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EXAMINING THE ROLE OF HOME CULTURE CONNECTEDNESS AND
SOCIETAL ATTITUDE IN CHINESE INTERNATIONAL STUDENTS'
ACCULTURATION PROCESS IN U.S. UNIVERSITIES

by

Peng Zhang
A Dissertation
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of
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Dedication

This dissertation is dedicated to my dear wife and best friend, Xinge Zhang. Your love, support, and encouragement have carried me through this journey. To my son, Elijah Zhang, who was born right before I started this Ph. D. program and was my motivation throughout this process. To my second baby, who is going to come into the world in November and truly adds more joy to this Ph.D. celebration.

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Table of Contents

	Page
List of Tables	viii
List of Figures	ix
Abstract	xi
Chapter One	1
Statement of the Problem	4
Background of the Problem	5
Theoretical Framework	13
Empirical Rationale.....	15
The Purpose Statement.....	23
Research Questions	24
Significance.....	25
Summary	27
Definitions of Key Terms.....	29
Chapter Two.....	31
The Literature on Chinese International Students’ Intercultural Learning	32
The Deficit Thinking Lens on Chinese International Students Acculturation.....	41
Theoretical Framework – Acculturation Theory.....	50
Berry’s Acculturation Model.....	51
Psychological Adaptations and Sociocultural Adaptations	52
Acculturation Strategies.....	52
Societal Attitude	54
Empirical Rationale.....	55
Under the Four-cluster of Acculturation Strategies Ranking Approach	55
Under the Bi-dimensional Approach.....	58
An Inconsistent Relationship between Host Culture Connectedness and Psychological Adaptation	61
A Consistent Relationship between Host Culture Connectedness and Sociocultural Adaptation and a Protective Role of Home Culture Connectedness	62
Moderating Mechanism in Acculturation.....	65

Summary	71
Chapter Three.....	73
Research Questions and Hypothesis	73
Research Design.....	75
Setting and Participants.....	76
Measurement/Instruments	77
Instruments for Home Culture Connectedness and Host Culture Connectedness.....	78
Instrument for Psychological Adaptation	80
Instrument for Sociocultural Adaptation	81
Instrument for Perceived Societal Discrimination.....	82
Procedures	83
Data Analysis	83
Summary	87
Chapter Four	88
Data Preparation and Cleaning.....	88
Descriptive Analysis	100
Inferential Analysis	105
Model of Psychological Adaptation as Dependent Variable	106
Model of Sociocultural Adaptation as Dependent Variable	116
Summary of Findings.....	123
Chapter Five.....	127
Discussion of Findings.....	128
Finding One - Home Culture Connectedness as a Moderator in Psychological Adaptation.....	131
Finding Two – Home Culture Connectedness as a Non-moderator in Sociocultural Adaptation.....	136
Finding Three – Moderating Role of Perceived Societal Attitude	138
Limitations	140
Implications.....	141
Future Research.....	143
Conclusions	144
Appendix A.....	150
Appendix B	151

Appendix C	152
Appendix D	153
Appendix E	155
Appendix F	156
References	157

List of Tables

Table	Page
Table 1. <i>Descriptive Statistics for Variables</i>	102
Table 2. <i>Intercorrelations among Continuous Variables</i>	105
Table 3. <i>Hierarchical Multiple Regression Analysis Summary for Psychological Adaptation</i>	114
Table 4. <i>Hierarchical Multiple Regression Analysis Summary for Sociocultural Adaptation</i>	122

List of Figures

Figure	Page
Figure 1.....	91
Figure 2.....	95
Figure 3.....	96
Figure 4.....	97
Figure 5.....	98
Figure 6.....	99
Figure 7.....	100
Figure 8.....	103
Figure 9.....	104
Figure 10.....	115
Figure 11.....	116
Figure 12.....	123

Abstract

EXAMINING THE ROLE OF HOME CULTURE CONNECTEDNESS AND SOCIETAL ATTITUDE IN CHINESE INTERNATIONAL STUDENTS' ACCULTURATION PROCESS IN U.S. UNIVERSITIES

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George Mason University, 2022

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This dissertation responds to a need in exploring the role of home culture connectedness in Chinese international students' psychological and sociocultural adaptations, which is overlooked in the deficit-thinking-oriented acculturation approach. The purpose of this study is to examine the moderating role of Chinese international students' home culture connectedness in psychological adaptation and sociocultural adaptation. In addition, given the significant shift in societal attitude toward China and Chinese students in the U.S. at the time of this study, this dissertation aims to explore the role of perceived societal attitude as the macro context in the hypothesized model of home culture connectedness during acculturation. Two hundred and six ($N = 206$) Chinese international students studying in 32 universities or colleges across the U.S. participated in an online survey. Using two multiple regression analyses, the study revealed a moderating role of home culture connectedness in the relationship between host culture connectedness and psychological adaptation, but no moderating role of home culture connectedness in the relationship between host culture connectedness and sociocultural adaptation was

identified. In addition, the findings indicated that the perceived societal attitude, measured by perceived social discrimination, had significant negative relationships with psychological adaptation and sociocultural adaptation. Furthermore, the perceived social discrimination moderated the relationship between host culture connectedness and psychological adaptation, as well as the relationship between home culture connectedness and sociocultural adaptation. These findings implied recommendations to help Chinese international students' psychological adaptation and sociocultural adaptation when home culture connectedness and perceived societal attitude as moderators in the acculturation, especially during a health crisis, such as the COVID-19 outbreak.

Key words: Chinese international students, acculturation, home culture connectedness, host culture connectedness, psychological adaptation, sociocultural adaptation, societal attitude, perceived discrimination, intercultural learning

Chapter One

The U.S. has often been perceived by many international students as the destination for high-quality education. Eighty-three percent (83%) of international students in IIE's (Institute of International Education, 2005) survey "agreed that the reputation of academic qualification and degrees from the U.S. was important in their decision to study in the U.S." (p. 22). This perceived quality education leads to continuous growth in the number of international students studying in the U.S., reaching almost 1.1 million international students in the academic year of 2018-2019 (Institute of International Education [IIE], 2019). Among this all-time high number of international students studying in the U.S., Chinese students have been the largest group of international students for the tenth consecutive year (IIE, 2019).

The salient motivation for many international students to study at universities in the U.S. is to gain intercultural experiences and advance their future international career development (IIE, 2005). The Institute of International Education (IIE, 2005) listed the top two prevalent factors for international students choosing to study in the U.S. in its survey: "Experience new ways of thinking and acting in the field of study and improving chances for international career" (p. 15). These intercultural expectations are often framed as intercultural competence, referred to as the ability of "behaving and

communicating appropriately and effectively in intercultural situations” (Deardorff, 2006, p. 255).

