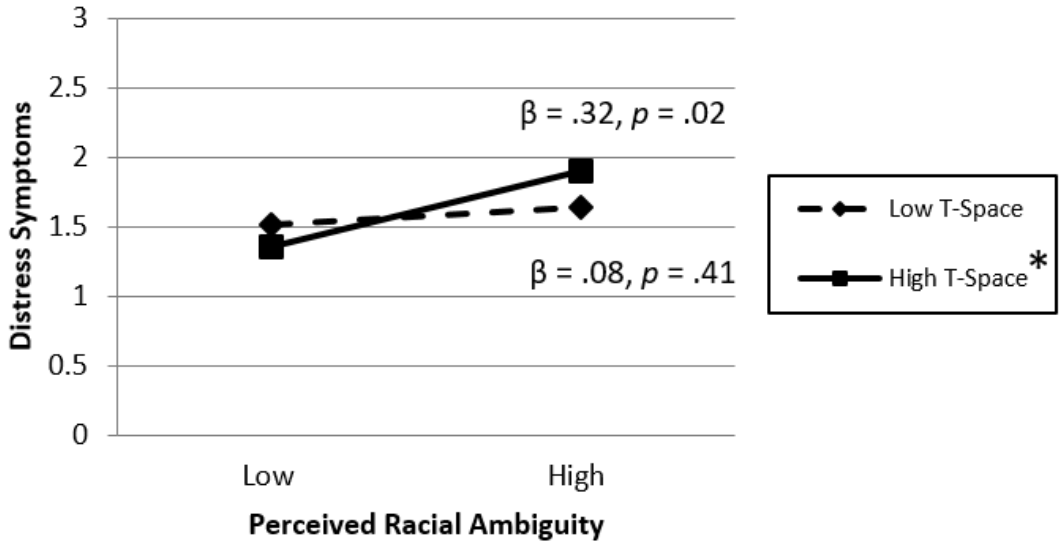
Notes. P-Ambig = perceived racial ambiguity; T-Space = creating third space
* $p < .05$

Figure 5. Interaction effect between L-Family and T-Space on social connectedness.



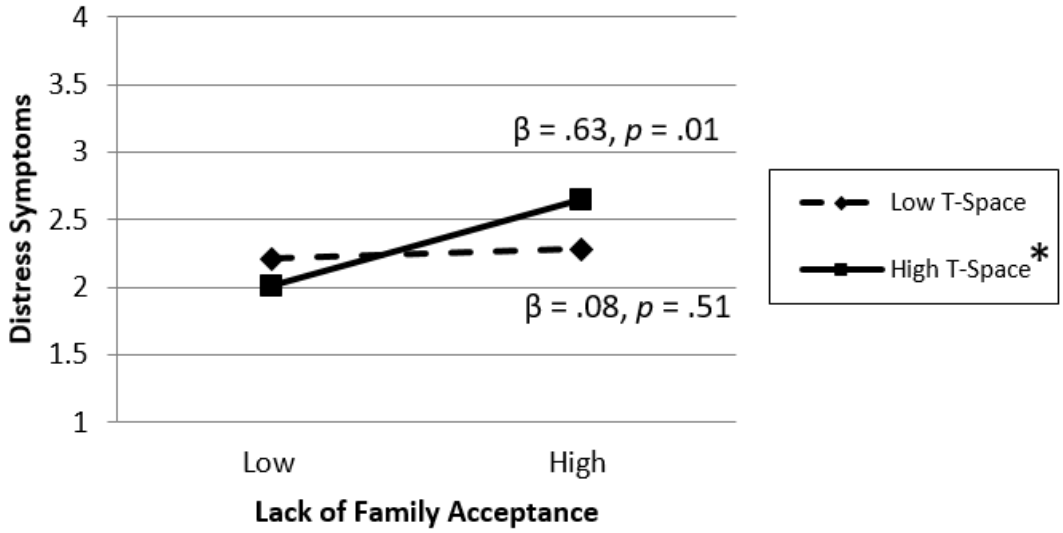
Notes. L=Family = lack of family acceptance; T-Space = creating third space
* $p < .05$

Figure 6. Interaction effect between P-Ambig and T-Space on distress symptoms.



