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THE INFLUENCE OF SELF-CONSTRUAL AND SOCIAL SUPPORT ON THE  
ADJUSTMENT OUTCOMES OF ETHNICALLY DIVERSE AMERICAN COLLEGE  
STUDENTS

by

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## Abstract

# THE INFLUENCE OF SELF-CONSTRUAL AND SOCIAL SUPPORT ON THE ADJUSTMENT OUTCOMES OF ETHNICALLY DIVERSE AMERICAN COLLEGE STUDENTS

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In this study we used a multimethod approach to examine how three types of self-construal (independent, interdependent, and relational-interdependent) play a role in the adjustment outcomes of American college students. Participants were 131 students from five ethnic backgrounds (African American, Asian American, Caucasian, Latino/a, and Biracial/Mixed) primarily in their first semester of college. Consistent with previous research, the results indicated that the independent self-construal was directly linked to less distress and greater overall adjustment. In addition, we found an indirect relationship between relational-interdependence and college adaptation through the mediators of social support and peer attachment. Results from both the quantitative and qualitative analyses indicated that the Asian American participants were doing poorly in their college transition. Implications for students, higher education professionals, and college campuses in general are discussed.

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## Introduction

The term *self-construal* refers to the way in which individuals define themselves in relation to others. Markus and Kitayama (1991) put forth the idea that two divergent views of the self exist, namely an independent and an interdependent self. The authors defined an independent self-construal as characterizing someone who views themselves in terms of their unique traits, goals, and experiences, and particularly in their ability to maintain a sense of autonomy from others. By contrast, an interdependent self-construal characterizes a person who emphasizes the importance of relationships, social context, and an overall sense of connectedness. Individualist cultures such as Western European and North American societies are viewed as being defined primarily by an independent self-construal, whereas collectivist cultures such as Asian and Latin American societies are more often viewed as being interdependent (Markus & Kitayama, 1991).

Research that increases our understanding of the concept of self-construal has important implications for cross-cultural psychology as it enables us to better understand the influence of culture on human behavior (Okazaki, 2002). Culture influences the way in which individuals understand their self-concept and interpret their experiences in the world. As such, self-construal has been regarded as a cultural worldview that plays a significant role in influencing and ultimately determining individuals' perceptions of their role in society (Tawa & Suyemoto, 2010). Self-construal is one area of the self-system that influences and regulates psychological processes such as emotion, motivation, and interpersonal interactions (Markus & Wurf, 1987). The fact that self-construal has been understood within a cultural framework means that these psychological processes are manifested differently in individual experiences. Conducting further research on the intersection of self-construal and culture will enhance our understanding of how

individuals from different backgrounds experience social and psychological outcomes in unique ways.

Although the concept of self-construal is pretty well defined, links with adjustment within college student samples are quite mixed. In the current study, we will be exploring multiple methods for assessing self-construal in an attempt to identify precisely the best way to conceptualize this construct within emerging adult samples. We review below the multiple conceptions of self-construal in past literature and the complex links with adjustment outcomes, in preparation for our own hypotheses.

### **The Construct of Self-Construal: Multiple Measurement Traditions**

In assessing independent and interdependent self-construals as defined by Markus and Kitayama (1991), a large majority of the research has used the Self-Construal Scale developed by Singelis (1994). The author introduced the idea that individuals, regardless of cultural background, could possess both independent and interdependent self-construals and hence developed a 24-item questionnaire with the purpose of measuring an individual's endorsement of each self-construal. Twelve independent and twelve interdependent items were included in the final scale. The independent items included statements such as "Speaking up during class is not a problem for me" and "I enjoy being unique and different from others in many respects." Interdependent items included statements such as "My happiness depends on the happiness of those around me" and "I will sacrifice my self-interest for the benefit of the group I am in."

While the Self-Construal Scale developed by Singelis creates an understanding of how the construct of self-construal manifests itself in two unique forms, researchers have argued that a third type of self-construal may in fact exist (Cross, Bacon, & Morris, 2000). The authors posited that because cultural differences exist amongst individuals from collectivist and

individualist cultures, the particular form of interdependent self-construal developed by these individuals might vary between cultures. Individuals from collectivist backgrounds are likely to place value on knowing one's place in the group and putting the group's overall needs ahead of one's own needs. This group-centered concept of interdependence, however, might not serve as a suitable description for individuals from an individualist background who also identify with an interdependent self-construal. A relationship-centered notion of interdependence may be more descriptive of people in American society where individual relationships (rather than group memberships) are included in a person's self-concept (Cross et al., 2000). As such, the term *relational interdependence* was created to define the way in which individuals think of themselves in terms of their relationships with close others (Cross et al., 2000). In this sense, it would appear that two distinct forms of interdependent self-construal exist in addition to the independent self-construal. The Relational-Interdependent Self-Construal (RISC) Scale developed by Cross et al. (2000) seeks to measure the extent to which an individual identifies with a relational-interdependent self-construal. The measure consists of eleven items that include statements such as "My close relationships are an important reflection of who I am" and "If a person hurts someone close to me, I feel personally hurt as well." The RISC scale correlates moderately with Singelis's (1994) Interdependent Self-Construal Scale ( $r = .41$ ), which indicates that although the two measures are related, the RISC scale is not an identical measure of interdependence and hence taps a distinct area of self-construal.

### **Self-Construal and Psychological Adjustment**

Previous research on self-construal has looked at the importance of this construct in predicting psychological outcomes and functioning. Based on the theorizing of Markus and Kitayama (1991), researchers speculated that independent self-construal would be associated

with adaptive outcomes within individualistic societies whereas interdependent self-construal would be more closely associated with adaptive outcomes in collectivistic societies. The research supporting these hypotheses is decidedly mixed. In support of the general idea of this hypothesis, research involving Asian American and Caucasian American college students found that the Asian American students reported higher levels of interdependent self-construal and lower levels of independent self-construal than the Caucasian students (Okazaki, 2000). However, using Singelis's (1994) Self-Construal Scale, researchers have found consistent links between independent self-construal and fewer symptoms of depression and social anxiety (Okazaki, 1997; 2000; Norasakkunkit & Kalick, 2002) among Caucasian and Asian American students. Similarly, interdependent self-construal has been consistently associated with *greater* depression and social anxiety in these same samples of college students (Okazaki, 1997; Norasakkunkit & Kalick, 2002). When looking at other measures of psychological well-being, researchers have found that a more independent and less interdependent self-construal is associated with higher levels of self-esteem (Singelis, Bond, Sharkey, & Lai, 1999). In general, the literature suggests that there is a positive relationship between independent self-construal and well-being and a negative relationship between interdependent self-construal and well-being among both Caucasian and Asian American students living in the United States.

Further research on Asian American and Caucasian college students found a relationship between self-construal and sociotropy, which is a term that describes an excessive level of investment in interpersonal relationships and can essentially be seen as the opposite of autonomy (Mak, Law, & Teng, 2010). In this study, the researchers found that the independent self-construal was negatively correlated with sociotropy and that the interdependent self-construal was positively related to sociotropy. These results were true for students from both ethnic

backgrounds. Interestingly, the researchers found that while interdependence was negatively correlated with depression, an indirect relationship between the two constructs did exist. In particular, interdependent self-construal predisposed the development of sociotropy, which led to increased anxiety, and ultimately increased levels of depressive symptoms.

Each of the above studies looked at differences in self-construal endorsements across groups of Caucasian Americans and/or Asian Americans. This is true for the majority of research conducted on self-construal. Few studies have looked at a more ethnically diverse sample. In particular, the research on African Americans and their endorsement of various self-construals is scarce. Christopher and Skillman (2009) studied the relationship between self-construal and distress among African American and Asian American college students but did not include a sample of Caucasian Americans. Here, the authors discovered that African American students had higher endorsements of the independent self-construal than Asian Americans and that the opposite was true for the interdependent self-construal. Additionally, they too found that distress was positively related to interdependent self-construal and negatively related to independent self-construal (for both African Americans and Asian Americans).

Collectively, previous research points to the idea that independent self-construal is related to more positive psychological outcomes and lower endorsements of various types of distress. In contrast, interdependent self-construal appears to be related to negative outcomes and overall worse functioning. These results seem consistent across samples of ethnically diverse students living and going to school in the United States.

A few studies have suggested that there may be some beneficial outcomes of endorsing higher levels of interdependent self-construal particularly among students living in Asia, as opposed to Asians living in the United States as discussed above. Christopher, D'Souza, Peraza,

& Dhaliwal (2010) studied undergraduate students living in the United States and Thailand. The authors found that amongst the Thai students, both the independent and interdependent self-construal were negatively associated with distress. For the American students, the independent self-construal was negatively associated with distress while the interdependent self-construal was unrelated. Similarly, Kwan, Bond, & Singelis (1997) studied a sample of students living in Hong Kong and the United States. The researchers found that both the interdependent self-construal and the independent self-construal were positively correlated with overall life satisfaction for the students in Hong Kong. In addition, they found that the independent self-construal was related to an enhanced satisfaction with life amongst the American students.

As a whole, previous research indicates that the independent self-construal predicts beneficial outcomes for students living in the United States, more so than the interdependent self-construal. However, a significant limitation of these studies has been their exclusive use of the Singelis Self-Construal Scale to measure interdependent self-construal. We suggest that among ethnically diverse students living in the United States, relational-interdependent self-construal, as measured using the RISC scale, may more accurately measure the kinds of relational-interdependence that predict positive adjustment outcomes for these students.

In fact, research suggests that the RISC Scale does have implications for psychological and relationship functioning amongst college students. In a sample of college women, high RISC scores were not only related to students' positive evaluations of themselves and their relationships, but also to others' perceptions of them (Cross et al., 2000). Obtaining high RISC scores led to students being more likely to reveal information about themselves in addition to being viewed as responding sensitively to others. Unfortunately, no research to date has examined the RISC scale within an ethnically diverse set of college students in the United States.

Previous research on self-construal has relied primarily on quantitative methods to assess the extent to which individuals endorse each type of self-construal. The questionnaire format has been used to deduce the presence of either an independent or interdependent self-construal based on a participant's endorsement of independent or interdependent items. As Okazaki (2002) pointed out, these questionnaire items generally measure the affective, cognitive, and behavioral consequences that result from possessing each form of self-construal, rather than directly measuring the self-construals in terms of structural components (such as the flexibility of the boundaries that exist between the self and others). Our understanding of the concept of self-construal as a whole is enhanced through research that includes qualitative methodology that focuses on inductive inquiry. The use of in-depth interviews with individuals produces data that may allow us to learn more about culture and the self than we would if we were to use questionnaire methods alone (Matsumoto, 1999). Recent research has invited participants to respond to open-ended questions about their personal experiences of self-construal without imposing the corresponding self-construal theories on these experiences (Tawa & Suyemoto, 2010). The current study acknowledges that while quantitative data allows for a greater understanding of the types of self-construal that are important to individuals from certain cultural backgrounds, it is qualitative methodology that may provide rich data on the specific reasoning behind the endorsement of each self-construal.

### **Goals and Hypotheses of the Current Study**

The current study seeks to extend previous research on self-construal by using both the Singelis scale and the RISC scale to measure independent, interdependent, and relational-interdependent self-construal. The use of both scales may provide a more accurate depiction of self-construal endorsement in the United States than either scale used on its own. In particular,

adjustment outcomes for American college students of diverse backgrounds may be influenced by relational-interdependent self-construal more significantly than the more collectivistically oriented concept of interdependent self-construal alone. With this in mind, it is predicted that relational-interdependent self-construal will be related to better adjustment outcomes amongst African Americans and Asian Americans in particular, but that it may be unrelated to adjustment outcomes amongst Caucasian Americans. In addition, because previous research has not focused on the connection between self-construal and distress amongst Latino/a Americans, the present research seeks to understand this relationship further. It is also hypothesized that the variable of relationship functioning will act as a mediator between self-construal and adjustment outcomes, while ethnicity will act as a moderator of this relationship. As shown in Figure 1, independent self-construal will be directly related to more positive adjustment outcomes and less distress. Interdependent self-construal, however, will be related to worse adjustment outcomes and greater distress through the mediator of relationship functioning. Relational-interdependent self-construal will be related to enhanced relationship functioning and in turn better adjustment outcomes and less distress.

