

**EAST ASIAN INTERNATIONAL STUDENTS' INTERDEPENDENT
HAPPINESS: THE ROLE OF ACCULTURATIVE STRESS, DIALECTICAL
THINKING, AND COLLECTIVISTIC COPING**

by

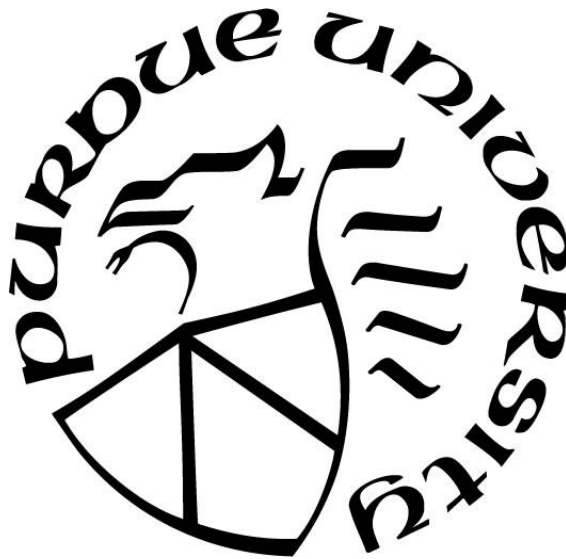
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ABSTRACT

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Title: East Asian International Students' Interdependent Happiness: The Role of Acculturative Stress, Dialectical Thinking, and Collectivistic Coping.

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The purpose of this study was to understand the relationships among East Asian international students cultural construals of stress (i.e., acculturative stress), psychological well-being (i.e., interdependence happiness), cognitive appraisal (i.e., dialectical thinking), and coping skills (i.e., collectivistic coping: seeking social support and forbearance) using Chun, Moos, and Cronkite's (2006) stress and coping model as the theoretical framework. This study was the first attempt to propose a theoretical framework elucidating the possible relationships among these variables through a cultural lens. A total of 313 self-identified East Asian international students participated in the online-based survey. Using a hierarchical regression, the results revealed that acculturative stress demonstrated the largest effect size among all the independent variables in explaining interdependent happiness among East Asian international students. Additionally, seeking social support as East Asian international students' collectivistic coping style was found to be a positive contributor; whereas, dialectical thinking contributed negatively to interdependent happiness among East Asian international students. Finally, the higher levels of dialectical thinking, the stronger the negative association was between acculturative stress and interdependent happiness among East Asian international students. Limitations of the study and suggestions for future research are presented. Implications for counseling psychology practice with East Asian international students are also discussed.

CHAPTER 1. INTRODUCTION

Higher education institutions in the United States have been diversified and the ratio of international students to domestic students has increased over the years. According to *The 2017 Open Doors Report on International Educational Exchange* (Institute of International Education, 2017), the number of international students at colleges and universities in the United States increased by 10% to a record high of 974,926 out of 20,300,000 students in the 2014-2015 academic year over the previous year. Due to changes in the political environment since 2016, the number of first-time international students enrolling in the U.S. fell by 3.3 percent (10,000 fewer new international students) in fall 2016 over the previous year. Despite the recent drop in new international student enrollment, the number of international students have continued to grow to 1,078,822 out of 20,185,000 in the 2016-2017 academic year. In other words, five to six out of every 100 college students were international students in the 2016-2017 academic year. The increased representation of international students in U.S. colleges and universities brings a range of benefits to the U.S. According to the *NAFSA's Economic Analysis for 2016-2017 Academic Year*, international students contributed \$36.9 billion to the U.S. economy and supported more than 450,331 jobs during the 2016-2017 academic year (Association of International Educators, 2017). Specifically, for every seven international students enrolled, three U.S. jobs were created in school and business sectors (e.g., accommodation, dining, retail, transportation, health insurance). In addition to the economic contribution, international students add immeasurable academic and cultural values to U.S. campuses by enriching cultural diversity, enhancing cultural awareness and appreciation, as well as bringing diverse perspectives, knowledge, and skills across diverse disciplines (Leong, 2015; Smith & Khawaja, 2011).

International students also contribute and diversify U.S. workforce because many of them accept employment offers in the U.S. after graduation (Zhang & Goodson, 2011).

With the increasing representation of international students on U.S. campuses and the tremendous assets they bring, the past few decades have witnessed a growth of research on international students' acculturation experience. In an early comprehensive review of research on international students, Church (1982) stated that in addition to problems similar to domestic students may have experienced in transition to college life, international students were further challenged by acculturative stress. Acculturative stress was first proposed by Berry (1970) to describe people's responses to life events that are rooted in intercultural contact, as well as the process of cultural, psychological, and social adaptation to a new culture. Acculturative stress may stem from adopting to cultural difference, dealing with language barriers, coping with loneliness and limited social support, and having concerns regarding visas (Lopez & Bui, 2014). However, despite the growth of research on international students' acculturation experience, extant literature has primarily aggregated international students as a whole when studying their acculturation experience, even though they come from different geographic and cultural backgrounds.

East Asian international students represent a unique and large subgroup among international students. East Asian international students are those who come from the following areas: China, Hong Kong Special Administrative Region of China, Macau Special Administrative Region of China, Taiwan, Japan, South Korea, North Korea, and Mongolia (United Nations, 2013). The classification is based on the statistic grouping reasons rather than political affiliation of countries (United Nations, 2013). There are a number of important factors that make it critical to focus on this group.

First, among the international students, East Asian international students constituted the largest group, representing 42.6% of the total international students, followed by South and Central Asian international students (20.3%), Middle East and North African international students (9.3%), European international students (8.6%), and Latin American and Caribbean (7.4%) (Institute of International Education, 2017). Among East Asian international students, Chinese international students accounted for 32.5% of the total international students, followed by South Korean international students (5.4%), Taiwanese international students (2%), Japanese international students (1.7%), and Hong Kong international students (0.7%). In other words, East Asian international students have a strong presence on U.S. campuses.

Second, research has consistently indicated that East Asian international students, compared to their European counterparts, experience more acculturative stress and adjustment challenges academically, psychologically and socially (Cheng, Leong, & Geist, 1993; Poyrazli, Kavanaugh, Baker, & Al-Timimi, 2004; Redmond & Bunyi, 1993; Yeh & Inose, 2003). More specifically, East Asian international students appear to experience the most adjustment challenges due to pronounced language barriers and cultural difference (Briley, Wyer Jr., & Li, 2014; Leong, 2015). This is probably because East Asian cultural orientation, cultural values, and language, compared to those of Europeans, South Americans, and even South Asians, differ more sharply from American culture and English language (Leong, 2015).

Third, existing literature has largely studied Asian international students as a homogenous group, despite that there are significant disparities in cultures and languages between East Asia and South Asia (Chun & Akutsu, 2003). More recently, Frey and Roysicar (2006) found that South Asian international students, compared to East Asian international students, reported greater flexibility in adjusting to cultural differences. The authors

hypothesized that diverse languages, religions and cultural groups exist within most South Asian countries due to its lengthy history of adaptive changes in response to British colonization, resulting in South Asians' greater flexibility in adjusting to cultural differences. In addition, as a result of British colonization, South Asians are more proficient in English than East Asians, contributing to their development of multiculturalism. In contrast, for East Asians, as influenced by Confucian tradition and collectivism (Hung & Hyun, 2010), they may employ culturally prescribed coping strategies for stress, such as practicing forbearance (Moore & Constantine, 2005). In sum, East Asian international students distinguish themselves from international students of other regions or cultures due to their unique cultural heritage.

Chun, Moos, and Cronkite's (2006) stress and coping model provides a potentially culturally relevant model to understand East Asian international students' acculturation experience. The model places a great deal of emphasis on the role of culture in the process of stress and coping. The model is composed of five panels (please see Figure 1). Panel I features the environmental system, consisting of enduring aspects or relatively stable conditions of the environment, such as social climate, ongoing stressors, and social resources that arise from different life domains (e.g., family and work). Panel II features the personal system, consisting of individuals' biogenetic characteristics and personal resources, such as cognitive abilities, personality traits, social competence, and self-confidence. The environmental system and personal system, as hypothesized by the theory, interact to foreshadow transitory life events in Panel III, such as current life events and changes. Panel IV is the heart of the coping process because it addresses the issue of how an individual appraises and copes with the current event. Appraisals and coping in turn influences the individual's health and well-being, as depicted by Panel V. In addition, the model depicts the transnational relationships among culture, context,

and stress-coping process within and across the five panels, as reflected by the bi-directional arrows.

I focus on East Asian international students' psychological well-being (i.e., interdependent happiness) using Chun et al.'s (2006) framework. Interdependent happiness is a culturally relevant construct and defined as "global, subjective assessment of whether one is interpersonally harmonized with other people, being quiescent, and being ordinary, and connected to the collective way of well-being" (Hitokoto & Uchida, 2015, p. 214). More specifically, I examine the role of acculturative stress as a transitory condition (Panel III), as well as dialectical thinking (Peng & Nisbett, 1999) and collectivistic coping (Moore & Constantine, 2005) as culturally relevant constructs capturing their cognitive appraisal and coping skills respectively (Panel IV). Dialectical thinking, also called naive dialecticism, was originally described by Peng and Nisbett (1999) in their seminal paper and has received increasing scholarly attention in the past two decades. It characterizes East Asians' view of world and its social and nonsocial components as "internally contradictory, inextricably interconnected, and inevitably in flux" (Spencer-Rodgers, Williams, & Peng, 2010, p.308). Collectivistic coping is generally regarded as "a constellation of multifaceted stress responses shaped and enhanced by collectivistic norms, values, and tendencies" (p. 377) that characterizes East Asians' unique way of coping (Kuo, 2013). Two broad collectivistic coping responses are seeking social support and forbearance (Moore & Constantine, 2005). Seeking social support is defined as seeking support and assistance from members of their interpersonal network, such as family, close friends, and other valued/significant members (Moore & Constantine, 2005). Forbearance, as known as self concealment (Larson & Chasten, 1999), refers to the tendency to minimize or conceal problems

or concerns with an attempt not to burden or trouble significant others (Moore & Constantine, 2005).

The selection of these culturally relevant constructs (i.e., interdependent happiness, dialectical thinking, collectivistic coping) is grounded on the cultural syndrome theories (Triandis, 1993, 1995, 1996). Cultural syndromes are “patterned beliefs, attitudes, and mindsets that go together in a loosely defined network” (p. 27) that distinguish one culture from another (Oyserman, Sorenesn, Reber, & Chen, 2009). Specifically, interdependent happiness is grounded on the Markus and Kitayam’s (1991) self-construal theory, dialectical thinking on the theory of culture and cognition (Nisbett, 2003), and collectivistic coping on the theory of individualism and collectivism (Oyserman, Coon, & Kemmelmeier, 2002; Triandis, 2001). Detailed description of these constructs and relevant theories will be provided in Chapter II.

Statement of Purpose

The purpose of the study is to understand the relationships among East Asian international students cultural construals of stress (i.e., acculturative stress), psychological well-being (i.e., interdependence happiness), cognitive appraisal (i.e., dialectical thinking), and coping skills (i.e., collectivistic coping: seeking social support and forbearance) using the Chun et al.’s (2006) stress and coping model as the theoretical framework. More specifically, my goal is to determine if dialectical thinking and collectivistic coping moderate the association between acculturative stress and interdependence happiness among East Asian international students. No study to date has yet examined the cultural construals of cognitive appraisal, coping skills, and well-being as integrated process to understand East Asian international students’ acculturation experience. This study is the first attempt to propose a theoretical framework elucidating the

possible relationships among these variables through a cultural lens. It aims to answer the following research questions:

RQ1: To what extent does acculturative stress explain interdependent happiness among East Asian international students?

RQ2: How does the interaction among acculturative stress, dialectical thinking, and collectivistic coping explain interdependent happiness among East Asian international students?

RQ2a: To what extent does dialectical thinking moderate the association between acculturative stress and interdependent happiness among East Asian international students?

RQ2b: To what extent does seeking social support, as one of the two collectivistic coping responses, moderate the association between acculturative stress and interdependent happiness among East Asian international students?

RQ2c: To what extent does forbearance, as one of the two collectivistic coping responses, moderate the association between acculturative stress and interdependent happiness among East Asian international students?

I have developed the following hypotheses accordingly:

H1. Acculturative stress will be significantly and negatively associated with interdependent happiness among East Asian international students.

H2a: The association between acculturative stress and interdependent happiness would vary as a function of dialectical thinking. That is, the higher levels of dialectical thinking, the weaker the association between acculturative stress and interdependent happiness.

H2b: The association between acculturative stress and interdependent happiness would vary as a function of seeking social support. That is, the higher levels of seeking social support, the weaker the association between acculturative stress and interdependent happiness.

H2c: The association between acculturative stress and interdependent happiness would vary as a function of forbearance. That is, the higher levels of forbearance, the weaker the association between acculturative stress and interdependent happiness.

Importance of Study

There are a number of significant implications of this study. First, this study emphasizes the use of a cultural lens in investigating East Asian international students' acculturation stress, coping and well-being. Contrary to the Eurocentric conceptualization of stress, coping and well-being, this study examines the cultural construal of stress (i.e., acculturative stress), coping processes (i.e., dialectal thinking and collectivistic coping) and well-being (i.e., interdependent happiness) of East Asian international students. Thus, it extends and enriches the current multicultural studies in acculturation and international students. Second, I focus on relatively new, emerging but critical constructs (i.e., interdependent happiness, dialectical thinking, collectivist coping) to understand East Asian international students' perception of well-being and their culturally unique way of cognitive appraisal and coping skills. I hope to enrich our understanding of East Asian international students' unique acculturation and stress coping experience. Third, the current study provides a conceptual framework by integrating Chun et al.'s (2006) model of stress and coping with the cultural syndrome theories (Triandis, 1993, 1995, 1996), elucidating additional roadmap regarding the relationships among East Asian international students acculturative stress, coping and psychological well-being. It enriches our understanding of the role of their cultural congruent coping processes as a potential buffer against their acculturative stress on their psychological well-being (i.e., interdependent happiness), expanding the depth and richness of the current stress and coping theoretical models. By adopting culturally informed and relevant perspectives on East Asian international students'

acculturation, the current study contributes to the collective effort in moving the field of acculturation, well-being, and coping research towards a more unified and cross-culturally relevant stress-coping paradigm (Kuo, 2013). Thus, the current study facilitates scholarly dialogue about minorities' acculturation and stress coping approach, and stimulate future research to further investigate cultural constructs of stress and coping among minorities.

Increased knowledge of East Asian international students' acculturative experience, especially the role of cultural congruent coping processes (i.e., dialectical thinking and collectivistic coping) on their psychological well-being (i.e., interdependent happiness), has profound implication for clinical practice. Research has consistently indicated the "underutilization" of counseling services among Asian Americans and Asian international students in general (e.g., Mori, 2000; Sue & Sue, 1999), as well as the limited multicultural competence and confidence of clinicians in working with minorities, including East Asian international students (e.g., Holcomb, McCoy, & Myers, 1999). The seemingly "underutilization" of counseling services has its cultural explanation in that East Asian international students tend to use more collectivistic coping by seeking support from family and friends and by forbearance. Therefore, deeper understanding of collectivistic coping and its cultural roots might challenge the current Western-based ideology of regarding seeking counseling services as one of the best ways to deal with stress. It might enlighten professionals who work with East Asian international students to expand their intervention beyond the current individual therapy-focused model to a more outreach-focused model. By creating and implementing outreach programs that help facilitate expansion of social support, interventions might be able to target more East Asian international students. In addition, within the context of counseling and psychotherapy, better apprehension of East Asian international students' unique

ways of coping might facilitate rapport building and effectiveness of goal setting and achievement. For instance, dialectal thinking, as a cultural congruent way of cognitive appraisal and a potential buffer against stress, should be construed as a strength, rather than a weakness or deficit of thought process/appraisal style. By appreciating and understanding the significance of East Asian cultural inherent appraisal style and effectively facilitating the use of such style, clinicians may not only empower identification of internal strengths but also facilitate mindful and effective use of such coping processes. In addition, insights about East Asian international students' perception of psychological well-being are critical in establishing appropriate therapeutic goals. The concept of interdependent happiness challenges clinicians to conceptualize well-being beyond personal happiness or achievement to a more relational and contextual perspective of happiness. East Asian international students' orientation to interdependent happiness should be recognized, valued and processed in counseling and psychotherapy.

Relevance to Counseling Psychology

The current study is highly congruent with counseling psychology's emphasis on three roles - remedial, preventive, and developmental (Gelso & Fretz, 2001). Different from other specialties in psychology, counseling psychology values paying attention to the three roles when working with clients, regardless of the severity of mental disturbance. A richer and better understanding of East Asian international students' acculturation experience, specially the role of their unique coping processes, can help facilitate counseling psychologists' successful fulfillment of these roles. For instance, in remedying acculturative stress related problems, it is crucial to be aware of their culturally inherent coping processes that might serve as a buffer against such stress. Psycho-educational programs and outreach programs aiming at facilitating the

identification and use of cultural congruent and effective coping processes, such as dialectical thinking and collectivistic coping, can circumvent occurrence of psychological disturbance in dealing with acculturation difficulties. Focusing on the identifying and utilizing positives/strengths (e.g., effective coping processes and well-being) rather than removing negatives/weakness (e.g., maladaptive coping and disorders), counseling psychologists can help East Asian international students achieve the maximum benefits from their acculturation experience, facilitating self-growth and enhancement of psychological well-being.

Similarly, the current study is exceedingly in accordance with counseling psychology's unifying themes. Gelso and Fretz (2001) conceptualized five unifying themes as what distinguish counseling psychology from other specialties in psychology: (1) a focus on intact, as opposed to profoundly disturbed personalities; (2) a focus on people's assets, strengths, and positive mental health regardless of disturbance; (3) a focus on relatively brief interventions; (4) a focus on person-environment interactions; and (5) a focus on education and career development. Recent years, multiculturalism, diversity and social justice have emerged as a sixth theme. The current study is most relevant to the four of these themes (i.e., focus on intact personality, focus on strengths, focus on person-environment interaction, and focus on multiculturalism and diversity).

First, the current study reflects an emphasis of intact, as opposed to profoundly disturbed personalities. The population under study is East Asian international students in general, targeting mostly on non-clinical samples. In addition, based on the promise of acculturation as a normative cultural adaptation and transition, the current study aims to examine East Asian international students' acculturation experience, from the stress and coping perspective.

Second, the current study corresponds to counseling psychology's focus on individuals' assets, strengths, and positive mental health. This is evidenced by the attempt to conceptualize

two cultural congruent coping constructs (i.e., dialectical thinking and collectivistic coping) as potential buffers against acculturative stress. Dialectical thinking, in contrast to Western's analytical thinking, serves a coping purpose within the context of East Asian cultures. The holistic thinking, expectation of changes, and tolerance of contradiction, might provide assets in appraising acculturative stress as a self-growth opportunity and facilitating future-forward and change-oriented thinking process. Collectivistic coping, in sharp comparison to current Western's biased terminology (e.g., "emotion-focused," "secondary," "covert," "passive"), acknowledges the functionality of East Asian international students' cultural way of coping. Lastly, well-being is a central topic for counseling psychology. However, topics pertaining to psychopathology dominate the current literature, such as studies on depression and anxiety. However, instead of focusing on negative psychological outcomes (e.g., psychological distress, depression, anxiety), the current study examines the positive aspect of psychological outcome (i.e., interdependence happiness).

Third, the current study harmonizes with counseling psychology's value on person-environment interaction. The concept of acculturation itself demonstrates the principles of person-environment interaction, acknowledging the impact of environment (e.g., new culture) on individuals from different cultures. In addition, the stress-coping paradigm that current conceptual framework is based on, suggests the transaction of person and environment, recognizing how individuals cope with stress derived from the environment they are in. In addition, person-environment interaction emphasizes a comprehensive understanding of environment of multiple levels, including the broad cultural contexts. Culture shapes values, cognition, and behaviors, permeating the entire acculturation and coping process. Based on this promise, the current study examines cultural constructs most relevant to East Asian international

students, including acculturative stress, dialectical thinking, collectivistic coping, and interdependence happiness.

Finally, the current study is highly in line with counseling psychology's focus on multiculturalism and diversity. Acculturation research abounds, however, studies on East Asian international students are scarce. East Asian international students represent a very unique minority group, largely due to the considerable difference between East Asian culture and mainstream Western culture. Thus, their unique acculturation and coping experience merits scholarly attention. In addition, the core value of multiculturalism and diversity is beyond acknowledging cultural differences and diversity. Multiculturalism and diversity emphasize cultural sensitive responses that show genuine interests, demonstrate knowledge of, and express appreciation for the unique cultural perspectives of diverse cultural groups (Atkinson & Lowe, 1995), without opposing mainstream Western ideology of coping processes on individuals from diverse cultural backgrounds. Consistent with this, the current study takes culture, a key concept in multiculturalism (Fowers & Richardson, 1996), into serious consideration in conceptualizing East Asian international students cultural construal of stress (i.e., acculturative stress), coping processes (i.e., dialectical thinking and collectivistic coping), and psychological well-being (i.e., interdependence happiness). I hope that this study will give voice to East Asian international students about their unique coping processes that are embedded in their cultural contexts, and challenge biased conclusion of the current literature depicting East international students as those adopting "maladaptive" coping and having "poor" mental health. Lastly, to echo current multicultural competence movement, the study aims to shed some lights on how counseling psychologists might better work with East Asian international students.

CHAPTER 2. LITERATURE REVIEW

The purpose of this chapter is to provide a literature review on East Asian international students' acculturative stress and its implication for their psychological well-being (i.e., interdependent happiness), with special attention to the role of two coping processes - cognitive appraisal (i.e., dialectical thinking) and coping strategy (i.e., collectivistic coping). First, I will give a brief literature review on East Asian international students' stress, coping, and psychological outcomes. I will then provide an overview of the extant cultural stress and coping models, specifically Chun, Moos, and Cronkite's (2006) stress and coping model, followed by the theoretical framework of the current study. Next, I will focus on my specific variables with a review of theoretical and empirical evidence of outcome variable (i.e., interdependent happiness), the predictor (i.e., acculturative stress), and two moderators (i.e., dialectical thinking and collectivistic coping). Finally, I will provide my research summary, research questions, and hypotheses.

East Asian International Students

The past few decades have witnessed a growth of research on international students' acculturation experience (Zhang & Goodson, 2011). It is well documented that in addition to problems similar to domestic students may have experienced in transition to college life, international students were further challenged by acculturative stress, such as adopting to cultural difference, dealing with language barriers, coping with loneliness and limited social support, and having concerns regarding visas (e.g., Church, 1982; Lopez & Bui, 2014). Research has also expanded the focus from understanding international students' acculturation stress to exploring the impact of acculturative stress on international students' psychosocial adjustment outcomes

along with the predictors of these outcomes. The most recent comprehensive review was conducted by Zhang and Goodson (2011) in which they examined 64 studies published in peer-reviewed journals between 1990 and 2009 on international students, all of which were quantitative studies reporting factors significantly associated with international students' psychological adjustment in the U.S. They concluded that the most frequently reported predictors of psychosocial adjustment outcomes of international students were stress, social support, English language proficiency, country of origin, length of residence in the U.S., acculturation, social interaction with American, self-efficacy, gender, and personality (Zhang & Goodson, 2011).

East Asian international students appear to experience the most acculturative stress compared to other international student groups due to pronounced language barriers and cultural differences (Briley, Wyer Jr., & Li, 2014; Leong, 2015). They also appear to report lower level of well-being than their White American counterparts (Cheng, Leong, & Geist, 1993; Spencer-Rodgers, Peng, Wang, & Hou, 2014). Research also tends to focus on negative psychological outcomes, such as depression and anxiety (Lee, Koeske, & Sales, 2004). For instance, Wei et al., (2007) found that 32.2% of the Chinese international students were at risk for depression. Association between East Asian international students' acculturative stress and well-being, as well as the mediators and moderators of this association have also been explored. For instance, social interaction, social connectedness, and social support are found to have a buffering effect against acculturative stress, leading to better well-being (Chen, Mallinckrodt, & Mobley, 2002; Cheng, Leong, & Geist, 1993). However, research on the effect of coping has largely focused on "maladaptive" coping, such as "emotion-focused" and "avoidance" coping for acculturative stress to predict "negative" psychological or emotional outcomes (Wong & Wong, 2006).