However, this intercultural competence development does not automatically take place when international students are simply placed in a cross-cultural environment (Ryan & Carroll, 2005). An acculturation process usually occurs, which is defined as a “dual process of cultural and psychological change that takes place as a result of contact between two or more cultural groups and their individual members” (Berry, 2005, p. 698). An individual’s acculturation process involves acculturation experiences via intercultural contacts, in which an individual will experience acculturation difficulties and stressors that lead to stress, ultimately impacting psychological and sociocultural adaptations (Berry, 2006). Thus, psychological adaptation and sociocultural adaptation are considered as the outcomes of acculturation (Berry, 2005). Psychological adaptation is referred to as feelings of well-being or satisfaction during cross-cultural transitions (Searle & Ward, 1990). Sociocultural adaptation is defined as the ability to “fit in” or initiate effective interactions in a new cultural environment (Searle & Ward, 1990). The levels of psychological adaptation and sociocultural adaptation are varied with different acculturation strategies, which are combinations of different levels of home culture connectedness and host culture connectedness (Berry, 2005). In acculturation theory, home culture connectedness is defined as the home culture domain of acculturation strategies, which is specifically referred to as acculturating individuals’ attitude and behavior toward maintaining and connecting with home and heritage culture (Berry, 2005). Host culture connectedness is defined as the host culture domain of acculturation

strategies, which is specifically referred to as acculturating individuals' attitudes and behavior toward connecting with host culture (Berry, 2005).

During this acculturation process, there are statistically significant differences in acculturation experiences between international students from non-Western cultures, such as Asian students, and international students from Western cultures, such as European students (Lee, 2010). Asian or Chinese international students studying in the U.S. often encounter more challenges and adjustment strains in acculturation and academic studies, such as homesickness, culture shock, and academic stress (Lowinger et al., 2014; Poyrazli & Kavanaugh, 2006). These challenges and stressors usually affect international students' psychological wellbeing and cause the loss of self-confidence and identity, further resulting in academic failure and less satisfaction in intercultural adaptation and intercultural competence development (Gill, 2007; Hammer et al, 1978).

Moreover, international students, especially from non-Western cultures, in the U.S. frequently face neo-discrimination, defined as prejudice from host institutions or society over international students' home cultures, which tacitly or inadvertently marginalize international students (Lee & Rice, 2007). Additionally, political factors in the U.S., specifically the competitive and strained relationship between the U.S. and China, make it particularly difficult for Chinese international students to adapt to U.S. universities (Pan & Xu, 2020). Therefore, the experiences of dealing with the large cultural distance, stereotypes, neo-discrimination in some cases, and the tense political environment negatively impact Chinese international students' psychological and

sociocultural adaptation, making it more challenging to reach their overall intercultural learning expectations.

Statement of the Problem

With the misalignment, as described in the preceding section, between Chinese international students' expectation of becoming interculturally competent and the consequence of experiencing issues in psychological wellbeing and sociocultural interactions, problems can arise in how the roles of host culture connectedness and home culture connectedness are perceived or valued in Chinese international students' intercultural learning process in the U.S. universities. First, Chinese international students' intercultural learning process is often perceived as a one-way acculturation process from a deficit thinking perspective. Namely, Chinese international students' home culture is considered a deficient barrier to living and learning in the host culture. They are expected to learn the knowledge and skills in the host context and to be assimilated to the host culture and norms (Kettle, 2017). As a result, deficit-thinking mindset reinforces the role of host culture connectedness, which privileges domestic students over Chinese international students and creates inequalities in class and the divide between the domestic students and Chinese international students by labeling them as "us" and "others" (Ryan & Carroll, 2005; Turner, 2009). This inferior and exclusive feeling is not conducive to Chinese international students' psychological and sociocultural adaptations. Under this deficit-thinking perspective, the role of connectedness to Chinese international students' home culture in their psychological and sociocultural adaptations was overlooked in both the literature and practice.

Second, with the focus on adaptation to host culture and less attention on the role of home culture connectedness, many universities in the U.S. take a deficit-thinking-oriented adaptation-as-problem approach to “fixing” and improving Chinese international students’ knowledge and skills for their adaptation to host cultures. However, research indicated that a strong emphasis only on cognitive and skill learning in a Euro-centric curriculum could result in the marginalization of international students’ affective or social learning (Beard et al., 2007). Individual students' psyche and social learning were suggested as prerequisites for constructing an intercultural learning space in higher education (Turner & Robson, 2008). Therefore, attention is also needed to address issues in psychological and sociocultural adaptations.

To address the issues resulting from the deficit thinking perspective and adaptation-as-problem approach, which overlooked the role of home culture connectedness and the significance of psychological and sociocultural adaptations in Chinese international students’ intercultural learning, forms the essential need of the present study. That need includes exploring the role of home culture connectedness in Chinese international students’ psychological and sociocultural adaptations. To further elucidate the purpose of this study and specify research questions, the background of the deficit-thinking perspective on international students’ intercultural teaching and learning, the theoretical and empirical support are explored in the following sections.

Background of the Problem

The challenges and issues encountered by Chinese international students can be largely attributed to the cultural assimilation philosophy and a deficit thinking mindset

underlying today's teaching and learning models at many universities in the U.S. The cultural assimilation philosophy and deficit thinking mindset expect international students to adapt to the host culture and norms because, according to the theories, international students, whose culture and languages are far different from the mainstream host norms, are often viewed as deficient and incapable of reaching the normal standards (Kettle, 2017). Therefore, it is presumed that the dominant host culture serves as the benchmark for the success of international students' intercultural adjustment, and the student should choose the host nation's culture at the expense of the home nation's culture and heritage (Heng, 2021). In deficit thinking, differences from the mainstream host culture and norms are characterized as negative or disadvantaged (Heng, 2018; Sharma, 2018). Students' failure under this deficit thinking mindset in higher education is often attributed to students' internal shortcomings, such as cognitive or motivational factors, and external or environmental weaknesses, such as different cultural or familial environments (Smit, 2012).

Ethnocentric Nature of Deficit Thinking versus Ethnorelative Nature of Intercultural Competence

This ethnocentric mindset, viewing other cultures based on one's own culture and standards (Bennett, 1993), overlooks the role of international students' connectedness to home culture in the intercultural learning process and conflicts with the ethnorelative nature of intercultural competence development, in which "cultures can only be understood relative to one another, and that particular behavior can only be understood within a cultural context" (Bennett, 1993, p. 46). This contrast between ethnocentric and

ethnorelative perspectives is demonstrated in the Intercultural Development Inventory (IDI), which is an instrument developed based on the Developmental Model of Intercultural Sensitivity (DMIS) and primarily used to measure intercultural competence (Bennett, 1993). The DMIS explains people's worldview or level of sensitivity toward cultural differences, which is construed as the key factor of intercultural competence (Bennett, 1993). "The underlying assumption of the model is that as one's experience of cultural difference becomes more complex and sophisticated, one's potential competence in intercultural relations increases" (Hammer et al., 2003, p. 423). This worldview and orientation to cultural differences in DMIS are considered a progressive and developmental process from ethnocentric to ethnorelative worldviews with six stages (Bennett, 1993; Dejaeghere & Cao, 2009). The first three stages – denial, defense, and minimization, are ethnocentric, namely one's own culture as the central frame of reference to reality (Bennett & Bennett, 2004). The second three stages – acceptance, adaptation, and integration are ethnorelative, meaning that one's own culture is perceived in the context of other cultures (Bennett & Bennett, 2004). The ethnocentric stages can be construed as attempts to avoid cultural differences by denial, defense, and minimization, whereas the ethnorelative stages can be seen as attempts to seek cultural differences by acceptance, adaptation, and integration (Bennett & Bennett, 2004).