## **Method**

### **Participants**

Prior to the start of data collection, approval to conduct the study was received by the Institutional Review Board (IRB) on campus (see Appendix A). Participants were 131 students from five ethnic groups (African American, Asian American, Caucasian, Latino/a, and Biracial/Mixed). All participants were undergraduate students at Towson University from all four years in school (freshman, sophomore, junior, senior). In order to participate in the study, students were required to sign the informed consent form described in Appendix B. Because one of our recruitment strategies targeted the Psychology department research pool, slightly more than half of the participants were in their freshman year with an average age of just under 20 years old ( $M = 19.65$ ,  $SD = 4.06$ ). The demographic characteristics of the participants are described in Table 1. When examining these characteristics, it is important to consider the demographics of the larger institution as well. In terms of ethnic background, 5.3% of the undergraduate population identifies as Asian/Asian American, 17.6% African American/Black, 60.4% Caucasian, 6.4% Hispanic/Latino, and 4.3% Biracial/Mixed Ethnicity. It is clear from these numbers that the current study oversampled Asian American and African American students from the larger university population, which was the specific goal of our recruitment efforts, in order to gather an ethnically diverse sample of students. In terms of academic standing, the average GPA was 3.12 ( $SD = .60$ ) although because most of the participants were in their first semester of college, a significant portion of them did not have a GPA to report at the time of the data collection.

## Procedure

The research methodology of this project relied primarily on surveys being administered to participants who were recruited in two ways. First, the study was advertised to students taking Psychology classes that require participation in research studies. Participants from this research pool received two units of research credit after their involvement. Second, participants were recruited through student organizations that are geared towards individuals from particular ethnic backgrounds (African American, Asian American, and Latino/a students). The principal investigator attended these organizations' weekly meetings to advertise the study and recruit participants. These participants were not eligible to receive research credit, as they were not part of the research pool. As such, the participants from the student organizations received a \$5 gift card as compensation for their involvement in the study. All participants completed the online survey consisting of measures asking about participant demographics, self-construal, distress, ethnic identity, peer attachment, social support, and adjustment to college. They also participated in an open-ended Self-Construal and Ethnic Identity interview.

The purpose of the Self-Construal and Ethnic Identity interview was to assess the level of independent, interdependent, and relational-interdependent self-construal endorsed by each individual, based on their responses to open-ended questions and images relating to self-construal and ethnic identity. The interviews were recorded on audio recorders and then transcribed and coded for analysis. The interview consisted of three sections and the entire interview took approximately 15-25 minutes to complete.

In the first section, individuals were asked to divide an image of a pie chart in a way that represented the salience or importance of the different roles and identities in their lives. This activity is based on "The Pie" model by Cowan and Cowan (1991), which allows participants to

represent their self-identity and roles within relationships. In the case of the current study, students were given a list of sample identities or roles with which they could label the pie chart. After labeling the image, participants were asked to discuss each portion and why they chose to make each label that particular size. A sample pie chart and list of identities can be found in Appendix C.

Part two of the Self-Construal and Ethnic Identity Interview consisted of six open-ended questions that essentially allowed the participants to describe themselves in terms of their ethnic identity, the influence that they believe others have on their life, and how this differs in various contexts. This open-ended questionnaire follows research by Tawa and Suyemoto (2010) that utilized semi-structured interviews to explore participants' meanings of the self within various social contexts. The questions in this study were not predetermined and instead followed the natural flow of the interview. The current study, however, utilized a more structured set of specific questions as shown in Appendix D.

The third part of the interview involved diagrams that illustrate the conceptual differences between the independent and interdependent self-construal. Participants were shown two images of the self and were then asked to indicate which image they identified with and why. The purpose of this activity was similar to that of the open-ended questions in part two but involved a visual representation of different types of self-construal as opposed to discussion questions only. Here, participants were encouraged to explore their endorsement of independent and interdependent self-construal without having these descriptive labels imposed upon them. The two images of the self were drawn from the original conceptualization of independent and interdependent self-construal by Markus and Kitayama (1991) and the follow-up questions were based on similar ones that were used in the aforementioned study by Tawa and Suyemoto (2010).

Appendix C illustrates the images that were used for this portion of the interview. Utilizing the Self-Construal and Ethnic Identity interview allowed the study to benefit from multimethod research, as both quantitative and qualitative methodology were used.

### **Self-Report Measures**

**Self-Construal.** The Self-Construal Scale (SCS) is a 24-item scale that measures the extent to which individuals endorse independent and interdependent self-construals (Singelis, 1994). The SCS contains 12 items that describe an independent self-construal (e.g. “I enjoy being unique and different from others in many respects”) and 12 items that describe an interdependent self-construal (e.g. “My happiness depends on the happiness of those around me”). Participants are asked to indicate how much they agree with the items on a 7-point Likert-type scale (1 = *strongly disagree*; 7 = *strongly agree*). The items on each subscale are averaged to indicate an individual’s independent and interdependent scores. A higher score indicates a stronger endorsement of that type of self-construal. The SCS has been shown to have adequate internal consistency (independence  $\alpha = .70$ , interdependence  $\alpha = .74$ ; Singelis, 1994). Construct validity for the measure has been shown through consistencies between the SCS and Markus and Kitayama’s (1991) conceptualization of self-construal, where individuals from Western societies are characterized as independent and those from Asian societies are characterized as interdependent. This validity has been replicated in other studies as well (Singelis & Sharkey, 1995; Singelis, Triandis, Bhawuk, & Gelfand, 1995). Similarly, two other scales that measure self-construal (Leung and Kim, 1997; Gudykunst et al., 1996) include items from the SCS and have also shown consistencies with Markus and Kitayama’s (1991) conceptualization of self-construal (Gudykunst & Lee, 2003). In the current study, the internal consistency of the SCS

subscales was adequate (SCS Independence Subscale ( $\alpha = .69$ ); SCS Interdependence Subscale ( $\alpha = .71$ )).

**Relational-Interdependence.** The Relational-Interdependent Self-Constructual Scale (RISC) consists of 11 items that assess how important close relationships are to individuals' identities and senses of self-worth (Cross et al., 2000). Sample items include "My close relationships are an important reflection of who I am" and "When I think of myself, I often think of my close friends or family also". Respondents demonstrate the extent to which they agree or disagree with each statement by using a Likert-type scale, ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Scores for the items are summed to determine an individual's level of relational-interdependent self-constructual. Scores range from 11 to 77 with higher scores indicating greater endorsement of this type of self-constructual. The RISC Scale has been shown to have excellent internal consistency ( $\alpha = .88$ ; Cross et. al, 2000) and in the current study, the reliability of the measure was .84. In addition, the scale has been moderately correlated with Clark, Ouellette, Powell, & Milberg's (1987) Communal Orientation Scale ( $r = .41$ ) and Singelis's (1994) group-oriented Interdependent Self-Constructual Scale ( $r = .41$ ), which support the RISC's construct validity.

**Distress.** The Depression Anxiety Stress Scales short version (DASS-21) is a 21-item measure that consists of three scales, each containing seven items. The scales measure the negative emotional states of depression, anxiety, and stress. Sample items include "I felt that I had nothing to look forward to" (Depression subscale), "I was worried about situations in which I might panic and make a fool of myself" (Anxiety subscale) and "I found it hard to wind down" (Stress subscale). Participants use a 4-point severity/frequency scale (0 = *did not apply to me at all/never*; 3 = *applied to me very much, or most of the time/almost always*) to indicate the extent

to which they have experienced each symptom over the past week. Scores for each of the three scales are determined by summing the scores for the seven relevant items and then multiplying by two (for comparison with the corresponding full DASS score, see Lovibond & Lovibond, 1995). The subscales of the DASS-21 have been shown to have excellent internal consistency with alphas of .94 for Depression, .87 for Anxiety, and .91 for Stress. (Antony, Bieling, Cox, Enns, & Swinson, 1998). The reliability of the overall measure was .89 in the current study. Construct validity of the DASS-21 has been evidenced by strong correlations between subscales of the measure and Beck and Steer's (1990) Beck Anxiety Inventory ( $r = .84$ ) and Beck, Rush, Shaw and Emery's (1979) Beck Depression Inventory ( $r = .77$ ; Antony et al., 1998).

**Ethnic Identity.** The 12-item Multigroup Ethnic Identity Measure (MEIM; Roberts et al., 1999) is a shortened version of the 14-item MEIM (Phinney, 1992), which measures ethnic identity across two subscales, namely Ethnic Identity Search (e.g. "I have spent time trying to find out more about my ethnic group, such as its history, traditions, and customs") and Affirmation, Belonging and Commitment (e.g. "I have a clear sense of my ethnic background and what it means for me"). Participants rate each item on a Likert-scale ranging from 1 (*strongly disagree*) to 4 (*strongly agree*). An overall ethnic identity score is derived by summing across items and obtaining the mean. High ethnic identity is represented by a score of 4, whereas low ethnic identity is represented by a score of 1. Additional items (not included in the mean score) provide participants with the opportunity to report the ethnic identity of their parents. The 12-item MEIM has shown moderate construct validity through a correlation with a measure of ethnic salience ( $r = .48$ ) in addition to good reliability ( $\alpha = .84$ ) across various ethnic groups (Roberts, et al., 1999). The internal consistency of the MEIM was excellent ( $\alpha = .91$ ) in the current study.

**Peer Attachment.** The revised Inventory of Parent and Peer Attachment (IPPA) measures individuals' perceptions of the affective and cognitive dimensions of their relationships with their parents and close friends (Armsden & Greenberg, 1987). Only the Peer subscale was used in the current study. This subscale consists of 25 items, which assess the participant's positive and negative perceptions of their relationships with their close friends. Sample items include "When we discuss things, my friends care about my point of view" and "My friends don't understand what I'm going through these days". Participants rate their level of agreement with each item on a Likert-scale ranging from 1 (*almost never or never true*) to 5 (*almost always or always true*). The IPPA Peer subscale is scored by reverse-scoring negatively worded items and then summing the values for each item. The subscale has shown excellent reliability ( $\alpha = .92$ ) and has been moderately correlated with social self-concept ( $r = .57$ ) as assessed by Fitts' (1965) Tennessee Self-Concept Scale (Armsden & Greenberg, 1987). The reliability of this measure in the current study was .93.

**Social Support.** The revised Social Provisions Scale (SPS) consists of 24 items that assess the extent to which a participant's social relationships provide various dimensions of social support (Cutrona & Russell, 1987). It is an extension of the original SPS by Russell and Cutrona (1984), which was developed to assess the six relational provisions, (Attachment, Social Integration, Reassurance of Worth, Reliable Alliance, Guidance, and Nurturance) described by Weiss (1974). The measure contains four items for each provision, two of which describe the presence of that provision while the other two items describe its absence. Sample items include "I feel that I do not have close personal relationships with other people" (Attachment), "There are people who enjoy the same social activities I do" (Social Integration), "There are people who admire my talents and abilities" (Reassurance of Worth), "If something went wrong, no one

would come to my assistance” (Reliable Alliance), “There is no one I feel comfortable talking about problems with” (Guidance), and “There are people who depend on me for help” (Nurturance). Participants rate each item on a Likert-type scale ranging from 1 (*strongly disagree*) to 4 (*strongly agree*). Reversing the negatively worded items and summing them together with the positive items yields a score for each provision. Summing the scores for each of the six individual provisions forms a total social support score. Internal consistency for the overall scale has ranged from .85 to .92 across various populations (Cutrona, Russell, & Rose, 1986). The SPS produced excellent internal consistency in the current study ( $\alpha = .90$ ). Support for the validity of the SPS has been shown in a study among college students where the social provisions collectively accounted for 66% of the variance in scores on the UCLA Loneliness Scale (Russell, Peplau, & Cutrona, 1980; Cutrona, 1982).