Numerous cultural psychologists have called for the culturally relevant concepts for acculturation for the cultural group under study (e.g., Kuo, 2001; Wong & Wong, 2006). Consistently, current literature on stress, coping and psychological outcomes for East Asian international students has been largely biased in imposing a Eurocentric ideology of psychological welling and coping processes, without taking culture difference into consideration. In addition, in Kuo's (2011) review on cultural stress and coping research, he critiqued the scarcity of the existing empirical studies that were theory-driven. He concluded that to further advance the cultural coping research, further research needed to integrate emerging cultural and contextual coping theories into empirical studies. Theories offer conceptual bases and provide schemas to test the possible pathways through which culture affects the stress and coping process (Kuo, 2011). In summary, there is a paucity of research on East Asian international students' stress, coping, and psychological outcome experiences that are both culturally relevant and theory-driven.

Overview of Cultural Stress and Coping Models

In this section, I will provide an overview on the extant cultural stress-coping theories (see Table 1), including Lazarus and Folkman's (1984) Stress and Coping Theory, Acculturation Theory (Berry, 1997), Resilience-Based Stress-Appraisal-Coping Model (Castro & Murray, 2010), Resource-Congruence Model of Effective Coping (Wong, Reker, & Peacock, 2006), Sociocultural Model of Stress, Coping and Adaption (Aldwin, 2007), and Multiaxial Model of Coping (Hobfoll, 1998).

The field of stress and coping emerged from the recognition of the interaction between person and environment, as a result of Lazarus and Folkman's (1984) seminal publication on stress and coping (Kuo, 2011). Their model has remained the most prominent theoretical

foundation for the stress-coping research. Lazarus and Folkman's (1984) model examines the transaction among stress, coping and outcome only within the context of a single stressful episode. The role of culture in the stress and coping was implicated conceptually but not explicitly articulated in the model. Specifically, they postulated that a person's internalized cultural values, beliefs, and norms affect one's appraisal and coping responses of the stressors. Since then, there are burgeoning research on stress and coping due to its critical implication for understanding well-being and adaptation (Aldwin, 2007; Kuo, 2011). However, the role of culture on the stress-coping paradigms had been largely overlooked until two decades ago (Wong & Wong, 2006). In addition, the role of culture has not been explicitly articulated in most stress and coping models (Chun, Moos, & Cronkite, 2006).

Berry's (1997) acculturation theory is rooted in the broader psychological theory of stress and coping, as originally proposed by (Folkman & Lazarus, 1984). The acculturation model lays out broad structural and conceptual framework identifying the main features of acculturation phenomena, as well as the highly complex and intricate interactions among various acculturation variables. Berry conceptualized culture as a stimulus or sources of stress, that is, the contact of two different cultures leads to acculturative stress.

Resilience-based Stress-Appraisal-Coping Model (Castro & Murray, 2000)
conceptualizes stress and coping during migrants' cultural adjustment within a longitudinal framework. It describes the pathway of cultural adaption of migrants across eight phases: (a) condition in homeland, (b) migration context, (c) new environment, (d) challenging events, (e) adaptation response, (f) return migration, (g) short-term outcome, and (h) long-term outcomes. Similar to Berry's model, this model views culture as a stimulus or source of stress, leading to the need of cultural adaptation.

Resource-Congruence Model of Effective Coping (Wong, Reker, & Peacock, 2006) places a great deal of importance on effective coping by achieving the congruence between one's coping resources and coping responses. It categorizes coping into creative coping (i.e., developing and transforming a variety of resources with a goal to prevent negative stressful events), reactive coping (i.e., utilizing appropriate resources in stressful conditions with a goal to solve the problem and reduce emotional distress), and protective coping (i.e., conserving available resources as a precondition for creative coping). It postulates sufficient resources and appropriate utilization of these resources would eventually lead to a reduction of stress and improved well-being. In this model, culture is recognized as most relevant in cross-cultural adaption during the process of achieving congruence because the same coping response that used to work well in a particular situation back home may not work in the new culture.

Sociocultural Model of Stress, Coping and Adaption (Aldwin, 2007) postulated a sociocultural conceptualization of stress and coping, with an emphasis on the role of sociocultural factors (e.g., gender, family, culture). It posits that culture affects the types and levels of stress that individuals are likely to experience, how individual appraise the experience, and how individual cope with stress. In addition, cultural demands and resources are thought to impact individuals' coping resources.

Multiaxial Model of Coping (Hobfoll, 1998) stresses the importance of placing individual within the social and cultural contexts and the communal aspect of stress and coping involving individuals' relationship to their family, religion institution, employment organization, neighborhood and ethnic groups. The model conceptualizes coping responses along three axes, namely passive-active, prosocial-antisocial, and direct-indirect dimensions. Culture impacts the

stress and coping process due to its effect on culturally shared biases, as well as familial norms and rules.

In summary, these models place varying degrees of importance on the role of culture and specific aspect in the stress and coping process. Lazarus and Folkman's (1984) theory indicates the importance of culture conceptually but the role of culture is not explicitly articulated in the model. The acculturation theory (Berry, 1997) and Resilience-Based Stress-Appraisal-Coping Model (Castro & Murray, 2000) primarily conceptualize culture as a stimulus or a source of stressors. That is, the contact of two different cultures leads to acculturative stress or the need of cultural adaptation. In addition to a source of stress, culture is conceptualized in the Lazarus and Folkman's (1984) Stress and Coping Theory, Resource-Congruence Model of Effective Coping (Wong, Reker, & Peacock, 2006), Sociocultural Model of Stress, Coping and Adaption (Aldwin, 2007), and Multiaxial Model of Coping (Hobfoll, 1998) as a critical contextual factor in the coping process. However, culture's role in the outcome (e.g., adaptation and well-being) of the stress and coping process has been largely overlooked among all these models.

Table 1
Overview of Cultural Stress and Coping Models

Models	Conceptualization of Stress and Coping	Role of Culture	Focus of Aspects (i.e., stress, coping, and outcome)
Stress and Coping Theory (Lazarus & Folkman, 1984)	A transactional model of stress, coping and outcome only within the context of a single stressful episode.	A person's internalized cultural values, beliefs, and norms affect one's appraisal and coping responses of the stressors.	Focuses on culture's impact on the stress and coping aspects of the process, but not on the outcome.
Acculturation Theory (Berry, 1997)	An acculturation model from stress and coping perspective.	The contact of two different cultures leads to acculturative stress.	Culture is conceptualized only as a source of stress.
Resilience-Based Stress-Appraisal-Coping Model (Castro & Murray, 2010)	A longitudinal framework of stress and coping during migrants' cultural adjustment.	The contact of two different cultures leads to the need of cultural adaptation.	Culture is conceptualized only as a source of stress.
Resource-Congruence Model of Effective Coping (Wong, Reker, & Peacock, 2006)	A model of stress and coping from the perspective of the congruence between one's coping resources and coping responses.	Culture is recognized as most relevant in cross-cultural adaptation.	Focuses on culture's impact on the stress and coping aspects of the process, but not on the outcome.
Sociocultural Model of Stress, Coping and Adaption (Aldwin, 2007)	A contextual model with a focus on the impact of sociocultural factors (e.g., gender, family, culture) on the stress and coping process.	Cultural beliefs and value shape the types of stressors, affect appraisal of the stressor, and affect the choice of coping strategies. Cultural demands and resources impact individual coping resources.	Focuses on culture's impact on the stress and coping aspects of the process, but not on the outcome.
Multiaxial Model of Coping (Hobfoll, 1998)	A model with a focus on communal aspect of stress and coping.	Culture defines shared biases, as well as familial norms and rules.	Focuses on culture's impact on the stress and coping aspects of the process, but not on the outcome.

Chun, Moos, and Cronkite's (2006) Model of Stress and Coping

In contrast to the models discussed in the previous section, Chun et al. (2006) model conceptualizes culture as a macro-social or ecological system that permeates the *entire* process of stress and coping. Based on Moos's transactional model (1984, 2002), Chun et al. (2006) proposed a conceptual framework to illustrate the role of culture in the stress and coping process, as depicted in Figure 1. In this conceptual framework, Chun et al. (2006) define culture as “a highly complex, continually changing system of meaning that is learned, shared, transmitted and altered from one generation to another” (p. 31). This system of meaning defines the norms, beliefs and values that provide prescriptions for behaviors, such as how individuals perceive stress and cope with stress, within a specific culture (Chun et al., 2006).

In this conceptual framework, the stress and coping paradigm is composed of five panels. Panel I features the environmental system, consisting of enduring aspects or relatively stable conditions of the environment, such as social climate, ongoing stressors, and social resources that arise from different life domains (e.g., family and work). Panel II features the personal system, consisting of individuals' biogenetic characteristics and personal resources, such as cognitive abilities, personality traits, social competence, and self-confidence. The environmental system and personal system, as hypothesized by the theory, interact to foreshadow transitory life events in Panel III, such as current life events and changes. Panel IV is the heart of the coping process because it addresses the issue of how an individual appraise and cope with the current event. Appraisals and coping in turn influences the individual's health and well-being, as depicted by Panel V. In addition, the model depicts the transnational relationships among culture, context, and stress-coping process within and across the five panels, as reflected by the bi-directional arrows. For instance, the bi-directional arrow between Panel I and Panel II suggests that

environmental system and personal system mutually influence each other. In addition, culture and variables in each panel mutually influences each other (Chun et al, 2006). For instance, culture can influence individuals' appraisals and their choice of coping strategies, and in return, people employ appraisal and coping strategies to select and shape the social contexts that influence them (Moos & Holahan, 2003).

In summary, this model processes numerous strengths that make it most relevant to the current study. First, it emphasizes the role of culture across the entire stress and coping process. In addition, it explicitly illustrates the pathway of the stress and coping process, which Kuo (2011) applauded for its conceptual intuitiveness and the specificity of the variables. Lastly, it provides a promising theoretical framework to conceptualize the influence of acculturation of East Asian international students. Despite its numerous strengths, to my knowledge, no empirical studies to date have used this model to examine the stress and coping process through a cultural lens on any population.

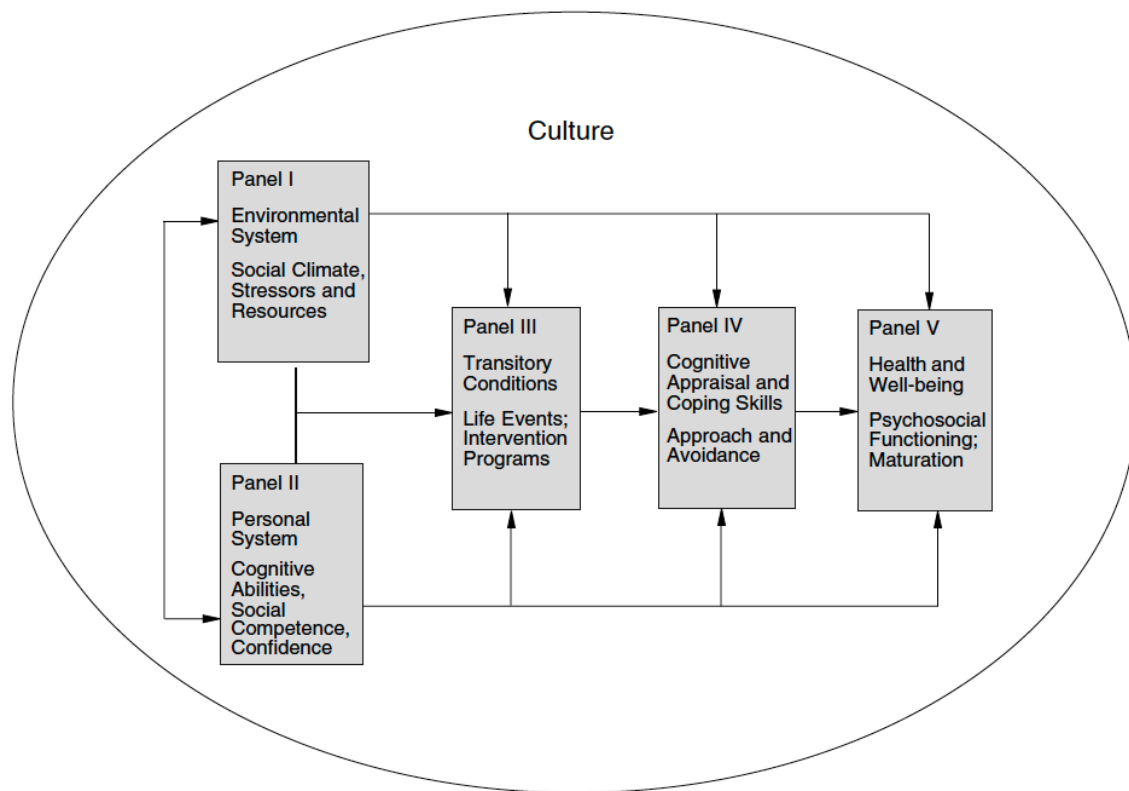


Figure 1. *Chun et al.'s (2006) Model of Stress and Coping*

The Current Study

Based on the framework provided by Chun et al.'s (2006) Model of Stress and Coping, I examined the relationship between transitory conditions (i.e., acculturative stress) and well-being (i.e., interdependent happiness), and the role of cognitive appraisal and coping skills (i.e., dialectical thinking and collectivistic coping). The selection of the variables within each panel was grounded on cultural syndrome theories.

Kuo (2011) called for a more intentional and systematic effort to incorporate theoretically and empirically grounded cultural constructs into cultural coping studies. To echo this, I use Chun et al.'s (2006) model of stress and coping as the theoretical foundation to elucidate the pathway from Panel III to Panel V in East Asian international students' acculturation and stress-coping process. Additionally, I use cultural syndrome theories to select

the specific variable in each Panel as most relevant to East Asian international students. In the current study, three cultural syndrome theories are used as the theoretical foundations for three variables respectively, including theory of individualism-collectivism (Hofstede, 1980; Triandis, 1995), theory of self-construals (Markus & Kitayama, 1991) and theory of holistic thinking (Nisbett, 2003). Details of these cultural syndromes will be provided when discussing the individual variables.

Figure 2 describes the proposed theoretical framework of the current study. Specially, acculturative stress is regarded as the current life event in Panel III given that the experience of acculturation is a significant life transitional event for East Asian international students (Kuo, 2011). Dialectical thinking and collectivistic coping are conceptualized as East Asian international students' cultural specific way of appraisal and coping strategy respectively, as situated in Panel IV. I speculate that cultural syndrome of holistic thinking (Nisbett, 2003) predisposes East Asian international students to appraise acculturation stressors in more a dialectal way. In addition, I assert that the cultural syndrome of individualism-collectivism (Triandis, 1995; Hofstede, 1980) induces East Asian international students' selection of collectivistic way of coping. Finally, interdependence happiness is posited as the East Asian international students' definition and expression of well-being. This is based on the premise that the cultural syndrome of self-construals (Markus & Kitayama, 1991) cultivates East Asian international students' perception and expression of well-being in a more interdependent way. Grounded on this model, the present study hypothesizes the following conceptual model that elucidates the link between East Asian international students' acculturative stress and their psychological well-being, and two moderators.

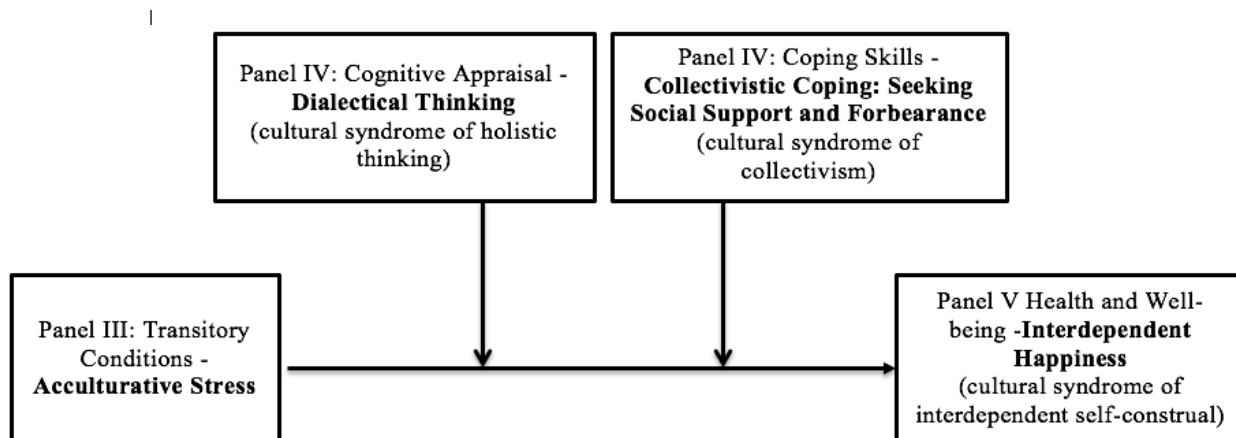


Figure 2. The Hypothesized Theoretical Framework of Current Study

Cultural Syndrome Theories

Cultural syndrome theories assert that cultural differences are characterized in terms of the relative dominance of a set of cultural syndromes (Oyserman, Sorensen, Reber, & Chen, 2009). Cultural syndrome theories were first proposed by Triandis (1993, 1995, 1996) who defined cultural syndromes as “shared attitudes, beliefs, norms, role and self definitions, and values of members of each culture that are organized around a theme.” (Triandis, 1996, p. 407). More recently, Oyserman et al. (2009) defined cultural syndromes similarly as “patterned beliefs, attitudes, and mindsets that go together in a loosely defined network.” (p. 27). Oyserman et al. (2009) suggested that societies have access to multiple overlapping and potentially conflicting cultural syndromes. For instance, both individualism and collectivism both exist in Western societies and Eastern societies. However, cultural syndromes are likely to exist to varying degrees in all cultures, but vary in their chronic accessibility in memory and the likelihood of being activated in certain contexts (Briley et al., 2014). For instance, individualism is more salient in Western societies whereas collectivism is more salient in Eastern societies. The function of the constructs of cultural syndromes is not to describe a particular society’s culture in detail but to highlight systematic patterns that characterize clusters of societies (Oyserman et al.,

2009), such as East Asian societies in our study. Derived from distal cultural features such as philosophy, religion, and language, cultural syndromes influence how individuals in clusters of societies consciously and unconsciously perceive the situation they are in, thus predisposing individuals' values, relationality, self-concept, well-being, and cognition (Oysterman et al., 2009).

Interdependent Happiness

The following section describes conceptualization of interdependent happiness as East Asian international students' cultural construal of well-being. It follows with a discussion on the cultural syndrome underpinning and empirical evidence of interdependent happiness. It concludes with a discussion of the relevance of interdependent happiness to the current study.

Conceptualization of Interdependent Happiness

Hitokoto and Uchida (2015) proposed the concept of interdependent happiness that describes East Asians' perception of well-being. They defined East Asians' interdependent happiness as "global, subjective assessment of whether one is interpersonally harmonized with other people, being quiescent, and being ordinary, and connected to the collective way of well-being" (Hitokoto & Uchida, 2015, p. 214). Interdependent happiness encompasses three interrelated dimensions: (a) relationship oriented happiness (i.e., happiness based on levels of social harmony with others), (b) quiescent happiness (i.e., happiness based on quiescence instead of happiness maximization), and (c) ordinary happiness (i.e., happiness based on one's similar level of accomplishment with in-group members). The basic assumption of the relationship-oriented tenet is that one's happiness is mutually influenced by significant others' happiness. Otherwise, pursuing personal happiness might be in conflict with interdependent happiness, putting individuals at risk of threat of being excluded or ostracized from the group. Quiescence-

oriented perspective emphasizes subtle pleasures (e.g., peaceful and serene) or the absence of negative events, as opposed to highly aroused pleasures (e.g., excited and enthusiastic). This is highly related to East Asian notion that everything in the universe is ever changing and unpredictable, thus happiness is at most a temporary state that is not worth actively pursuing. In addition, the expression of maximal happiness might cause jealousy from others, which in turn may harm the interpersonal relationships. Finally, the ordinariness-oriented perspective stresses similarity rather than uniqueness of the self with others in social contexts. The goals of presenting as ordinary are to appear “normal” or “modest” instead of “different” from in-groups and to live up to in-group expectations and norms.

Cultural Syndrome of Interdependent Self-Construal

The conceptualization of interdependent happiness is derived from the interdependent goals that are more prevalent among individuals with interdependent self-construals. Markus and Kitayama (1991) differentiated the concepts of independent self-construals and interdependent self-construals as distinct ways to conceptualize the self. Independent self-construals is thought to be derived from Euro-American’s individualistic cultures whereas interdependent self-construal from collectivistic cultures, such as Eastern societies. Independent self-construals is characterized with emphasis on defining self independently from social contexts and external factors, having internal locus of control, valuing personal uniqueness and self-expression, and attending to self-actualization and personal pursuit. In contrast, interdependent self-construals is characterized with emphasis on defining self in relation to significant others or social contexts, having external locus of control, valuing interpersonal similarity and social conformity, and attending to social harmony and social role fulfillment. In essence, independent self-construals

and interdependent self-construals differ in the relative emphasis on the connectedness between the self and others.

Empirical Evidence of Interdependent Happiness

The concept of interdependent happiness is drawn on cross-cultural studies on the association between self-construals and well-being. Research has consistently indicated that factors embedded in the independent construals, such as self-concept consistency (Cross, Gore, & Morris, 2003), need for self-actualization (Church et al., 2013), self-esteem needs (Oishi, Dormer, Lucas, & Suh, 1999), personal control (Kitayama, Karasawa, Curhan, Ryff, & Markus, 2010), and independent goals (e.g., fun and enjoyment) (Oishi & Diener, 2001), predicted subjective well-being (e.g., global life satisfaction, positive and negative affect, self-esteem, and depression) of European Americans or individuals with highly independent self-construals. In contrast, factors embedded in the interdependent self-construals, such as interdependent goals (e.g., pleasing parents and friends) (Oishi & Diener, 2001) and interpersonal conflicts (Kitayama et al., 2010), respectively predicted subjective well-being for Asian Americans and Japanese.

In addition, there is a substantial amount of evidence supporting the three dimensions of interdependent happiness (i.e., relationship oriented happiness, quiescent happiness, and ordinary happiness) among East Asians. First, in terms of relationship oriented happiness, in a cross-national study including United States, Germany, Russia, East Asia, Ford et al. (2015) found that motivation to pursue happiness was associated with socially engaged definition of happiness (e.g., seeking happiness through spending time with family and friends or helping others) in Russia and East Asia, but not in the United States and in Germany. Similarly, in two cross-national studies on socially engaging emotions (e.g., friendly feelings and guilt) and socially disengaging emotions (e.g., pride and anger), Kitayama, Mesquita and Karasawa (2006) found

that Japanese tended to report experiencing socially engaging emotions more strongly than they experienced socially disengaging emotions whereas the reverse was true for European Americans. In addition, they found that Japanese's reported positive feelings were more closely related to the socially engaging positive emotions whereas the European Americans' to socially disengaging positive emotions. Additionally, Uchida and Kitayama (2009) indicated that personal achievement and social harmony were a stronger predictor of subjective well-being for Americans and Japanese respectively. Similarly, Kwan et al (1997) found that self-esteem was the only predictor of life satisfaction in the United States whereas social harmony was equally important in predicting life satisfaction in Hong Kong.

Second, in terms of the quiescence aspect of well-being, Thai, Knutson and Fund (2006) found that Hong Kong Chinese valued low-arousal positive affect (e.g., calm) more than European Americans did. Additionally, Kan, Karasawa and Kitayama's (2009) cross-national study confirmed their hypothesis that East Asians tend to experience more pleasure and satisfaction by disengaging themselves from the constantly changing world by attempting to achieve a sense of calmness and peacefulness.

Lastly, in support of the ordinariness aspect of interdependent happiness, Kim and Markus (1999) conducted four studies on East Asian American, European Americans, Chinese nationals, Korean nationals' preferences for uniqueness (i.e., being distinctive and different) versus conformity (i.e., complying to prevailing social norms), and consistently found that East Asian Americans and nationals preferred targets that represented conformity whereas European American preferred targets that represented uniqueness across studies.