Notes. P-Ambig = perceived racial ambiguity; T-Space = creating third space
* $p < .05$

Figure 7. Interaction effect between L-Family and T-Space on distress symptoms.



Notes. L=Family = lack of family acceptance; T-Space = creating third space
* $p < .05$

APPENDIX A

SCREENING SURVEY

1. Are you at least 18 years old?

☐ **Yes**
☐ **No**

2. Are your biological parents from two or more different racial groups (i.e., White, Black/African American, Asian/Asian American, Pacific Islander, Hispanic/Latinx, or Native American/American Indian)?

☐ **Yes**
☐ **No**

APPENDIX B

DEMOGRAPHIC MEASURE

Please respond to the following questions:

1. **Age:_____**
2. **Gender/Sex:**
   - ☐ Female
   - ☐ Male
   - ☐ Genderqueer
   - ☐ Other (please specify): _____
3. **Race (choose one or more):**
   - ☐ African American/Black
   - ☐ Asian American/Asian (including: Indian, Filipino)
   - ☐ Pacific Islander
   - ☐ White (non Hispanic/Latina/o/x)
   - ☐ Hispanic/Latina/o/x
   - ☐ Native American/American Indian
   - ☐ Other (please specify): _____
4. **What is your Ethnic Identification(s)** (e.g., Korean, Mexican-American, German):
5. **What is the racial background of your biological mother? (choose one or more):**
   - ☐ African American/Black
   - ☐ Asian American/Asian (including: Indian, Filipino)
   - ☐ Pacific Islander
   - ☐ White (non Hispanic/Latina/o/x)
   - ☐ Hispanic/Latina/o/x
   - ☐ Native American/American Indian
   - ☐ Other (please specify): _____
6. **What is the racial background of your biological father? (choose one or more):**

☐ African American/Black
☐ Asian American/Asian (including: Indian, Filipino)
☐ Pacific Islander
☐ White (non Hispanic/Latina/o/x)
☐ Hispanic/Latina/o/x
☐ Native American/American Indian
☐ Other (please specify): _____

7. **Which statement best describes your generational status in the U.S.?**
   - ☐ I was not born in the United States
   - ☐ I was born in the U.S., and both parents were born in another country
   - ☐ I was born in the U.S., one parent was born in the U.S., and the other parent was born in another country
   - ☐ I was born in the U.S., both parents were born in the U.S., and all grandparents were born in another country
   - ☐ I was born in the U.S., both parents and all grandparents were born in the U.S.
   - ☐ Other (please specify): _____

8. **What is the zip code of your current residence? _____**
9. **What is the zip code where you have spent most of your life? _____**
10. **What is the highest education level that you have completed?**
    - ☐ less than high school
    - ☐ high school degree (or GED)
    - ☐ trade or technical school
    - ☐ some college
    - ☐ college degree (e.g., B.A., B.S.)
    - ☐ advanced degree (e.g., M.A., Ph.D., M.D.)
11. **What is your personal annual income?**
    - ☐ $19,000 or less
    - ☐ $20,000 to $39,000
    - ☐ $40,000 to $59,000
    - ☐ $60,000 to $79,000
    - ☐ $80,000 to $99,000
    - ☐ $100,000 or more

For the next 6 items, please use the following scale:

1 = Never
2 = Rarely
3 = Sometimes
4 = Often or Frequent
5 = Almost Always

12. **To what extent do you feel that you are treated like an African American/Black individual?**
13. **To what extent do you feel that you are treated like a White individual?**
14. **To what extent do you feel that you are treated like a Hispanic/Latina/o/x individual?**
15. **To what extent do you feel that you are treated like a Native American/American Indian individual?**
16. **To what extent do you feel that you are treated like a Pacific Islander?**
17. **To what extent do you feel that you are treated like an Asian American/Asian individual?**

APPENDIX C

MULTIRACIAL EXPERIENCE MEASURE (MEM)

Directions: The following statements are experiences that you may have had because of your multiracial background. Using the 1-5 scale below, indicate how often you have encountered these events/experiences. Please be open and honest in your responding.