**College Adjustment.** The Student Adaptation to College Questionnaire (SACQ) is a 67-item measure that assesses the influence of personality and environmental factors on adjustment to college (Baker & Siryk, 1984). The measure yields an overall adjustment score in addition to four subscale scores in the areas of Academic Adjustment, Social Adjustment, Personal-Emotional Adjustment and Institutional Attachment. Students who feel that they are able to manage the intensity of college course work, earn high grades, and enjoy their classes endorse higher scores on the Academic Adjustment scale. Students who have been able to make new friends and feel that they are integrated with their peers at their institution receive higher Social Adjustment scores. Students who report an overall sense of well-being and the use of effective coping skills in dealing with the stresses associated with the college environment endorse higher Personal-Emotional Adjustment scores (Kurtz, Puher, & Cross, 2012). Higher scores on the Institutional Attachment subscale are endorsed by students who feel satisfied with their decision

to attend their particular institution and intend to stay there for the remainder of their undergraduate experience (Baker & Siryk, 1984). Participants respond to each item on a 9-point Likert scale (1 = *does not apply to me at all*; 9 = *applies very closely to me*). Subscale scores are a representation of the average score for items in that subscale. Higher scores indicate better adjustment. In their original paper, Baker and Siryk (1984) found that the full SACQ measure possessed excellent internal consistency ( $\alpha = .94$ ). Across six administrations of the measure, internal consistencies for the four subscales ranged from .73 to .88 (Baker & Siryk, 1984). Higher scores on the Academic Adjustment subscale have been shown to correlate with freshman-year GPA, membership in academic honor societies, and a lower risk of attrition after one year in college (Baker & Siryk, 1984; Gerdes & Mallinckrodt, 1994). In addition, higher scores on the Social Adjustment and Personal-Emotional Adjustment subscales have been associated with experiencing fewer depressive symptoms and lower levels of loneliness (Beyers & Goossens, 2002).

In spite of these psychometric properties, the SACQ has been criticized for being too lengthy. Researchers have noted the shortage of brief college adjustment measures and have argued for the need to establish measures that are shorter than the 67-item SACQ (Schmidt & Welsh, 2010). In addition, concerns regarding the conceptualization of the measure have been raised. Research has indicated that the four-factor model developed by Baker and Siryk (1984) tends to fit the data poorly (Taylor & Pastor, 2007; Feldt, Graham, & Dew, 2011). Similarly, a three-factor model (Academic Adjustment, Social Adjustment, and Personal-Emotional Adjustment subscales) has also been shown to fit the data poorly. Furthermore, both Taylor & Pastor (2007) and Feldt et al. (2011) have found that a number of items on the SACQ do not seem to correspond to any of the adjustment domains.

In response to the concerns regarding the psychometrics and length of the SACQ, the current study made use of the Student Adaptation to College Questionnaire – Short-Form (SACQ-SF), which includes 15 of the original 67 items on the SACQ (Mattanah, 2014). Five items from each of the three primary subscales (Academic, Social, Personal-Emotional) were selected for inclusion on the SACQ-SF. Sample items include “I have not been functioning well during examinations” (Academic Adjustment), “I feel that I fit in well as part of the college environment” (Social Adjustment) and “I have been feeling tense or nervous lately” (Personal-Emotional Adjustment). Similar to the SACQ, the SACQ-SF asks participants to respond to items on a Likert scale ranging from 1 (*does not apply to me at all*) to 9 (*applies very closely to me*).

Preliminary results from an unpublished article on the development of the SACQ-SF are based on three studies with samples sizes of 404, 138, and 188 undergraduate students, respectively. Results from these samples indicate that the five-item subscales in the SACQ-SF demonstrate good to acceptable internal consistency ( $\alpha = .81$  for the Academic Adjustment subscale,  $\alpha = .87$  for the Social Adjustment subscale, and  $\alpha = .79$  for the Personal-Emotional Adjustment subscale; Mattanah, 2014). Similarly, in the current study the internal consistency of the overall SACQ-SF was .82 with subscale reliabilities ranging from .76 to .88. The validity of the SACQ-SF has been assessed through the utilization of other measures that also indicate adjustment outcomes. The social adjustment subscale of the SACQ-SF correlated substantially with the UCLA Loneliness Scale (Russell et al., 1980), the Personal-Emotional adjustment subscale correlated well with measures of depression, and the Academic-Adjustment subscale correlated with objective records of grade point averages collected from these students’ academic records (Mattanah 2014).

## **Results**

### **Correlations Between Self-Construal Measures and Outcomes**

A series of correlation analyses were conducted to assess the relationship between the three self-construal variables (independent, interdependent, and relational-interdependent) and the outcome variables (adjustment, distress, and relationship functioning). Correlations are listed in Table 2. Consistent with our hypothesis, the independent self-construal was consistently correlated with better adjustment and less distress across the various outcome measures. By contrast, the interdependent and relational-interdependent self-construals were only correlated with the relationship functioning measures, namely peer attachment and social support. In addition, the prediction that the interdependent self-construal would not be related to adjustment was also supported. Furthermore, the moderate correlations between the relational-interdependent self-construal and the two relationship functioning measures provided partial evidence for the hypothesis that relational-interdependence would be related to enhanced relationship functioning (and in turn better adjustment).

### **Regression Analyses Exploring Incremental Effects of Self-Construal Measures**

Because all three self-construal measures were correlated with social support and peer attachment, we wanted to examine which specific type of self-construal best predicted these relationship functioning measures and how they fared against one another, beyond simply looking at their correlations. Linear regression analyses for social support and peer attachment are displayed in Tables 3 and 4 respectively. The independent self-construal was a significant predictor of both social functioning measures, as expected. After controlling for independent self-construal, relational self-construal (i.e. the RISC) predicted social support and peer

attachment, whereas interdependent self-construal did not. This supports the hypothesis that relational-interdependence is related to enhanced relationship functioning.

### **Effects of Ethnicity on Adjustment Outcomes**

Next, a one-way analysis of variance (ANOVA) was conducted to examine the effects of ethnicity on the outcome variables. Although the sample size for the Latino/a and Biracial participants was fairly small ( $N=10$  and  $N=15$  respectively) we decided to include both of these groups in the initial ANOVA along with the other three ethnic groups. The means and standard deviations are displayed in Table 5 and indicate that the ethnic groups differed significantly in terms of distress, adjustment, and social support. Consistently, Asian American students reported more distress, worse adjustment, and less social support, when compared particularly with Caucasian students, and to a lesser extent, with Latino/a and African American students. The other ethnic groups did not differ significantly from each other in terms of their adjustment outcomes. The results of the ANOVA did not support our hypothesis that the ethnic groups would differ in their levels of relational self-construal, as assessed using either the Singelis measure of interdependent self-construal or the Cross measure of relational-interdependent self-construal.

In spite of the lack of ethnic group difference on the self-construal measures, we also wanted to determine whether ethnicity would act as a moderator on the relationship between self-construal and adjustment outcomes. The results from these analyses indicated that ethnicity did not significantly moderate the links between the three self-construal measures and the adjustment outcome measures or the two measures of relationship functioning. There were no significant *patterns* of difference across ethnicity as the correlations between self-construal and the outcome measures were consistent across all ethnic groups.

### **Analyses Examining Social Support as a Mediator between Asian American Status and Adjustment Outcomes**

Because previous analyses indicated that the Asian American students were doing poorly in terms of lower overall adjustment and increased distress (see Table 5), we were interested in examining whether there was an explanation for this potentially alarming finding. We chose to conduct a mediation analysis to determine if the reason why the Asian American students were doing poorly could be explained by a lack of social support. As such, we looked at social support as a mediator of the influence of ethnicity on distress outcomes by using the PROCESS macro for SPSS (Hayes, 2013). The results from this mediation analysis are shown in Table 6 and indicate that there was an indirect relationship between ethnicity (Asian) and distress and that social support did in fact act as a mediator of this relationship. As shown in Table 6, this analysis, controlled for African American status in order to examine the unique effect of Asian American status on distress. Among the Asian American students, their increased distress was explained, in part, by lower perceived social support.

### **Mediation of Relational Self-Conceptualization on Adjustment Outcomes through Relationship Functioning**

Finally, we wanted to test our conceptual model in Figure 1 that argued that the effects of relational self-construal on adjustment outcomes would be indirect and mediated through enhancing students' relationship functioning. To test this idea, we conducted a series of regression-based mediational models, using SPSS PROCESS, in which the RISC measure was the predictor, social support and peer attachment served as the mediators, and overall distress levels and SACQ-SF adjustment outcomes served as the outcome variables. These results are shown in Tables 7 (for overall distress) and 8 (for SACQ-SF adjustment). As seen in those

tables, for both outcome variables, the indirect effects of the RISC were significant, suggesting that its effects on these adjustment variables were mediated by enhancing social support processes and improving peer attachment. Interestingly, when controlling for these indirect effects, the direct effect of relational self-construal on distress was positive and on adjustment was negative, suggesting that there is some other pathway, unrelated to social support and peer attachment, by which relational self-construal is associated with more distress and worse adjustment for college students.

### **Qualitative Findings**

In order to understand the results from the Self-Construal and Ethnic Identity interview, we utilized qualitative methods based on the grounded theory approach, which is an inductive approach that constructs theory from data analysis (Glaser & Strauss, 1967). Because the interview was exploratory in nature and there were no set hypotheses associated with it, grounded theory was an appropriate method, as it does not seek to verify predetermined theories. During the interviews, a trained research assistant completed Appendix D as the participant responded to the questions and completed the activities described in Appendix C. These forms allowed the interviewer to begin pulling out key words and potential themes right as they were interacting with the participant. These preliminary keywords served as the basis of the inductive approach. When data collection was completed, we transcribed five interviews from the Asian American, Caucasian, and African American samples and two interviews from the Latino/a and Biracial/Mixed samples. These transcriptions were then coded at a general level to begin pulling out emerging themes. The transcriptions were completed by a research assistant who was not present during the actual interview. This ensured that the person who transcribed the interview and the person who conducted the interview (and completed Appendix D) were different

individuals. The coded transcriptions and completed appendices were then assessed for agreement by the principal investigator so that a list of key themes could be developed for each ethnic group.

Because the quantitative analyses indicated that the Asian American students differed significantly from their peers, we chose to focus our qualitative inquiry on this ethnic group. As such, the themes that emerged from the five transcribed interviews were the focus of what we searched for in the remaining interviews for this group. Table 9 displays the themes that were relevant within the Asian American sample and the number of participants who endorsed these themes, as well as the overall frequency of each theme across all interviews. We chose to compare the frequencies of these themes with the Caucasian sample because the quantitative analyses indicated that this was the group the Asian Americans differed from most significantly. The most common theme was a focus on academic achievement and its impact on future success as 80% of the Asian Americans, and only 39% of the Caucasians endorsed this theme at least once. Other common themes among the Asian American sample included feeling more relaxed at home than on campus and feeling shy, reserved or uncomfortable at college. The importance of religious identity was common in both groups, particularly the Caucasian sample. In addition, recognizing family members as the most important sources of support was another common theme in both groups.