These ethnorelative worldviews also reflect the importance of embedding and engaging international students' home culture and host culture in their intercultural learning experiences. Although many universities include intercultural learning in their university missions, lacking understanding of this ethnorelative nature of intercultural

learning and coherent intercultural teaching strategies makes universities take on the deficit thinking oriented adaptation-as-problem approach (Kim & Ruben, 1988). This deficit thinking oriented adaptation-as-problem approach was rooted in the historical development and trend of teaching and learning for international students in higher education in Western cultures.

Deficit Thinking in Historical Development of Teaching and Learning Strategies for International Students

Historically, the teaching and learning strategies for international students at universities in the U.K. and Australia throughout the research in the past decade and a half were categorized into three phases (Kettle, 2017; Ryan, 2011). The shift of teaching and learning strategies by universities to respond to the increasing number of international students in each phase was centered on the concept of fixing solutions. The first phase was from the early to the late 1990s (Ryan, 2011). In this phase, universities carried the deficit thinking to “fix” international students, because international students with different cultures and languages were often considered deficient in Western academic skills and were expected to adapt to the standards and norms in the host country (Ryan, 2011). As a result, remedial programs for the academic programs were developed in many universities, focusing on helping international students to improve their academic English and Western academic skills, such as English Language Institutes or English for academic programs (Ryan, 2011). However, external factors, such as contextual and pedagogical factors, were rarely considered.

The second phase lasted from around the year 2000 to recent years (Ryan, 2011). In this phase, many universities recognized the cultural differences and called for changes in teaching to accommodate international students' needs (Ryan, 2011). This accommodation did not substantively change pedagogy or policy, but focused more on being explicit on current rules, policies, and norms in the host culture for international students to understand and adhere to in class (Kettle, 2017; Ryan & Carroll, 2005). For instance, in Bretag's (2007) study, the interviewed faculty believed that international students' low English proficiency was one of the major reasons leading to plagiarism. Accommodating their language needs was considered to lower academic standards, which affects academic integrity and fairness to the students in the host culture (Bretag, 2007). The essence of this phase still reflects the deficit thinking mindset, expecting international students to adapt to the standards in the host culture. The consequences of this accommodation often led to the binary and opposite relationships between international students and domestic students, West and East in class, which creates an imbalanced power between students and perpetuates the superiority of domestic students and inferiority of international students (Kettle, 2017; Ryan & Carroll, 2005). Thus, in this phase, the connectedness to international students' home culture and connectedness to host culture were viewed as conflicting from the deficit thinking lens, viewing intercultural learning as one-way learning instead of reciprocal learning.

The deficit thinking oriented adaptation-as-problem approach in the first two phases is still the dominant thinking in practice, although transitioning into another phase of teaching and learning strategies for international students. Under this adaptation-as-

problem approach, universities often perceive Chinese international students as passive or rote learners with English deficiency and less class engagement and social interaction (Huang, 2012; Ryan & Carroll, 2005). Thus, Chinese international students are expected to be assimilated into new cultures, comply with the U.S. social norms, obtain western academic skills, and act like domestic students (Lee et al., 2018). However, Chinese international students' prior successful academic and cultural experiences in their home countries are often ignored under this deficit thinking mindset (Ryan & Carroll, 2005). Although many Chinese international students are perceived as competent learners in their home cultural context, they still often encounter difficulties in understanding norms and academic culture in the host cultural context, as well as the feeling of becoming minorities in the host culture, causing psychological confusion (Ryan & Hellmundt, 2005). Consequently, the teaching and learning models with the deficit-thinking-oriented adaptation-as-problem approach impair Chinese international students' psychological wellbeing and sociocultural interactions, hardly reaching their expectation of developing intercultural competence (Gill, 2007).

The literature is evolving into the third phase of teaching and learning for international students, with the trending focus on the internationalization of the curriculum and global learning for both international students and domestic students (Robson, 2011; Ryan, 2011). Huisman (2010) framed global learning for all as the cultural dynamics of teaching and learning, in which international students were perceived as positive culture flow and an integral part of the learning environment. This concept of the cultural dynamic of teaching and learning could serve as a pivoting phase

from the adaption-as-problem approach, focusing on one-way intercultural learning with fixing “deficiency” mindset, to the adaptation-as-growth approach, enabling two-way of learning by recognizing international students’ home cultures as the valuable assets for their intercultural learning (Yosso, 2005). This approach has been under-studied and has rarely been implemented by many universities in the U.S.

Meanwhile, a move to a third phase has begun. For instance, the international virtual exchange courses, intentionally bring reciprocal intercultural learning into the classroom by fostering mutual interaction between domestic students and international students. By contrast, many universities continue to respond to international students’ challenges of studying in the U.S. by providing a series of support services for international students, such as pre and arrival orientation and cultural activities (Ryan & Carroll, 2005). However, these services are still considered as the adaptation-as-problem approach to “fix” Chinese international students’ deficiency and issues at the cognitive and skill levels, so that they can adapt to the host culture and norms. This emphasis on cognitive and skill levels with less focus on affective and social learning might not lead to Chinese international students’ outcomes of intercultural learning, which are the affective natured psychological adaptation and social learning situated sociocultural adaptation (Searle & Ward, 1990). By contrast with the adaptation-as-problem approach, the adaptation-as-growth approach, viewing international students’ diverse home cultures as valuable assets and resources to foster their intercultural confidence and activate intercultural connectivity and cohesion (De Vita, 2005), has been rarely studied and hardly implemented in practice. Therefore, to contribute to the understanding of

international students' intercultural learning from a positive growth-minded perspective and approach, it is crucial to learn about the role of home culture connectedness in helping international students foster their psychological and sociocultural adaptations.

The Shift of Societal Attitude

Furthermore, this deficit-thinking mindset toward Chinese international students, as described in the preceding section, can be also possibly strengthened by the substantively negative shift of societal attitude toward China and Chinese international students. Based on the research conducted by Pew Research Center (2021), 89% of Americans considered China as an enemy of the U.S. 67% of Americans have negative feelings toward China, which was a significant increase from 46% in 2018 (Pew Research Center, 2021). Moreover, the intensity of this negative feeling was also increased from 23% in 2018 to 47% in 2020 (Pew Research Center, 2021). Specifically for Chinese international students, while the study by Pew Research Center (2021) indicated that 80% of Americans welcome international students in general, 55% of Americans supported the idea of limiting the number of Chinese international students studying in the U.S., including 20% of American indicating “strong support” this idea. Therefore, the question as to how the current negative societal attitude toward China and Chinese international students in the U.S. impacts Chinese international students' acculturation, especially on the relationships between home culture connectedness, host culture connectedness, psychological adaptation, and sociocultural adaptation becomes a timely question to be explored in this study, as well.

Theoretical Framework

The role of both host culture connectedness and home culture connectedness in psychological and sociocultural adaptations are revealed in the acculturation theory. Acculturation is defined by Berry (2005) as a “dual process of cultural and psychological change that takes place as a result of contact between two or more cultural groups and their individual members” (p. 698). In the framework, the interaction between an individual’s home culture and host culture results in dynamic cultural changes for both the sojourner group and the host group; meanwhile, it brings individual internal psychological changes during the adaptation process to a new culture and environment (Berry, 2005; Ryder et al., 2000). The psychological and sociocultural adaptations are construed as the long-term outcomes of acculturation, which are often manifested in individuals’ confidence and competence in their daily intercultural interaction (Berry & Sam, 1996). Briefly, an individual’s acculturation process involves acculturation experience via intercultural contact, in which the individual will experience acculturation difficulties and stressors that lead to stress, ultimately impacting psychological and sociocultural adaptations (Berry, 1997).