Relevance to Current Study

Well-being has been conceptualized from or inferred by various perspectives, such as self-esteem, levels of depression and anxiety, optimism/pessimism, and subjective well-being (e.g., Chang, 1996; Okazaki, 1997; Sheldon et al., 2004; Twenge & Crocker, 2002). Among all, subjective well-being is the predominating approach, consisting of two general components: (a) global life satisfaction and (b) negative and positive affect (Christopher, 1999). Life satisfaction refers to individuals' cognitive appraisal of quality of life according to individuals' subjective criteria. Negative and positive affect refers to individuals' affective appraisal of well-being, commonly termed as happiness, which is based on the assumption that positive affect is much preferred to negative affect. In other words, "we are doing well (we are happy), when we experience (i.e., individual's appraisal) more positive than negative feelings in our life" (Christopher, 1999).

Within this tradition of conceptualization of well-being, mounting evidence from cross-national and cross-ethnic/racial research suggests that many East Asian nationals and minority groups report lower level of well-being than their white American counterparts (Spencer-Rodgers et al., 2014). This lower level of well-being is manifested by reported lower self-esteem, greater depression and anxiety, and greater pessimism, and poorer overall subjective well-being. For instance, in terms of lower self-esteem, Twenge and Crocker's (2002) meta-analysis, based on 712 samples comparing different ethnic groups' level of self-esteem, concluded that among all the ethnic groups (e.g., White Americans, Black Americans, Hispanic Americans, American Indians, and Asian Americans), Asian Americans reported the lowest score of self-esteem. Similarly, Schmitt and Allik (2005) obtained data from 53 nations and found that while all nations scored above the theoretical midpoint of the self-esteem score (i.e., $M = 25.00$), United

States participants expressed the highest level of self-esteem ($M = 30.55$) among all nations whereas participants from East Asian countries or regions reported the lowest levels of self-esteem (i.e., Hong Kong = 27.54, South Korea = 29.17, Taiwan = 28.77, and Japan=25.50). With respect to greater depression and anxiety, Okazaki (1997) found that compared to White Americans, Asian Americans scored significantly higher on measures of depression and social anxiety. Wei et al., (2007) found that 32.2% of the Chinese international students were at risk for depression. In terms of pessimism, Asian Americans reported significantly higher level of pessimism than White Americans did (Chang, 1996; Hardin & Leong, 2005). Finally, with respect to subjective well-being, results from Sheldon et al.'s (2004) cross-national study indicated that South Korean, Taiwanese, and Chinese college students reported significantly lower aggregated subjective well-being than United States college students did. In sum, current literature depicted East Asians as more distressed and less happy than other cultural or ethnic groups.

However, building on the Western's individualism, research has been biased in explaining the cross-national and cross-racial variations of well-being. Multiple confounding factors might explain East Asian nationals and East Asian Americans' reported lower levels of well-being. First and foremost, East Asian national and East Asian Americans are found to adopt a very different response style in self-reporting. Specially, adhering to the doctrine of the mean may lead to the midway response style (Hamamura, Heine, & Paulhus, 2008), as evidenced by the well-documented finding that East Asians tend to exhibit greater ambivalence in self evaluations and judgments of well-being (e.g., Hui, Fok, & Bond, 2009; Ng, Hynie, & MacDonald, 2012). In addition, dialecticism and collectivism may provide additional theoretical account for the reported lowered well-being among East Asians (Spencer-Rodgers et al., 2004). For instance, in

contrast to the fact that White Americans tend to experience and express more positive than negative emotions, East Asians report experiencing a greater balance of both positive and negative emotions (Miyamoto & Ryff, 2011; Spencer-Rodgers, Peng, & Wang, 2010). As a result, their subject well-being, as measured by the reported positive and negative affects, appears to be lower than that of White Americans. Also, the holistic thinking directs attentions more to social contexts than to the self and stresses a balance view of positive and negative attributes of the self (Boucher, 2010a; Church et al., 2014; Kim, Peng, & Chiu, 2008; Spencer-Rodgers, Boucher, Mori, Wang, & Peng, 2005), leading to lower reported self-esteem than that of White Americans. Similarly, East Asian's greater tolerance for contradiction of negative and positive attributes, emotions and events, as well as their greater tendency to predict changes (Spencer-Rodgers, Williams, & Peng, 2010), provide additional explanation for lower levels of life satisfaction and greater pessimism.

Second, given the collectivistic culture of East Asians, the self-oriented nature of most of the instruments, such as self-esteem and life satisfaction, may not be the salient concepts in East Asians' definition of well-being (Markus & Kitayama, 1991). Self-serving bias, as manifested by pursuit of self-enhancement, happiness and life satisfaction, encompassing Western's individualism, is not congruent with East Asia's modesty bias or relationship-oriented bias (Christopher, 1999). Thus, the Eurocentric conceptualization of well-being fails to imply East Asians' genuine perception and evolution of well-being.

Third, Spencer-Rodgers et al. (2014) pointed out the methodological flaws of the widely instruments for well-beings. Specially, most instruments of different forms of psychological-well-being are composed of a single item or only positively keyed items (e.g., The Satisfaction with Life Scale; Diener, Emmons, Larsen, & Griffin, 1985), failing to capture the comprehensive

view of dialectal thinkers' evaluation of self-concept and well-being. Even for instruments that measures both positive and negative aspects of well-being, they use a single, summary score by summing, subtracting, or averaging the positive and negative components of well-being.

Therefore, the non-dialectical approaches to the assessment of various forms of well-being greatly constrain the manner in which dialectal thinkers' respond to the scales. As concluded by Christopher (1999) in his influential review on the well-being research, our understanding of well-being is heavily placed in cultural contexts and rooted in Euro-American ideology (e.g., individualism, analytical thinking, and independent self-construal). Hence, imposing this Euro-American ideology of well-being to other cultural groups in our research endeavor is fundamentally flawed.

To address the inherent bias in the Western concept of well-being, numerous cultural psychologists have called for the cultural construal of well-being given that there is disparity in how people define well-being across cultures (Kuo, 2014; Markus & Kitayama, 1991; Uchida, Norasakkunkit, & Kitayama, 2004; Uchida, Ogihara, & Fukushima, 2015). The cultural construal of well-being is shared within a culture, transmitted from generation to generation, and constructed within the unique sociocultural contexts (Uchida et al., 2015). It is grounded in historically nurtured ideology and philosophical traditions within a culture (Uchida et al., 2015). Thus, in contrast to the biased assumption of universality of well-being, a cultural construal of well-being highlights the distinctiveness of well-being across cultures. Specifically, for East Asians, a cultural construal of well-being is Hitokoto and Uchida's (2015) interdependence happiness.

Acculturative Stress

The following section describes conceptualization of acculturative stress as East Asian international students' transitory life event. It follows with a discussion on the empirical evidence of acculturative stress. It concludes with a discussion of the relevance of acculturative stress to the current study.

Conceptualization of Acculturative Stress

Acculturation was traditionally defined as a phenomenon that occurs “when groups of individuals having different cultures come into continuous first-hand contact with subsequent changes in the original culture patterns of either or both groups” (Redfield, Linton, & Herskovits, 1936, p. 149). As the result of acculturation, acculturative stress was first proposed by Berry (1970) to describe people's responses to life events that are rooted in intercultural contact as well as the process of cultural, psychological, and social adaptation to a new culture. Different from the concept of cultural shock (Oberg, 1960) that indicates a negative experience of cultural contact, the notion of acculturative stress acknowledges the complexity of the acculturation process as determined by a wide range of factors, such as coping skills (Berry, 2006). In addition, the notion of acculturative stress focuses on stress as induced by interaction of two cultures instead of a single culture (i.e., host culture or heritage culture).

Empirical Evidence of Acculturative Stress

Since Berry's (1970) proposal of acculturative stress, there has been a massive and ever growing literature on the phenomenon of acculturative stress, including studies on international students' acculturation experience (Zhang & Goodson, 2011). As early as in 1982, Chun concluded, in his review on over 30 years of research, that international students were confronted by “language difficulties, financial problems, adjusting to a new educational system,

homesickness, adjusting to social customs and norms, and for some students, racial discrimination” (p. 544). Empirical studies in the past three decades have further confirmed this conclusion.

As suggested by the most recent review by Smith and Khawajia (2011) on international students’ acculturation experience, international students encounter the following five major acculturative stressors. First and foremost is language barrier. Language barrier permeates all aspect of acculturation experience across academic and sociocultural settings. Research has consistently indicated the significant impact of English language proficiency on academic performance (e.g., Mori, 2000; Stoyhoff, 1997), as well as on intercultural interaction with domestic students or locals (e.g., Barratt & Huba, 1994; Hayes & Lin, 1994). Second major stressors are educational stressors as intensified by factors such as language barrier (Poyrazli & Kavanaugh, 2006), mismatch in their academic expectations to the realities of university life in the U.S. (Mori, 2000), and adjusting to interactive teaching style and critical thinking approach to learning (Lieberman, 1994). Third major stressors relate to sociocultural aspect. Some international students reported difficulty establishing a new social network in a new environment due to unfamiliarity with the social norms and language difficulty, leading to feeling of loneliness and senses of isolation (Lacina, 2002; Smith & Khawajia, 2011). In addition, international students of color often reported perceived discrimination compared to domestic students and European international students (Poyrazil & Lopez, 2007; Sandhu & Asrabadi, 1994). Lastly, international students reported experiencing a number of practical or lifestyle stressors, such as financial difficulties, greater tuition fees, and transportation (Smith & Khawajia, 2011).

Relevance to Current Study

In this study, East Asian international students' acculturative stress is conceptualized as the cultural construal of stress. East Asian international students are thought to experience similar acculturative stressors discussed above. Furthermore, it is speculated that East Asian international students, in general, experience the exacerbated acculturative stress given that there is a substantial disparity between East Asian culture and American culture. Cultural distance (Berry, 2006), namely the cultural differences between heritage culture and host culture, is widely thought as a critical factor in acculturation process. The greater the cultural distance, the more stressful the acculturation process is likely to be (Berry, 2006; Yang & Clum, 1995; Ye, 2005). Acculturative stress is well recognized as a prominent factor for international students in general (Sullivan & Kashubeck-West, 2015). Thus, it is crucial to better understand how East Asian international students cope with these exacerbated acculturative stress. In the current study, acculturative stress is conceptualized as the salient transitory life event for East Asian international students as described in the Panel III of Chun et al.'s (2006) model.

Dialectical Thinking

The following section provides a detailed description of the conceptualization of dialectical thinking as East Asian international students' cultural construal of cognitive appraisal. It follows with a discussion on the cultural syndrome underpinning and empirical evidence of dialectical thinking. It concludes with a discussion on its relevance to the current study.

Conceptualization of Dialectical Thinking

Dialectical thinking, also called naive dialecticism, was originally described by Peng and Nisbett (1999) in their seminal paper and has received increasing scholarly attention in the past two decades. It characterizes East Asians' view of world and its social and nonsocial components

as “internally contradictory, inextricably interconnected, and inevitably in flux” (Spencer-Rodgers et al., 2010, p. 308). It is composed of three primary tenets: the principal of contradiction, the principle of holism, and the principle of change (Spencer-Rodgers et al., 2004). Yin and Yang (see Figure 3) are thought to be an exemplary symbol of dialectal thinking (Peng, Spencer-Rodgers & Nian, 2006; Spencer-Rodgers et al., 2010). The principle of contradiction is represented by the fact that there is a white spot inside the black shape and a black spot inside the white shape, referring to the belief that every element in the universe include something of its opposite; the principle of holism is represented by the outer circle of the symbol, referring to the emphasis on context rather than the focal objects and a holistic view of the yin and yang; the principle of change is represented by the wave shapes and the fact that the symbol is thought to be turning, referring to the idea that all things in the universe are perpetually changing. Remarkably, these three principles are in contrast with ancient Greek’s philosophical principles: the law of identity (if A is true, then A is always true), the law of noncontradiction (A cannot equal not A), and the law of the excluded middle (all propositions must be either true or false) (Peng & Nisbett, 1999). In reasoning and compromising the contradiction, dialectal thinkers tend to comply to *the doctrine of the mean*, widely called as the “middle way” by which truth can be found in each of the two competing propositions (Peng & Nisbett, 1999).

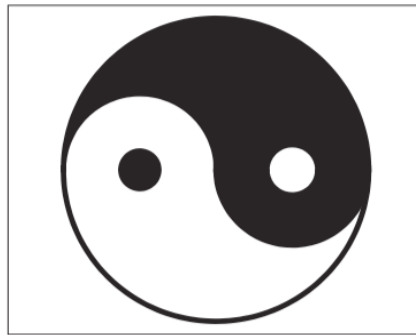


Figure 3. The Yin and Yang Symbol

Cultural Syndrome of Holistic Thinking

The culture and cognition literature, focusing largely on elucidating East-West variations in basic cognition (i.e., thinking styles and lay belief systems) that are based on growing empirical evidence, has characterized East Asian thought as holistic thinking style and Western thought as analytical thinking style (Nisbett, 2003; Nisbett & Masuda, 2003; Nisbett & Miyamoto, 2005; Nisbett, Peng, Choi, & Norenzayan, 2001; Peng & Nisbett, 1999). Holistic and analytical thinking, as cultural syndromes, help explain behavior across and within cultures (Spencer-Rodgers et al., 2010). Holistic thinking styles and lay beliefs have been most frequently found in East Asian societies, deriving from East Asian Taoist, Confucian, and Buddhist philosophical traditions (Nisbett, 2003). In contrast, analytical thinking styles and lay beliefs have been most frequently found in Western societies, deriving from ancient Greek/Aristotelian philosophical traditions (Nisbett, 2003). These cultural syndromes have persisted due to the specific social structure and social practice in respective societies (Nisbett & Miyamoto, 2005). That is, East Asian societies are thought to be complex and interdependent with role prescriptions whereas Western societies are thought to be relatively independent and individualistic. Holistic thinking and analytical thinking differ in a number of cognitive dimensions. First, in terms of locus of attention, holistic thinkers tend to attend to the broader contexts whereas analytical thinkers tend to attend to the focal objects. Second, in terms of interrelationship among all social and nonsocial objects, holistic thinkers tend to perceive all people, objects, and events in the universe as inextricably related whereas analytical thinkers tend to differentiate objects from the contexts, use categories rather than relationships to group objects, and analyze objects' attributes in an effort to find out the formal logic that governs objects' behaviors. Third, in terms of expectation of change, holistic thinkers tend to expect

greater change and more cynical patterns of change whereas analytical thinkers tend to expect stability/constancy or more gradual linear change. Fourth, in terms of tolerance of contradiction, holistic thinkers tend to be more comfortable with and accepting of contradiction than analytical thinkers. Fifth, in terms of causal attribution, holistic thinkers tend to attribute causes to external factors whereas analytical thinkers to internal factors. In essence, holistic thinking is context-dependent and relationship-oriented whereas analytical thinking is context-independent and logic-oriented. In addition, holistic thinking underpins East Asians' dialectical thinking style.

Empirical Evidence of Dialectical Thinking

The above discussed theoretical perspectives of dialectal thinking were supported by empirical evidences. For instance, Peng and Nisbett (1999) conducted four studies in which they found that a) White American students preferred non-dialectal to dialectal American proverbs and the Chinese international students preferred dialectal to non-dialectal Chinese proverbs, b) Chinese international students preferred dialectal Yiddish proverbs more than White American students did, c) most of the Chinese international students responded to the mother-daughter conflict in a more dialectical way, such as blaming both sides and preferring a compromise approach to resolve the conflict whereas most of the White American students responded in a more non-dialectical way, such as non-compromising and blaming one side for the cause of the problem, and d) White American students preferred the arguments that were in line with law of non-contradiction whereas Chinese international students preferred the arguments that were in line with principle of holism.

A substantial amount of empirical studies have expanded on the core idea of dialectal thinking and has shown that dialectal thinking has implication on individuals' self-perception, emotional experience, and psychological well-being (Spencer-Rodgers et al., 2010). In general,

empirical studies, either using self-reports or experiments to measure explicit or implicit self-concepts, have indicated that East Asian internationals and East Asian American tend to define the self as less clearly, confidently, consistently across roles, situations and times, as compared to European Americans (Boucher, 2010; Boucher, Peng, Shi, & Wang, 2009; Heine & Lehman, 1999; Kim, Peng, & Chiu, 2008; Spencer-Rodgers, Boucher, Mori, Peng & Wang, 2009). They are more likely to adjust their self-views when they received feedback that contradicted their self-conceptions (Spencer-Rodgers et al., 2009), and experienced less cognitive dissonance when confronted with contradictions with their private thoughts, emotions and behaviors (Haine & Lehman, 1999). The self as changing, malleable, flexible and even contradictory across roles, contexts and times is perceived as normative and adaptive in East Asian cultures (Spencer-Rodgers et al., 2010). Thus, East Asians' self-concept has been found to be less associated with well-being (Suh, 2002). In term of emotional experience, East Asians value balance over pure positivity, moderation over intensity, and complexity over purity (Spencer-Rodgers et al., 2010). They have been found to experience more emotional complexity (i.e., experiencing and being comfortable with opposing or mixed emotions), as evidenced by weaker association, no association, or even a positive association between positive and negative feelings (e.g., Spencer-Rodgers et al., 2010; Scollon, Diener, Oishi, & Biswas-Diener, 2005). In addition to experiencing more complex emotions, they are also more comfortable and hold more favorable attitudes toward them (Williams & Aaker, 2002). More importantly, preliminary empirical evidence indicated that moderate emotional complexity was associated with fewer physical symptoms in Japan than in the USA (Miyamoto & Ryff, 2011). Finally, in terms of well-being, the effect of dialectal thinking is inconclusive given there is limited empirical studies and contradictory findings. For instance, Church et al. (2013) did a cross-national study and found

that college students in Japan and China averaged lower than non-Asian college students in most aspects of eudemonic well-being (e.g., meaning in life and personal growth). Similarly, Spencer-Rodgers et al. (2004) found a positive association between dialectical thinking and lower global life satisfaction, and greater anxiety and depression among Chinese participants. However, most studies on well-being are limited to subjective well-being, the Eurocentric ideology of well-being that focuses on positive affect, negative affect, and global life satisfaction. The subjective well-being scales also have been found to have lower internal consistency and temporal reliability among East Asians (Diener, Suh, Smith, & Shao, 1995). Therefore, caution is called for in interpreting the findings regarding the positive association between dialectal thinking and poor well-being. In contrast, other lines of studies have indicated that dialectical thinking might have a positive influence on well-being under certain circumstances. One possibility is the moderating effect of dialectical thinking. As Spencer-Rodgers et al. (2010) indicated, the tendency of individual high in dialectical thinking to “find the good in the bad” may buffer well-being during times of difficulty, leading to better psychological health. For instance, Ji, Zhang, Usborne and Guan (2014) found that following the Severe Acute Respiratory Syndrome outbreak, Chinese students in Beijing took a more balanced view of the tragic event than European Canadians in Toronto did. Both groups were pessimistic about getting infected and reported inconveniences due to the outbreak. However, Chinese students also reported a variety of positive changes brought by SARS, such as having a new appreciation of life, a new appreciation for family and friendships, and a better hygiene habit, whereas most Canadians reported nothing positive or their answers tended to be vague.

Relevance to Current Study

Within the literature of coping and stress, cognitive appraisal has been conceptually categorized into two processes: primary and secondary appraisal (Lazarus & Folkman, 1984). Cognitive appraisal is defined as a process which an individual evaluates whether and in what way a particular encounter with the environs is relevant to one's well-being (Lazarus & Folkman, 1984). Specifically, primary appraisal refers to the process in which a person evaluates whether an event is stressful, benign or irrelevant, and is determined by multiple factors, such as the person's psychological characteristics, past experience with stressful situations, and expectation about the future (Galvin & Godfrey, 2001). Primary stress appraisals also include evaluations of events as harm, loss and threat to a person. In the secondary appraisal, a person further evaluates action/options to prevent such harm, loss or threat to the self. What is worth noting is that the entire cognitive process is deemed as dynamic in that a threat may later become a loss and a challenge may later be perceived as threatening. Additionally, within the literature of the intersection between acculturation and coping, prominent acculturation psychologists, such as Berry (1997), conceptualized cognitive appraisal as a critical moderator in the process of acculturation. For instance, acculturative stress might be appraised as a threat or an opportunity to grow, leading to divergent adaptation outcomes.

Surprisingly, despite the significant role of cognitive appraisal as depicted in the aforementioned theories, only a handful of studies have attempted to examine its role in acculturation among individuals of Asian backgrounds. Among the few studies, Chataway and Berry (1989) found the uncertainty for the future, academic difficulties and loneliness were appraised as most difficult for Chinese international students. Bjork, Cuthbertson, Thurman and Lee (2001) found that Asian Americans appraised stress as more challenging and the Korean

Americans appraised them also as greater losses, compared to their White counterparts. Other studies have pointed the role of perfectionism among Asian Americans (e.g., Yoon & Lau, 2008) and Asian international students (e.g., Nilsson, Bulter, & Shouse, 2008) in appraising stress as too threatening, leading to distress.

There are several caveats among the foregoing studies. First, in the original conceptualization of Lazarus and Folkman (1984), the theorists noted the importance of contexts/environments, including cultural and social norms, in understanding and predicting what and how much an individual will perceive an event to be stressful, as well as how an individual will react to the stress. However, current literature has largely ignored the role of culture in shaping individuals' cognitive appraisal. Second, the current literature has largely overlooked the dynamic nature of cognitive appraisal. For instance, once perceived as stressful, how it might evolve as more stressful, less stressful, or even an opportunity to growth. Thus, how East Asian international students' cultural backgrounds might affect their dynamic cognitive appraisal of their acculturation experience remain largely unexplored (Smith & Khawaja, 2011).

To echo the above limitation in the literature on cognitive appraisal, another pioneer in the stress and coping field, Aldwin (2007) noted the importance of culture in conceptualizing cognitive appraisal among individuals of diverse cultural backgrounds. More specifically, Aldwin (2007) stated cognitive appraisal is a combination of environmental circumstances, individual needs, and access to resources, and more importantly, one's cultural beliefs and values. Additionally, Aldwin (2007) urged more research effort into understanding what cultural syndromes may provide our knowledge about what and how cultural dimensions affect stress appraisal. Here, I proposed that the cultural syndrome of cognition and culture, specifically, East

Asian international students' holistic thinking style, give rise to their unique cognitive appraisal style - dialectical thinking.

Dialectical thinking is thought to characterize East Asian's thinking styles or lay belief systems. Dialectical thinking is conceptualized in this study as East Asian international students' cognitive appraisal style to help explain how individuals may vary in the manner in which they appraise acculturative stress depending their level of dialectical thinking and how in turn this might influence their well-being. We hope to fill in the gap in the international student literature as Smith and Khawajia (2011) pointed out the scarcity of empirical studies on cognitive appraisal despite its well documented importance in stress and coping field, especially those on cultural construal of cognitive appraisal.

Based on the aforementioned theoretical and empirical evidence, it is hypothesized that dialectal thinking serves as a buffer by facilitating appraisal of "the good in the bad" in coping with acculturative stress. Specifically, dialectical thinking directs attention away from the stress to a broader context. Thus, those who have higher level of dialectical thinking are more likely to attribute causes of the stress to external factors, such as the fact of being an international student, rather than internal factors, such as lack of competence. In addition, dialectical thinking leads to a more balanced view of the current acculturative stress by focusing both the benefits and costs of the stress. It predisposes individuals to expect a change from being stressful at the moment to less stressful in the near future. It helps facilitate the appraisal of stress as an opportunity of growth and emotional maturity. Dialectical thinking also contributes to the high tolerance of ambiguity and contractions embedded in various kinds of acculturative stress, such as career outcomes and mismatch of initial expectation and reality.

Collectivistic Coping

The following section provides a detailed description of the conceptualization of collectivistic coping as East Asian international students' cultural construal of coping. It follows with a discussion on the cultural syndrome underpinning and empirical evidence of collectivistic coping. It concludes with a discussion on its relevance to the current study.