## Discussion

The results from this study provide support for some of our hypotheses and are consistent with previous research. In particular, independent self-construal was related to better adjustment outcomes overall while the interdependent self-construal was only weakly correlated with the two relationship functioning measures (SPS and the IPPA Peer) and was ultimately not a significant predictor of either of these measures in the regression analyses. Researchers have found similar results indicating that the independent self-construal is related to reduced distress while interdependence is associated with greater distress among college students (Okazaki, 1997; 2000; Norasakkunkit & Kalick, 2002). With these studies in mind, it was not surprising to see that our findings mirrored these results.

Our hypothesis that the relational self-construal, as assessed using the RISC, would be an important predictor of college adjustment produced mixed results. While this measure was not strongly correlated with adjustment as measured by the SACQ-SF, it was correlated with the two relationship functioning measures (IPPA Peer and SPS). These results suggest that this type of self-construal may be more related to measures of social support than college adjustment in and of itself. Further, the RISC may be an important measure when assessing how well an individual is doing within their *relationships* but is perhaps less helpful as a measure of a student's individual functioning. Previous research examining relational-interdependence has found that for students with strong endorsements of this type of self-construal, perceived social support is related to enhanced self-esteem and continued enrollment in college courses (Cross & Vick, 2001). Our results mirror this finding, which highlights the association between relational-interdependence and social support and the impact that this relationship has on college student persistence. The regression analyses showed that the RISC proved to be a better predictor of

relationship functioning (particularly for social support) than the interdependent self-construal. This finding supports our suggestion that among ethnically diverse students living in the United States, the RISC may more accurately measure the kinds of relational-interdependence that ultimately predict positive adjustment outcomes.

While the RISC did not appear to influence college adjustment directly, the results from the mediation analyses suggest that this measure does in fact play an indirect role in adjustment due to its influence on social support and relationship functioning, which in turn affect overall adjustment. This could explain why relational-interdependence was not directly correlated with the SACQ-SF measure in the initial correlation analysis. In a study that examined roommate relationships, Terzino and Cross (2009) found that relational-interdependent self-construal was negatively related to students' commitment to these relationships, suggesting that the RISC measure may not be unilaterally related to positive outcomes. The influence of relational-interdependence on college adjustment and well-being might only be seen when examining how this type of self-construal interacts with another construct, such as social support. Indeed, it appears that the RISC measure may affect students' adjustment in two divergent ways, which may explain why it did not show a simple zero-order correlation with adjustment outcomes. On the one hand, a higher relational self-construal seems to foster a richer social support network, as would be expected, which in turn leads to greater adjustment outcomes. On the other hand, students with greater relational self-construals may also worry more about how they are doing with regard to their relational status and some of that worry may create adjustment difficulties, especially in the absence of high levels of social support. The value of endorsing a relational-interdependent self-construal may ultimately come into play when considering how an individual's *support system* shapes their overall well-being and transition to college.

Another interesting result from this study was the finding that as a group, the Asian American students were doing poorly in terms of their overall adjustment and perceptions of social support. The information gathered from the interviews provides some insight into the origins of this concerning finding. Many of the Asian American students noted a significant discrepancy between who they are on campus versus who they are at home. In general, they discussed feeling comfortable, relaxed, outgoing, and loud when they are around their family members or people from their cultural background. One participant even stated that at home she is “vivacious” while on campus she is “more reserved.” Another participant stated that when she is on campus she is “very quiet and usually look[s] down” when walking around. These findings suggest that some of the most important sources of support for these students come from family members and not their college peers.

Here it is important to note that 23 of the 25 Asian American participants had either immigrated to the United States with their families or were the first generation born in America. In addition, 13 of the 25 participants stated that English was not their native language. Participants were asked to discuss how long they had lived in another country, when applicable, as well as whether their parents had moved to the United States from another country. Among the Asian American sample, two participants stated that they had lived in the United States for fewer than ten years, and although neither of them explicitly stated that they were international students, it is possible that there may have been one such student who simply chose not to disclose that status. Given this information about national origins, some of the stress discussed by these participants may in fact be more related to general acculturative stress than college adjustment in and of itself. Nonetheless, the Asian American group as a whole consisted primarily of immigrants and first generation citizens who had spent the majority of their

upbringing in this country. The stress associated with coming to the United States and adapting to a new way of life may force a family to draw upon strengths that enable them to persist in the face of those challenges. These experiences may play a role in developing tight family bonds that can make it difficult to integrate others into an individual's support system (Suarez-Orozco & Suarez-Orozco, 2001; Fong, 2004). Given that so many of the Asian American participants in the current study came from immigrant backgrounds, it is possible that living on campus or spending most of the day surrounded by college peers only served to highlight the fact that they were starting to transition away from their family members who had previously made up such a significant portion of their support system. It is also possible that perhaps the campus climate at this particular institution is not especially inviting towards students from immigrant or non-English speaking backgrounds, or that the institution does not actively focus on ways of integrating students' families into the campus culture.

Another interesting finding from the interviews was the salience of academic success and future-focused thinking that the Asian American students endorsed. The percentage of participants endorsing this theme was almost doubled in the Asian American sample, compared to the Caucasian sample. If Asian American students spend a majority of their time and energy invested in academic pursuits, it makes sense that they may feel as though they have less time for developing social relationships and support systems on campus as they feel more concerned with ensuring that their academic adjustment (rather than their social or emotional adjustment) is maintained. This finding also brings into question the model minority myth, which argues that Asians represent a minority group that has achieved success in America through hard work and education (Wing, 2007). The stereotype that Asian Americans will excel academically may place

pressure on these students to fulfill such expectations, which could have adverse effects on their social adjustment and overall well-being as was highlighted in this study.

Another way to conceptualize these findings is through our knowledge of imposter feelings, which refer to an internal sense of intellectual phoniness (Clance & Imes, 1978). Previous research on this phenomenon indicated that Asian American students experienced significantly higher imposter feelings than their African American and Latino/a peers and that despite positive academic stereotypes, Asian American students often had to manage stressors associated with parental and societal expectations, again relating to the model-minority stereotype (Cokley, McClain, Enciso, & Martinez, 2013). These expectations combined with imposter feelings provide useful insight into the general distress and low overall well-being that the students in our study appeared to be experiencing.

### **Limitations**

While the current study suggests some interesting findings regarding the mechanisms by which students transition to college, the following limitations should be considered when interpreting the results. First, the sample sizes of the Latino/a and Biracial/Mixed students were quite small ( $N=10$  and  $N=15$  respectively), which limited our power to detect the potential influence of each ethnic background on college adjustment. Had the samples for each of the five ethnic groups been more equal, we may have found more significant differences regarding their levels of distress and overall adjustment. In addition, the data was limited by both the number and nature of collection points. Almost 60% of the sample was freshman students in their first semester of college. It is possible that the relationships between self-construal, relationship functioning and overall adjustment may take longer to emerge as students have more time to settle into their new environment and determine which activities or social relationships to focus

on. A longitudinal approach to this sort of study may provide additional information regarding how the college transition process is shaped by various personal and interpersonal factors.

The overwhelming majority of our participants were female, which limited our ability to generalize our findings across genders. In spite of our skewed sample, we examine briefly whether gender had any effect on the main findings of our study. We found that gender did not moderate the patterns of effects that were observed in terms of the differences between Asian American and Caucasian participants. Both the male and female Asian Americans displayed lower social support and increased distress when compared to the male and female Caucasians. In addition, the demographic survey did not inquire about socioeconomic status or whether the participants lived on versus off campus. Information regarding these variables may have helped to inform why there were differences in terms of social support and overall adjustment. Previous research on commuter and residential students has found that students who live on campus are more likely to possess a higher socioeconomic status, have parents with a higher level of education, and use higher amounts of financial aid (Gianoutsos & Rosser, 2014). In the current study, it may have been valuable to examine how some of these sociodemographic factors interact with ethnic background and immigrant status. In addition, it is unclear if or how these results may be generalizable to other college campuses. While our results indicated that the Asian American students were doing poorly in terms of lower overall adjustment and increased distress, this may not be true for students from the same ethnic background attending other universities. It is possible that at the time the data was collected at this particular campus, the overall racial climate and sensitivity towards students from Asian backgrounds was not especially conducive to college adaptation. At a different point in time or on another campus, it is possible that the overall well-being of the Asian American students could be more positive. In

addition, it is important to note the heterogeneity of the Asian American participants in this study. Students reported being from backgrounds including Korean, Chinese, Indian, and Middle Eastern. While these students were studied collectively, our findings could have differed by taking a closer look at each student's specific ethnic background and family origins.

Finally, the Cronbach's alpha levels showed questionable reliability for the independent subscale of the Singelis Self-Construal scale (SCS). While this might be a potential limitation of this measurement, it is worth noting that the internal consistency for this measure was  $\alpha = .69$  and in Singelis's original work, the alpha was just slightly higher at .70. Similarly, previous research using this subscale has produced alpha levels as low as .58-.65 in samples of White and Asian American students (Okazaki, 2000; Norasakkunkit, 2002). As such, the moderate alpha level produced in the current study may be indicative that the SCS measure contains items that are perhaps not as reliable as they could be.

### **Clinical Implications and Future Directions**

The current study highlights the importance of social support during the college years. Our results suggest that facilitating systems of social support may be an important component in ensuring a positive college adjustment experience. While students from diverse ethnic backgrounds stand to benefit from these efforts, it is important to acknowledge that students from minority or marginalized backgrounds may especially be in need of additional avenues for social support on campus. Studies such as this can help inform college counselors and higher education professionals about groups of students who might need additional support services on campus. While the Asian American students in the current study appeared to be doing poorly, further research is needed to determine whether similar trends exist on other campuses and how universities manage these concerns. There are mixed results regarding the well-being of Asian

American college students with some studies citing evidence of no difference in levels of depression between Caucasians and Asian Americans (Lund, Chan, & Liang, 2014; Carmody, 2005) while other research cites increased rumination (Chang, Tsai, & Sanna, 2010) and use of pessimism and social withdrawal (Chang, 1996) in Asian American samples. These findings suggest that there is a need for continued research in this area and highlights the idea that it may be important for individual institutions to examine the *specific* ethnic makeup of their campus in order to determine how to address the unique needs of their students. A transitional social support group for Asian American students could be an effective method of addressing some of the adjustment concerns that were discussed in the current study. In such a group, one method of bridging the gap between home and campus life would be to engage parents and family members in order to ensure that those important connections to home are both honored and maintained. This type of group could also assist in providing beneficial psychoeducation to family members, which could help them to understand some of the unique experiences that their children will be presented with as they progress through their college years. Such information could be especially important for immigrant and first generation college students. In addition, a transitional support group that engages older students who are towards the end of their college career could also help to establish mentors that provide incoming students with a realistic perspective of what their experience might be like. With any type of group, it would be important to ensure that efforts are *targeted* towards the students (i.e. Asian Americans) who are most in need of enhanced social support on campus.