Acculturation Strategies

In the process of engaging in acculturation, Berry (2005) proposed four acculturation strategies based on an individual’s attitude and orientation to maintain and connect with home culture or host culture. The four acculturation strategies include integration, assimilation, separation, and marginalization (Berry, 2005). Integration occurs when individuals maintain their home culture and identity, as well as actively

participate in the host culture (Berry, 1997). Assimilation occurs when individuals do not value and maintain their heritage, home culture, and identity but actively interact with the host culture (Berry, 1997). When individuals are inclined to value and maintain their heritage culture and to avoid contact with the host culture, separation emerged (Berry, 1997). Marginalization is a result of little interest in maintaining home culture and contacting with host culture (Berry, 1997). During the acculturation process, Berry (2006) proposed a theory of acculturation strategies/orientations as one of the moderators. Specifically, psychological adaptation and sociocultural adaptation are a function of an individual's acculturation strategies (Berry, 2005). Namely, various levels of combining home culture connectedness and host culture connectedness lead to different extents of psychological adaptation and sociocultural adaptation. This theoretically implied interaction of connecting with home culture and contacting with host culture is also studied in the empirical literature.

Societal Attitude

In addition, in Berry's (2006) acculturation model, societal attitude is also proposed as a moderator during acculturation. However, there is a paucity of literature studying the specific role of societal attitude in acculturation. Given the current negative attitude toward China and Chinese international students, Berry's (2006) acculturation model provides a theoretical framework for this study to explore the role of societal attitude in the acculturation process, especially how it interacts with home culture connectedness, host culture connectedness, psychological adaptation, and sociocultural adaptation. In the following sections, this study explores the relationships between home

culture connectedness, host culture connectedness, psychological adaptation, and sociocultural adaptation in the empirical study, as well as the research gap about the role of societal attitude in acculturation. This empirical rationale helps to specifically frame the research purpose and research questions.

Empirical Rationale

In empirical studies, the interaction effect of home culture connectedness and host culture connectedness was revealed under two categories of measuring acculturation strategies. One was a four-cluster of acculturation strategies ranking approach (Demes & Geeraert, 2014; Ryder et al., 2000). The other category was a bi-dimensional approach measuring home culture connectedness and host culture connectedness independently (Demes & Geeraert, 2014; Ryder et al., 2000). Studies under both approaches consistently indicated that psychological and sociocultural adaptations vary with different levels of combinations between home culture connectedness and host culture connectedness.

Under the Four Categories of Acculturation Strategy Ranking Approach

Berry and colleagues' (2006) study on youth immigrants' acculturation and adaptations surveyed 7,997 adolescents, including 5,366 youth immigrants from 26 different cultural backgrounds residing in Australia, Canada, Israel, New Zealand, and the US and 2,632 national youth in these countries. The acculturation strategies in this study were assessed by cluster analysis which grouped individuals into four categories of acculturation strategies. The key finding indicated that integration with a high level of maintaining home culture and contacting host culture is associated with the highest

psychological and sociocultural adaptation level. Marginalization is associated with the lowest level of both adaptations. Although separation and assimilation are associated with an intermediate level of both adaptations compared with integration and marginalization, separation is associated with positive psychological adaptation, and assimilation is associated with positive sociocultural adaptation. These findings also resonate with Sam's (1994) research conclusion, in which the four acculturation strategies were measured by an acculturation scale developed based on Berry's acculturation strategy model. The finding revealed that integration and marginalization had a significant relationship with all the psychological adjustment measures (Sam, 1994). And integration and marginalization showed a consistent opposition relationship with each psychological measure (Sam, 1994). Specifically, the young immigrants with the integration attitude tend to report less global negative self-evaluation, less depressive tendencies, fewer psychological and somatic symptoms, happier and healthier than those holding the marginalization attitude (Sam, 1994).

Under the Bi-dimensional Approach

Under the bi-dimensional approach, home cultural connectedness and host culture connectedness are measured and assessed independently. Under this approach, a key empirical study in the field of acculturation conducted by Ward and Kennedy (1994) contributed to a further understanding of acculturation strategy, psychological adaptation, and sociocultural adaptation. The two dimensions of acculturation strategy – contacting with host culture and maintaining home culture were framed as host national identification and co-national identification (Ward & Kennedy, 1994). This study was

conducted to examine host national identification and co-national identification in relation to psychological and sociocultural adaptation during cross-cultural transition by surveying 98 New Zealand citizens who are working for a large international organization based in New Zealand and are assigned to work in other countries (Ward & Kennedy, 1994).

In this study, a bi-dimensional measurement - Acculturation Index was used to measure host-national identification and co-national identification separately and then a median split analysis method was used to categorize the four acculturation strategies, in contrast with a four-cluster measurement ranking individual's preference for integration, separation, assimilation, and marginalization (Ward & Kennedy, 1994). Based on a 2*2 ANOVA analysis, the finding revealed two significant main effects: co-national identification has a significant main effect on psychological adjustments, and host national identification has a significant main effect on sociocultural adjustment (Ward & Kennedy, 1994). Meanwhile, interaction effects on psychological and sociocultural adjustments were also revealed. For psychological adaptation, participants in the integrated strategy group (high co-national and high host national identifications) experienced significantly less psychological adjustments than participants in the assimilation strategy group (low co-national and high host national identifications; Ward & Kennedy, 1994). For sociocultural adaptation, participants in the separation strategy group (high co-national and low host national identities) experienced the greatest sociocultural adjustment difficulties; marginalization group (low co-national and low host national) experienced an intermediate amount of sociocultural adjustment difficulties;

and integration (high co-national and high host national) and assimilation (low co-national and high host national) groups experienced least sociocultural adjustment difficulties (Ward & Kennedy, 1994).

Although empirical studies under both approaches indicated the interaction effect of home culture connectedness and host culture connectedness on psychological and sociocultural adaptations, they did not specify how home culture connectedness and host culture connectedness interplay with each other. In other words, what the role of home culture connectedness and host culture connectedness is in psychological adaptation and sociocultural adaptation. The empirical studies have primarily focused on the host culture connectedness in acculturation. But the role of home culture connectedness is also implied in these studies, which helps to further frame the purpose of the present study and specify the research questions on exploring the role of home culture connectedness in psychological adaptation and sociocultural adaptation.

An Inconsistent Relationship between Host Culture Connectedness and Psychological Adaptation

The empirical studies have shown an inconsistent relationship between host culture connectedness and psychological adaptation. Searle and Ward's (1990) study on adaptations revealed a predictive model of psychological adaptation, in which satisfaction with contact with host nationals was one of the significant predictors for psychological adaptations. Zhang and Goodson's (2011) study on specific Chinese students studying in the U.S. indicated that adherence to host culture is negatively associated with Chinese international students' depression, which was identified as an indicator of psychological

adaptation. However, Ward and Kennedy (1994) claimed that identification with host nationals, a variable used to measure host culture connectedness as one dimension in the acculturation strategy model, did not have a significant effect on psychological adaptation. However, identification with co-national, a variable used to measure home culture connectedness as one dimension of acculturation strategy, had a significant effect on psychological adaptation (Ward & Kennedy, 1994). In addition, a significant interaction effect between home national identification and host national identification on psychological adaptation emerged (Ward & Kennedy, 1994).