Conceptualization of Collectivistic Coping

As noted in Kuo's (2013) review article, collectivistic coping has been described with different terminologies by different researchers, such as "collectivistic coping style, collectivistic-oriented coping, communal coping, communalistic coping, socially oriented coping, other-focused coping, relational coping, family support coping" (p. 377). However, Kuo's (2013) invaluable review on collectivistic coping literature concluded that, regardless of the variability in the definition, conceptualization and terminology of collectivistic coping, collectivistic coping is generally regarded as "a constellation of multifaceted stress responses shaped and enhanced by collectivistic norms, values, and tendencies" (p. 377). More specifically, Kuo (2013) summarized a wide array of collectivistic coping responses among diverse conceptualizations by different researchers, "ranging from value driven strategies (e.g., forbearance and fatalism) to interpersonally-based strategies (e.g., family and social support), to culturally conditioned emotional/cognitive strategies (e.g., acceptance and avoidance) to religion- and spirituality-grounded strategies" (p. 384)

Among various conceptualizations of collectivistic coping (e.g., Hepper, et al., 2006; Kuo, Roysircar & Newby-Clark, 2006; Moore & Constantine, 2005; Utsey, Adams, & Bolden, 2000; Zhang & Long, 2006), I use Moore and Constantine's (2005) conceptualization for the current study for two reasons. First, its conceptualization has been tested in Asian international

students whereas other conceptualizations have only been tested among ethnic minority groups in the U.S., such as Asian Americans (Hepper, et al., 2006) and African Americans (Utsey et al., 2000). In addition, it encompasses two broad, basic collectivistic coping responses (i.e., forbearance and seeking social support) that are fundamental to the concept of collectivistic coping. According to Moore and Constantine (2005), collectivistic coping does not occur in vacuum, and is thought to function as a way to engage in-groups members in culturally congruent ways and to consider the well-being of in-group members during the process of coping (Moore & Constantine, 2005). It consists of two broad categories, seeking social support and forbearance.

Seeking social support. Seeking social support is defined as seeking support and assistance from members of their interpersonal network, such as family, close friends, and other valued/significant members (Moore & Constantine, 2005). This cultural preference of seeking support from close in-group members to cope with personal problems or concerns demonstrates the collectivistic worldview and social relationship. As Wong, Wong and Scott (2006) stated, cultures have persuasive implication for social resources that are available and assessable to individuals. For individuals from individualistic cultures, their social network is likely to consist of relatively loosely connected members, including nuclear family, some relatives, friends, and acquaintances (Triandis, 1995). Thus, the weaker interdependence between the self and the in-groups leads to larger, more diverse but weaker social networks. In contrast, for individuals from collectivistic cultures, their social network is likely to consist of immediate and extended family and the boundary between immediate and extended family is often time blurry (Triandis, 1995). Thus, the stronger interdependence between the self and the in-groups leads to smaller, less diverse but stronger social networks. In addition, it is worth noting that East Asians' expression

of seeking social support might differ than that of Westerners (Aldwin, 2007). More specifically, Taylor, Welch, Kim and Sherman (2007) further elaborated that while European Americans tend to seek explicit social support (i.e., seeking comfort from self-disclosure and emotional expression), members of Asian heritage tend to seek implicit social support (e.g., seeking company of close others without self-disclosure, reminding self of close others).

Forbearance. Forbearance, as known as self concealment (Larson & Chasten, 1990), refers to the tendency to minimize or conceal problems or concerns with an attempt not to burden or trouble significant others (Moore & Constantine, 2005). In collectivistic cultures, like East Asian, interpersonal relationship and group benefits are valued above personal interests. The forbearance tendency is conditioned by the fear of burdening others/interpersonal conflicts, fear of negative social oriented emotions (e.g., shame and losing face), cultural value of internal control over private emotions, and cultural perception of socially appropriateness and emotional maturity (Heppner, 2008; Moore & Constantine, 2005). Forbearance is thought to have its root in East Asian's philosophical traditions (Moore & Constantine, 2005). For instance, Confucian ethics of self-cultivation places values on self-cultivation (i.e., self-reflection and personal growth). Additionally, Buddhist ethics of enlightened self-awareness points to the significance of internal control by no acting rather than reacting. Buddhism also considers suffering as inevitable and universal and asserts that the path to freedom from suffering is through nothingness (e.g., absence of desire) rather than through direct effects to reduce suffering (Tweed, White, & Lehman, 2004). Similarly, Taoist ethics of self-transcendence emphasizes self enlightenment and the ability to maintain a sense of internal peacefulness and calmness despite the external circumstances. Taoism teaches that one must adapt the self to move with the rhythms of nature like the water to its terrain (Tweed et al., 2004). While forbearance seems passive and

maladaptive from the viewpoint of Western stress and coping paradigm, cultural psychologists noted its functionality and purposes it serves within the collectivistic contexts. For instance, Constantine, Alleyne, Caldwell, Mcrae, and Suzuki (2005) stated that forbearance should be viewed as “as an asset or resilience factor rather than as a personal weakness or limitation” within the collectivistic cultural contexts.”

Cultural Syndrome of Collectivism

What undergirds the conceptualization of collectivistic coping is the theory of cultural orientation - individualism and collectivism. Individualism and collectivism, as a cultural syndrome, is thought to be the most recognized and researched cultural construct in cross-cultural psychology and social psychology (Oyserman, Coon, & Kemmelmeier, 2002; Triandis, 2001). Widely thought as originated by Hofstede (1980), the constructs of individualism and collectivism differentiate collectivistic cultures and individualistic cultures from the perspective of cultural norms and values, that is, the different priorities placed on the self versus the in-groups. More specifically, individualistic cultures emphasize the independence of people from their in-groups (Triandis, 1995). Thus, individuals in individualistic cultures tend to value individual rights, personal autonomy and self fulfillment. In contrast, collectivistic cultures value the interdependence of every human and some collectives, such as family, tribe, and nation (Triandis, 2001). Thus, individuals in collectivistic cultures tend to value fulfillment of social roles and obligation and social harmony with in-groups.

Triandis (1995) acknowledged the uniqueness of each individualistic or collectivistic culture and proposed the concepts of horizontal or vertical dimensions to distinguish different kinds of individualism and collectivism. While horizontal cultures emphasize equality, vertical cultures value hierarchy (Triandis, 1995). Thus, taking the horizontal or vertical dimensions into

account, there are four distinct cultures with unique cultural norms and values: (a) horizontal individualistic cultures, such as Sweden, stress all people are equal but acknowledge each individual is at the same time unique; (b) vertical individualistic cultures, such as the United States, emphasize being distinct and above average in relation to others; (c) horizontal collectivistic cultures, such as Israel, stress both equality and interdependence of the self and others; and (d) vertical collectivistic cultures, such as East Asian cultures, emphasize interdependence of the self and others, and showing respects and obedience to in-group authorities.

Individualism and collectivism are thought to have a profound impact on individuals' cognition, emotion, motivation, perception and behaviors (Triandis, 2001), one of which is the way individuals cope with stress in life. Grounded in the above discussed theory of cultural orientation -individualism and collectivism (Triandis, 1995), numerous theorists have proposed definition and conceptualization of collectivistic coping adopted by individuals from collectivistic cultures (e.g., Hepper, 2006; Kuo et al., 2006; Moore & Constantine, 2005; Yeh et al., 2003; Zhang & Long, 2006).

Empirical Evidence of Collectivistic Coping

The centrality of collectivism in the selection of coping strategies among East Asian nationals, international students, or minority in the United States finds a decent amount of empirical support. For instance, in a study conducted in Hong Kong, Shek and Cheung (1990) found that Chinese used both self-reliance coping strategies (e.g., saving problems; forbearance) and other-reliance coping strategies (i.e., seeking support from family, friends and significant others) across the marital, familial, interpersonal and occupational domains. Similarly, Kuo (1995) revealed that when asked how they coped with racial discrimination, 53% of Asian

American participants reporting minimizing the problem as insignificant, 49% of them reported asking advice from friends, and 43% of them reported asking advice from relatives.

In terms of the prominence of seeking social support, Constantine et al. (2005) examined coping responses of Asian, Black, and Latino New York city residents following the September 11, 2001 terrorist attack against the U.S. in a qualitative study, and found all participants reported seeking support from family and friends to coping with distress from the attack. Similarly, Yeh, Inose, Koori, and Chang (2001) did a study on college students in Japan and revealed that Japanese students tended to use family and friends to cope with stress and only 4.3% of the participants felt comfortable seeking help from mental health professionals. Neill and Proeve (2000) indicated that Asian students reported greater use of social support as a coping strategy than Australian students. Similar point was made in Yeh and Wang (2000)' study in which they found that Asian Americans reported preference of taking with family and friends to mental health professionals in response to mental health problems. More importantly, abundant empirical evidence has indicated the positive effect of seeking social support on psychological well-being. For instance, Wei, Heppner, Ku, and Liao (2010) found that perceived helpfulness of family support moderated the association between racial discrimination stress and depressive symptoms among Asian Americans in the U.S. Similarly, Sümer, Poyrazli and Grahame (2008) found that social support had a buffering effect against depression and anxiety among international students.

With respect to the prominence of forbearance, in their study on coping responses of Asian, Black, and Latino New York city residents following the September 11, 2001 terrorist attack against the U.S., Constantine et al. (2005) found that compared to other groups, more Asian Americans reported not discussing their feelings regarding the attack with others because

they were afraid of worrying or distressing them and wished to grieve about the attack in private. Tweed et al. (2004) found that East Asian participants (e.g., East Asian Canadians and Japanese) reported using self-control, waiting, accepting responsibility, and accepting the situation more frequently than European Canadian. Yoshihama (2002) interviewed both Japan-born Japanese and U.S.-born Japanese women who were victims of domestic violence, and found that Japan-born Japanese reported the use of more forbearance coping than did their U.S.-born counterparts. In addition, forbearance was found to have positive psychological outcomes for members of Asian heritage. For instance, Noh, Beiser, Kaspar, Hou, and Rummens (1999) interviewed 647 Asian refugees (i.e., Chinese, Vietnamese and Laotian) and found that forbearance buffered the relationship between discrimination and depression. It was reasoned that forbearance might be the most viable way to cope with discrimination for these refugees. However, more recently, Wei, Lao, Heppner, Chao and Ku (2011) found that among 188 Chinese international students, those with a weaker identification with Chinese culture, when acculturative stress was higher, the use of forbearance coping was positively associated with psychological distress whereas for those with a stronger identification with Chinese culture, the use of forbearance was not associated with psychological distress. The conflicting results regarding the positivity or negativity of forbearance's impact on psychological outcomes might due to different degrees of identification with home culture, and/or to the less culturally relevant psychological outcome constructs, namely, negative psychological distress.

Relevance to the Current Study

Within the literature of stress and coping, various categories of coping responses has been identified, such as problem-focused coping versus emotion-focused coping, approach coping versus avoidance coping, or primary control coping versus secondary control coping (Billings &

Moos, 1981; Lazarus & Folkman, 1984; Lazarus, 1991, 1999; Rothbaum, Weisz, & Snyder, 1982). Coping skills refers to the cognitive and behavioral responses to internal or external demands appraised as stressful (Lazarus & Folkman, 1984). Problem-focused, approach coping, and primary control coping in general refer to more active and direct effort in fixing the problem or addressing the concern, with coping effort directing more to external circumstances. In contrast, avoidance coping, emotion-focused, and secondary control coping, refers to disengagement and distraction from the problem behaviorally or cognitively, or managing emotional responses to the stress, with coping effort directing more towards internal world.

Research has consistently indicated that the prevalence of “emotion-focused,” “Indirect,” “passive,” or “covert,” “self-control,” “internally target,” “avoidance,” or “secondary control” coping strategies among individuals of Asian backgrounds (Wong & Wong, 2006). For instance, cross-national studies have suggested that Japanese participants employed significantly more emotion-focused coping and avoidance coping in dealing with stressful life events compared to the British sample (O’Connor & Shimizu, 2002) and Australian samples (Radford, Mann, Ohta & Nakane, 1993). In addition, a substantial amount of cross-racial study indicated that Asian Americans were more likely to use avoidant coping strategies compared to White Americans and other minorities in the U.S. (e.g., Bjork, Cuthbertson, Thurman, & Lee, 2001; Lam & Zane, 2004; Sheu & Sedlacek, 2004).

More importantly, these kind of coping strategies have been found to be “maladaptive” “dysfunctional,” or “ineffective” and to predict “negative” psychological or emotional outcomes. This pattern is drawn from results from various cross-national studies. For instance, Bales, Pidgeon, Lo, Stapleton and Magyar’s (2015) study in Australia, United States and Hong Kong showed that lower use of avoidance coping predicted significantly lower psychological distress

for colleague students in all countries. Similarly, cross-racial studies suggested that problem solving coping strategies predicted less distress while avoidance coping strategies predicted greater distress among Korean Americans (Bjork et al., 2001), Asian Americans (Chang, 1996), and Asian Canadians (Kuo & Kwanten, 2014). Specifically, for Asian international students, Chataway and Berry's (1989) study indicated that Chinese students from Hong Kong used more avoidance coping, leading to poor health, compared to European Canadian domestic students. More recently, Khawaja and Dempsey (2007) 's study in Australia indicated "dysfunctional" coping strategies (e.g., self-distraction, denial, behavioral disengagement) contributed to psychological distress among international students primarily from Asian countries. Additionally, their comparison study in 2008 indicated that international students, with the majority from Asian countries, used more "dysfunctional" coping strategies compared to their domestic counterparts.

However, numerous limitations lie in the foregoing findings regarding coping styles and their psychological implications for individuals of Asian backgrounds. First, conceptually, the current coping literature emphasizes on personal control, personal agency and direct action, reflecting an individualistic value orientation (Folkman & Moskowitz, 2004). Moreover, most cross-national or cross-racial comparison studies are based on the culturally universality of this individualistic oriented assumption, presuming that the basic elements of coping and measurement of coping are universal while people of preferences of coping might differ (Bhagat, Stevenson, & Kuo, 2009). Second, Kuo (2011) noted the methodological pitfalls of the existing cross-cultural studies, that is, researchers defined, categorized, and measured types of coping substantially differently across studies, making the comparison itself and conclusions it draws less convincing. And finally, the connotation embedded in the terminology, conceptualization,

methodology, and subsequent findings in the current literature has been remarkably biased. For instance, the more prevalent problem-focused/approach coping in individualistic societies are conceptualized as “primary” while the opposite orientation more commonly seen in collectivistic societies are described as “secondary.” In addition, the terminology of “avoidance” indicates lack of motivation and effort among individuals from cultural background substantially different from individualistic societies (Chun et al., 2006). Taken together, the current coping literature has predominantly adopted the individualistic notions of coping most relevant in the Western Europe, the U.S., the Canada, and Australia (Aldwin, 2007), despite the fact that 80% of the world’s population live in countries of collectivistic values (Triandis, 1994)

As a response to the aforementioned limitations in the current coping literature, recent years have witnessed a growing attention to the role of culture in shaping coping patterns among individuals of diverse ethnic and cultural groups (e.g., Hepper, et al., 2006; Kuo, Roysircar, & Newby-Clark, 2006; Moore & Constantine, 2005; Zhang & Long, 2006). This growing body of cultural coping literature differs from the prevailing, Euro-Centric stress and coping theories and research by examining cultural relevant construct of coping for the cultural group under study. Specifically, for East Asian international students, one of the emerging constructs that has received increasing scholarly attention and is most relevant to this group is collectivistic coping.

Therefore, based on the preceding theoretical and empirical evidence, it is hypothesized that collectivistic coping provide a buffer against acculturative stress, leading to better interdependent happiness among East Asian international students. Specifically, by seeking social support from family and friends, East Asian international students gain personal comfort, resulting in enhancement of psychological well-being. In addition, the use of forbearance helps

protect their interdependent aspect of happiness by ensuring that their personal acculturative stress is not a burden to significant others.

Research Questions and Hypotheses

The present study aims to increase our knowledge of East Asian international students' acculturation stress and its implication for their psychological well-being. More importantly, it aims to explore factors that might moderate the relationship between acculturative stress and psychological well-being, from the perspectives of cognitive appraisal and coping strategies. No study to date has examined the cultural construals of cognitive appraisal, coping strategies, and well-being of East Asian international students yet. There, this study attempts to address limitations of the existing literature by grounding the conceptualization of the study on theories of coping and culture syndromes.

Based on the aforementioned theoretical framework (see Figure 2) and empirical evidence, I have developed three research questions and three related hypotheses.

RQ1: To what extent does acculturative stress explain interdependent happiness among East Asian international students?

H1. Acculturative stress will be significantly and negatively associated with interdependent happiness among East Asian international students.

RQ2: How does the interaction among acculturative stress, dialectical thinking, and collectivistic coping explain interdependent happiness among East Asian international students?

RQ2a: To what extent does dialectical thinking moderate the association between acculturative stress and interdependent happiness among East Asian international students?

H2a: The association between acculturative stress and interdependent happiness would vary as a function of dialectical thinking. That is, the higher levels of dialectical thinking, the weaker the association between acculturative stress and interdependent happiness.

RQ2b: To what extent does seeking social support, as one of the two collectivistic coping responses, moderate the association between acculturative stress and interdependent happiness among East Asian international students?

H2b: The association between acculturative stress and interdependent happiness would vary as a function of seeking social support. That is, the higher levels of seeking social support, the weaker the association between acculturative stress and interdependent happiness.

RQ2c: To what extent does forbearance, as one of the two collectivistic coping responses, moderate the association between acculturative stress and interdependent happiness among East Asian international students?

H2c: The association between acculturative stress and interdependent happiness would vary as a function of forbearance. That is, the higher levels of forbearance, the weaker the association between acculturative stress and interdependent happiness

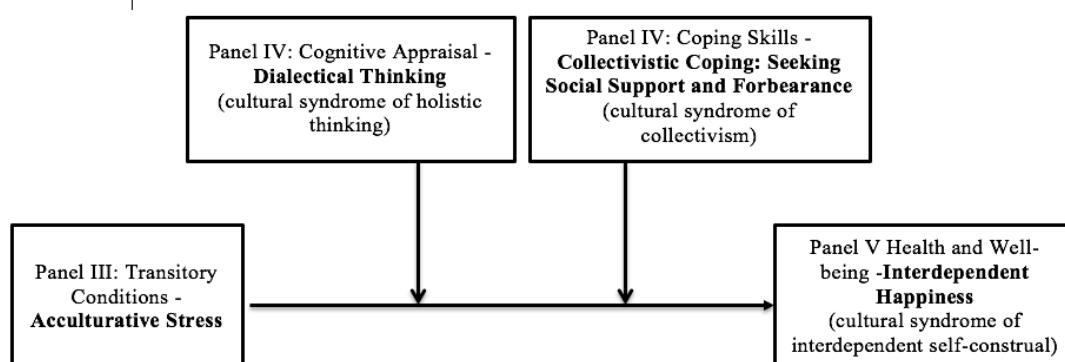


Figure 2. The Hypothesized Theoretical Framework of Current Study

CHAPTER 3. METHOD

The purpose of the study was to understand the relationships among East Asian international students cultural construals of stress (i.e., acculturative stress), well-being (i.e., interdependence happiness), cognitive appraisal (i.e., dialectical thinking), and coping skills (i.e., collectivistic coping) using the Chun et al.'s (2006) stress and coping model as the theoretical framework. This study was an observational study using a quantitative approach. Online-based survey was used to collect data. This chapter describes participants, sampling procedure, and measures.

Participants

In this section, I first describe the inclusion and exclusion criteria, needed sample size for power, and the sample. The qualified East Asian international student participants were those (a) who were from China, Hong Kong, Macau, Taiwan, Japan, South Korea, North Korea, or Mongolia, (b) who were are living in the U.S. and pursuing or taking an undergraduate or graduate degree/course(s), (c) who were at least 18 years old, and (d) whose native languages were not English. International students who were not from East Asia were excluded from this study.

Participants in this study were 313 East Asian international students enrolled in colleges and universities in the U.S. (see Table 2). They ranged in age from 18 to 39 years with a mean of 24 ($SD = 4.3$). Their length of stay in the U.S. ranged from 1 month to 14 years and 7 months, with a mean of 2.5 years ($SD = 2.2$). The majority of the participants were from China ($n = 223$, 71.2%), followed by South Korea ($n = 47$, 15%), Taiwan ($n = 28$, 8.9%), Japan ($n = 10$, 3.2%), Hong Kong ($n = 4$, 1.3%), and Macau ($n = 1$, 0.3%). Most of them held a F-1 Visa ($n = 295$,

94.2%). There were a relatively equal number of man ($n = 161$, 51.4%) and woman ($n = 152$, 48.6%). The most commonly reported areas of study were Engineering ($n = 117$, 37.4%), Business and Management ($n = 33$, 10.5%), Math and Computer Science ($n = 32$, 10.2%), and Physics and Life Sciences ($n = 30$, 9.6%). In terms of degree, 112 (35.8%) participants were pursuing Bachelor degrees, 78 (24.9%) Master's degrees, and 113 (36.1%) Doctorates. The majority of the participants reported being single ($n = 189$, 60.4%), while 44 (14.1%) and 71 (22.7%) reported being married and in a relationship, respectively. In addition, the vast majority of the participants did not identify themselves as religious ($n = 270$, 86.3%). Only 43.5% ($n = 136$) and 36.4% ($n = 114$) of the participants reported being aware of programs for international students and East Asian international students at their institutions, respectively. Lastly, in terms of perceived socialization level (Table 3), on a scale of 1 to 5, participants reported interacting most frequently with students from their own countries/areas of origin ($M = 4.06$, $SD = 1.13$), followed by international students from other countries ($M = 3.39$, $SD = 1.10$) and American/domestic students ($M = 3.26$, $SD = 1.16$). Similarly, they reported feeling most satisfied with their interaction with students from their own countries/areas of origin ($M = 4.12$, $SD = 0.94$), followed by international students from other countries ($M = 3.68$, $SD = 0.89$) and American/domestic students ($M = 3.28$, $SD = 1.07$).

Table 2
Participants' Demographic Characteristics

Demographic Variables	<i>M</i>	<i>SD</i>
Age	24	4.3
Length of Stay	2.5	2.2
	<i>n</i>	%
Area of Origin		
China	223	71.2
South Korea	47	15.0
Taiwan	28	8.9
Japan	10	3.2
Hong Kong	4	1.3
Macau	1	0.3
Visa Status		
F-1: Academic Student	295	94.2
F-2: Dependent of a F-1 Holder	2	0.6
J-1: Exchange Visitor	10	3.2
Permanent Residency/Green Card Holder	2	0.6
Others	4	1.3
Sex		
Man	161	51.4
Woman	152	48.6
Area of Study		
Agriculture	20	6.4
Business and Management	33	10.5
Communication and Journalism	8	2.6
Education	10	3.2
Engineering	117	37.4
Fine and Applied Arts	3	1.0
Health Professions	6	1.9
Humanities	10	3.2
Math and Computer Science	32	10.2
Physical and Life Sciences	30	9.6
Social Sciences	11	3.5
Others	32	10.2
Degree		
Bachelor degree	112	35.8
Master's degree	78	24.9
Doctorate	113	36.1
Professional	6	1.9
Other	1	0.3
Marital/Relationship Status		
Married	44	14.1
Single	189	60.4

Table 2 continued

Divorced	1	0.3
In a relationship	71	22.7
Living together/Cohabiting	7	2.2
Others	1	0.3
Religion Identification		
Yes	42	13.4
No	270	86.3
Awareness of Programs for International Students		
Yes	136	43.5
No	173	55.3
Awareness of Programs for East Asian International Students		
Yes	114	36.4
No	194	62

Table 3

Participants' Perceived Level of Socialization

Variables (Scale of 1 to 5)	<i>M</i>	<i>SD</i>
Frequency of interaction with American/domestic students	3.26	1.16
Satisfaction of interaction with American/domestic students	3.28	1.07
Frequency of interaction with students from own country/area of origin	4.06	1.13
Satisfaction of interaction with students from own country/area of origin	4.12	0.94
Frequency of interaction with international students from other countries	3.39	1.10
Satisfaction of interaction with international students from other countries	3.68	0.89

Sampling Procedures

The sampling procedures combined purposive sampling and snowball sampling. Specifically, after obtaining exemption approval from Purdue University Institutional Review Board (IRB; Appendix A), I worked with the Registrar's office at Purdue University, one of the top 20 institutions hosting international students (Institute of International Education, 2015), to recruit participants. More specifically, staff from the Registrar's office sent out an initial recruitment email (Appendix B) and a follow-up recruitment email (Appendix C) to a random sample of those who fit the inclusion criteria.