The current study found that relationship functioning measures such as peer attachment and social support can act as mediators of the relationship between relational-interdependent self-construal and college adjustment. It would be beneficial for future research endeavors to

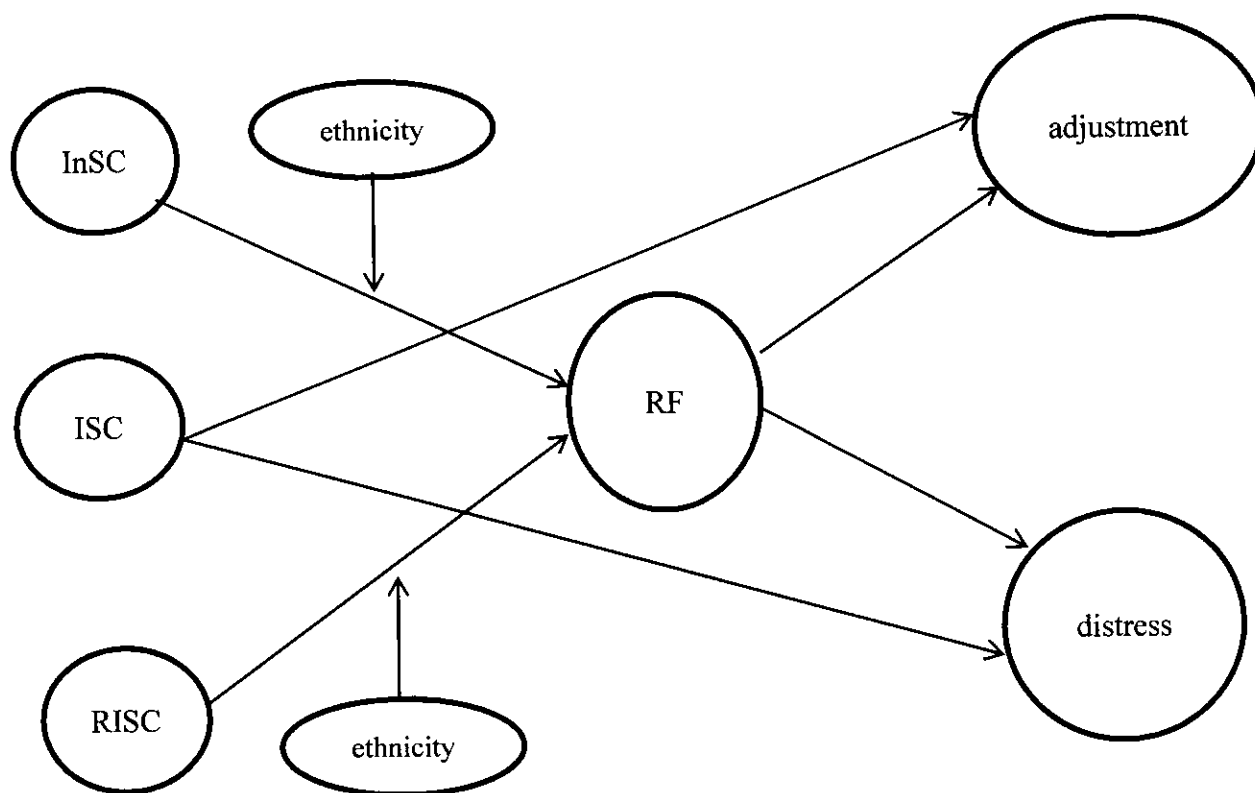
examine additional constructs outside of relationship functioning that may also impact adjustment. Variables such as gender and socioeconomic status were not examined in the current study but could be worth studying in the future. In addition, the continued use of qualitative methodology in future studies may assist in gaining a better understanding of the challenges that students face as they transition into college. As shown in the current study, qualitative interviews can play a role in helping researchers develop a clearer picture of the nature and type of relationships that provide valuable social support to students. This knowledge can inform efforts regarding fostering on-campus support and engaging parents and families. Qualitative interviews also provide students with an opportunity to discuss campus events and institutional attitudes that affect their overall adjustment and may be unique to their campus.

## **Conclusion**

In this study we investigated whether students from diverse ethnic backgrounds differed in their endorsements of three self-construal models and overall adjustment to college. The findings from this study provide an understanding of the intersection of self-construal, relationship functioning, and college adjustment. In particular, the results indicated that in the presence of social support, relational-interdependent self-construal (rather than group-oriented interdependence) is related to less distress and better adjustment outcomes. Consistent with previous research, the independent self-construal was related to enhanced adjustment as well. Results from the in-person interviews with the participants in this study complemented the quantitative analyses, which indicated that the Asian American students differed significantly from their peers. In particular, these students demonstrated less social support, worse adjustment and increased distress. The themes from the interviews highlighted common concerns among the Asian American sample including discrepancies between how the participants acted on campus

versus at home. Taken together, these results provide a useful context for future research in the area of ethnic differences in college student adjustment. In addition, college counselors and higher education professionals are encouraged to utilize this information as they determine how to best meet the unique needs of the students at their respective institutions.

Figure 1. Hypothesized relationship between predictor and outcome variables



*Note.* InSC = Interdependent Self-Construal. ISC = Independent Self-Construal. RISC = Relational-Interdependent Self-Construal. RF = Relationship Functioning

Table 1

*Demographic characteristics of participants*

Characteristic	<i>n</i>	Percentage (%)
<b>Gender</b>		
Male	24	18
Female	107	82
<b>Race/ethnicity</b>		
Asian/Asian American	25	19
Black/African American	43	33
Caucasian	38	29
Hispanic/Latino/a	10	8
Mixed/Biracial	15	11
<b>Class year<sup>a</sup></b>		
Freshman	76	58
Sophomore	23	18
Junior	17	13
Senior	14	11
<b>Birth Country</b>		
United States	105	80
Not United States	26	20
<b>Native Language</b>		
English	111	85
Not English	20	15

*Note.* *N* = 131. <sup>a</sup>*N* = 130.

Table 2

*Correlation of three self-construal measures with adjustment outcomes*

Variable	SACQ-SF	SACQ-SF	SACQ-SF	DASS	DASS	DASS	DASS	SPS	IPPA
	Academic	Social	Emotional	Overall	Depression	Anxiety	Stress	Overall	Peer
SCS Independent	.27**	.28**	.22**	-.24**	-.23**	-.28**	-.10	.40**	.37**
SCS Interdependent	-.08	.13	.03	-.06	-.12	-.01	-.03	.29**	.30**
RISC	-.01	.19*	-.05	.07	-.09	.08	.18*	.43**	.35**

*Note.* \* $p < .05$ , \*\* $p < .01$ . SACQ-SF = Student Adaptation to College Questionnaire Short-Form. DASS = Depression Anxiety Stress Scales. IPPA = Inventory of Parent and Peer Attachment. SPS = Social Provisions Scale. SCS = Self-Constructual Scale. RISC = Relational-Interdependent Self-Constructual Scale.

Table 3

*Simultaneous regression analysis predicting social support from self-construal measures*

Variable	<i>B</i>	<i>SE B</i>	$\beta$	<i>t</i>	<i>p</i>
SCS Independent	4.07	1.01	.31	4.03	.000
SCS Interdependent	.30	1.21	.02	.25	.803
RISC	3.68	.99	.35	3.73	.000

*Note.*  $R^2 = .28$  ( $N = 130$ ,  $p < .001$ ). SCS = Self-Construal Scale. RISC = Relational-Interdependent Self-Construal Scale.

Table 4

*Simultaneous regression analysis predicting peer attachment from self-construal measures*

Variable	<i>B</i>	<i>SE B</i>	$\beta$	<i>t</i>	<i>p</i>
SCS Independent	5.93	1.65	.29	3.60	.000
SCS Interdependent	2.24	1.97	.11	1.14	.257
RISC	3.73	1.61	.22	2.32	.022

*Note.*  $R^2 = .22$  ( $N = 130$ ,  $p < .001$ ). SCS = Self-Construal Scale. RISC = Relational-Interdependent Self-Construal Scale.

Table 5

*Means and standard deviations from the analysis of variance demonstrating the effects of ethnicity on the outcome variables*

Variable	Asian/Asian American		Black/African American		Latino/a		Caucasian		Mixed/Biracial		<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Independent self-construal (SCS)	4.68	.86	5.02	.67	4.72	.50	4.92	.73	4.67	.73	1.34
Interdependent self-construal (SCS)	5.02	.83	4.53	.69	4.72	1.0	4.85	.58	4.81	.64	2.14
Relational-interdependent self-construal (RISC)	5.30	.76	4.92	.96	4.89	1.14	5.34	.76	5.29	.90	1.67
Adjustment (SACQ-SF)	4.82 <sup>B</sup>	1.1	5.76 <sup>A</sup>	1.13	6.11 <sup>A</sup>	1.22	6.10 <sup>A</sup>	1.22	5.44 <sup>AB</sup>	1.11	5.26
Distress (DASS)	1.94 <sup>B</sup>	.49	1.65 <sup>AB</sup>	.39	1.15 <sup>AB</sup>	.38	1.56 <sup>A</sup>	.41	1.74 <sup>AB</sup>	.44	3.57
Social Support (SPS)	3.21 <sup>B</sup>	.38	3.41 <sup>AB</sup>	.39	3.48 <sup>AB</sup>	.32	3.50 <sup>A</sup>	.33	3.39 <sup>AB</sup>	.46	2.43
Peer Attachment (IPPA)	3.83	.57	4.04	.60	4.04	.60	4.10	.49	3.85	.75	1.06
											.380

*Note.* Groups with differing superscripts differed significantly from each other at the  $p < .05$  level. SACQ-SF = Student Adaptation to College Questionnaire Short-Form. DASS = Depression Anxiety Stress Scales. IPPA = Inventory of Parent and Peer Attachment. SPS = Social Provisions Scale. SCS = Self-Construal Scale. RISC = Relational-Interdependent Self-Construal Scale.

Table 6

*Regression analyses examining mediation of ethnicity on distress through social support*

Variables Entered	B	SE B	t	p	95% CI
<b>A. Outcome Variable: Overall Distress (DASS) [Total R<sup>2</sup> = .19, (N = 106), p &lt; .0001)]</b>					
African American	.06	.09	.63	.53	[-.1230, .2365]
Asian American	.28	.11	2.55	.01	[.0612, .4923]
Social support (SPS)	-.01	.00	-3.25	.002	[-.0235, -.0057]
<b>B. Total, Direct, and Indirect Effects</b>					
Total Effect of X on Y	.38	.11	3.45	.001	[.1598, .5922]
Direct Effect of X on Y	.28	.11	2.55	.01	[.0612, .4923]
Indirect Effect of X on Y					
1: Asian American → SPS → DASS	.10	.04			[.0355, .2084]

*Note.* DASS = Depression, Anxiety, Stress Scales; SPS = Social Provisions Scale

Table 7

*Regression analyses examining mediation of relational-interdependent self-construal on distress through social support and peer attachment*

Variables Entered	B	SE B	t	p	95% CI
<b>A. Outcome Variable: Overall Distress (DASS) [Total R<sup>2</sup> = .24, (N = 131), p &lt; .0001)]</b>					
Relational-Interdependence (RISC)	.14	.04	3.36	.001	[.0592, .2282]
Peer Attachment (IPPA Peer)	-.01	.00	-2.62	.01	[-.0151, -.0021]
Social support (SPS)	-.01	.01	-2.46	.02	[-.0237, -.0026]
<b>B. Total, Direct, and Indirect Effects</b>					
Total Effect of X on Y	.03	.04	.75	.45	[-.0534, .1190]
Direct Effect of X on Y	.14	.04	3.36	.001	[.0592, .2282]
Indirect Effect of X on Y					
1: RISC → IPPA Peer → DASS	-.05	.02			[-.1085, -.0158]
2: RISC → SPS → DASS	-.06	.03			[-.1179, -.0156]

*Note.* DASS = Depression, Anxiety, Stress Scales; RISC = Relational-Interdependent Self-Construal; IPPA = Inventory of Parent and Peer Attachment; SPS = Social Provisions Scale

Table 8

*Regression analyses examining mediation of relational-interdependent self-construal on adjustment through social support and peer attachment*

Variables Entered	B	SE B	t	p	95% CI
<b>A. Outcome Variable: Overall Adjustment (SACQ-SF) [Total R<sup>2</sup> = .28, (N = 131), p &lt; .0001)]</b>					
Relational-Interdependence (RISC)	-.24	.12	-2.10	.04	[-.4741, -.0142]
Peer Attachment (IPPA Peer)	.03	.01	2.92	.004	[.0084, .0438]
Social support (SPS)	.04	.01	2.84	.005	[.0124, .0699]
<b>B. Total, Direct, and Indirect Effects</b>					
Total Effect of X on Y	.10	.12	.80	.426	[-.1443, .3396]
Direct Effect of X on Y	-.24	.12	-2.10	.04	[-.4741, -.0142]
Indirect Effect of X on Y					
1: RISC → IPPA Peer → SACQ-SF	.15	.07			[.0512, .3304]
2: RISC → SPS → SACQ-SF	.19	.08			[.0521, .3620]