Note: Multiracial refers to having more than one racial background, including: (i.e., Asian/Asian American, Black/African American, White (non-Hispanic/Latinx), Hispanic/Latinx, Pacific Islander/Native Hawaiian, Native American/Alaska Native).

1 = Never
2 = Rarely
3 = Sometimes
4 = Often or Frequent
5 = Almost Always

1. I change how I describe my racial identity in different settings (e.g., work, home, and school).
2. People are curious to know my background.
3. I create my own space (e.g., formed social groups) with other multiracial people.
4. I live in more than one culture.
5. I am picked on for not looking or acting like a certain racial group.
6. I am active in multiracial organizations or groups.
7. I get asked about my racial background.
8. I participate in cultural practices (e.g., special food, music, and customs) associated with different cultures.
9. I act different depending on where I am at (e.g., home, school, and work).
10. People have started fights with me (either verbally or physically).
11. I celebrate holidays/celebrations of more than one culture.
12. I attend multiracial events and social gatherings (e.g., Loving Day).
13. I am not accepted by other racial groups.
14. I get asked "What are you?"
15. I change the way that I present myself to other people.
16. People make jokes about me.
17. People say I'm exotic.
18. I connect to other multiracial individuals through the Internet (e.g., Facebook and Myspace).
19. I identify with cultural beliefs of multiple groups.
20. I am friends with people from different cultures.
21. I change the way that I racially describe myself to other people.
22. I am pressured to pick a race.
23. I get asked "Where are you from?"
24. I read multiracial literature (e.g., articles, books, and Internet websites).
25. I shift how I racially express my identity around certain people (e.g., talk and dress).

APPENDIX D

MULTIRACIAL CHALLENGES AND RESILIENCE SCALE: PART 1 (MCRS)

Directions: Based on your experiences as a multiracial person, please indicate how strongly you agree or disagree with each of the following statements.

Note: Multiracial refers to having more than one racial background, including: Asian/Asian American, Black/African American, White (non-Hispanic/Latinx), Hispanic/Latinx, Pacific Islander/Native Hawaiian, Native American/Alaska Native. Please think about your experiences as a multiracial individual and respond to the following items using the 5-point scale.

1 = Never
2 = Rarely
3 = Sometimes
4 = Often or Frequent
5 = Almost Always

1. I was discriminated against because of one or more of my racial backgrounds.
2. Someone did NOT believe I was related to a family member because we look like we belong to different racial groups.
3. Someone in my family made a hurtful statement about one of the racial group(s) with whom I identify.
4. An individual acted surprised when they saw me with a family member because we look like we belong to different racial group(s).
5. I was the victim of discrimination because I am Multiracial.
6. Someone outside my family said something derogatory about Multiracial/Biracial people.
7. A family member said something negative about Multiracial/Biracial people.
8. I told someone about my racial background(s), but they did NOT believe me.
9. A person outside of my family made a hurtful statement about one of the racial group(s) with whom I identify.
10. A member of my family expected me to "choose" one racial group with whom to identify.
11. When I disclosed my racial background, someone acted surprised.
12. A member of my family treated me like an "outsider" because I am Multiracial.
13. Someone chose NOT to date me because I am Multiracial.
14. Someone placed me in a racial category based on their assumptions about my race.
15. A family member said that I am NOT a "real" member of a racial group(s)with whom I identify.

APPENDIX E

MULTIRACIAL CHALLENGES AND RESILIENCE SCALE: PART 2 (MCRS)

Please respond to the following items using the following 6-point scale, indicating how strongly you agree or disagree with each of the statements below.