In addition, the other 19 top institutions hosting international students, according to *The 2015 Open Doors Report on International Educational Exchange* (Institute of International Education, 2015), were contacted to help recruit participants, including New York University, University of Southern California, Columbia University, Arizona State University, University of Illinois - Urbana-Champaign, Northeastern University, University of California - Los Angeles, Michigan State University, University of Washington, Boston University, Penn State University - University Park, University of Michigan - Ann Arbor, Ohio State University - Columbus, University of Texas - Dallas, Indiana University - Bloomington, University of Minnesota - Twin Cities, University of California - Berkeley, State University of New York at Buffalo, and Texas A&M University. In addition to the fact that they had a large population of international students, these top institutions were chosen because they were in different geographical locations, thus the results drawn from the samples could be generalized to the East Asian international student residing across the states. Therefore, I first contacted each institution's IRB to inquire if they required a separate review (Appendix D) and 15 out of 19 institutions responded. Among the 15 institutions, 4 did request a separate review while the other 11 did not. I then contacted the International Students & Scholars Services at these 11 institutions to request their help with recruitment (Appendix E). Unfortunately, 4 of them responded that they could not help with the recruitment and the rest of them did not respond to my request at all. As a result, Purdue University remained as the only primary pool of participants for this study.

In addition to the purposive sampling, I also shared a Facebook Status (Appendix F) on pages of open groups affiliated with Purdue University. The recruitment emails and Facebook Status included information about the study, participation criteria, a URL link to the online survey, and the information regarding the potential of winning a small incentive for participation.

In the email and Facebook Status invitations, using a snowball technique, I asked participants to forward the recruitment invitation to other East Asian international students who might be eligible to participate in the study. The initial page of the online survey provided an informed consent form (Appendix G) requiring each participant to give consent by pressing a button to continue to the survey. Confidentiality and autonomy were emphasized by reminding the participants that they would not be identified even if they participated in the incentive drawing. Participants were informed that their participation was voluntary and they could withdraw from the study at any time. The anticipated risks for the study were minimal. After providing consent to participate, participants responded to demographic/background questions (e.g., sex, age, enrollment status, area of study) and then completed the survey instruments. At the completion of the survey, participants had the option to be redirected to a new survey to enter the incentive drawing.

Measures

Participants completed the survey consisting of: (a) demographic/background questionnaire (Appendix H), (b) Interdependent Happiness Scale (Hitokoto & Uchida, 2015; Appendix I), (c) Index of Life Stress (Yang & Clum, 1995; Appendix J), (d) Dialectical Self Scale (Spencer-Rodgers et al., 2015; Appendix K), and (e) Collectivistic Coping Style Measure (Moore & Constantine, 2005; Appendix L). Table 4 gives an overview of these scales.

Demographic/Background Questionnaire

A self-reported demographic/background questionnaire was developed to gather basic demographic information and factors that had been documented to predict psychological outcomes of international students according to Zhang and Goodson's (2011) review. Participants completed the questionnaire, which contained items regarding their sex, age, the

institution the participant enrolled in, awareness of institutional programs for East Asian international students/international students, country/region of origin, area of study, degree, marital status/romantic relationship status, length of residency in the U.S., religion, and perceived satisfaction and frequency of social contact with American friends, other international friends, and co-national friends.

Table 4
Overview of Measures

Construct	Scale	Items	Cronbach's alpha		Operationalization
			Past	Current	
Interdependence Happiness	Interdependent Happiness Scale (Hitokoto & Uchida, 2015)	9	.77 to .93	.88	Total score of all items
Acculturative Stress	Index of Life Stress (Yang & Clum, 1995)	31	.83 to .88	.90	Total score of all items
Dialectical Thinking	Dialectical Self Scale (Spencer-Rodgers et al., 2015)	32	.65 to .86	.75	Reverse scores of 16 items and total scores of all items
Collectivistic Coping	Collectivistic Coping Style Measure (Moore & Constantine, 2005)				
Seeking Social Support		5	.84	.78	Total score of items 1, 2, 6, 8, and 9
Forbearance		4	.95	.73	total score of items 3, 4, 5 and 7

Interdependent Happiness

The Interdependent Happiness Scale (IHS; Hitokoto & Uchida, 2015) measures the levels of relationally oriented happiness that is most prominent in collectivistic cultures, such as East Asian cultures. The IHS consists of nine items, measuring three major tenets of East Asians' perception of well-being: (a) relationship oriented happiness (i.e., happiness based on levels of social harmony with others; e.g., "*I believe that I and those around me are happy*"), (b) quiescent happiness (i.e., happiness based on quiescence instead of happiness maximization; e.g., "*I do not have any major concerns or anxieties*"), and (c) ordinary happiness (i.e., happiness based on one's similar level of accomplishment with in-group members; e.g., "*I believe I have achieved the same standard of living as those around*"). Items are scored on a 5-point, Likert-type scale, with responses ranging from 1 (strongly disagree) to 5 (strong agree).

Hitokoto and Uchida (2015) reported the psychometric properties of interdependent happiness as a single factor scale in their original study among Japanese students in Japan, $\chi^2(54) = 128.22$, GFI = .93, AGFI = .88, CFI = .92, RMSEA = .06. With respect to reliability, the two-week test-retest reliability was .76 in Japanese students, with its internal consistency ranging from .82 to .93 among Japanese student and non-student adults. In terms of validity, the IHS was found to be positive correlated with scales measuring positive affect ($r = .67$), life satisfaction ($r = .61$), and friendship satisfaction ($r = .64$) among Japanese students. The IHS was negatively correlated with scales measuring negative affect ($r = -.60$) and interpersonal hopelessness ($r = -.43$) among Japanese students. The IHS was also found to have a significantly larger effect size for those who endorsed higher levels of collectivistic orientation among Japanese adults, suggesting that it was correlated to collectivism and interdependent self-construal.

In the primary analysis, interdependent happiness would be used as a single-factor construct. This is because conceptually speaking, interdependent happiness was conceptualized as a global concept that reflects happiness experienced by achieving three main interdependent goals (i.e., relationship harmony, quiescence, and ordinariness) that are highly interactive and correlated in East Asian societies. Additionally, the present study yielded Cronbach's alpha of .88 for scores on the total scale, indicating good internal consistency of the measurement as a one-factor construct.

However, given that IHS was recently published, here I provided additional discussion regarding its reliability and validity. First, the only empirical studies using the IHS were two studies conducted by Datu and his colleagues among Filipino high school students (Datu, King, & Valdez, 2015; Datu & Valdez, 2015). They reported the internal consistency of IHS ranged from .77 to .90 (Datu, King, & Valdez, 2015; Datu & Valdez, 2015). They also found that the IHS was positively correlated with holistic well-being (i.e., satisfying interdependent relationship, purpose in life, and optimism), positive affect, life satisfaction, and psychological capital (i.e., hope, optimism, resilience and self-efficacy) in both studies. Their incremental validity analysis indicated that the IHS showed more predictive power than social relatedness to parents, teachers, and peers (Datu, King, & Valdez, 2015). Notably, Datu, King and Valdez (2015) also conducted a confirmatory factor analysis (CFA) using maximum likelihood estimation approach and concluded that the three-factor model of interdependent happiness yielded good fit while the one-factor model adopted by the scale developers yielded poor model fit. However, Cronbach's alpha reliability coefficients for relationship oriented happiness, quiescent happiness, and ordinary happiness were relatively low: .64, .63, and .54, respectively. Importantly, the population (Filipino high school students) in Datu and his colleagues' studies

did not align well with the population in this study. This is because Filipino is technically in Southeast Asia while the interdependent happiness is theoretically most applicable to East Asian societies.

Additionally, given that the measure of the interdependent happiness (IHS; Hitokoto & Uchida, 2015) had not been tested among East Asian international students, three CFA models (i.e., one-factor, three-factor first-order, three-factor higher-order models) using AMOS were conducted to support the structural validity of the construct for East Asian international student population who were the participants in this study. The fit of the model was evaluated using Chi-square goodness-of-fit, the comparative fit indices (CFI), the normed fit index (NFI), and the root mean square of error approximation (RMSEA). An adequate model fit is obtained if the NFI and CFI are $> .90$ and the RMSEA is $\leq .08$, and a good model fit is obtained when the NFI and CFI are $> .95$ and the RMSEA is $\leq .06$ (Hu & Bentler, 1999).

In particular, I first tested if the one-factor model of interdependent happiness would be supported by the data in this study given that one-factor model was supported by the scale developers and it seemed to align better with the theoretical model of the construct than the three-factor model. Maximum likelihood estimation approach was used. The loading of one of the nine items for the latent factor (i.e., interdependent happiness) was fixed to one to obtain the estimate and minimize the number of parameters estimated in the model (Schreiber, Stage, King, Nora, & Barlow, 2006). For East Asian international students in our sample, the fit statistics for the one-factor model indicated a roughly adequate fit to the data, $\chi^2(27) = 109.55, p < .001$; NFI = .91; CFI = .93; RMSEA = .099. I then tested the three-factor model of interdependent happiness where there were correlated first order factors with no higher-order interdependent happiness construct. The fit statistics of the three-factor model indicated a good fit to the data, χ^2

(24) = 49.48, $p = .002$; NFI = .96; CFI = .98; RMSEA = .058. However, the present study yielded Cronbach's alpha of .76, .69, .83 for scores on relationship-oriented happiness, quiescent happiness, and ordinary happiness, respectively, indicating low internal consistency for the first two subscales of the measurement. Lastly, I tested the three-factor model of interdependent happiness with a higher-order interdependent happiness construct, the fit statistics of the three-factor higher-order model suggested an identical fit to the data with the three-factor first-order model, $\chi^2(24) = 49.48$, $p = .002$; NFI = .96; CFI = .98; RMSEA = .058.

Acculturative Stress

The Index of Life Stress (ILS; Yang & Clum, 1995) measures the levels of acculturative stress uniquely experienced by Asian international students. The ILS consists of 31 items, measuring five areas of acculturative stressors Asian international students encounter: (a) financial concerns and desire to stay in the U.S. (i.e., heightened stress due to limited availability and accessibility to financial aid programs and employment opportunities due to immigration regulation; e.g., "*I worry about my financial situation*"), (b) language difficulties (i.e., difficulty due to the fact that English is not a native language; e.g., "*My English makes it hard for me to understand lectures*"), (c) Interpersonal stress (i.e., stress in social situations, including perceived racial discrimination; e.g., "*I can feel racial discrimination toward me from other students*"), (d) cultural adjustment and desire to return home (i.e., adjusting to cultural differences in terms of food, music, holidays, religions, entertainment, et al.; e.g., "*I don't like American food*"), and (d) academic concern (i.e., academic pressure and sensitivity to academic performance; e.g., "*I worry about my academic performance*"). Items are scored on a 4-point, Likert-type scale, with responses ranging from 0 (*never*) to 3 (*often*), according to the how often the individual feels the specific acculturative stress described in each item.

In terms of reliability, Yang and Clum (1995) reported the test-retest reliability ($n = 20$, one-month interval) and internal consistency of the construct as a one-factor model was .87 and .86, respectively. Similarly, other empirical studies on East Asian international students reported good internal consistency using the measurement as a one-factor construct, ranging from .83 to .88 (e.g., Chen, Mallinckrodt, & Mobley, 2002; Lee, Koeske, & Sales, 2004; Misra, Crist, & Burant, 2003). However, when using the measurement as a five-factor construct, the internal consistency for the five factors were lower: .80, .79, .82, .70, and .75, respectively (Yang & Clum, 1995).

With regard to convergent validity, correlation analysis revealed a moderate association between the ILS and scales measuring suicidal ideation, depression, and hopelessness. The authors also reported high concurrent validity of the ILS as measured by the correlation between the ILS and a scale measuring general life stress ($r = .46$). Incremental validity indicated that ILS added significantly to the prediction of depression and hopelessness compared the general life stress scale. Other studies reported that the ILS correlated with mental health symptoms among Korean international students (Lee et al., 2004) and depression among East Asian international students (Fang, 2013).

Additionally, Yang and Clum (1995) employed the principle component method and varimax rotation in a series of factor analyses on the ILS and concluded that a five-factor solution appeared to be most meaningful for the ILS. However, the authors did not provide any information on the model fit except for the factor loading. They indicated that the factor loading levels of all items ranged from .40 to .87, all together accounting for 52.21% of the variance. In contrast, other empirical studies have used the ILS as a single-factor measure (e.g., Chen, Mallinckrodt, & Mobley, 2002; Lee, Koeske, & Sales, 2004; Misra, Crist, & Burant, 2003).

Unfortunately, none of them provided any rationales for the one-factor model nor did they indicate if a CFA was conducted to confirm that the model was supported by their data. Hence, no additional information on the model fit of either the one-factor or five-factor model was available in the literature.

In the primary analysis, acculturative stress would be used as a single-factor construct mainly based on the theoretical reasoning. Specifically, the five areas of acculturative stress were theoretically conceptualized to be interactive and highly correlated (Yang & Clum 1995), as indicated by other empirical studies as well (e.g., Smith & Khawajia, 2011). Further, these five factors were significantly correlated in this study (Table 5). Further, all the previous empirical studies have used the measure as a one-factor construct in their primary analysis (e.g., Chen, Mallinckrodt, & Mobley, 2002; Lee, Koeske, & Sales, 2004; Misra, Crist, & Burant, 2003). Therefore, using the one-factor model allows for better comparison of empirical results associated with this measure and contributing to the collective findings in the literature associated with the measure. Lastly, the current study aims to examine the effect of acculturative stress in a global way and its possible interactions with dialectical thinking and collectivistic coping in predicting East Asian international students' interdependent happiness. Consistent with the principle of parsimony, which argues that a simpler model with less variables yields greater explanatory power, discussing acculturative stress as a whole enables a more focused and richer discussion on its impact compared to the five-factors models (Gignac, 2007). Therefore, the original measure of 31 items as a one-factor construct would be used in the primary analysis. The present study yielded a Cronbach's alpha of .90 for scores on the total scale.

Table 5
Bivariate Correlations of the Five Factors

	1	2	3	4	5
1. Finance	-				
2. Language	.38**	-			
3. Racism	.42**	.29**	-		
4. Adjusting to new culture	.38**	.45**	.55**	-	
5. Academic performance	.52**	.57**	.36**	.46**	-

Note: ** $p < .01$,

Given the lack of data on the model fit of the construct, three hypothesized CFA models (i.e., a one-factor model, a five-factor first-order model, and a five-factor higher-order model) using the maximum likelihood estimation approach were tested to examine which model would be supported by the data in this study. I first tested the one-factor model of acculturative stress given that it was most commonly used in the literature. The results revealed that for East Asian international students in our sample, the fit statistics for the one-factor model indicated a poor fit to the data, $\chi^2(405) = 2071.65, p < .001$; NFI = .48; CFI = .52; RMSEA = .12. Next, I tested the five-factor model of acculturative stress where there were correlated first order factors with no higher-order acculturative stress construct. The fit statistics of the five-factor first-order model indicated a slightly better fit than the one-factor model but still poor fit to the data, $\chi^2(395) = 1231.09, p < .001$; NFI = .69; CFI = .76; RMSEA = .082. Lastly, I tested the five-factor model of acculturative stress with a higher-order acculturative stress construct. Similarly, the fit statistics of the five-factor higher-order model suggested a poor fit to the data, $\chi^2(400) = 1303.69, p < .001$; NFI = .67; CFI = .74; RMSEA = .085. In summary, none of the models demonstrated a good fit. However, the relative low incremental close-fit indices (i.e., NFI and CFI) of the one-factor construct could be impacted by the relatively large number of observed variables (i.e., 31), which usually implies a relatively large number of degrees of freedom associated with the model (Gignac, 2007; Kenny & McCoach, 2003).

Despite the fact that the dimensionality of the construct was obscure based on the above discussion on the model fit of different CFA models, the ILS was the best measure available for the construct among others. Specifically, besides the ILS, two other published instruments were found to specifically measure the acculturative stress of international students. The first one is the Acculturative Stress Scale for International Students (ASSIS; Sandhu & Asrabadi, 1994), which seems to be the most popular instrument in the extant international student literature. The scale consists of 36 items with seven subscales, namely, perceived discrimination, homesickness, perceived hate/rejection, fear, stress due to change/culture shock, guilt, and nonspecific items. The second scale is the Acculturative Hassles Scale for Chinese Students (AHSCS; Pan, Wong, Chan, & Joubert, 2008). The scale consists of 17 items with four subscales, namely, language deficiency, academic work, cultural difference, and social interaction.

The ILS was chosen in this study over the other two widely used scales (i.e., ASSIS and AHSCS) for a couple of reasons. First, the ILS's target population profile is almost identical to the population for the current study. It was originally administered to 101 Asian international students, with about 33% of them from East Asian countries (i.e., China, South Korea, Taiwan, and Japan). In contrast, the ASSIS was normed on 128 undergraduate international students from Asian, Latin American, Middle East, European, and African countries studying in the U.S. The AHSCS was developed in a sample of Mainland Chinese students in Hong Kong. Second, the five correlated factors in the ILS exceptionally correspond to the well documented stressors encountered by international students as reviewed by Smith and Khawajia (2011) previously discussed in Chapter II. In contrast, ASSIS lacks measurements of acculturative stressors in some well-documented domains, including academic, financial, and language areas. Similarly, racial discrimination, another well-documented acculturative stressor, is missing in the AHSCS.

Third, the ILS has better psychometric evidence compared to the ASSIS and AHSCS. In addition to limited psychometric data (Constantine, Okazaki & Utsey, 2004; Sandhu & Asrabadi, 1994), reliability analyses suggested that ASSIS' six factors were not well replicated in their Asian sample (Ye, 2005) and Chinese sample (Ye, 2006). Pan et al. (2008) reported satisfactory internal consistency of the AHSCS and convergent validity. However, its reliability and validity are yet to be tested by other studies.

Dialectical Thinking

The Dialectical Self Scale (DSS; Spencer-Rodgers et al., 2015) measures the extent to which an individual thinks dialectically. The DSS consists of 32 items, measuring three areas of dialectical thinking: (a) contradiction (e.g., "*I often find that things will contradict each other*"), (b) cognitive change (i.e., tendency to view oneself as thinking differently depending on the context; e.g., "*I often find that my beliefs and attitudes will change under different contexts*"), and (c) behavioral change (i.e., tendency to view oneself as behaving differently depending on the context; e.g., "*I often change the way I am, depending on who I am with*"). Items are scored on a 7-point, Likert-type scale, with responses ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). In this study, participants' scores of items 1, 3, 4, 7, 8, 9, 11, 17, 20, 21, 22, 24, 25, 26, 28, and 29 were reversed and then totaled with the rest of the items to measure their level of dialectical thinking. Higher total scores indicate a greater level of dialectical thinking.

The DSS has shown to possess strong psychometric properties. In terms of reliability, Spencer-Rodgers et al. (2015) reported an internal consistency ranging from .71 to .86 across studies. Similarly, Zell et al.'s (2013) cross-national study reported an internal consistency ranging from .65 to .84 among 19 nations. Spencer-Rodgers et al. (2009) also reported 4-week

test-retest reliabilities ranged from .70 to .91. The present study yielded a Cronbach's alpha of .75 for scores on the total scale.

In terms of construct validity, Zell et al.'s (2013) one-factor structure analysis indicated an excellent model fit, indicating that the scale measures a single latent construct of dialectical thinking. Among East Asians, the DSS scores have been found to be significantly and positively correlated with scales measuring numerous self-concepts, including self-inconsistency (i.e., viewing oneself differently across roles or contexts; Boucher, 2010a; English & Chen, 2007; Spencer-Rodgers et al., 2005), self-evaluative ambivalence (i.e., the extent to which one is sensitive at positive and negative aspects of self at the same time; Boucher, Peng, Shi, & Wang, 2009; Spencer-Rodgers et al., 2004), unstable regard (i.e., fluctuating self review about multiracial background; Sanchez, Shih, & Garcia, 2009), and lower level of self-verification (i.e., the tendency to verify one's self view; Spencer-Rodgers et al., 2009). The DSS scores have also been found to be significantly and positively correlated with scales measuring East Asians' emotional complexity (i.e., coexistence of positive and negative affect; Spencer-Rodgers et al., 2010) and similar levels of mixed emotions in both negative and positive events (Hui, Fok, & Bond, 2009). Additionally, the DSS has been found to be significantly and positively correlated with East Asians' tolerance of ambivalence and modesty, such as balanced attitudes towards action and inaction (i.e., moderate attitudes toward being active and inactive in people's lives), moderate and ambivalent responding style (i.e., likelihood to select the scale midpoint and to respond to scale ambivalently; Hamamura et al., 2008), and indecisiveness (i.e., being indecisive in decision making; Li, Masuda, & Russell, 2014; Ng & Hynie, 2014).

Collectivistic Coping

The Collectivistic Coping Style Measure (CCSM; Moore & Constantine, 2005) measures the extent to which African, Asian and Latin American international students utilize social support seeking and forbearance as stress coping strategies. The CCSM consists of nine items and two subscales: (a) Seeking Social Support (i.e., seeking support and assistance from members of their interpersonal network; e.g., “*I spent time with my family member(s) or friend(s)*”) and (b) Forbearance (i.e., minimizing or concealing problems or concerns with an attempt not to burden or trouble significant others; e.g., “*I didn’t express my feelings about the problem to others because I didn’t want to burden them*”). Items are scored on a 5-point, Likert-type scale, with responses ranging from 1 (*not used*) to 5 (*used often*), according to the how often the individual use the coping strategy described in each item. In this study, scores on items 1, 2, 6, 8, 9 were totaled to measure participants’ endorsement of seeking social support; scores on items 3, 4, 5, and 7 were totaled to measure participants’ endorsement of forbearance. Higher total scores of each subscale indicate greater endorsement of seeking social support and forbearance as coping strategies.

Moore and Constantine (2005) reported psychometric properties of this scale in their original study. With respect to reliability, they reported an internal consistency of .84 and .95, as well as a 2-week test-retest reliability of .71 and .80, for the Seeking Social Support and Forbearance subscale, respectively. The present study yielded Cronbach’s alpha of .78 and .73 for scores on the Seeking Social Support and Forbearance, respectively.

In terms of divergent validity, both scales of CCSM were each significantly positively correlated with instruments measuring interdependent self-construal with relatively small effect sizes (r 's = .16 and .15, respectively). There was a significant but weak negative correlation

between forbearance and instrument measuring independent self-construal ($r = -.18$). In addition, Seeking Social Support subscale was positively correlated ($r = .19$) while Forbearance subscale ($r = -.18$) was negatively correlated with instruments measuring attitudes toward seeking professional support with relatively small effect sizes. With respect to convergent validity, there were small to moderate correlations between Seeking Social Support subscale and instruments measuring seeking support from family ($r = .32$) and friends ($r = .16$), as well as between the Seeking Social Support subscales of Coping Strategies Inventory ($r = .33$) and Interpersonal Relationship Harmony Index ($r = .20$). Forbearance subscale of CCSM was significantly and positively correlated with the avoidance subscale of Coping Strategies Inventory ($r = .21$) with relatively small effect size. Additionally, Saucedo (2009) indicated a positive relationship between racial microaggression with both forms of collectivistic coping among Latino graduate students.

CHAPTER 4. RESULTS

In this chapter, I present the results of the study using SPSS 24.0. First, I describe the data screening process and the preliminary analyses. I then present the findings associated with my primary research questions and hypotheses.

Data Screening and Preliminary Analyses

Prior to performing any data analyses, I examined the accuracy of the data entry by verifying the SPSS file against the Excel file generated from the Purdue Qualtrics website. I confirmed that the data were accurately transferred into the SPSS file. Next, I completed the following screening steps to remove cases that did not provide valid data (Table 6).

Table 6

Summary of Removed Cases

Reasons for removal	# Cases removed
Non-participation	1
Inclusion criterion not met: Non-East Asian	5
Missing at least one measure	126
Univariate Outliers	0
Multivariate Outliers	1
Total	133

Note: Initial sample: N = 446; Final sample: N = 313

There were a total of 446 participants who accessed the survey. I deleted one participant because he/she refused to take the survey. I then deleted five participants because they did not identify themselves as East Asian international students. I then deleted additional 126 participants who missed at least one measure. Most of these participants ended their participation in the latter part of the survey, especially the final two measures. Therefore, I suspected that fatigue was the reason for the attrition.

I then checked the remaining data to ensure that the missing data points were random with no discernible patterns by running the Missing Value Analysis (MVA) in SPSS. The MVA

results indicated that no patterns emerged. For the remaining responses, I replaced missing items via the linear trend at point procedure.

Next, I screened the data for univariate and multivariate outliers. I examined the boxplots in SPSS to check for the presence of univariate outliers and detected no extreme values marked with asterisks (Tabachnick & Fidell, 2007). I then performed the Mahalanobis Distance Test with $p < 0.001$ to check for the presence of multivariate outliers (Tabachnick & Fidell, 2007). I detected and deleted one multivariate outlier. Finally, the aforementioned data screening procedures resulted in the final sample of 313 participants.