*Note.* SACQ-SF = Student Adaptation to College Short-Form; RISC = Relational-Interdependent Self-Construal; IPPA = Inventory of Parent and Peer Attachment; SPS = Social Provisions Scale

Table 9

*Comparison of themes from interviews with Asian American and Caucasian American participants*

Theme	Number of Participants Endorsing Theme		Percentage of Participants Endorsing Theme	
	AA	CA	AA	CA
I feel more social or comfortable when I am at home than when I am on campus	13	8	52%	21%
I am shy/quiet or uncomfortable on campus	14	4	56%	11%
My main focus is my studies and my future	20	15	80%	39%
I feel a sense of responsibility to set an example for my family and make them proud	11	5	44%	13%
I feel that I need to represent my ethnicity and make a good impression for my ethnic group	7	1	28%	2%
My family (including extended family) have been the most important sources of support as I adjust to college	12	14	48%	37%
My religion is an important part of my identity	8	16	32%	42%

Note. AA = Asian American ( $N = 25$ ); CA = Caucasian ( $N = 38$ )

## Appendix A

**APPROVAL NUMBER: 15-A089**

To: Pauline Minnaar  
736 Charing Terrace  
Towson MD 21204

From: Institutional Review Board for the Protection of Human  
Subjects Debi Gartland, Chair

Date: Monday, June 08, 2015

RE: Application for Approval of Research Involving the Use of  
Human Participants

Office of Sponsored Programs  
& Research

Towson University  
8000 York Road  
Towson, MD 21252-0001

t. 410 704-2236

f. 410 704-4494

[www.towson.edu/ospr](http://www.towson.edu/ospr)

Thank you for submitting an Application for Approval of Research  
Involving the Use of Human Participants to the Institutional Review  
Board for the Protection of Human Participants (IRB) at Towson  
University. The IRB hereby approves your proposal titled:

*The Influence of Self-Constraint on the Adjustment Outcomes of Ethnically  
Diverse American College Students*

If you should encounter any new risks, reactions, or injuries while  
conducting your research, please notify the IRB. Should your research  
extend beyond one year in duration, or should there be substantive  
changes in your research protocol, you will need to submit another  
application for approval at that time.

We wish you every success in your research project. If you have any  
questions, please call me at (410) 704-2236.

CC: Leonie Brooks  
File



Date: Monday, June 08, 2015

### NOTICE OF APPROVAL

TO: Pauline Minnaar DEPT: PSYC

**PROJECT TITLE:** *The Influence of Self-Constraint on the Adjustment Outcomes of Ethnically Diverse American College Students*

**SPONSORING AGENCY:** None

**APPROVAL NUMBER:** 15-A089

The Institutional Review Board for the Protection of Human Participants has approved the project described above. Approval was based on the descriptive material and procedures you submitted for review. Should any changes be made in your procedures, or if you should encounter any new risks, reactions, injuries, or deaths of persons as participants, you must notify the Board.

A consent form: ☒ is ☐ is not required of each participant

Assent: ☐ is ☒ is not required of each participant

This protocol was first approved on: 08-Jun-2015

This research will be reviewed every year from the date of first approval.

  
Debi Gartland, Chair  
Towson University Institutional Review Board

## Appendix B

For Office Use Only:  
ID number: \_\_\_\_\_

### Adjustment to College Study INFORMED CONSENT FORM



PRINCIPAL INVESTIGATOR: Pauline Minnaar  
FACULTY ADVISOR: Dr. Leonie Brooks

PHONE: (908) 391-5775  
PHONE: (410) 704-3066

#### Purpose of the Study:

The purpose of this research study is to explore how students adjust to life in college and to understand the role that self-construal, ethnic identity, and social support play in this transition process. Please note that you must be 18 years old or older to be a part of this study.

#### Procedures:

As part of this study, you will be asked to participate in an open-ended interview with a trained interviewer. During the interview you will be asked questions about your ethnicity, and other identities in your life. You will also be asked to discuss what your experience has been like adjusting to college and how your relationships with others have influenced this experience. The interview will take no longer than 30 minutes. Please note that these interviews will be recorded on audio recorders for later reference however, any information you reveal during this interview will be kept strictly confidential. These audiotapes will only be heard by the researchers of this study and will be maintained in a secure manner by the principal investigator.

After the interview, you will be asked to complete a set of online surveys about yourself, your relationships with others and your experience in college thus far. The surveys should take no more than 30 minutes to complete.

Both the interview and the online surveys will take place in a lab space in the College of Liberal Arts building.

#### Risks/Discomfort:

There are a few minor risks associated with participation in this study. You may experience discomfort during the open-ended interview, as you will be asked to discuss information relating to your personal relationships and cultural background. If you are not comfortable responding to an interview question, you may skip that question. You will not be forced to disclose any information and may end your participation in the interview if you wish.

You may also experience some minor discomfort when filling out some of the survey questions as they ask about personal experiences and feelings. If you find any particular item distressing on the surveys, feel free to leave that item blank.

The research assistants of the study are available to discuss any concerns or feelings you may have arising from participating in this study. They can provide you with information about campus resources if you are experiencing distress, including referring you to the Towson University Counseling Center (at 410-704-2512) to discuss your concerns further.

Benefits:

It is hoped that the information gained from this study will have beneficial effects in identifying some factors that help students adapt to college. Therefore, we hope you will take this study seriously and make your best efforts to complete each aspect of the study.

Additionally, if you are taking a Psychology class that requires research participation or offers extra credit for participation in research, you will receive 2 *units* of research credit for participating in this study.

Alternatives to Participation:

Participation in this study is voluntary. You are free to withdraw or discontinue participation at any time. Refusal to participate in this study will in no way affect your standing in any of your classes.

Confidentiality:

All information collected during the study period will be kept strictly confidential. You will be identified through identification numbers only. No publications or reports from this project will include identifying information on any participant. If you agree to join this study, and are at least 18 years of age, please check the appropriate boxes below and sign your name.

☐

I have read and understood the information on this form.

☐

I have had the information on this form explained to me.

---

Print your Name Here

---

Date

---

Participant Signature

---

Date

Please note this study has been approved by the Institutional Review Board for the Protection of Human Participants at Towson University.

If you have any questions regarding this study, please contact Pauline Minnaar at (908) 391-5775, Dr. Leonie Brooks at (410) 704-3066 or the Towson University Institutional Review Board Chairperson, Dr. Debi Gartland, Office of University Research Services, 8000 York Road, Towson University, Towson, Maryland 21252; phone (410) 704-2236.

## Appendix C

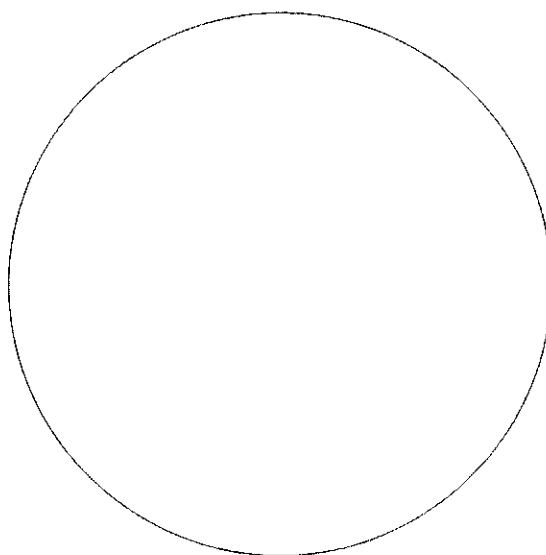
For Office Use Only:  
ID number: \_\_\_\_\_

### Adjustment to College Study Participant Sheet



#### I. Part A: Pie Chart Activity

*Figure 1.* Blank pie chart. Divide up the pie chart in a way that represents the roles and identities in your life that are most important you. Write down the percentage of your overall identity that is made up by each individual role or identity.

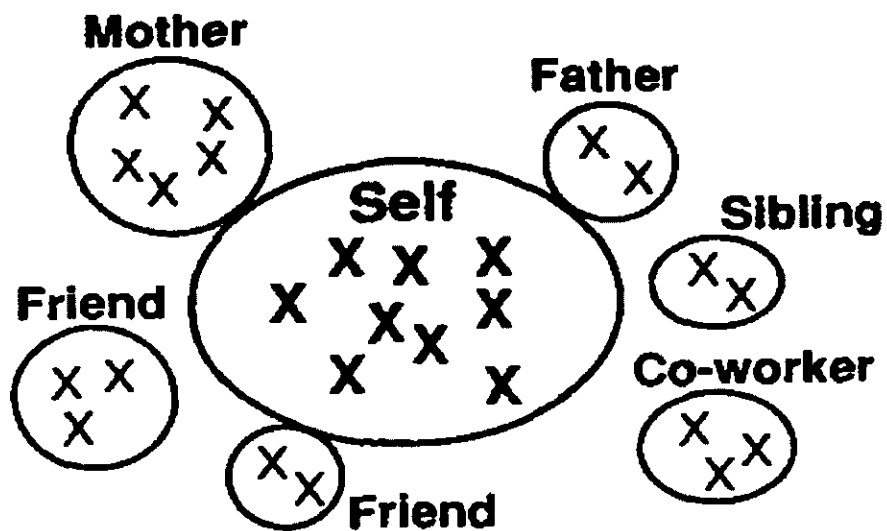


*Table 1.* Word bank with examples of roles and identities. You may choose from the list below or use other roles and identities to label the pie chart.

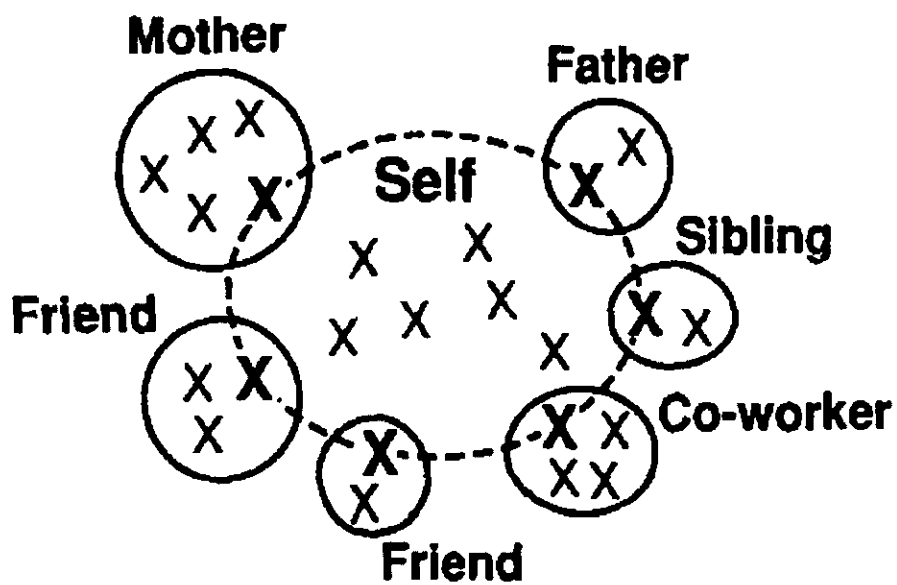
student	male	ethnicity	sexual orientation	sibling	romantic partner	friend	nationality	(other)
age	female	son	religion	daughter	parent	leisure roles/ activities	worker	

## II. Part C: Self-A and Self-B Activity

### Self-A



### Self-B



## Appendix D

For Office Use Only:  
ID number: \_\_\_\_\_

### Adjustment to College Study Self-Constraint and Ethnic Identity Interview RA Interview Recording Sheet



#### **Part A: Pie Chart Activity**

*Follow-up questions about the pie chart:*

1. "Why did you choose this label (point to pie chart) as the biggest percentage of your identity?"
  - a. *If they just give a one word answer or say something like "it's the biggest label because it's important to me", then you can probe a little and ask them why they feel as though it's so important to them.*

*Biggest role/identity:* \_\_\_\_\_

*Keywords from explanation:* \_\_\_\_\_

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2. "Briefly describe the rest of the labels and why you chose to make them that size."