This intersection effect helps to explain the inconsistent relationship between home culture connectedness and psychological adaptation, which means a moderator could impact this relationship. Given the interaction effect of connecting with home culture and contacting with host culture on psychological adaptation as well as the theoretically supported protective role of connecting with home culture, it leads to the hypothesis that connecting with home culture can moderate the relationship between contact with host culture connectedness and psychological adaptation.

A Consistent Relationship between Host Culture Connectedness and Sociocultural Adaptation and a Protective Role of Home Culture Connectedness

The literature has revealed a consistent relationship between host culture connectedness and sociocultural adaptation and a protective role of home culture connectedness in acculturation. In Li and Gasser's (2005) study on the relationships between Asian international students' contact with host nationals, own ethnic identity, cross-cultural self-efficacy, and sociocultural adaptation, the findings indicated that social

interaction with host culture is positively associated with Asian international students' sociocultural adaptation. This finding is also supported by the study conducted by Gibbs and associates (2020), which studied the predictive model of international students' adaptation. In this model, connecting with host nationals was a significant predictor for sociocultural adaptation (Gibbs et al., 2020).

Although host culture connectedness has a consistent significant relationship with sociocultural adaptation, which indicates the importance of connecting with host nationals and culture in students' sociocultural adaptation, in reality, Chinese international students frequently reported difficulties in social interaction with local peers in the host culture and other international students (Spencer-Oatey & Xiong, 2006). In Cao and associates' (2017) study, the findings showed that all three social ties – connection with co-nationals, host nationals, and internationals were present in Chinese international students' social interaction. However, their co-national ties were in the primary position, international ties were in the secondary position, and host-national ties were in the last position (Cao et al., 2017). Host-national ties, international ties, co-national ties, local language proficiency, and prior adaptation experiences were discriminative factors to distinguish Chinese international students' acculturation strategies (Cao et al., 2017). Specifically for students with integration strategy, they tended to develop stronger co-national ties than those adopting assimilation or marginalization strategies (Cao et al., 2017). Moreover, Cao et al. (2018) conducted another study to further explore the role of home culture connectedness in dealing with Chinese international students' academic stressors. One key finding indicated that

Chinese international students' home culture connectedness, instead of the host academic culture context, strongly impacted Chinese international students' behaviors in class and ways of dealing with stress (Cao et al., 2018). Thus, these studies demonstrate the primary presence of home culture connectedness and the implied protective role in the process of Chinese international students' intercultural contacts, although they frequently reported difficulties in connecting with host nationals.

However, this leads to a question as to how this protective role of home culture connectedness can play in the consistently significant relationship between host culture connectedness and sociocultural adaptation. In Ward and Kennedy's (1994) study, the findings not only revealed the significant effect of identification with host nationals on sociocultural adaptation, but also claimed an interaction effect between connection with host national identification and connection with co-national identification on sociocultural adaptation. Therefore, this illustrates that home culture connectedness and host culture connectedness can interplay to impact sociocultural adaptation. Connecting this interaction effect between home culture connectedness and host culture connectedness, the consistently significant relationship between host culture connectedness and sociocultural adaptation, and the protective role of home culture connectedness, leads to the hypothesis that home culture connectedness can moderate the relationship between host culture connectedness and sociocultural adaptation. Specifically, when students have a high level of home culture connectedness, there will be a stronger positive relationship between host culture connectedness and sociocultural adaption.

Similar to this hypothesized moderating mechanism in psychological and sociocultural adaptations, a moderating role of host culture connectedness in the relationship between home culture connectedness and psychological adaptation was revealed in Zhang and Goodson's (2011) study. The major finding of the moderating model revealed that social interaction with Americans moderated the relationship between adherence to home culture and depression (Zhang & Goodson, 2011). Specifically, when Chinese international students have a low level of social connection with Americans, a higher level of adherence to home culture is significantly associated with less depression (Zhang & Goodson, 2011). However, when Chinese students have a high level of social interaction with Americans, the relationship between adherence to home culture and depression is not significant (Zhang & Goodson, 2011).

Although Zhang and Goodson's (2011) study focused on the moderating role of Chinese international students' host culture connectedness in the relationship between home culture connectedness and psychological adaptation, it provides support for this study in three areas. First, the findings of Zhang and Goodson's (2011) study provide a basic understanding of the relationships between home culture connectedness, host culture connectedness, psychological adaptation, and sociocultural adaptation, which paves the foundation for this study to further investigate the hypothesized moderation of home culture connectedness. Second, Zhang and Goodson's (2011) study provides methodological guidance for this study to test the hypothesized moderating role of home culture connectedness. Third, the finding of Zhang and Goodson's (2011) study on the moderating role of host culture connectedness also reveals the protective role of home

culture connectedness on Chinese international students' psychological adaptation, especially when Chinese international students have a low level of social connection with the host culture.

The third point provides an empirical rationale for investigating the hypothesized moderating role of home culture connectedness under the current negative societal attitude toward China and Chinese international students (Pew Research Center, 2021). The negative societal attitude creates a hostile environment for Chinese international students to interact and connect with the host culture, which means the protective role of home culture connectedness becomes significant based on Zhang and Goodson's (2011) findings. Thus, how this protective role of home culture connectedness moderates the relationship of host culture connectedness with Chinese international students' psychological adaptation and sociocultural adaptation becomes a timely research question, given today's negative societal attitude toward China and Chinese international students (Pew Research Center, 2021). In addition, how societal attitude relates to the variables in the hypothesized moderating model of home culture connectedness will also be explored in this study.

The Purpose Statement

Breaking away from a deficit-thinking mindset toward Chinese international students' home culture connectedness in their intercultural learning process, especially under the current negative societal attitude toward China and Chinese international students (Pew Research Center, 2021), this study took on a positive lens on Chinese international students' intercultural learning to explore the role of home culture

connectedness in Chinese international students' psychological adaptation and sociocultural adaptation while studying in the U.S. Specifically, the present study aimed to examine the moderating role of Chinese international students' connectedness to home culture in the relationship of host culture connectedness with both psychological adaptation and sociocultural adaptation. In this study, acculturation theory was used as a theoretical framework in conjunction with a variety of empirical studies to form a hypothesized conceptual framework. In addition, the role of perceived societal attitude in the hypothesized moderating model of home culture connectedness was explored in this study, which contributed to the empirical literature of further explaining both the role of home culture connectedness and societal attitude in Berry's (2006) acculturation theoretical model.

Research Questions

With the purpose of exploring the moderating role of home culture connectedness in Chinese international students' psychological adaptation and sociocultural adaptation, postpositivism serves as the research philosophy to frame research questions (R.Q.) as hypotheses. Under postpositivism, research questions were statistically analyzed by testing a hypothesis (H) for the question. The purpose of using hypotheses is not to prove a hypothesis but to collect data to support or not support a hypothesis (Gay et al., 2009). Therefore, based on the theoretical framework and empirical studies discussed in the preceding section, a hypothesized model indicating the moderating role of home culture connectedness in the relationship of host culture connectedness with psychological

adaptation and sociocultural adaptation was forged. The hypothesis was postulated to address the research question, as follows:

RQ1: Can home culture connectedness moderate the relationship between host culture connectedness and both Chinese international students' psychological adaptation and sociocultural adaptation?