Descriptive features of all primary variables and assumptions of normality of distribution were examined (Table 7). I confirmed that the values of the skewness and kurtosis of all primary variables were all within the range of ± 2 (Tabachnick & Fidell, 2007). Next, I checked for the assumption of homoscedasticity and linearity by plotting the standardized residuals against the standardized predicted values to confirm that the data were normally distributed and that there were liner relationships among variables (Tabachnick & Fidell, 2007). Finally, multicollinearity and singularity were examined by checking for the bivariate correlations of all primary variables (Table 8). No multicollinearity ($r > .90$) and singularity ($r > .95$) were detected.

Table 7

Descriptive Statistics of Primary Variables and Normality of Distribution

Variables	Scale Range	<i>M</i>	<i>SD</i>	Skewness	Kurtosis
Interdependent Happiness	1-5	3.67	.72	.14	.28
Acculturative Stress	0-3	1.16	.44	-.04	-.04
Dialectical Thinking	1-7	3.89	.52	-.48	1.11
Collectivist Coping					
Seeking Social Support	1-5	3.49	.88	-.56	-.12
Forbearance	1-5	3.44	.85	-.19	-.49

Table 8
Bivariate Correlations of Primary Variables

	1	2	3	4
1. Interdependent Happiness	-			
2. Acculturative Stress	-.50**	-		
3. Dialectical Thinking	-.26**	-.26**	-	
4. Seeking Social Support	.30**	-.05	-.03	-
5. Forbearance	-.03	.06	.15*	-.31**

Note: ** $p < .01$, * $p < .05$

I conducted additional preliminary analyses to determine if any demographic variables needed to be controlled for in the primary analyses. I performed Pearson correlation between the continuous demographic variables (i.e., age, length of stay, and participants' perceived socialization) and the dependent variable (i.e., interdependent happiness). As shown in Table 9, interdependent happiness was significantly correlated with both frequency and satisfaction of interaction with American/domestic students, satisfaction of interaction with students from their own country/area of origin, and frequency and satisfaction of interaction with international students from other countries. However, given that the strength of all the significant correlations were weak (<0.3), and the significance was primarily resulted in high statistical power due to large sample size, they were not included in the primary analysis.

Table 9
Bivariate Correlations Between the Continuous Demographic Variables and the Dependent Variables

Variables	Interdependent happiness
Age	.07
Length of Stay	.10
Frequency of interaction with American/domestic students	.14*
Satisfaction of interaction with American/domestic students	.23**
Frequency of interaction with students from own country/area of origin	.07
Satisfaction of interaction with students from own country/area of origin	.22**
Frequency of interaction with international students from other countries	.18*
Satisfaction of interaction with international students from other countries	.23**

Note: ** $p < .01$, * $p < .05$

Next, I conducted a series of one-way Analyses of Variances (AVOVAs) to determine possible group differences for the dependent variable (i.e., interdependent happiness) based on the categorical demographic variables. Results indicated no significant ANOVA F values for visa status, sex, area of study, degree, marital/relationship status, religion identification, awareness of program for international students, or awareness of program for East Asian international students.

Finally, the ANOVAs results revealed statistically significant effects for area of origin and awareness of program for international students on the outcome. Because the majority of the participants were from China ($N=223$, 71.2%), area of origin was recoded into two groups (i.e., Chinese =1 and Non-Chinese = 2) to address issues with unequal numbers and violations of the data assumption for equality of covariance (Tabachnick & Fidell, 2007). The ANOVA results regarding area of origin was significant, $F(1, 311) = 4.42$, $p = .036$, partial $\eta^2 = .014$. Similarly, the ANOVA results based on awareness of programs for international students (Yes=1, No=2) was significant, $F(1, 307) = 4.96$, $p = .027$, partial $\eta^2 = .016$. However, though these two categorical demographic variables were statistically significant, I decided not to control for this variable in the primary analysis due to its small effect size indicated by η^2 's, which are both below .10 according to Cohen's (1988) standards.

Therefore, the conclusion based on the above preliminary analyses was that none of the demographic variables is entered as covariates in the primary analyses for interdependent happiness.

Primary Analyses

In this section, I describe the multiple regression analyses used to address the research questions and associated research hypotheses relating to interdependent happiness.

Hierarchical regression was used to test the following hypotheses:

H1. Acculturative stress will be significantly and negatively associated with interdependent happiness among East Asian international students.

H2a: The association between acculturative stress and interdependent happiness would vary as a function of dialectical thinking. That is, the higher levels of dialectical thinking, the weaker the association between acculturative stress and interdependent happiness.

H2b: The association between acculturative stress and interdependent happiness would vary as a function of seeking social support. That is, the higher levels of seeking social support, the weaker the association between acculturative stress and interdependent happiness.

H2c: The association between acculturative stress and interdependent happiness would vary as a function of forbearance. That is, the higher levels of forbearance, the weaker the association between acculturative stress and interdependent happiness.

The predictor (i.e., acculturative stress) and moderators (i.e., dialectical thinking, seeking social support, and forbearance) were standardized to maximize interpretability and to minimize potential multicollinearity issue (Frazier, Tix, & Barron, 2004), prior to being entered into the regression analyses. Product terms were created to represent the interaction between the predictor and the moderators by multiplying the predictor with each of the three moderators. Table 10 presents the regression results for interdependent happiness, including the unstandardized regression coefficients (B), the standard error for the corresponding regression coefficient ($SE B$), the standardized regression coefficient (β), the squared semipartial correlation (sr^2), R square (R^2), Change of R^2 , and F value (F) for the model.

As shown in Table 10, in step one, interdependent happiness was entered as the dependent variable and the key predictor (i.e., acculturative stress) explained a significant

variance in interdependent happiness, $R^2 = .24$, $F(1, 311) = 101.74$, $p < .001$. Acculturative stress was significantly and negatively associated with interdependent happiness, $\beta = -.50$, $p < .001$ (RQ1). In the second step, the three other predictors which served as moderators in the subsequent model were added as the independent variables into the previous model, adding a significant variance in interdependent happiness, $R^2 = .35$, $R^2 \text{ Change} = .11$, $F(4, 308) = 42.27$, $p < .001$. In the third step, the three bivariate interaction terms were added as the independent variables into the previous model, adding a significant variance in interdependent happiness, $R^2 = .37$, $R^2 \text{ Change} = .02$, $p < .05$; $F(3, 305) = 26.01$, $p = .026$. More specifically, the interaction effect between acculturative stress and dialectical thinking was significant ($\beta = -.13$, $p = .012$; RQ2a), indicating that the negative relationship between acculturative stress and interdependent happiness would be exacerbated as the level of dialectical thinking increased. On the other hand, there was no interaction effect between acculturative stress and social support ($\beta = .06$, $p = .196$; RQ2b) or between acculturative stress and forbearance ($\beta = .00$, $p = .999$; RQ2c). This indicates that social support and forbearance were significant and positive contributors to interdependent happiness regardless of the individual's acculturative stress. Inversely, the relationship of acculturative stress and interdependent happiness remained the same for any individuals with the different levels of social support or forbearance. Additionally, acculturative stress ($\beta = -.46$, $p < .001$) and dialectical thinking ($\beta = -.21$, $p < .001$) were significantly and negatively associated with interdependent happiness; in contrast, social support ($\beta = .34$, $p < .001$). Lastly, there was no significant bi-variate correlation between forbearance and interdependent happiness ($r = -.025$, $p = .663$), however forbearance in the regression model was significantly and positively associated with interdependent happiness ($\beta = .12$, $p = .015$). This indicated that forbearance was

a suppressor which was defined as a variable that increases the predictivity validity of another set of variables by its inclusion in the regression coefficient (Tzelgov & Henik, 1991).

Table 10
Regression Results for Interdependent Happiness

Variables	<i>B</i>	<i>SE</i> <i>B</i>	β	<i>sr</i> ²	<i>R</i> ²	<i>R</i> ² <i>Change</i>	<i>F</i>
Step 1							
Acculturative stress	-3.20	.32	-.50	.25**	.24**		101.74**
Step 2					.35**	.11**	42.27**
Acculturative stress	-2.90	.31	-.45	.19**			
Dialectical thinking	-.97	.31	-.15	.02**			
Seeking social support	2.02	.31	.31	.09**			
Forbearance	.77	.31	.12	.01*			
Step 3					.37*	.02*	26.01**
Acculturative stress	-2.94	.30	-.46	.19**			
Dialectical thinking	-1.34	.33	-.21	.03**			
Seeking social support	2.17	.31	.34	.10**			
Forbearance	.82	.31	.13	.01**			
Acculturative stress X Dialectical thinking	-.83	.33	-.13	.01*			
Acculturative stress X Seeking social support	.40	.31	.06	.00			
Acculturative stress X Forbearance	.00	.30	.00	.00			

Note: ** $p < .01$, * $p < .05$

To further interpret the moderating effect between acculturative stress and dialectical thinking on interdependent happiness, simple slopes for each level of the moderations (0.5 standard deviation above, standard deviations between -0.5 to 0.5, and -0.5 standard deviation below for high, medium, and low levels, respectively) were calculated. As shown in Figure 4, the higher levels of dialectical thinking, the stronger the negative association between acculturative stress and interdependent happiness. In other words, as participants' levels of acculturative stress increase, the higher their levels of dialectical thinking, the lower levels of interdependent happiness they report (Figure 4).

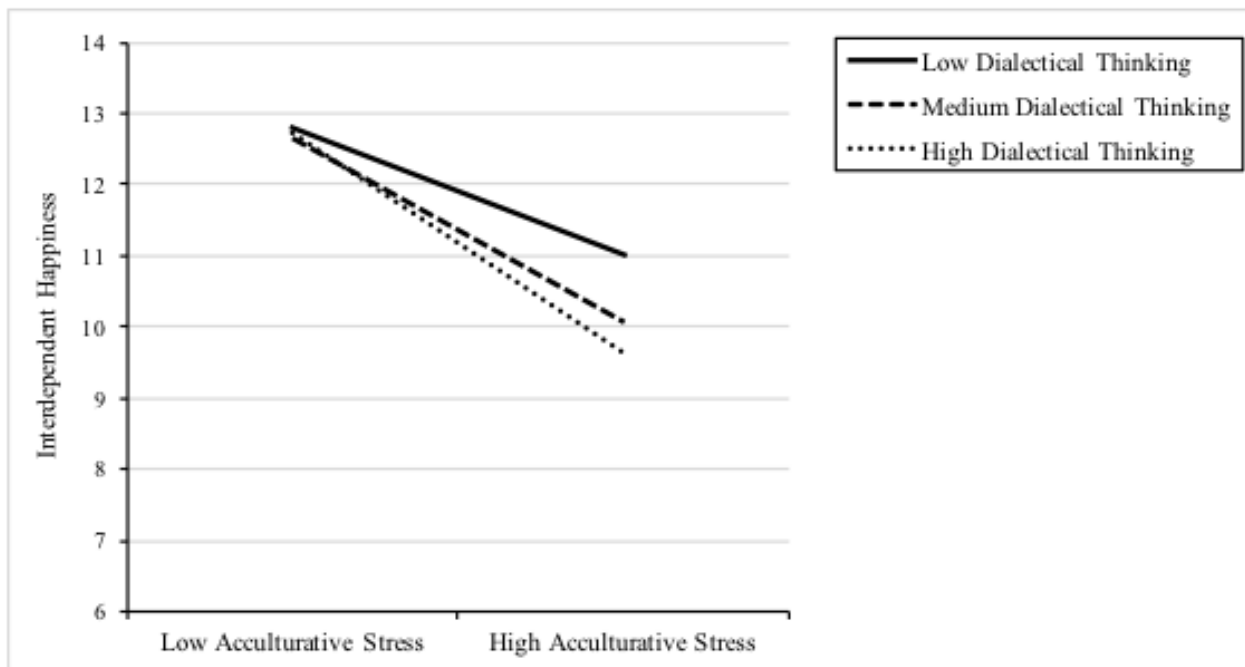


Figure 4. The Moderating Effect of Dialectical Thinking on the Relationship between Acculturative Stress and Interdependent Happiness

Table 11 summarizes the regression analyses results discussed above. It specifies predictors, moderators, and interaction terms that significantly contributed to interdependent happiness.

Table 11
Summary of Regression Analyses Results

Independent Variables	Dependent Variable	β
	Interdependent Happiness	
Predictors		
Acculturative Stress	Negative	-.46
Moderators		
Dialectical Thinking	Negative	-.21
Seeking Social Support	Positive	.34
Interaction terms		
Acculturative Stress X Dialectical Thinking	Negative	-.13

Evaluation of the Hypotheses

In this section, I summarize statistical analyses results regarding the hypotheses. Overall, my hypotheses were partially supported.

Hypothesis 1

My first hypothesis was that acculturative stress would be significantly and negatively associated with interdependent happiness among East Asian international students. This hypothesis was supported. Acculturative stress alone explaining a significant variance in interdependent happiness, $R^2 = .24$, $F(1, 311) = 101.74$, $\beta = -.50$, $p < .001$. Even after controlling other variables in the moderation model, the effect size of acculturative stress on interdependent happiness remained strong, $\beta = -.46$, $p < .001$.

Hypothesis 2a

My second hypothesis was that the higher levels of dialectical thinking, the weaker the association between acculturative stress and interdependent happiness. This was partially supported. The results revealed that after controlling other variables in the moderation model, dialectical thinking was found to be significantly and negatively associated with interdependent happiness ($\beta = -.21$, $p < .001$). Additionally, the moderation effect of dialectical thinking on the relationship between acculturative stress and interdependent happiness was supported but with the opposite directionality ($\beta = -.13$, $p = .012$). That is, the higher levels of dialectical thinking, the stronger the negative association between acculturative stress and interdependent happiness.

Hypothesis 2b

My third hypothesis was that the higher levels of seeking social support, the weaker the association between acculturative stress and interdependent happiness. This hypothesis was not supported because no significant interaction between acculturative stress and seeking social

support was indicated. However, seeking social support was a strong and positive contributor to interdependent happiness when holding other variables in the moderation model constant ($\beta = .34, p < .001$).

Hypothesis 2c

My fourth hypothesis was that the higher levels of forbearance, the weaker the association between acculturative stress and interdependent happiness. The results did not support this hypothesis either because no interaction between acculturative stress and forbearance was indicated.

CHAPTER 5. DISCUSSION

Using Chun et al.'s (2006) stress and coping model as the theoretical framework, the purpose of the study was to understand the relationships among East Asian international students cultural construals of stress (i.e., acculturative stress), well-being (i.e., interdependence happiness), cognitive appraisal (i.e., dialectical thinking), and coping skills (i.e., collectivistic coping). In this chapter, I first present a review and interpretation of the results. Then, I discuss limitations of the study, as well as implications for future counseling psychology research and practice. Lastly, I conclude with a summary of contribution of this study to the literature.

Discussion of Hypotheses

Based on Chun et al.'s (2006) theoretical framework and previous empirical evidences, I developed two hypotheses; the second hypothesis includes three sub-hypotheses. In this section, I discuss results and interpretation for each hypothesis.

H1 – Role of Acculturative Stress in Interdependent Happiness

For H1, I expected that acculturative stress would be significantly and negatively associated with interdependent happiness among East Asian international students. Not surprisingly, this hypothesis was supported. In fact, acculturative stress demonstrated the largest effect size among all the independent variables in predicting interdependent happiness among East Asian international students.

This finding is in line with Chun et al.'s (2006) stress and coping model in that acculturative stress, as the salient transitory life event for East Asian international students, significantly impacts their interdependent happiness, the cultural construal of East Asian international students' well-being. Additionally, this finding is consistent with the massive and

ever growing literature in the past few decades that suggest the prominent role of acculturative stress in predicting well-being of international students in general (e.g., Church, 1982; Smith & Khawajia, 2011; Zhang & Goodson, 2011). Further, the finding is consistent with Zhang and Goodson's (2011) systematic review results indicating that stress was the most frequently reported predictor of psychosocial adjustment among 33 empirical studies on international students. Lastly, the finding may also further support previous empirical evidences suggesting that East Asian international students appear to experience the most acculturative stress compared to other international student groups due to pronounced language barrier and cultural difference (Briley, Wyer Jr., & Li, 2014; Leong, 2015).

Specially, language barrier permeates all aspect of acculturative experience across academic and sociocultural settings for East Asian international students (Smith & Khawajia, 2011; Zhang & Goodson, 2011). Not only does language barrier have a significant effect on East Asian international students' academic performance and self-efficacy (Stoynoff, 1997; Ying, 2003), it also impacts their intercultural interaction with domestic students or locals (Kagan & Cohen, 1990). In addition to language barrier, being in an unfamiliar educational system can lead to heightened academic stress as well. Many East Asian international students are confronted to adapt quickly from lecture-based teaching style to interactive teaching style and from holistic thinking to analytical thinking approach in learning (Rienties et al., 2012). Added to the academic stress is the financial cost of pursuing education and living in the U.S. for many East Asian international students (Smith & Khawajia, 2011; Zhang & Goodson, 2011). Furthermore, East Asian international students also experience difficulty establishing a new social network in a new environment due to cultural difference and language difficulty, leading to senses of isolation (Smith & Khawajia, 2011; Zhang & Goodson, 2011). Unfortunately, for many East

Asian international students, this sense of isolation is further elevated by experiences of microaggressions or racism (Smith & Khawajia, 2011; Zhang & Goodson, 2011).

Importantly, it makes sense that all of these interactive acculturative stress would add up and negatively impact their perceived well-being. For instance, academic achievement is highly regarded in many East Asian societies and many East Asian international students are financially supported by their family in order to be able to pursue higher education in the U.S.; therefore, for many East Asian international students, when struggling academically, they may perceive themselves as failing to live up to their in-group members' expectation (i.e., threat to ordinariness), and/or as disappointing significant others and potentially creating a rupture in their relationships (threat to relationship-oriented happiness), leading to elevated worry (i.e., threat to quiescence). Additionally, interpersonal distress, experiences of microaggression and racism, as well as social isolation would substantially and negatively impact East Asian international students' assessment of the self that are grounded on the social norms of being interdependent and socially harmonious with others.

H2a – Role of Dialectical Thinking in Interdependent Happiness

For H2a, I hypothesized that the association between acculturative stress and interdependent happiness would vary as a function of dialectical thinking. That is, the higher levels of dialectical thinking, the weaker the association between acculturative stress and interdependent happiness. Interestingly, this hypothesis was only partially supported. First, dialectical thinking as an independent variable itself was found to be significantly and negatively associated with interdependent happiness. In other words, as East Asian international students' level of dialectical thinking increases, their level of interdependent happiness decreases. Second, dialectical thinking was found to have an opposite moderation effect on the relationship between

acculturative stress and interdependent happiness. That is, the higher levels of dialectical thinking, the stronger the negative association was between acculturative stress and interdependent happiness. The impact of dialectical thinking on well-being is inconclusive given there are very limited empirical studies and even contradictory findings (Church et al., 2013; Ji, Zhang, Osborne & Guan, 2014; Spencer-Rodgers et al., 2004). The findings of the current study seem to add more complexity to this inconclusive nature. Two possibilities may explain the findings of this study regarding the role of dialectal thinking in interdependent happiness.

First, in this study, dialectical thinking is conceptualized as East Asian international students' unique cognitive appraisal style in their stress and coping process. However, broadly speaking, the concept of dialectical thinking goes beyond the idea of cognitive appraisal for stress; it characterizes East Asian's view of world as "internally contradictory, inextricably interconnected, and inevitably in flux" (Spencer-Rodgers et al., 2010, p. 308). Therefore, it may have significant implication for East Asian international students in other areas of their life, such as academic life. It would be that because dialectical thinking is in marked contrast with the Western preferred analytical thinking style, it hinders academic learning in the U.S. setting for many East Asian international students. Analytical thinking seems to infuse into the standards and practices of all educational disciplines in the U.S. (Egege & Kutieleh, 2004). For instance, many subject topics specify the need for critical thinking by including critical reflection or analysis in their course syllabi. However, many East Asian international students come from an educational system that encourages rote-learning and holistic thinking, rather than analytical/critical thinking, thus putting them at disadvantage of meeting the institutional standards or practices (Egege & Kutieleh, 2004). Many East Asian international students may feel disconnected with analytical or critical thinking language, such as what it means and what it

entails (Biggs, 1997; Cadman, 2000). Thus, dialectical thinking may become another source of academic stress for many East Asian international students, which in turn would have a negative impact on their interdependent happiness.

Another theory to explain the findings regarding the negative impact of dialectical thinking on interdependent happiness is that dialectical thinking may only demonstrate positive impact as a cognitive appraisal style for stress when individuals are primed to reflect on its positivity. This is because dialectical thinking is thought to influence a broad range of cognitive processes, which may suggest that it requires some active self-reflection and intentionality for individuals to benefit from this thinking style in the midst of the acculturative stress. This means that for research studies, participants may need to be primed to think about how to actively use dialectical thinking to cope with stress in order to activate the appraisal of “the good in the bad” and stress as an opportunity for growth, as well as to direct attention away from stress or the self to external factors (Spencer-Rodgers et al., 2004). For instance, the Chinese word for “crisis” is composed of two Chinese characters respectively signifying “danger” and “opportunity.” When a student is experiencing a crisis, he/she may be more likely to be preoccupied with the aspect of “danger” of the situation; it may require an active and intentional reflection by the self or encouragement from significant others for the individual to be able to reframe the current situation as an “opportunity.”

H2b – Role of Social Support in Interdependent Happiness

For H2b, I hypothesized that the association between acculturative stress and interdependent happiness would vary as a function of seeking social support. That is, the higher levels of seeking social support, the weaker the association between acculturative stress and interdependent happiness. However, this hypothesis was not supported; no significant interaction

between acculturative stress and seeking social support was indicated. Despite the lack of buffering effect, seeking social support as an independent variable was found to be significantly and positively associated with interdependent happiness. In fact, it demonstrated the second strongest effect size next to acculturative stress among all predictors on interdependent happiness. This is consistent with previous research evidences indicating the positive effect of seeking social support on well-being among a diverse groups of populations, including East Asian international students (e.g., Constantine et al., 2005; Neill & Proeve, 2000; Yeh et al., 2001). Further, the finding is consistent with Zhang and Goodson's (2011) systematic review results indicating that social support was the second most frequently reported predictor of psychosocial adjustment among 33 empirical studies on international students.

While the universality of the positive impact of seeking social support on well-being should be acknowledged, the cultural uniqueness of seeking social support for East Asian international students and its associated impact on their interdependent happiness warrant further discussion. Specifically, for East Asian international students, there is a cultural preference of seeking support from close in-group members to cope with personal problems or concerns (Triandis, 1995). It makes sense that the more social support they receive from their in-group members, the higher level of interdependent happiness they experience because both concepts are grounded on the social norms of the collectivistic cultures that place a high regard on interpersonal closeness. Additionally, East Asian international students also prefer to seek implicit social support (Taylor et al., 2007), such as seeking company of close others without having to make significant self-disclose to minimize expression of negative social emotions (e.g., shame). This may in turn positively contribute to their sense of quiescence, social harmony, and ordinariness, all of which are critical tenets for interdependent happiness.

H2c – Role of Forbearance in Interdependent Happiness

For H2c, I suspected that the association between acculturative stress and interdependent happiness would vary as a function of forbearance. That is, the higher levels of forbearance, the weaker the association between acculturative stress and interdependent happiness. Similar to H2b, the results did not support this hypothesis either because no interaction between acculturative stress and forbearance was indicated. Additionally, forbearance independently was not significantly associated with interdependent happiness. While there were abundant research studies supporting the prominence of forbearance in many collectivistic cultures, conflicting results regarding the positivity or negativity of forbearance's impact on psychological outcomes were observed (Constantine et al., 2005; Noh et al., 1999; Tweed et al., 2004; Wei et al., 2011; Yoshihama, 2002). Though the current study did not shed light on the literature regarding the positive or negative role of forbearance in well-being among East Asian international student, it may stimulate researchers to further examine conditions of its impact on well-being. Within the collectivistic cultural context, the forbearance tendency of East Asian international students is socially conditioned by the fear of burdening others/interpersonal conflicts, fear of negative social oriented emotions (e.g., shame and losing face), cultural value of internal control over private emotions, and cultural perception of socially appropriateness and emotional maturity (Moore & Constantine, 2005). It is possible that within the new cultural context which is more individualistic, forbearance as a coping strategy may not have a significant impact on East Asian international students' interdependent happiness. It is also possible that because they have significantly less social support in the U.S. than they would have in their home countries, they have less options regarding when and how to conceal personal struggles.