*Other roles/identities:* \_\_\_\_\_

*Keywords from explanation:* \_\_\_\_\_

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### **Part B: Open-Ended Questionnaire**

#### **Questions:**

1. "In general, how would you describe yourself? Who are you?"
  - a. *If they seem confused by what you're asking, just explain that you want to hear how they would describe themselves if they were meeting someone for the first time. In other words, what are some general things about themselves that they would want someone to know – just a brief description of themselves.*

Keywords from explanation: \_\_\_\_\_

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2. "How would you describe yourself when you are at college/on campus?"
  - a. *In other words, what are they like when they're with their peers – not necessarily their friends but rather their classmates or their fellow students and also the interactions they have with other people on campus like faculty and staff etc.*

Keywords from explanation: \_\_\_\_\_

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3. "How would you describe yourself when you are at home?"
  - a. *Aka: Their families or people who are part of their background.*

Keywords from explanation: \_\_\_\_\_

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4. "What role do you see others playing in your life?"

- a. *Try to avoid asking how they are influenced by others but rather say something like, how do you see other people playing a part in your life*

*Keywords from explanation:* \_\_\_\_\_

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5. "For you, what does it mean to be part of your particular ethnic group?"

*Keywords from explanation:* \_\_\_\_\_

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6. "Which people or groups of people have been the most important sources of support as you adjust to life as a college student? Please describe your relationship with them and how they have supported you."

*Keywords from explanation:* \_\_\_\_\_

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**Part C: Self-A and Self-B Activity**

*Follow-up questions about the diagrams:*

1. "Which one of these models do you identify with more?"
  - a. *If they say that they can't pick one or they feel like it depends on the situation, say that's okay and that you'll talk about that in a minute (third question below) but for right now, if they absolutely had to pick one, which one do they feel like they identify with most of the time.*

Self A                      or                      Self-B                      (circle one)

2. "Explain why you chose that model."

*Keywords from explanation:* \_\_\_\_\_

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3. "You said you tend more toward [Self-A or Self-B]. Does that ever differ depending on the situation or whom you are with?"
  - a. *This is where they can explain how they maybe identify with both models depending on the situation etc.*

*Keywords from explanation:* \_\_\_\_\_

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### General Notes

Please answer the following questions about the participant based on all of their responses *throughout* the interview:

On a scale of 1 to 10, how strongly would you say the participant identifies with an **independent self-construal**? (10 = strong identification with this type of self-construal)

1      2      3      4      5      6      7      8      9      10

On a scale of 1 to 10, how strongly would you say the participant identifies with an **interdependent self-construal**? (10 = strong identification with this type of self-construal)

1      2      3      4      5      6      7      8      9      10

On a scale of 1 to 10, how strongly would you say the participant identifies with a **relational-interdependent self-construal**? (10 = strong identification with this type of self-construal)

1      2      3      4      5      6      7      8      9      10

Did anything strange happen during the interview? Were there any interruptions?

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Did the participant ask a lot of questions? Did they seem very confused or did you have to keep giving explanations of the questions?

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What was their overall attitude toward the interview? Engaged? Distracted? Did they communicate a lot or were they pretty silent?

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Is there anything they emphasized or referred to repeatedly?

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## Appendix E

### Demographic information

- \_\_\_\_\_ 1. How old are you?
- \_\_\_\_\_ 2. What is your current year in school (i.e. Freshman, Sophomore, Junior, Senior)?
- \_\_\_\_\_ 3. What is your major of study?
- \_\_\_\_\_ 4. What is your gender?
- a) Male
  - b) Female
  - c) Other
  - d) No response
- \_\_\_\_\_ 6. What is your undergraduate GPA? (leave blank if you do not have one yet)
- \_\_\_\_\_ 5. What is your race/ethnicity? Select all that apply.
- a) Caucasian/White
  - b) Black, African-American
  - c) Hispanic, Latino/a, Spanish origin
  - d) American Indian
  - e) Asian
  - f) Native Hawaiian or Pacific Islander
  - g) Other \_\_\_\_\_
- \_\_\_\_\_ 8. What is your native language?
- \_\_\_\_\_ 9. I also speak another language
- a) Yes \_\_\_\_\_
  - b) No
- \_\_\_\_\_ 10. Where were you born (country)?
- \_\_\_\_\_ 11. I have lived outside of the United States
- a) Yes
    - a. Where? \_\_\_\_\_
    - b. For how many years? \_\_\_\_\_
  - b) No
- \_\_\_\_\_ 12. Where were your parents born (country)?
- a) Mother \_\_\_\_\_
  - b) Father \_\_\_\_\_

### Self-Construal Scale

Please rate each statement below indicating the amount to which you believe the statement describes you.

1	2	3	4	5	6	7
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Disagree Somewhat</b>	<b>Neutral</b>	<b>Agree Somewhat</b>	<b>Agree</b>	<b>Strongly Agree</b>

Interdependent Self-Construal items

- \_\_\_\_\_ 1. I have respect for the authority figures with whom I interact
- \_\_\_\_\_ 2. It is important for me to maintain harmony within my group
- \_\_\_\_\_ 3. My happiness depends on the happiness of those around me
- \_\_\_\_\_ 4. I would offer my seat in a bus to my professor
- \_\_\_\_\_ 5. I respect people who are modest about themselves
- \_\_\_\_\_ 6. I will sacrifice my self-interest for the benefit of the group I am in
- \_\_\_\_\_ 7. I often have the feeling that my relationships with others are more important than my own accomplishments
- \_\_\_\_\_ 8. I should take into consideration my parents' advice when making education/career plans
- \_\_\_\_\_ 9. It is important to me to respect decisions made by the group
- \_\_\_\_\_ 10. I will stay in a group if they need me, even when I'm not happy with the group
- \_\_\_\_\_ 11. If my brother or sister fails, I feel responsible
- \_\_\_\_\_ 12. Even when I strongly disagree with group members, I avoid an argument

Independent Self-Construal items

- \_\_\_\_\_ 1. I'd rather say "No" directly, than risk being misunderstood
- \_\_\_\_\_ 2. Speaking up during a class is not a problem for me
- \_\_\_\_\_ 3. Having a lively imagination is important to me
- \_\_\_\_\_ 4. I am comfortable with being singled out for praise or rewards
- \_\_\_\_\_ 5. I am the same person at home that I am at school
- \_\_\_\_\_ 6. Being able to take care of myself is a primary concern for me
- \_\_\_\_\_ 7. I act the same way no matter who I am with
- \_\_\_\_\_ 8. I feel comfortable using someone's first name soon after I meet them, even when they are much older than I am

- \_\_\_\_\_ 9. I prefer to be direct and forthright when dealing with people I've just met
- \_\_\_\_\_ 10. I enjoy being unique and different from others in many respects
- \_\_\_\_\_ 11. My personal identity independent of others, is very important to me
- \_\_\_\_\_ 12. I value being in good health above everything

### Relational-Interdependent Self-Construal Scale

Listed below are a number of statements about various attitudes and feelings. There are no right or wrong answers to these questions; we are simply interested in how you think about yourself. In the space next to each statement, please write the number that indicates the extent to which you **agree or disagree** with each of these statements, using the following scale:

1	2	3	4	5	6	7
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Disagree Somewhat</b>	<b>Neutral</b>	<b>Agree Somewhat</b>	<b>Agree</b>	<b>Strongly Agree</b>

- \_\_\_\_\_ 1. My close relationships are an important reflection of who I am
- \_\_\_\_\_ 2. When I feel very close to someone, it often feels to me like that person is an important part of who I am
- \_\_\_\_\_ 3. Overall, my close relationships have very little to do with how I feel about myself
- \_\_\_\_\_ 4. I think one of the most important parts of who I am can be captured by looking at my close friends and understanding who they are
- \_\_\_\_\_ 5. When I think of myself, I often think of my close friends or family also
- \_\_\_\_\_ 6. When I establish a close friendship with someone, I usually develop a strong sense of identification with that person
- \_\_\_\_\_ 7. If a person hurts someone close to me, I feel hurt as well
- \_\_\_\_\_ 8. My close relationships are unimportant to my sense of what kind of person I am.
- \_\_\_\_\_ 9. My sense of pride comes from knowing who I have as close friends
- \_\_\_\_\_ 10. In general, my close relationships are an important part of my self-image
- \_\_\_\_\_ 11. I usually feel a strong sense of pride when someone close to me has an important accomplishment

### Depression Anxiety Stress Scales

Please read each statement and write the number (0, 1, 2 or 3), which indicates how much the statement applied to you *over the past week*. There are no right or wrong answers. Do not spend too much time on any statement.

0	1	2	3
<b>Did not apply to me at all - NEVER</b>	<b>Applied to me to some degree, or some of the time - SOMETIMES</b>	<b>Applied to me to a considerable degree, or a good part of time - OFTEN</b>	<b>Applied to me very much, or most of the time - ALMOST ALWAYS</b>

- \_\_\_\_\_ 1. I found it hard to wind down
- \_\_\_\_\_ 2. I was aware of dryness of my mouth
- \_\_\_\_\_ 3. I couldn't seem to experience any positive feeling at all
- \_\_\_\_\_ 4. I experienced breathing difficulty (e.g., excessively rapid breathing, breathlessness in the absence of physical exertion)
- \_\_\_\_\_ 5. I found it difficult to work up the initiative to do things
- \_\_\_\_\_ 6. I tended to over-react to situations
- \_\_\_\_\_ 7. I experienced trembling (e.g., in the hands)
- \_\_\_\_\_ 8. I felt that I was using a lot of nervous energy
- \_\_\_\_\_ 9. I was worried about situations in which I might panic and make a fool of myself
- \_\_\_\_\_ 10. I felt that I had nothing to look forward to
- \_\_\_\_\_ 11. I found myself getting agitated
- \_\_\_\_\_ 12. I found it difficult to relax
- \_\_\_\_\_ 13. I felt down-hearted and blue
- \_\_\_\_\_ 14. I was intolerant of anything that kept me from getting on with what I was doing
- \_\_\_\_\_ 15. I felt I was close to panic
- \_\_\_\_\_ 16. I was unable to become enthusiastic about anything
- \_\_\_\_\_ 17. I felt I wasn't worth much as a person
- \_\_\_\_\_ 18. I felt that I was rather touchy

- \_\_\_\_\_ 19. I was aware of the action of my heart in the absence of physical exertion (e.g., sense of heart rate increase, heart missing a beat)
- \_\_\_\_\_ 20. I felt scared without any good reason
- \_\_\_\_\_ 21. I felt that life was meaningless

### **Multigroup Ethnic Identity Measure**

In this country, people come from many different countries and cultures, and there are many different words to describe the different backgrounds or ethnic groups that people come from. Some examples of the names of ethnic groups are Hispanic or Latino, Black or African American, Asian American, Chinese, Filipino, American Indian, Mexican American, Caucasian or White, Italian American, and many others. These questions are about your ethnicity or your ethnic group and how you feel about it or react to it.