H(1): Home culture connectedness moderates the relationship between host culture connectedness and both Chinese international students' psychological adaptation and sociocultural adaptation.

In addition, based on Pew Research Center's study, the societal attitude toward China and Chinese international students has been significantly shifted to a negative attitude since 2017. Berry's (2006) acculturation model also suggests a moderating role of societal attitude in acculturation process. However, the relationships of societal attitude with other variables in the acculturation process have not been tested. Therefore, the second part of this study was carried out with an exploratory question on the possible relationships of societal attitude with the variables in the hypothesized moderating model of home culture connectedness. Particularly, it is articulated as follows:

RQ2: Explore the moderating role of societal attitude in Chinese international students' acculturation process.

Significance

This study to explore the moderating role of home culture connectedness in the relationship of host culture connectedness with Chinese international students' psychological adaptation and sociocultural adaptation is critical for several reasons. First,

the deficit thinking-oriented mindset toward Chinese international students' intercultural learning indicates that the role of Chinese international students' home cultures is overlooked in their acculturation. There is a scarcity of literature studying how the home culture connectedness plays out in the process of Chinese international students' negotiating their identities, searching for belongings between home culture and host culture, as well as transforming their perspectives and worldview (Brown, 2009; Taylor 1994; Tran, 2012). This study helps understand Chinese international students' intercultural learning process by examining how they interact with their home culture and host culture to adjust their psychological well-being and develop sociocultural skills. Specifically, the moderating role of home culture connectedness in Chinese international students' psychological adaptation and sociocultural adaptation studied by this research helps to contribute to the acculturation literature. It specifies how home culture and host culture interplay in their interaction effects on psychological and sociocultural adaptations in Berry's acculturation theory.

Second, from the practical perspective, understanding the relationship of Chinese international students' connectedness to their home culture and host culture with their psychological adaptation and sociocultural adaptation provides practical insights for university faculty and staff to understand the underlying logic and outcomes of Chinese international students' acculturation process. Specifically, it helps to understand the role of students' home culture in this process as a valuable asset or a deficient barrier. This understanding helps universities with policy-making decisions to support Chinese international students' intercultural learning by capitalizing on students' home culture

and their initial intercultural learning motivation, instead of employing the adaptation-as-problem approach to fixing Chinese international students' "deficiency".

Third, the exploratory part of this study on societal attitude in acculturation contributes to the empirical literature to further explain the role of societal attitude in Berry's acculturation theory. Specifically, the tested relationships of societal attitude with home culture connectedness, host culture connectedness, psychological adaptation, and sociocultural adaptation also provide a further understanding of the conditions for the psychological and sociocultural adaptations in acculturation, especially how the societal attitude as the macro-context impact Chinese international students acculturation. This aligns the hypothesized moderation model of home culture connectedness with the current societal context. It helps university policy makers to rationalize the impact of societal attitude and adjust their policies or work to facilitate Chinese international students' psychological and sociocultural adaptations, especially when Chinese international students encounter difficulties in acculturation under a negative societal attitude.

Summary

Therefore, the present research took a survey study method to address the study purpose by examining the moderating role of Chinese international students' home culture connectedness in the relationships of host culture connectedness with psychological adaptation and sociocultural adaptation, as well as exploring the possible relationships of societal attitude in the hypothesized moderating model. This study used Berry's acculturation model as the theoretical framework and relevant empirical studies

to further define the key constructs, explore the relationships of these variables, as well as identify the relational gaps between variables. This theoretical framework and the key constructs were elaborated on in the following literature review section.

Definitions of Key Terms

Acculturation

Acculturation is defined as a “dual process of cultural and psychological change that takes place as a result of contact between two or more cultural groups and their individual members” (Berry, 2005, p. 698).

Chinese International Students

Chinese international students in the present study are defined as students from the People’s Republic of China and studying in the U.S. universities on an F1 visa.

Home Culture Connectedness

Home culture connectedness is defined as the home culture domain of acculturation strategies, which is specifically referred to as acculturating individuals’ attitude and behavior toward maintaining and connecting with home and heritage culture (Berry, 2005).

Host Culture Connectedness

Host culture connectedness is defined as the host culture domain of acculturation strategies, which is specifically referred to as acculturating individuals’ attitude and behavior toward connecting with host culture (Berry, 2005).

Psychological Adaptation

Psychological adaptation is referred to as feelings of well-being or satisfaction during cross-cultural transitions (Searle & Ward, 1990).

Sociocultural Adaptation

Sociocultural adaptation is defined as the ability to “fit in” or initiate effective interactions in a new cultural environment (Searle & Ward, 1990).

Chapter Two

The present study called for an essential need to understand the role of home culture connectedness in Chinese international students' psychological and sociocultural adaptations. Breaking away from a deficit-thinking-oriented intercultural learning approach toward Chinese international students' home culture and a pathological intercultural learning process, this study examined whether there is a positive role of Chinese international students' home culture connectedness in their intercultural studies in the U.S. Specifically, the present study aimed to examine the moderating role of Chinese international students' home culture connectedness in the relationships between host culture connectedness and both psychological adaptation, and sociocultural adaptation.

To explore this topic, the literature review in this chapter provided theoretical and empirical support to strengthen the rationale of this study and to postulate the hypothesis. Thus, there are four purposes of this chapter. First, the literature review helps understand Chinese international students' acculturation experiences as well as their psychological and sociocultural adaptation issues under the deficit-thinking approach. Second, how the deficit-thinking-oriented mindset was revealed in the historical evolvement of literature on international students' teaching and learning that was explored to provide historical context for this study. Third, the theoretical framework – Berry's (2006) acculturation model was explained to understand the theoretical relationships of home culture connectedness and host culture connectedness as acculturation strategies with

psychological and sociocultural adaptations. Finally, the relationships of home culture connectedness and host culture connectedness with psychological and sociocultural adaptations were also investigated in the empirical studies, which helps to reveal the limitation of previous studies and identify the literature gap to further postulate the hypothesis of the moderating role of home culture connectedness.

The Literature on Chinese International Students' Intercultural Learning

The literature on Chinese international students' intercultural learning experiences predominately focused on their acculturation challenges, problems-oriented intercultural learning process, and coping strategies for the academic and sociocultural adjustments in the host culture (Zhu, 2016). The literature can be categorized into two groups: pre-departure experiences and overseas learning experiences (Zhu, 2016). The following sections explored the relevant literature on Chinese international students' experiences and challenges under each category.

Pre-departure

The pre-departure period was construed as entering points to students' intercultural learning journey (Durkin, 2008). After interviewing 41 full-time East Asian students, with the majority of the participants as Chinese international students studying at a university in the U.K., Durkin (2008) summarized four key factors in the pre-departure period that can ease students' difficulties and challenges when studying overseas. These four factors were previous Western academic experiences, aptitude including intelligence and mental flexibility, Western academic skills, such as English proficiency and referencing, as well as their motivation and open-mindedness (Durkin,

2008). By and large, these factors can be grouped as two aspects of pre-departure experiences to be elucidated - Chinese international students' motivation to study abroad, as well as their pre-departure preparation and readiness for overseas studies on cognitive and skill levels. In general, the literature described Chinese international students' pre-departure experiences with a high level of motivation but low levels of knowledge of host cultures and insufficient skills for the readiness to adapt to the host culture.