0 = Strongly disagree
1 = Disagree
2 = Slightly disagree
3 = Slightly agree
4 = Agree
5 = Strongly agree

1. I love being Multiracial.
2. Being Multiracial has taught me to understand multiple perspectives.
3. I feel different than my family because of my race(s).
4. Because of my experiences as a Multiracial person, I value human differences.
5. I am proud that I am Multiracial.
6. Being Multiracial makes me feel MORE attractive to romantic partners.
7. I feel alone because some members of my family do NOT understand my experiences as a Multiracial person.
8. As a Multiracial person, I have developed an appreciation of different cultures.
9. Being Multiracial makes me feel special.
10. I do NOT feel connected to my parent(s) because my race(s) are different than their race(s).
11. Because of my experiences as a Multiracial person, I have compassion for people who are different than myself.
12. I do NOT feel connected to my extended family members because my racial backgrounds are different than their racial backgrounds.
13. I wish I was not Multiracial.
14. Being Multiracial has taught me to adapt to a variety of cultural situations.
15. Because I am Multiracial, I feel misunderstood by some friends.

APPENDIX F

HOPKINS SYMPTOM CHECKLIST-21 (HSCL-21)

Directions: Based on your experiences during the past month, please indicate how frequently you have experienced each of the following statements.

0 = Not at all
1 = A little
2 = Quite a bit
3 = Extremely

1. Blaming yourself for things
2. Difficulty in speaking when you are excited
3. Feeling lonely
4. Pains in the lower part of your back
5. Soreness of your muscles
6. Worried about sloppiness or carelessness
7. Hot or cold spells
8. Feeling blue
9. Numbness or tingling in parts of your body
10. Your feelings being easily hurt
11. Trouble remembering things
12. A lump in your throat
13. Having to do things very slowly in order to be sure you are doing them right
14. Weakness in parts of your body
15. Feeling others do not understand you or are unsympathetic
16. Feeling that people are unfriendly or dislike you
17. Having to check and double check what you do
18. Heavy feelings in your arms and legs
19. Feeling inferior to others
20. Your mind going black
21. Trouble concentrating

APPENDIX G

SATISFACTION WITH LIFE SCALE (SwLS)

Directions: Below are five statements with which you may agree or disagree. Using the 1-7 scale, indicate your agreement with each item by selecting the appropriate number. The 7-point scale is as follows:

1 = Strongly disagree
2 = Disagree
3 = Slightly disagree
4 = Neither agree nor disagree
5 = Slightly agree
6 = Agree
7 = Strongly agree

1. In most ways my life is close to my ideal.
2. The conditions of my life are excellent.
3. I am satisfied with my life.
4. So far I have gotten the important things I want in life.
5. If I could live my life over, I would change almost nothing.

APPENDIX H

SOCIAL CONNECTEDNESS (SCS)

1 = Strongly disagree
2 = Disagree
3 = Slightly disagree
4 = Slightly agree
5 = Agree
6 = Strongly agree

1. I feel disconnected from the world around me
2. Even around people I know, I don't feel that I really belong
3. I feel so distant from people
4. I have no sense of togetherness with my peers
5. I don't feel related to anyone
6. I catch myself losing all sense of connectedness with society
7. Even among my friends, there is no sense of brother/sisterhood
8. I don't reel I participate with anyone or any group

APPENDIX I

INFORMED CONSENT

Project Title: Racial Attitudes and Adjustment of Multiracial Adults
Investigators: Preston Johnson, B.A. (PI) and Hyung Chol (Brandon) Yoo, Ph.D. (Faculty PI)

Introduction:
You are being invited to take part in a research study because you are over 18 years old and your biological parents are from two or more different racial groups (i.e., Asian/Asian American, Black/African American, White (non-Hispanic/Latinx), Hispanic/Latinx, Pacific Islander/Native Hawaiian, Native American/Alaska Native).

Purpose:
The purpose of this research study is to explore unique racialized experiences of multiracial adults in the United States, and how they may influence psychological adjustment.

Procedure:
This study is an online survey format, where participants will first spend approximately 1 minute completing the screening survey. Then, eligible participants can continue to the research survey; expected to take approximately 15 minutes.