Limitations

There are several limitations in this study, which fall into the following categories: sampling, measurement, and research design.

Sampling

In this study, the sampling procedures combined purposive sampling and snowball sampling, both were non-random selection in nature. Additionally, although efforts were made to collect data on a national level by attempting to recruit participants from the top 20 institutions hosting international students, this research had the most success at only one institution, which was a predominately White, large, research-oriented institution in the Midwest. Therefore, due to possible institutional and geographical differences, the results may not apply to students from other institutions. For instance, those who study in small private institutions may have exacerbated acculturative stress due to marked minority status and a lack of social support from their own co-nationals. Moreover, the results could not be generalized to other international student groups, such as South Asian international students and European international students.

The second limitation regarding sampling is related to data-collection measure in this study. Specifically, because the data was collected by an online-based survey, there may be self-selection biases. This means that I could not distinguish the difference between East Asian international students who were willing to participant and those who were not. It is possible that the participants who chose not to participate in this study experienced much higher acculturative stress than those who did. Additionally, the online-based self-reporting survey may have discounted individuals who did not have computer or internet access because of economic disparities. Furthermore, false reporting of demographics could be a concern given that there was no way to ensure that the participants who took the survey fit the inclusion criteria. The survey

was intentionally designed to be anonymous to protect confidentiality and to encourage participants to answer the survey truthfully. However, this could also mean that individual who did not fit the inclusion criteria could have taken the survey and thus influenced the validity of the results. In addition, given that this was an observational study using self-reporting online-based survey, conditions (e.g., fatigue and lack of motivation) that might influence their data reporting and responses could not be controlled or identified. Also, participants' self-report data may not be an accurate reflection of their actual status pertaining to their acculturative stress, dialectical thinking, collectivistic coping and interdependent happiness, because of potentially different levels of self-awareness and/or social desirability.

Lastly, the questionnaire was administered in English. While it is generally assumed that participants should have sufficient English reading comprehension proficiency to be eligible to get admitted to U.S. universities and colleges, possible language barrier may still have influenced their understanding of the survey questions and the subsequent results. For instance, participants may not be familiar with English slang phrases, such as "stick to it" which was in an item of the Dialectical Self Scale ("If I've made up my mind about something, I stick to it"). Additionally, it is possible that some degree of English may activate the learned Western ideas of appraisal, coping and well-being as a process of cultural adaptation, thus may suppress the self-awareness of their culturally inherent ideas of appraisal, coping and well-being.

Measurement

With an attempt to use a culturally sensitive construct for well-being among East Asian international students, I chose the IHS to assess East Asian international students' level of interdependent happiness. However, due to the fact that the IHS was recently published, additional support for its reliability and validity was limited; also, the measure of the

interdependent happiness had not been tested among East Asian international students. Based on theoretical rationales, the one-factor model was used for the primary analysis in this study; however, the CFA results indicated that the model fit was not ideal (roughly adequate fit to the data), which was a limitation for this measurement.

Additionally, even though Yang and Clum (1995) reported good psychometric properties of the acculturative stress scale in their original study on Asian international students and indicated a five-factor solution appeared to be most meaningful for the measure, other empirical studies have used the ILS as a single-factor measure (e.g., Lee et al., 2004). Also, limited data was available regarding the factor analyses on the measure by the authors; other studies simply chose the one-factor model without providing rationales or conducting CFAs to determine why the one-factor model was chosen in their studies. Efforts were made by this researcher in determining which model would be supported by the data in this study; however, neither the one-factor or the five-factor models appeared to be a good fit to the data. Due to theoretical and practical reasons, I chose to keep the original measurement. However, validity issues of the measurement remained as a concern and thus may have influenced the results.

Lastly, it is noted that the internal consistency for dialectical thinking, seeking social support and forbearance were relatively low ranging from .73 to .78; thus it may have impacted the effect size of these constructs in predicting interdependent happiness.

Research Design

In this study, I used a correlational, cross-sectional design, which may post several potential threat to internal and external validity of the study. The first threat to internal validity is possible existence of extraneous variables that have confounding effect. Confounding variables systematically influence the independent variables and the dependent variables (Johnson &

Christensen, 2008). In this study, possible variables that were shown by previous research to be associated with acculturative stress and interdependent happiness were included in the demographic questionnaire (e.g., length of residency in the U.S., religion, perceived English proficiency, et al.). However, given that it was not possible to control for all possible confounding variables, this remained to be a potential threat to internal validity. The second threat to internal validity is ambiguous temporal precedence (Johnson & Christensen, 2008). Ambiguous temporal precedence occurs when the researcher cannot specify which variable in the cause and which variable is the effect (Johnson & Christensen, 2008). In this study, acculturative stress was conceptualized as the predictor of interdependent happiness among East Asian international students. However, it was also likely the relationship was bidirectional in that interdependent happiness would in turn impact one's acculturative stress.

Additionally, a potential threat to external validity is outcome validity (Johnson & Christensen, 2008), that is, how much the results can be generalized across different but related dependent happiness. In this study, interdependent happiness was the only outcome variable. Therefore, the effect of other related constructs relating to well-being (e.g., self-esteem and positive affect) could not be generalized.

Suggestions for Future Research

There are several recommendations for future research. First, the current findings indicated that acculturative stress and dialectical thinking were significant and negative contributors to East Asian international students' interdependent happiness; seeking social support was found to be significantly and positively associated with their interdependent happiness. Future researchers should continue to explore, develop, and use cultural appropriate constructs for a wide range of psychological variables for East Asian international students to

better understand their acculturation experience. In this study, cultural construals of stress (i.e., acculturative stress), cognitive appraisal (i.e., dialectical thinking), and coping skills (i.e., collectivistic coping) were used to predict their well-being (i.e., interdependence happiness). In addition, future researchers should continue to develop theoretical frameworks to better capture East Asian international students' acculturation and stress coping process; they should also explore other variables that might contribute to their well-being. Future researchers may investigate and compare other culturally appropriate constructs for well-being as well, such as holistic well-being, psychological capital, self-esteem, life satisfaction, and mental distress to better capture the complexity of East Asian international students' well-being and their associated contributors.

Second, the current findings indicated that dialectical thinking as an independent variable itself was found to be significantly and negatively associated with interdependent happiness. Also, contrary to the hypothesis, dialectical thinking was found to have an opposite moderation effect on the relationship between acculturative stress and interdependent happiness. The impact of dialectical thinking on well-being remains inconclusive given that there are very limited empirical studies and even contradictory findings (Church et al., 2013; Ji, Zhang, Usborne & Guan, 2014; Spencer-Rodgers et al., 2004). Therefore, future research should further explore the effect of dialectical thinking on different psychological outcomes as well as academic outcomes to help better understand conditions of the negativity and positivity of its effect on well-being.

Third, future research should continue to explore the relationships among acculturative stress, dialectical thinking, seeking social support, and forbearance in predicting their well-being. Using multiple regressions as statistical methods, the current findings indicated that only acculturative stress and dialectical thinking had an interaction effect on predicting interdependent

happiness. Future research may use more robust statistical methods, such as path analysis or structure equation modeling to better capture the relationships among these variables in a more comprehensive manner.

Fourth, given that the measurement for interdependent happiness is relatively new, researchers may want to further test its psychometric properties including conducting CFAs to determine if the one-factor model or three-factor model is more appropriate to their data. Further, in this study, acculturative stress as either a one-factor or five-factor model was found to have a poor fit to the data. Hence, a need for the development of a better measurement for East Asian international students' acculturative stress may be warranted. In addition, future researchers should address the low internal consistency issues for measurements of dialectical thinking, seeking social support, and forbearance.

Fifth, future researcher should try to recruit participants from the national level to increase the generalizability of the results. The participants of the current study were mostly from a predominately White, large, research-oriented institution in the Midwest. Future researcher would benefit from diversifying participants in terms of characteristics of institutions (e.g., size of the institutions, percentage of international students at the institutions, research vs teaching oriented, et al.) and geographical locations.

Lastly, future research should make an effort to use or translate the questionnaire into the participants' native language in order to minimize the impact of possible language barrier. For instance, the Dialectical Thinking scale has different language versions, such as Chinese and Korean.

Implications for Counseling Psychology Practice

This study was the first to examine cultural construals of stress (i.e., acculturative stress), well-being (i.e., interdependence happiness), cognitive appraisal (i.e., dialectical thinking), and coping skills (i.e., collectivistic coping) among East Asian international students. The findings of the current study may be used to inform practice of counseling psychologists working in a variety of units on college campus, such as the counseling center and the office of international students and scholar services.

First, the finding that acculturative stress was significantly and negatively correlated with interdependent happiness among East Asian international students has implications for counseling professionals working with this population. Counselors should be vigilant about exploring different and interactive areas of acculturative stress experienced by East Asian international students, such as language barrier, financial stress, interpersonal stress, academic stress, and perceived discrimination (Chen & Lewis, 2011). By normalizing and acknowledging their acculturative stress, it is hoped that clients would feel empowered as a result. Additionally, counselor should not impose the individualistic idea of well-being on East Asian international students; rather, they should help client identify and articulate their own definition of well-being given their cultural heritage. Importantly, East Asian international students' concerns about significant others' happiness, preference for subtle pleasure, and focus on similarity rather than uniqueness of the self with others in social contexts should be respected and not to be pathologized as being overly dependent, passive, or unmotivated. Furthermore, counselors should help them explore and process the ways in which acculturative stress has contributed to their decreased sense of happiness in a culturally sensitive way. In addition, the knowledge about the links between acculturative stress and interdependent happiness can be used to inform

decisions regarding group therapy. For instance, counselor should strive to ensure that international student or East Asian international student groups are offered in their counseling centers to provide a safe space for them to share their acculturation experience and for them to provide and receive support from each other. For professionals in the office of international students and scholars, it might be critical to include ongoing psycho-educational workshops on acculturative stress for East Asian international students (Lin & Yi, 1997). Diverse programs should be developed to help address East Asian international students' commonly shared acculturative challenges, such as language barriers, difficulty making friends, academic stress, financial stress, and discrimination (Du & Wei, 2015; Lin & Yi, 1997). Staff should be trained on East Asian international students' acculturative stress as well as their culturally inherent ideas of happiness to order to better serve them.

Further, the finding that dialectical thinking was a negative contributor to the interdependent happiness among East Asian international student also has significant implications. Specifically, it might be beneficial for counselors to first explore with clients the functionality and purposes of the dialectical thinking style within the collectivistic contexts. Then, it might be highly invaluable to process with clients how dialectical thinking might not be compatible with the host culture's preferred analytical thinking style, resulting in a possibly additional source of acculturative stress. Additionally, counselors should make an effort in helping clients to develop bicultural self-efficacy to enable them to navigate between home culture and host culture with ease by fostering a sense of intentionality and flexibility of alternating between dialectical thinking style and analytic thinking style depending on the cultural contexts they are in.

Another significant implication is informed by the finding that seeking social support from close in-group members played a significant and positive role in interdependent happiness among East Asian international students. For individuals from collectivistic cultures, their social network is likely to consist of family, close friends, and other valued/significant members (Triandis, 1995). Therefore, counselors should encourage client to continue to seek support from their existing social network as well as to expand their in-group social network (Du & Wei, 2015; Lin & Yi, 1997). Importantly, because the distinction between in-group and out-group members mostly relies on the level of closeness, counselors should help client develop friendship with a focus on quality rather than quantity. Further, counselors should view themselves as critical social support for clients; thus, counselor should be more intentional of developing therapeutic rapport as early as possible. This is because clients from collectivistic culture have found to experience difficulties with self-disclosure at the very beginning of the therapeutic relationship until they view their counselor as their in-group members. Additionally, research has consistently indicated that individuals from collectivistic culture tend to underutilize counseling services due to mental health stigma as well as perceiving professionals as out-group members (e.g., Mori, 2000; Sue & Sue, 1999). In terms of outreach programming, counselors should highlight how the therapeutic relationship can become an important source of in-group social support to encourage utilization of counseling services (Lin & Yi, 1997). Similarly, professionals in the office of international students and scholars should develop programs that provide East Asian international students opportunities to develop meaningful friendship (Du & Wei, 2015; Lin & Yi, 1997). Like counselors, they should also strive for developing positive relationships with students to gain their trust in order to encourage them take advantage of services offered to them.

In addition, though there were no significant findings regarding the role of forbearance in interdependent happiness among East Asian international students, it is critical to acknowledge and understand the cultural root of forbearance within the collectivistic cultures. Forbearance, while deemed as passive and maladaptive from the viewpoint of Western stress and coping paradigm, makes culturally sense and should be respected and valued (Kuo, Roysircar, & Newby-Clark, 2006; Moore & Constantine, 2005; Zhang & Long, 2006). Counselor can explore with clients the functionality of forbearance, such as avoiding negative social oriented emotions (e.g., shame and losing face), cultural value of internal control over private emotions, and cultural perception of socially appropriateness and emotional maturity. Then, counselor can proceed to process how forbearance as an asset or resilience factor may have contributed to their interdependent happiness within their collectivistic cultural contexts.

Conclusion

The results of the current study indicated that acculturative stress demonstrated the largest effect size among all the independent variables in predicting interdependent happiness among East Asian international students. Additionally, seeking social support as East Asian international students' collectivistic coping style, was found to be a positive contributor to interdependent happiness among East Asian international students. Seeking social support also demonstrated the second strongest effect size next to acculturative stress among all the independent variables in predicting East Asian international students' interdependent happiness. Lastly, dialectical thinking was a negative contributor to interdependent happiness among East Asian international students; further, the higher levels of dialectical thinking, the stronger the negative association was between acculturative stress and interdependent happiness among East Asian international students.

The current study made a contribution to the field of counseling psychology by addressing a gap in the acculturation literature that is mostly Eurocentric in terms of conceptualization of stress, coping and well-being. This study empathized the use of a cultural lens by using a multicultural theoretical framework for the stress and coping process as well as culturally relevant constructs to understand East Asian international students' perception of well-being and their culturally unique way of cognitive appraisal and coping skills. Thus, it extended the current multicultural studies in acculturation and international students. It also enriched the current literature on relatively new, emerging but critical constructs (i.e., interdependent happiness, dialectical thinking, collectivist coping). Lastly, it contributed to the collective effort in moving the field of acculturation, well-being, and coping research towards a more cross-culturally relevant stress-coping paradigm.

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APPENDIX A. APPROVAL OF PURDUE UNIVERSITY INSTITUTIONAL REVIEW BOARD



HUMAN RESEARCH PROTECTION PROGRAM
INSTITUTIONAL REVIEW BOARDS

To: AYSE CIFTCI
BRNG

From: JEANNIE DICLEMENTI, Chair
Social Science IRB

Date: 09/02/2016

Committee Action: **Determined Exempt, Category (2)**

IRB Action Date: 09/02/2016

IRB Protocol #: 1605017750

Study Title: EAST ASIAN INTERNATIONAL STUDENTS' INTERDEPENDENT HAPPINESS: THE ROLE OF ACCULTURATIVE STRESS, DIALECTICAL THINKING, AND COLLECTIVISTIC COPING

The Institutional Review Board (IRB) has reviewed the above-referenced study application and has determined that it meets the criteria for exemption under 45 CFR 46.101(b).

Before making changes to the study procedures, please submit an Amendment to ensure that the regulatory status of the study has not changed. Changes in key research personnel should also be submitted to the IRB.

Please retain a copy of this letter for your regulatory records. We appreciate your commitment towards ensuring the ethical conduct of human subject research and wish you well with this study.

APPENDIX B. INITIAL RECRUITMENT EMAIL

Subject Header: Survey Invitation: Your Stress and Happiness as an East Asian international Student.

Dear Student,

I am a Counseling Psychology doctoral candidate conducting my dissertation research with Dr. Ayse Ciftci at Purdue University. We are inviting you to participate in our research study examining happiness in East Asian international students. This research may help us to have a better understanding of the factors that impact happiness.

In order to participate, you need to satisfy the following criteria: (a) you are from Mainland China, Hong Kong, Macau, Taiwan, Japan, South Korea, North Korea, or Mongolia, (b) you are living in the U.S. and pursuing or taking your undergraduate or graduate degree/course(s), (c) you are 18 years old or older, and (d) your native language is not English. International students who are not from East Asia are excluded from this study.

The participation will take approximately 10-15 minutes to complete the survey questions. Your participation is completely voluntary and you are free to withdraw at any time. Your answers will be completely anonymous and results will be reported as aggregate data. At the end of the survey, you will have the option to participate in a drawing for a \$20 Amazon.com gift card by providing your email address. Your responses will not be connected to your email, because your email address will be stored in a separate file. The winner will be randomly selected, and will receive an email directly from Amazon.com with their gift card information included. The odds of winning are dependent on the number of responses received. All emails will be destroyed once the gift card has been awarded.

Please feel free to forward this e-mail invitation to your friends who also identify as an East Asian international student and who are eligible to participate in the study. Exemption has been granted for this study by the Purdue University's Human Subjects Board. If you have any questions concerning this research study, please do not hesitate to contact me at huang262@purdue.edu or my dissertation chair at ayse@purdue.edu.

Please go to: https://purdue.qualtrics.com/SE/?SID=SV_e3uMNvhQ455S1XT for more information or to participate in this study.

Thank you for your time and help!

Sincerely,

Yaping Huang Anderson, M.Ed
Doctoral Candidate, Counseling Psychology
Purdue University
Beerling Hall of Liberal Arts and Education
100 N. University Street

West Lafayette, IN 47907-2098
huang262@purdue.edu

APPENDIX C. FELLOW UP REMINDER RECRUITMENT EMAIL

Subject header: REMINDER: Survey Invitation: Your Stress and Happiness as an East Asian international Student.

Dear Student,

I am a Counseling Psychology doctoral candidate conducting my dissertation research with Dr. Ayse Ciftci at Purdue University. This is a reminder that you have been asked to participate in a study examining happiness in East Asian international students. Please consider participating in this study if you have not already done so. If you've already completed the questionnaires, thank you!

In order to participate, you need to satisfy the following criteria: (a) you are from Mainland China, Hong Kong, Macau, Taiwan, Japan, South Korea, North Korea, or Mongolia, (b) you are living in the U.S. and pursuing or taking your undergraduate or graduate degree/course(s), (c) you are 18 years old or older, and (d) your native language is not English. International students who are not from East Asia are excluded from this study.

The participation will take approximately 10-15 minutes to complete the survey questions. Your participation is completely voluntary and you are free to withdraw at any time. Your answers will be completely anonymous and results will be reported as aggregate data. At the end of the survey, you will have the option to participate in a drawing for a \$20 Amazon.com gift card by providing your email address. Your responses will not be connected to your emails, because your email address will be stored in a separate file. The winner will be randomly selected, and will receive an email directly from Amazon.com with their gift card information included. The odds of winning are dependent on the number of responses received. All emails will be destroyed once the gift card has been awarded.

Please feel free to forward this e-mail invitation to your friends who also identify as an East Asian international student and who are eligible to participate in the study. Exemption has been granted for this study by the Purdue University's Human Subjects Board. If you have any questions concerning this research study, please do not hesitate to contact me at huang262@purdue.edu or my dissertation chair at ayse@purdue.edu.

Please go to: https://purdue.qualtrics.com/SE/?SID=SV_e3uMNVhQ455S1XT for more information or to participate in this study.

Thank you for your time and help!

Sincerely,

Yaping Huang Anderson, M.Ed
Doctoral Candidate, Counseling Psychology
Purdue University
Beering Hall of Liberal Arts and Education

100 N. University Street
West Lafayette, IN 47907-2098
huang262@purdue.edu

APPENDIX D. INQUIRY EMAIL TO THE IRB OF OTHER INSTITUTIONS

Inquiry about IRB review

Dear IRB,

I am Yaping Huang Anderson, a Counseling Psychology doctoral candidate conducting my dissertation research with Dr. Ayse Ciftci at Purdue University. I am hoping to recruit East Asian international students from your institution. I am writing to inquire if my study needs the IRB review at your institution. Exemption has been granted for this study by the Purdue University Institutional Review Board (IRB), please see attached for Purdue IRB Exemption.

Below I have outlined the details of my study.

Study Title: East Asian international students' interdependent happiness: the role of acculturative stress, dialectical thinking, and collectivistic coping.

Study Description: Research indicates that East Asian international students appear to experience the most acculturative stress compared to other international student groups due to pronounced language barriers and cultural difference. They also appear to report lower level of happiness than their White American counterparts. This research may help us to have a better understanding of the factors that impact their happiness. My study includes answering questions on an online survey. My survey will ask questions about their acculturation experiences, their thinking style, their stress coping strategies, and their happiness.

Time Involvement: Participants will be asked to complete a survey that will take 10-15 minutes to complete.

Eligibility: I am recruiting students who satisfy the following criteria: (a) they are from Mainland China, Hong Kong, Macau, Taiwan, Japan, South Korea, North Korea, or Mongolia, (b) they are living in the U.S. and pursuing or taking your undergraduate or graduate degree/course(s), (c) they are 18 years old or older, and (d) their native language is not English. International students who are not from East Asia are excluded from this study.

Study Benefit: This study may assist with the development of knowledge on the factors that impact East Asian international students' happiness. Participation is voluntary and anonymous.

Compensation: At the end of the survey, participants will have the option to participate in a drawing for a \$20 Amazon.com gift card by providing their email addresses. Their responses will not be connected to their email, because their email addresses will be stored in a separate file. The winner will be randomly selected, and will receive an email directly from Amazon.com with their gift card information included. The odds of winning are dependent on the number of responses received. All emails will be destroyed once the gift card has been awarded.

I look forward to your response.

Sincerely,

Yaping Huang Anderson, M.Ed
Doctoral Candidate, Counseling Psychology
Purdue University
huang262@purdue.edu

APPENDIX E. RECRUITMENT REQUEST EMAIL TO OTHER INSTITUTIONS

Dear-

I am Yaping Huang Anderson, a Counseling Psychology doctoral candidate conducting my dissertation research with Dr. Ayse Ciftci at Purdue University. It is often a challenge to recruit East Asian international students for research studies. I am requesting your assistance with recruitment for my dissertation study by forwarding my recruitment email with the online survey to your East Asian international students. Exemption has been granted for this study by the Purdue University Institutional Review Board (IRB), please see attached for Purdue IRB Exemption. Below I have outlined the details of my study.

Study Title: East Asian international students' interdependent happiness: the role of acculturative stress, dialectical thinking, and collectivistic coping.

Study Description: Research indicates that East Asian international students appear to experience the most acculturative stress compared to other international student groups due to pronounced language barriers and cultural difference. They also appear to report lower level of happiness than their White American counterparts. This research may help us to have a better understanding of the factors that impact their happiness. My study includes answering questions on an online survey. My survey will ask questions about their acculturation experiences, their thinking style, their stress coping strategies, and their happiness.

Time Involvement: Participants will be asked to complete a survey that will take 10-15 minutes to complete.

Eligibility: I am recruiting students who satisfy the following criteria: (a) you are from Mainland China, Hong Kong, Macau, Taiwan, Japan, South Korea, North Korea, or Mongolia, (b) you are living in the U.S. and pursuing or taking your undergraduate or graduate degree/course(s), (c) you are 18 years old or older, and (d) your native language is not English. International students who are not from East Asia are excluded from this study.

Study Benefit: This study may assist with the development of knowledge on the factors that impact East Asian international students' happiness. Participation is voluntary and anonymous.

Compensation: At the end of the survey, participants will have the option to participate in a drawing for a \$20 Amazon.com gift card by providing their email addresses. Their responses will not be connected to their email, because their email addresses will be stored in a separate file. The winner will be randomly selected, and will receive an email directly from Amazon.com with their gift card information included. The odds of winning are dependent on the number of responses received. All emails will be destroyed once the gift card has been awarded.

I hope you will consider my request.

Sincerely,

Yaping Huang Anderson, M.Ed
Doctoral Candidate, Counseling Psychology
Purdue University
huang262@purdue.edu

APPENDIX F. FACEBOOK STATUS

Hello! I am conducting my dissertation research on happiness in East Asian international students. If you take this survey, you will have the option to participate in a drawing for a \$20 Amazon.com gift card by providing your email address. Your responses will not be connected to your email, because your email address will be stored in a separate file. The winner will be randomly selected, and will receive an email directly from Amazon.com with their gift card information included. The odds of winning are dependent on the number of responses received. All emails will be destroyed once the gift card has been awarded.