High Motivation to Connect with Host Culture. The literature has specifically studied Chinese international students' motivation to study abroad in the pre-departure period. Mostafa and Lim (2020) categorized international students' motivation for studying abroad as intrinsic and extrinsic motivations. The intrinsic motivation is related to the interest in personal growth and development, such as learning the culture and languages in the host country, whereas the extrinsic motivation is to use the host country as the springboard for more career opportunities (Mostafa & Lim, 2020). After surveying 164 international students studying in three major universities in the U.S., Mostafa and Lim (2020) concluded that intrinsic motivation had a significantly positive relationship with international students' resilience in overcoming challenges in the new culture.

Concerning specifically Chinese international students, Chirkov et al. (2007) surveyed 122 Chinese international students studying at one university in Canada and one university in Belgium. The researchers found that Chinese international students' personal growth-oriented motivation played a role in their decision to study abroad. Meanwhile, this motivational factor had an independent effect on Chinese international students' cultural adaptation (Chirkov et al., 2007). In addition, Chirkov and colleagues

(2007) also compared the motivation and well-being test scores between Chinese students in the pre-departure stage in Belgium and Chinese international students studying in Belgium. The results indicated that Chinese international students in the pre-departure stage had significantly higher motivation and well-being scores than Chinese international students studying in Belgium (Chirkov et al., 2007). The finding of this high level of motivation for personal improvement in the pre-departure stage can serve as a foundation for the possibility of having a growth-oriented intercultural adaptation to the host cultural contexts. Meanwhile, these findings also demonstrated the possible change in student motivation between the pre-departure stage and the studying abroad stage. Specifically, the study indicated Chinese international students' loss of their motivation and deteriorating well-being when Chinese international students study in the host culture (Chirkov et al., 2007). These findings also stressed the significance of studying Chinese international students' psychological changes or adaptation and sociocultural adaptation when they move to a new cultural environment from their comfort home cultural context.

Low Cognitive and Skill Readiness in Adapting to Host Culture. Although studies showed Chinese international students' personal growth-oriented intrinsic motivation in their pre-departure stage, their readiness to study abroad was still considered to fall short of the Western academic and cultural standards in terms of cognitive and skill levels (Campbell & Li, 2007; Skyrme, 2007). Since English proficiency was considered one of the critical Western academic skills, Bai and Wang (2020) examined Chinese international students' English preparation before entering a university in Australia. After interviewing 22 Chinese international students, the

researchers concluded that over 70% of participants indicated appreciation of their efforts in English language improvement, especially their speaking and writing, for their overseas studies, however, they expressed concern over the low level of difficulty of the English preparation courses, which might not be sufficient for their overseas studies (Bai & Wang, 2020). The underprepared knowledge and skills for Chinese international students' overseas studies were further magnified by the literature studying Chinese international students' intercultural learning challenges during their overseas studies. However, the role of their personal growth-oriented motivation in their intercultural learning process was overlooked in the Chinese international students' overseas learning experiences.

Overseas Learning Experiences

The literature focused on Chinese international students' intercultural learning experiences has primarily accentuated the challenges and issues when Chinese international students study overseas. A comprehensive survey on the experience of international students in New Zealand conducted by Deloitte (2008) on behalf of the Ministry of Education in New Zealand revealed that Chinese international students along with other Asian international students had the least satisfaction with their learning experiences with more academic, social and cultural adjustment issues and challenges than students from Europe, North America, South America, and Australia. Generally, these challenges can be grouped as language difficulties, academic challenges, and sociocultural challenges (Lowinger et al., 2016). These challenges often led to psychological issues (Brown & Holloway, 2008; Cheng & Erben, 2012) as well as

inappropriate and ineffective intercultural interaction and communication (Gudykunst, 2004; Kim & Ruben, 1988). In other words, these challenges were situated and reflected in Chinese international students' academic, social and psychological adjustments.

Language Difficulties. English proficiency was identified as a major challenge and a constant stressor for Chinese international students' acculturation process (Bertram et al., 2014; Lin & Yi, 1997). In the literature, the frequently cited English proficiency-related learning issues were international students' academic writing, speaking, and comprehension (Robertson et al., 2000). These language-related learning difficulties imposed time pressure with longer time assumed for homework and assignment completion and reviewing multiple times lectures or course contents for comprehension (Swagler & Ellis, 2003).

The pressure and anxiety in Chinese international students' sociocultural adjustment were often attributed to a lack of English proficiency (Redmond, 2000). The language barrier was considered a factor preventing Chinese international students from participating in their social engagement and activities in the host culture (Huang, 2012). Therefore, the language issue was also viewed as a major factor leading to Chinese international students' social isolation in the host country (Karuppan & Barari, 2010).

Language issues also affect Chinese international students' psychological adjustment. Speaking English with an accent can be considered a factor affecting Chinese international students' ability and confidence in the academic and social adjustment process (Ching et al., 2017). Listeners often evaluate or judge speakers' social status, competence, and personality based on an accent (Giles, 1970). The non-native accent

often leads to biased presumptions, stereotyping, and discrimination (Fuertes et al., 2002). Therefore, these negative psychological experiences can contribute to Chinese international students' poor performance in academic and social adjustments, in addition to their English proficiency. This was supported by Swagler and Ellis' (2003) study, which indicated that the most important factor in international students' adjustment was confidence and self-perception rather than their actual English proficiency.

Academic Challenges. Chinese international students' academic challenges were often manifested in their silence and low level of class engagement. Although English proficiency was conceived as one of the barriers, Barker et al. (1991) also pointed out that unfamiliarity with the academic culture, norms, and rules, as well as the educational system in the host country, was another factor leading to academic challenges and inactive class engagement. In addition, Chinese international students held a different set of cultures and beliefs for class participation, as well as the perception of "saving face", which was another important factor for their silence in class (Holmes, 2008). In Chinese culture, Chinese students tend to respect faculty as the senior and authority role and to seek harmony with peers by avoiding asking questions and voicing conflicting opinions and ideas (Liu, 2001; Zhou et al., 2005). However, Wang's (2012) study indicated that Chinese international students' silence usually occurred in the transition period, and it can be changed over time. Because Chinese international students are willing to engage in class when they become familiar with the academic rules and, more importantly, feel confident speaking English (Cheng, 2000). Therefore, the academic challenges are not only related to cognitive and skill adaptations to the Western academic cultures, standards,

and norms, but are also associated with Chinese international students' psychological adaptation. Understanding their home culture-oriented coping strategy in the host culture can be a factor to help Chinese international students' adaptation.

Social Challenges. The literature about Chinese international students' social challenges primarily focused on the culture shock and lack of social support in their sociocultural adjustment. Chinese international students' culture shock is derived from the large cultural distance between the Chinese home culture and the American host culture (Tsai et al., 2000; Ward et al., 2001). The larger the cultural distance is between the home culture and host culture, the harder it is for students to interpret the behaviors in the host culture and to engage in social interaction in the host culture (Redmond, 2000).