Once the full survey has been completed, participant will have the opportunity to enter their email address for a drawing for one of 15 $10 Amazon Gift Cards. Considering a target population of 150, that creates a 1:10 chance of winning a gift card for your participation. Winners will be contacted via email to request further information to send your gift card. Any personal information will be deleted upon successful completion of the research project.

Risk/Benefits:
There are no known risks to taking part in this study. As is the case with any research, there is some possibility that participants may be subjected to unidentified risks.

There are no known benefits from participating in this study. It may, however, be helpful for participants to answer questions related to their lived racial experiences as a multiracial individual.

Confidentiality
All information from this study will be held confidential. Only the Primary Investigators will have access to your online responses to survey questions. You will not be asked to provide any personal information, except for the information required for sending compensation. In this case, only the Primary Investigators will have access to personal information, and this information will be deleted upon completion of the research study.

Research findings may be used for reports, publication, and national presentation. In these cases, no identifying information will be included.

Voluntary Participation:
Your participation in this research study is voluntary. At any point during the process, you are eligible to withdraw from the study without risk of penalty or loss of benefit.

Contacts and Questions:
If you have any questions or concerns regarding the research study, please contact the Primary Investigator at: ptjohns3@asu.edu.

This research has been reviewed and approved by the Social Behavioral IRB. You may talk to them at (480) 965-6788 or by email at research.integrity@asu.edu if:

- Your questions, concerns, or complaints are not being answered by the research team.
- You cannot reach the research team.
- You want to talk to someone besides the research team.
- You have questions about your rights as a research participant.
- You want to get information or provide input about this research.

Statements of Consent:
This form outlines the nature, procedure, benefits, and risks of the research study. Please read the following section carefully and respond. Remember that your participation is voluntary and you are eligible to withdraw from the study at any point without penalty or loss of benefit. By clicking "Accept" below, you are waiving any legal claims, rights, or remedies. A copy of this form can be made available to you at your request.

By clicking "Accept" below, I indicate that I have read the CONSENT FORM above and agree with the terms and conditions. I acknowledge that by completing the survey, I am giving permission for the investigators to use my information for research purposes. Further, you are allowing other researchers approved by the Primary Investigator (Preston Johnson, B.A.) and Faculty Primary Investigator (Hyung Chol Yoo, Ph.D.) access to your de-identified data.

Please click one box:

☐ **Accept**
☐ **Do Not Accept**

APPENDIX J

RECRUITMENT EMAIL

Salutations!
My name is Preston Johnson, a Master of Counseling student at Arizona State University. I am conducting a research study as a part of my master's thesis on resilience in multiracial adults.
The purpose of this research study is to explore unique racialized experiences of multiracial adults in the US, and how they may influence psychological adjustment. I would be grateful if you could participate and/or send this study along to potential participants.
To participate, you must: a) have biological parents from two or more different racial groups (i.e., Asian/Asian American, Black/African American, White (non-Hispanic/Latinx), Hispanic/Latinx, Pacific Islander/Native Hawaiian, Native American/Alaska Native) and **b)** be at least 18 years old. If this applies to you follow the link to participate in the study:

https://asu.co1.qualtrics.com/jfe/form/SV_29UyND33xNATTM1

The link above will take prospective participants to the survey where there will be two screening questions. Eligible participants can then read the informed consent and continue to the full survey. This survey is expected to take approximately 15 minutes and participants who complete the survey in full will have a 1:10 opportunity to win a $10 Amazon gift card.
Your participation is voluntary and you may withdraw at any time. If you have any questions, please do not hesitate to contact me at ptjohns3@asu.edu.
Take care!

APPENDIX K

COMPENSATION EMAIL

Dear (NAME),

Thank you for participating in the *Racial Attitudes and Adjustment of Multiracial Adults* research study! We are happy to inform you that you have won one of the $10 Amazon Gift Cards. Please let me know if I have permission to send it to you. When I enter your email address in Amazon, they will promptly send the gift card to you.

Please reach out with any questions.

Take care,

Preston Johnson
Master of Counseling Student
Arizona State University