In order to participate, you need to satisfy the following criteria: (a) you are from Mainland China, Hong Kong, Macau, Taiwan, Japan, South Korea, North Korea, or Mongolia, (b) you are living in the U.S. and pursuing or taking your undergraduate or graduate degree/course(s), (c) you are 18 years old or older, and (d) your native language is not English. International students who are not from East Asia are excluded from this study.

Thank you! https://purdue.qualtrics.com/SE/?SID=SV_e3uMNvhQ455S1XT

(Yaping Huang Anderson: huang262@purdue.edu)

APPENDIX G. PARTICIPANT INFORMATION SHEET

Research Project Number 1605017750
RESEARCH PARTICIPANT INFORMATION SHEET
Happiness in East Asian International Students
Ayşe Çiftçi, Ph.D.
Yaping Huang Anderson, M.Ed.
Purdue University
Department of Educational Studies

Purpose of Research

You have been invited to participate in a research study designed to investigate the factors that impact happiness in East Asian international students. By conducting this study, we hope to learn more about internal factors that could promote happiness in East Asian international students. Your participation is not required, but it would be greatly appreciated as it can contribute to development of interventions that would help increase happiness in East Asian international students.

Specific Procedures

If you would like to participate in this study, please check the “Yes, I am ready to participate” box below and then click the “Next” button.

Duration of Participation

Your participation in this study is expected to require approximately 10-15 minutes.

Risks

The risks of participating are minimal and no greater than those encountered in everyday activities.

Benefits

You understand that there are no direct benefits to you from participating in this study. However, the findings from this study may increase understanding of factors that contribute to happiness in East Asian international students. The findings may lead to inform interventions and services that could potentially help increase happiness in East Asian international students. Therefore, these findings may be important for counseling psychologists and community professionals.

Compensation

At the end of the survey, you will have the option to participate in a drawing for a \$20 Amazon.com gift card by providing your email address. Your responses will not be connected to your email, because your email address will be stored in a separate file. The winner will be randomly selected, and will receive an email directly from Amazon.com with their gift card information included. The odds of winning are dependent on the number of responses received. All emails will be destroyed once the gift card has been awarded.

Confidentiality

Your responses and participation are completely anonymous, and any information you provide

will be confidential. Only Yaping Huang Anderson, M.Ed., and Ayşe Çiftçi, Ph.D. will have access to the data. All data obtained during the recruitment process will be destroyed once data collection is complete. E-mail addresses obtained through the lottery drawing process will be destroyed after the drawing. All data from the surveys will be coded and entered into a computerized data file, which will be stored in password-protected computers accessible only to the study personnel. The project's research records may be reviewed by departments at Purdue University responsible for regulatory and research oversight.

Voluntary Nature of Participation

Your participation in the study is voluntary. Although we would appreciate you answering all questions as openly and honestly as possible, you may decline to answer any question that makes you feel uncomfortable. If you agree to participate you may withdraw your participation at any time without penalty.

Contact Information

If you have any questions about this research project, you can contact Ayşe Çiftçi, Ph.D., the first point of contact, at ayse@purdue.edu. You may also contact Yaping Huang Anderson, M.Ed. at huang262@purdue.edu. If you have concerns about the treatment of research participants, you can contact the Institutional Review Board at Purdue University, Ernest C. Young Hall, Room 1032, 155 S. Grant St., West Lafayette, IN 47907-2114. The phone number for the Board is (765) 494-5942. The email address is irb@purdue.edu.

Yes, I am ready to participate.

>>NEXT: [Link to the survey.](#)

APPENDIX H. DEMOGRAPHIC QUESTIONNAIRE

Do you identify yourself as an East Asian international student?

Yes

Please indicate your country or region of origin:

China

South Korea

Taiwan

Japan

Hong Kong

Macau

North Korea

Mongolia

Others (Please specify): _____

No

Please indicate your visa status:

F-1: Academic Student

F-2: Dependent of a F-1 Holder

J-1: Exchange Visitor

Permanent Residency/Green Card Holder

Others (Please specify): _____

Age _____

Sex:

Female

Male

Others (Please specify): _____

Please indicate your major area of study (Check one):

Agriculture

Business and Management

Communication and Journalism

Education

Engineering

Fine and Applied Arts

Health Professions

Humanities

Legal Studies and Law Enforcement

Math and Computer Science

Physical and Life Sciences

Social Sciences

Other (Please specify): _____

Please spell out the full name of the institution you are currently enrolled in: _____

Are you aware of any programs/initiatives for international students in general at your institution (e.g., student group, International Students & Scholars programs, etc.)?

_____ Yes (Please specify): _____

_____ No

Are you aware of any programs/initiatives for East Asian international students at your institution (e.g., student group, International Students & Scholars programs, etc.)?

_____ Yes (Please specify): _____

_____ No

Which degree are you working on?

_____ Associate's

_____ Bachelor's

_____ Master's

_____ Doctorate

_____ Professional

_____ Other (please specify): _____

Marital/Relationship status:

_____ Married

_____ Single

_____ Divorced

_____ In a relationship

_____ Widowed

_____ Living together/Cohabiting

_____ Others (Please specify): _____

How long have you been in the U.S.?

_____ years and _____ months.

Do you identify yourself as religious?

_____ Yes (please specify which religion:) _____

_____ No

What is your current level of English proficiency? (1-5: not proficient at all -very proficient)

___1 ___2 ___3 ___4 ___5

How comfortable are you communicating in English? (1-5: not comfortable at all - very comfortable)

___1 ___2 ___3 ___4 ___5

How often do you communicate in English? (1-5: not often at all - very often)

__1 __2 __3 __4 __5

How often do you interact with American/domestic students ? (1-5: not often at all - very often)

__1 __2 __3 __4 __5

How satisfied are you with your interaction with American/domestic students? (1-5: not satisfied at all - very satisfied)

__1 __2 __3 __4 __5

How often do you interact with people from your own country/area of origin? (1-5: not often at all - very often)

__1 __2 __3 __4 __5

How satisfied are you with your interaction with people from your own country/area of origin? (1-5: not satisfied at all - very satisfied)

__1 __2 __3 __4 __5

How often do you interact with international students from other countries? (1-5: not often at all - very often)

__1 __2 __3 __4 __5

How satisfied are you with your interaction with international students from other countries? (1-5: not satisfied at all - very satisfied)

__1 __2 __3 __4 __5

APPENDIX I. INTERDEPENDENT HAPPINESS SCALE

Instructions

Please indicate the degree to which the following statements accurately describe you using the scale from 1. Strongly disagree, 2. Somewhat disagree, 3. Neither agree nor disagree, 4. Somewhat agree, 5. Strongly agree. Please choose one option from below, and circle the number on the scale.

1. I believe that I and those around me are happy.
2. I feel that I am being positively evaluated by others around me.
3. I make significant others happy.
4. Although it is quite average, I live a stable life.
5. I do not have any major concerns or anxieties.
6. I can do what I want without causing problems for other people.
7. I believe that my life is just as happy as that of others around me.
8. I believe I have achieved the same standard of living as those around me.
9. I generally believe that things are going well for me in its own way as they are for others around me.

APPENDIX J. INDEX OF LIFE STRESS

Instructions

Please indicate how often you feel the way described in each of the following statement. Click one number, which most closely represents your own personal experience living in the U.S., for each statement

0 = never; 1 = rarely; 2 = sometimes; 3 = often

1. My English embarrasses me when I talk to people.
2. I don't like the religions in the U.S.A.
3. I worry about my academic performance.
4. I worry about whether I will have my future career in my own country.
5. I can feel racial discrimination toward me from other students.
6. I'm not doing as well as I want to in school.
7. My English makes it hard for me to read articles, books, etc.
8. It's hard for me to develop opposite-sex relationships here.
9. I don't like the ways people treat each other here.
10. I don't like American food.
11. People treat me badly just because I am a foreigner.
12. I trust my church (or any religious place) here.
13. I think that people are very selfish here.
14. I don't like the things people do for their entertainment here.
15. I can feel racial discrimination toward me in stores.
16. I worry about whether I will have my future career in the U.S.A.
17. Americans' way of being too direct is uncomfortable to me.
18. I study very hard in order not to disappoint my family.
19. I can feel racial discrimination toward me from professors.
20. I can't express myself well in English.
21. It would be the biggest shame for me if I fail in school.
22. I worry about my financial situation.
23. I don't like American music.
24. I can feel racial discrimination toward me in restaurants.
25. My financial situation influences my academic study.
26. I worry about my future: will I return to my home country or stay in the U.S.A.
27. I haven't become used to enjoying the American holidays.
28. I don't want to return to my home country, but I may have to do so.
29. My English makes it hard for me to understand lectures.
30. I want to go back to my home country in the future, but I may not be able to do so.
31. My financial situation makes my life here very hard.

APPENDIX K. DIALECTICAL SELF SCALE

Instructions

Listed below are a number of statements about your thoughts, feelings, and behaviors. Select the number that best matches your agreement or disagreement with each statement. Use the following scale, which ranges from 1 (strongly disagree) to 7 (strongly agree). There are no right or wrong answers.

1-----2-----3-----4-----5-----6-----7

Strongly disagree

Neither agree nor disagree

Strongly agree

1. I am the same around my family as I am around my friends. (reversed)
2. When I hear two sides of an argument, I often agree with both.
3. I believe my habits are hard to change. (reversed)
4. I believe my personality will stay the same all of my life. (reversed)
5. I often change the way I am, depending on who I am with.
6. I often find that things will contradict each other.
7. If I've made up my mind about something, I stick to it. (reversed)
8. I have a definite set of beliefs, which guide my behavior at all times. (reversed)
9. I have a strong sense of who I am and don't change my views when others disagree with me. (reversed)
10. The way I behave usually has more to do with immediate circumstances than with my personal preferences.
11. My outward behaviors reflect my true thoughts and feelings. (reversed)
12. I sometimes believe two things that contradict each other.
13. I often find that my beliefs and attitudes will change under different contexts.
14. I find that my values and beliefs will change depending on who I am with.
15. My world is full of contradictions that cannot be resolved.
16. I am constantly changing and am different from one time to the next.
17. I usually behave according to my principles. (reversed)
18. I prefer to compromise than to hold on to a set of beliefs.
19. I can never know for certain that any one thing is true.
20. If there are two opposing sides to an argument, they cannot both be right. (reversed)
21. My core beliefs don't change much over time. (reversed)
22. Believing two things that contradict each other is illogical. (reversed)
23. I sometimes find that I am a different person by the evening than I was in the morning.
24. I find that if I look hard enough, I can figure out which side of a controversial issue is right. (reversed)
25. For most important issues, there is one right answer. (reversed)
26. I find that my world is relatively stable and consistent. (reversed)
27. When two sides disagree, the truth is always somewhere in the middle.
28. When I am solving a problem, I focus on finding the truth. (reversed)
29. If I think I am right, I am willing to fight to the end (reversed).

30. I have a hard time making up my mind about controversial issues.
31. When two of my friends disagree, I usually have a hard time deciding which of them is right.
32. There are always two sides to everything, depending on how you look at it.

APPENDIX L. COLLECTIVISTIC COPING STYLE MEASURE

Instructions

The statements below are intended to represent some of the behaviors you might use to cope with stressful situations in your life. In responding to the statements below, please think of a specific stressful situation that you have encountered within the past 2-3 months. A stressful situation is any situation that you found troubling or otherwise caused you to worry. Such a situation might have been related to your friends, family, school, job, romantic relationship, or other people or things you consider to be important in your life. While keeping this problem in mind, please use the following 5-point scale to indicate the extent to which you used the following strategies to help you cope with the stress you experienced.

1-----2-----3-----4-----5

Not used Used a little Unsure Used moderately Used often

1. I spoke with a friend to seek support about the problem.
2. I received advice or support from someone who had experienced a similar problem or concern.
3. I told myself that I could overcome the problem or concern.
4. I didn't express my feelings about the problem to others because I didn't want to burden them.
5. I minimized the problem or concern so others wouldn't worry about me.
6. I spent time with my family member(s) or friend(s).
7. I kept the problem or concern to myself in order not to worry others.
8. I shared the problem or concern with someone from my own cultural background.
9. I spoke with a family member to seek guidance or support about the problem.

Note. The Forbearance subscale is comprised of items 3, 4, 5, and 7. The Seeking Social Support subscale consists of items 1, 2, 6, 8, and 9.

VITA

YAPING HUANG ANDERSON

EDUCATION

Ph.D.	Purdue University, West Lafayette, IN Counseling Psychology (APA-Accredited) Expected defense: May 2018	Aug. 2018
M.Ed.	Vanderbilt University, Nashville, TN Human Development Counseling	Dec. 2012
B.A.	Sun Yat-sen University (SYSU), Guangzhou, China English, Minors in Economics & Korean	Jun. 2010

CLINICAL EXPERIENCE

Psychology Intern **Jul. 2017 - Jul. 2018**

Carruth Center of Psychological and Psychiatric Services (APA-Accredited)

West Virginia University (WVU), Morgantown, WV

Supervisors: T. Anne Hawkins, Ph.D, Tandy McClung, Ed. D, & Shane Chaplin, Ph.D.

- Provide individual counseling to WVU students from diverse backgrounds (e.g., race/ethnicity, gender identity, sexual orientation, and disability) for a wide range of diagnoses and presenting concerns.
- Conduct triage and crisis intervention.
- Cover after-hours phone for five weeks during the academic year.
- Administer, score, interpret, and provide feedback for neuropsychological, intellectual, achievement, and symptom specific assessment batteries (e.g., Wechsler Adult Intelligence Scale-IV, Woodcock-Johnson III Tests of Achievement, Delis-Kaplan Executive Function System, Integrated Visual and Auditory Continuous Performance Test, and Green's Non-Verbal Medical Symptom Validity Test).
- Provide neurofeedback to students with attention and/or learning difficulties to help enhance cognitive and academic functioning.
- Supervise a doctoral practicum trainee.
- Co-lead International Student Support Group.
- Serve as a liaison with International Students & Scholars Services (ISSS).
- Serve as a coordinator of the Diversity Committee.
- Engage in outreach programming for international students and other units on campus as needed (e.g., a support meeting for Mexican students in light of the national disaster, an outreach meeting with ISSS staff regarding mental health, and stress management workshops for Chinese students and scholars).
- Serve as a trainer for LeadWELL program, a peer mentoring program to enhance overall wellness of students at WVU.

Practicum Counselor**Aug. 2016-Jan. 2017****Riverbend Hospital, West Lafayette, IN***Supervisor: Brian Primeau, Ph.D.*

- Provided individual counseling to inpatient clients of severe mental illness (e.g., schizophrenia, schizoaffective disorder, bipolar disorder, and PTSD).
Co-led a recovery group to inpatient clients.
- Conducted brief interventions for clients of binge/heavy drinking.
- Participated in multidisciplinary staffing teams that include staff psychologists, social workers, nurses, and psychiatrists.

Practicum Assessment Counselor**Aug. 2016-Jan. 2017****Purdue Psychology Treatment and Research Clinics, West Lafayette, IN***Supervisor: Elizabeth Akey, Ph.D.*

- Evaluated college students and community clients for learning disabilities, ADHD, mood disorders, and autism spectrum disorders.
- Administered, interpreted, and provided feedback for neuropsychological, intellectual, achievement, personality, and symptom specific assessment batteries (e.g., Wechsler Adult Intelligence Scale-IV, Woodcock-Johnson III Tests of Achievement, Brown Attention-Deficit Disorder Scales, California Verbal Learning Test, and Minnesota Multiphasic Personality Inventory).

Developed integrative reports and provided recommendations for informing treatments and obtaining disability accommodations.

Practicum Counselor**Aug. 2015- Jun. 2016****Wabash Valley Alliance, Lafayette, IN***Supervisor: James Toth, PsyD*

- Provided individual counseling to adolescents and adults (including some college students) aged between 13 and 62 years old, who are primarily from working class, for a large range of diagnoses and presenting issues including severe mental illness (e.g., depression, anxiety, posttraumatic stress disorder, personality disorder, substance abuse, and psychosis).
- Co-led an Accept Me group that focuses on exploring/accepting self-identity among teenagers who have a history of neglect or abuse.
- Co-led a MATRIX program, an Intensive Outpatient Program for substance abuse.
- Provided psychological assessments including personality assessments and cognitive assessments.
- Served as the Therapist-On-Call for crisis intervention.
- Participated in community outreach activities in the Club House for low functioning clients.
- Engaged in case management services with the ACT team (intensive outpatient program for the chronically mental ill).

Career Assessment Counselor**May 2014-Aug. 2014 & May 2016-Aug.2016****Purdue Counseling & Guidance Center, West Lafayette, IN***Supervisor: Eric Deemer, Ph.D.*

- Provided career assessment services for adolescent high school students.
- Administered, scored, and interpreted career, academic achievement, and personality assessment batteries (e.g., Woodcock-Johnson III Tests of Achievement, Strong Career

Interest Inventory, Skills Confidence Inventory, Career Values Card Sort, and NEO Personality Inventory-3).

- Completed integrative reports and provided feedback to clients and parents.

Practicum Counselor

Aug. 2014- May 2015

Indiana University–Purdue University Indianapolis-CAPS, Indianapolis, IN

Supervisors: Michelle Doeden, Ph.D. and Emily Williams, PsyD

- Provided individual counseling to IUPUI students from diverse backgrounds (e.g., race/ethnicity, sexual orientation, and learning disability), for a variety of presenting concerns (e.g., anxiety, depression, grief/loss, substance abuse, romantic relationships, eating disorder, and personality disorder).
- Co-led a Mindfulness-Based Stress Reduction group.
- Received and engaged in didactic training, individual, and group peer supervision.
- Presented oral case conceptualizations and formal case conceptualizations.

Practicum Counselor

Aug.2013-May 2014

Purdue Counseling & Guidance Center, West Lafayette, IN

Supervisors: Eric Deemer, Ph.D. and Mary Carole Pistole, Ph.D.

- Provided individual counseling to university students and community adults from diverse backgrounds for a variety of presenting concerns (e.g., anxiety, depression, grief/loss, low self-esteem, substance abuse, and romantic relationships).
- Co-led a process-oriented group on romantic breakups.
- Administered, scored, and interpreted personality assessment batteries (e.g., MMPI, MCMI, PAI, and NEO-3).

Counselor Intern

Aug.2012-May 2013

Bastion Inc. Nashville, IN

Supervisor: Nonye Ejiofor, MSED

- Provided weekly individual counseling to eight African immigrant students (three elementary students and five middle and high school students).
- Conducted biweekly group workshops on college preparation and anger management (16 elementary students and 12 middle and high school students).
- Assisted in grant proposal for Susan G. Komen Foundation.

TEACHING EXPERIENCE

Instructor, Educational Studies, Purdue University

Fall 2016

EDPS 316 Collaborative Leadership: Cross-Cultural Settings

Supervisor: Ayse Ciftci, Ph.D.

- Taught 45 undergraduate students development of multicultural competence in leadership.
- Developed group activities (such as icebreakers, case studies, and role plays) to promote multicultural self-awareness.
- Improved group facilitation, group processing, teaching, and communication skills.

Instructor, Educational Studies, Purdue University

Spring 2015

EDPS 315 Collaborative Leadership: Listening

Supervisor: Heather Servaty-Seib, Ph.D.

- Taught 26 undergraduate students active listening skills as a way to enhance their leadership skills.
- Developed group activities to motivate group cohesiveness and promote learning.

Instructor, Exploratory Studies, Purdue University

Fall 2014

EDPS 105 Academic and Career Planning

Supervisor: Eric Deemer, Ph.D.

- Taught 49 first-year students tools and skills to explore majors and to succeed in college.
- Supervised students completing various career assessment inventories (e.g., NEO, MBTI, Strong Interest Inventory, Career Card Sort, Self-Directed Search, and Strengths Quest).
- Helped students interpret and synthesize their career assessment results.

ADVANCED TRAINING WORKSHOPS/INSTITUTES

DSM-5 Workshop

Jul. 2014

Purdue Counseling and Psychological Services, West Lafayette, IN

Instructor: Greg Neimeyer, Ph.D.

Disaster Mental Health

Oct. 2014

The American Red Cross, Lafayette, IN

Instructor: Sharon Bowman, Ph.D. (Ball State University)

Psychoanalytic Theory and Therapy

Nov. 2014

The Indianapolis Chapter of the Indian Psychology Institute, Indianapolis, IN

Instructor: Nancy McWilliams, Ph.D.

Therapeutic Crisis Intervention

Oct. 2015

Wabash Valley Alliance, Lafayette, IN

RESEARCH EXPERIENCE

Cross-Culture Research Team

Aug. 2013-May 2017

Department of Educational Studies, Purdue University

Supervisor: Ayse Ciftci, Ph.D.

- Developed and conducted a study on U.S. students' intercultural contact with international students.
- Attended research team meetings, and reviewed and provided feedback for team members' research programs.
- Invited as a panel speaker regarding international students' fear of uncertainty following the travel ban.

Emotional Freedom Technique (EFT) Research Program

Aug. 2015- May 2017

Department of Educational Studies, Purdue University

Supervisor: Amy Gaesser, Ph.D.

- Assisted with literature review, IRB, intervention delivery, data collection, and data analysis of a randomized control study that focuses on the efficacy of the Emotional Freedom Technique on reducing stress and anxiety.
- Coded qualitative data of participants in the EFT intervention program.

Gifted Student Cross-cultural Research Project

Aug. 2015- May 2017

Department of Educational Studies, Purdue University

Supervisor: Amy Gaesser, Ph.D.

- Assisted with literature review, IRB, survey design, data collection, and data analysis of survey studies on domestic and international gifted students.

Underrepresentation of Women in Engineering Project

Aug. 2013- May 2017

Department of Educational Studies, Purdue University

Supervisor: Ayse Ciftci, Ph.D.

- Assisted with literature review, survey design, and data analysis of a research project on underrepresentation of women in Engineering.

PUBLICATION & PRESENTATIONS

Anderson, Y. & Ciftci, A. (Under Review). Intercultural contact with international students: perspectives from domestic students. *International Journal of Intercultural Relations*.

Anderson, Y. & Ciftci, A. (2015). Intercultural contact between domestic students and international students. Poster presentation at the 2015 APA Convention.

Anderson, Y. & Ciftci, A. (2014). Intercultural Communication between Home Students and International Students. Poster presentation at the 2014 Great Lakes Regional Counseling Psychology Conference.

PROFESSIONAL EXPERIENCE / CAMPUS ACTIVITIES / LEADERSHIP

Social Justice Event Planning Coordinator

Aug. 2013-May 2014

Multicultural & Social Justice Committee, Purdue University

- Assisted with fundraising, traveling coordinating, community partners outreach.

International Student Advisor Intern

Jun. 2011-Sep. 2011

Vanderbilt International Student & Scholar Services

- Conducted a qualitative research about the challenges of Chinese undergraduate students at Vanderbilt University.
- Communicated results and collaborated with residential staff and staff psychologists at the Vanderbilt Psychology and Counseling Center to implement new strategies based on the study.
- Presented findings at *Resident Assistant Meetings*.

President **Aug. 2011-May 2012**
Vanderbilt Bridge International

- Initiated involvement of international students from different cultures in cultural exchange meetings and monthly outdoor activities.

Vice President **Aug. 2011-May 2012**
Vanderbilt University Chinese Student and Scholar Association

- Coordinated different departments to ensure smooth functioning of the Association and assisted in various event planning and implementation.
- VUCSS was awarded as Best International Student Organization of 2012.

AWARDS & SCHOLARSHIP

Bruce Shertzer Graduate Award (\$2,500), Purdue University	2016
Golden Key International Honor Society Invitee, Purdue University	2015
Holmes Scholars Nominee, Purdue University	2015
Dean's Graduate Student Travel Award (\$300), Purdue University	
2015	
EDPS Graduate Student Travel Award (\$250), Purdue University	2015

PROFESSIONAL AFFILIATIONS

American Psychological Association **2013-Present**
 Division 17- Society of Counseling Psychology (Student Affiliate)

LANGUAGE FLUENCY

English: proficient to very proficient in writing and speaking

Mandarin & Cantonese: native speaker

Taiwanese: proficient in speaking