1	2	3	4
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Agree</b>	<b>Strongly Agree</b>

Please fill in: In terms of ethnic group, I consider myself to be \_\_\_\_\_  
Use the numbers below to indicate how much you agree or disagree with each statement.

- \_\_\_\_\_ 1. I have spent time trying to find out more about my ethnic group, such as its history, traditions, and customs.
- \_\_\_\_\_ 2. I am active in organizations or social groups that include mostly members of my own ethnic group.
- \_\_\_\_\_ 3. I have a clear sense of my ethnic background and what it means for me.
- \_\_\_\_\_ 4. I think a lot about how my life will be affected by my ethnic group membership.
- \_\_\_\_\_ 5. I am happy that I am a member of the group I belong to.
- \_\_\_\_\_ 6. I have a strong sense of belonging to my own ethnic group.
- \_\_\_\_\_ 7. I understand pretty well what my ethnic group membership means to me.
- \_\_\_\_\_ 8. In order to learn more about my ethnic background, I have often talked to other people about my ethnic group.
- \_\_\_\_\_ 9. I have a lot of pride in my ethnic group
- \_\_\_\_\_ 10. I participate in cultural practices of my own group, such as special food, music, or customs.

- \_\_\_\_\_ 11. I feel a strong attachment towards my own ethnic group.
- \_\_\_\_\_ 12. I feel good about my cultural or ethnic background.
- \_\_\_\_\_ 13. My ethnicity is  
 (1) Asian or Asian American, including Chinese, Japanese, and others  
 (2) Black or African American  
 (3) Hispanic or Latino, including Mexican American, Central American, and others  
 (4) White, Caucasian, Anglo, European American; not Hispanic  
 (5) American Indian/Native American  
 (6) Mixed; Parents are from two different groups  
 (7) Other (write in): \_\_\_\_\_
- \_\_\_\_\_ 14. My father's ethnicity is (use numbers above)
- \_\_\_\_\_ 15. My mother's ethnicity is (use numbers above)

### **Inventory of Parent and Peer Attachment – Peer Subscale**

This set of questions asks you about your relationship with your close friends

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Almost Never or Never True</b>	<b>Not Very True</b>	<b>Sometimes True</b>	<b>Often True</b>	<b>Almost Always or Always True</b>

- \_\_\_\_\_ 1. I like to get my friend's point of view on things I'm concerned about.
- \_\_\_\_\_ 2. My friends can tell when I'm upset about something.
- \_\_\_\_\_ 3. When we discuss things, my friends care about my point of view.
- \_\_\_\_\_ 4. Talking over my problems with friends makes me feel ashamed or foolish.
- \_\_\_\_\_ 5. I wish I had different friends.
- \_\_\_\_\_ 6. My friends understand me.
- \_\_\_\_\_ 7. My friends help me to talk about my difficulties.
- \_\_\_\_\_ 8. My friends accept me as I am.
- \_\_\_\_\_ 9. I feel the need to be in touch with my friends more often.
- \_\_\_\_\_ 10. My friends don't understand what I'm going through these days.
- \_\_\_\_\_ 11. I feel alone or apart when I'm with my friends.
- \_\_\_\_\_ 12. My friends listen to what I have to say.
- \_\_\_\_\_ 13. I feel my friends are good friends.
- \_\_\_\_\_ 14. My friends are fairly easy to talk to.

- \_\_\_\_\_ 15. When I am angry about something, my friends try to be understanding.
- \_\_\_\_\_ 16. My friends help me to understand myself better.
- \_\_\_\_\_ 17. My friends care about how I am feeling.
- \_\_\_\_\_ 18. I feel angry with my friends.
- \_\_\_\_\_ 19. I can count on my friends when I need to get something off my chest.
- \_\_\_\_\_ 20. I trust my friends.
- \_\_\_\_\_ 21. My friends respect my feelings.
- \_\_\_\_\_ 22. I get upset a lot more than my friends know about.
- \_\_\_\_\_ 23. It seems as if my friends are irritated with me for no reason.
- \_\_\_\_\_ 24. I can tell my friends about my problems and troubles.
- \_\_\_\_\_ 25. If my friends know something is bothering me, they ask me about it.

### Social Provisions Scale

In answering the following questions, think about your current relationships with friends, family members, co-workers, community members, and so on. Please indicate to what extent each statement describes your current relationships with other people. Use the following scale to indicate your opinion.

1	2	3	4
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Agree</b>	<b>Strongly Agree</b>

- \_\_\_\_\_ 1. There are people I can depend on to help me if I really need it
- \_\_\_\_\_ 2. I feel that I do not have close personal relationships with other people
- \_\_\_\_\_ 3. There is no one I can turn to for guidance in times of stress
- \_\_\_\_\_ 4. There are people who depend on me for help
- \_\_\_\_\_ 5. There are people who enjoy the same social activities I do
- \_\_\_\_\_ 6. Other people do not view me as competent
- \_\_\_\_\_ 7. I feel personally responsible for the well-being of another person
- \_\_\_\_\_ 8. I feel part of a group of people who share my attitudes and beliefs
- \_\_\_\_\_ 9. I do not think other people respect my skills and abilities

- \_\_\_\_\_ 10. If something went wrong, no one would come to my assistance
- \_\_\_\_\_ 11. I have close relationships that provide me with a sense of emotional security and well-being
- \_\_\_\_\_ 12. There is someone I could talk to about important decisions in my life
- \_\_\_\_\_ 13. I have relationships where my competence and skill are recognized
- \_\_\_\_\_ 14. There is no one who shares my interests and concerns
- \_\_\_\_\_ 15. There is no one who really relies on me for their well-being
- \_\_\_\_\_ 16. There is a trustworthy person I could turn to for advice if I were having problems
- \_\_\_\_\_ 17. I feel a strong emotional bond with at least one other person
- \_\_\_\_\_ 18. There is no one I can depend on for aid if I really need it
- \_\_\_\_\_ 19. There is no one I feel comfortable talking about problems with
- \_\_\_\_\_ 20. There are people who admire my talents and abilities
- \_\_\_\_\_ 21. I lack a feeling of intimacy with another person
- \_\_\_\_\_ 22. There is no one who likes to do the things I do
- \_\_\_\_\_ 23. There are people who I can count on in an emergency
- \_\_\_\_\_ 24. No one needs me to care for them

### Student Adaptation to College Questionnaire – Short Form

The following statements describe various college experiences. Read each statement and decide how much it applies to your experiences in college so far. For each statement, write the number that represents how closely the statement applies to you.

1	2	3	4	5	6	7	8	9
<b>Does not apply to me at all</b>		<b>Hardly applies to me</b>		<b>Somewhat applies to me</b>		<b>Generally applies to me</b>		<b>Applies very closely to me</b>

- \_\_\_\_\_ 1. I feel that I fit in well as part of the college environment
- \_\_\_\_\_ 2. I have been feeling tense or nervous lately
- \_\_\_\_\_ 3. I have not been functioning well during examinations

- \_\_\_\_\_ 4. I am meeting as many people, and making as many friends as I would like at college
- \_\_\_\_\_ 5. Lately I have been feeling blue and moody a lot
- \_\_\_\_\_ 6. I'm not really smart enough for the academic work I am expected to be doing now
- \_\_\_\_\_ 7. I have several close social ties at college
- \_\_\_\_\_ 8. I haven't been able to control my emotions very well lately
- \_\_\_\_\_ 9. I am satisfied with the level at which I am performing academically
- \_\_\_\_\_ 10. I have been feeling lonely a lot at college lately
- \_\_\_\_\_ 11. I am satisfied with the extent to which I am participating in social activities at college
- \_\_\_\_\_ 12. I am satisfied with my program of courses for this semester
- \_\_\_\_\_ 13. I am experiencing a lot of difficulty coping with the stresses imposed upon me in college
- \_\_\_\_\_ 14. I am quite satisfied with my social life at college
- \_\_\_\_\_ 15. I am quite satisfied with my academic situation at college

## Appendix F

### CIRRICULUM VTAE

#### Pauline Minnaar

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#### **EDUCATION**

**Master of Arts in Psychology:** Counseling Concentration, May 2016  
*Towson University, Towson, MD*

- GPA: 3.92

**Bachelor of Arts in Psychology and International Studies,** May 2014  
*Baylor University, Waco, TX*

- GPA: 3.91 - Magna Cum Laude

#### **RESEARCH EXPERIENCE**

**Research Assistant,** August 2014-present  
*Towson University, Towson, MD*

Research in the attachment and human development laboratory of Dr. Jonathan Mattanah. Helped edit and format a manual describing activities for enhancing relationship skills. Recruited participants for psychoeducational group that taught effective communication tools. Wrote results section for manuscript. Assisted with NIH grant application.

**Research Assistant,** September 2012-May 2014  
*Baylor University, Waco, TX*

Research in the social psychology laboratory of Dr. Wade Rowatt. Assisted with studies focusing on intellectual humility and the effects of cultural identity on individual attitudes.

#### **PUBLICATIONS**

Holt, L., Mattanah, J. F., Schmidt, C. K., Daks, J., Brophy, E., **Minnaar**, P. Y., Rorer, K., (in press). Effects of relationship education on emerging adults' relationship beliefs and behaviors. *Personal Relationships*.

#### **TEACHING EXPERIENCE**

**Adjunct Instructor,** January 2016-present  
*Stevenson University, Stevenson, MD*

Served as an instructor for a course on Career and Professional Development for 15 students. Maintained course documents and conducted outcome assessment.

**Teaching Assistant,** November 2013 - May 2014  
*Baylor University, Waco, TX*

Facilitated laboratory portion of Learning and Behavior Course and administered/graded quizzes for 20 students. Consulted with professor to ensure continuity between class and laboratory sections of course.

## **RELEVANT EXPERIENCE**

### **Career Counseling Graduate Intern, August 2015-Present**

*Stevenson University Office of Career Services, Stevenson, MD*

Counsel students in the School of Sciences through career exploration and development of career goals. Assist students in selecting academic majors through clarifying values and identifying skills and interests. Administer and interpret career assessments such as the *FOCUS-2* and the *Strong Interest Inventory* to foster students' self-awareness. Coach students in all academic disciplines through professional development experiences including mock interviews, networking, and resume/cover letter workshops. Collaborate with Career Services staff to promote internship programs and experiential learning opportunities.

### **Career Peer Advisor, August 2015-Present**

*Towson University Career Center, Towson, MD*

Critique and review resumes and cover letters with students and alumni. Assist students with job/internship searches and graduate school preparation. Provide clear and concise feedback to approximately 10-20 students during walk-in hours. Support Career Center staff by assisting in the execution of large-scale career fairs.

### **Counseling Psychology Graduate Assistant, July 2014-Present**

*Towson University, Towson, MD*

Manage approximately 100 program applications and coordinate interviews between faculty and applicants. Meet with prospective students on a weekly basis and respond to admissions inquiries via phone and email. Organize and maintain student records and course registration for approximately 50 current students. Assist program director and faculty with administrative tasks including designing newsletters and coordinating information sessions about the program.

### **Group Facilitator, November 2014-February 2015**

*Towson University, Towson, MD*

Co-led weekly psychoeducational groups for six undergraduate students over the course of four weeks. Administered manualized interventions to enhance effective decision-making, foster adaptive relationship beliefs, and improve psychological well-being amongst participants. Conducted role-plays and demonstrated activities to teach skills that improve communication.

### **Program Coordinator, July 2014 -December 2014**

*Towson University Student Support Network, Towson, MD*

Collaborated with Counseling Center to implement a seven-week mental health awareness program. Edited instruction manual, which discussed topics such as depression, anxiety, substance abuse and body image. Recruited approximately 100 undergraduate participants via information sessions, flyers, and tabling events.

## **PROFESSIONAL MEMBERSHIP**

**Member, American Counseling Association, June 2015 – Present**

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