This large cultural distance and social background difference also make it difficult for Chinese international students to form their new social support network in the new host culture (Mori, 2000). This social support was construed as a key element for psychological and sociocultural adjustments. Studies indicated that due to the lack of a social support network, Chinese international students tend to internalize their stress and difficulties when they encounter challenges or emotional stress (Bertram et al., 2014; Wei et al., 2007). When studying in the U.S., Chinese international students' primary source of social support is still their parents and close friends in China (Bertram et al., 2014). The findings of the study conducted by Bertram et al. (2014) also suggested that although Chinese international students might start to form their social support network in the U.S., the limited depth of the connectedness to various groups prevented them from

seeking help from them. Therefore, connectedness is the critical element to form a quality social support network.

Psychological Issues. Based on language difficulties, academic challenges, and social challenges with the lack of social support as discussed in the preceding sections, it is not surprising that Chinese international students experience psychological stress and issues. Spencer-Oatey and Xiong's (2006) study suggested that there was a correlation between Chinese international students' social interaction challenges and difficulties in their daily cultural adjustment with their psychological stress. This psychological stress was reported to have a significantly negative relationship with students' social self-efficacy (Lin & Betz, 2009). In other words, when Chinese international students encounter high adaptation stress, they tend to feel less confident to engage or to avoid social interaction. Although this psychological stress is inevitable during Chinese international students' intercultural learning process in the U.S., Wang's (2004) study also indicated that this intercultural learning process improved Chinese international students' emotional maturity and psychological growth. However, there is a paucity of research focused on Chinese international students' intercultural learning process from a learning and growth perspective (Taylor, 1994).

Intercultural Interaction. Feeling anxious and uncertain is one of the symptoms of psychological stress (Zhu, 2016). Based on Gudykunst's (2004) anxiety and uncertainty management theory, a higher level of anxiety and uncertainty leads to less effective interpersonal interaction and intercultural communication. This also explains the consequence of many Chinese international students' inappropriate and ineffective

intercultural interaction and communication, and even the social isolation while studying in the U.S. (Zhu, 2016). Kashima and Loh's (2006) study on Asian international students' acculturation at universities in Australia suggested that students' personal ties and friendships with co-national, local Australian students, and other international students significantly impacted their acculturation. Each group served a separate function in international students' acculturation process based on the functional model of international students' friendship patterns (Bochner et al., 1977). The co-national network serves as international students' primary social network and provides a protective role for international students' "psychological security, self-esteem, and a sense of belonging" (Church, 1982, p. 552). The bicultural network is international students' network with local students in the host culture, which helps international students to learn about the cultures, trends, and norms in the host environment and facilitates achieving their academic and professional goals (Bochner, 1982). The multicultural network is international students' network with other international students in the host country, which serves a social and recreational function (Bochner, 1982). This functional model of international students' friendship patterns illustrates the necessity and benefits of having intercultural interaction for Chinese international students. It also implies the role of connectedness to home culture and connectedness to host culture in their acculturation process.

These language, academic, and social challenges during Chinese international students' intercultural learning journey mentioned in the preceding literature are situated and reflected in sociocultural adjustment and psychological adaptations. In addition, the

literature addresses the psychological issues as the consequence of both sociocultural and psychological adaptations. Thus, sociocultural and psychological adaptations are conceived as critical elements for Chinese international students' acculturation process. Nevertheless, the inappropriate and ineffective intercultural interaction and psychological issues studied by the primary literature depicted a pathological and challenging intercultural learning process, rather than a progressive growth-oriented acculturation process for Chinese international students to overcome their psychological and sociocultural adaptations.

The Deficit Thinking Lens on Chinese International Students Acculturation

The literature on Chinese international students' acculturation experiences primarily viewed students' experiences and learning outcomes from a deficit thinking lens with an adaptation-as-problem approach. Martin et al. (2018) defined deficit thinking as "a mental model that places the onus for social class inequities on the individual person or group of people rather than the system of class oppression that created inherent advantages or disadvantages" (p. 87). Smit (2012) framed deficit thinking in higher education context as the thinking model that attributes students' difficulty to the lack of "academic and cultural resources necessary to succeed in what is presumed to be a fair and open society" (p. 370). Under deficit thinking, differences from the mainstream norms are characterized as negative and disadvantaged (Sharma, 2018), and the failure of students in higher education is attributed to students' "internal shortcoming, such as cognitive or motivational, or some external weakness, such as cultural or familial background" (Smit, 2012). These "deficient" groups of students are characterized as non-

traditional students with less readiness for college in an inferior or disadvantaged position (Smit, 2012). In most of the literature, this non-traditional group of students was referred to as the students of color, students from low socioeconomic status families, immigrant students, and students with disabilities. However, a paucity of literature discussed deficit thinking toward international students. In the view of deficit thinking, international students' cultural and language differences are often perceived as a deficiency (Kettle, 2017). However, international students' prior successful academic and cultural experiences in their home countries and efforts to adjust and transition to a foreign host country with different languages and cultures are often ignored in the deficit thinking (Ryan & Carroll, 2005), and universities' structural, policy, curricular and pedagogical issues are also minimized (Smit, 2012). As a result, the deficit thinking perpetuates stereotypes on international students, such as "plagiarizers or rote learners, speaking broken English and having awkward ways of participating in class" (Ryan & Carroll, 2005, p. 17), and marginalizes and disadvantages international students from the traditional students in the class (Smit, 2012; Martin et al., 2018). In addition, it reinforces superiority in the host culture and inferior feelings toward home culture, as well as imposes host culture values and norms on international students with different cultural backgrounds and values (Loorparg et al., 2006). Under this mindset, international students' acculturation becomes one-way assimilation to adapt or even give up their own home cultural heritage or identity (Berstein, 1996).

Specifically, regarding Chinese international students, the literature revealed that universities in the Western culture often perceived Chinese international students as

passive or rote learners with English deficiency as well as less class engagement and social interaction (Huang, 2012; Ryan & Carroll, 2005). Faculty in many universities in the U.S. associated Chinese international students' English deficiency and inactive class participation as well as social interaction with their own culture with a perception that Chinese international students tend to connect with their peers in their own culture with less motivation to acculturate to the host culture (Jenkins, 2000). Thus, under this mindset, Chinese international students are often expected to be assimilated into new cultures, comply with the U.S. social norms, obtain western academic skills, and act like domestic students (Lee et al., 2018). Meanwhile, the connectedness to home culture becomes a negative action or a signal of less motivation or interest to engage and interact in the host culture (Heng, 2018). Although many Chinese international students are perceived as competent learners in their home cultural context, inevitably, the deficit thinking mindset in a Eurocentric curriculum attributes to difficulties and challenges in Chinese international students' sociocultural and psychological adaptations to the host culture (Ryan & Hellmundt, 2005). This deficit thinking was also revealed in the historical evolvement of the literature on international students.

Deficit Thinking-Oriented Intercultural Learning throughout Historical Evolvement of International Students' Intercultural Learning in Literature

As mentioned in Chapter 1 of this research, previous studies categorized the literature on teaching and learning strategies for international students at universities in the U.K. and Australia throughout the research in the past over a decade into three phases (Kettle, 2017; Ryan, 2011). The focus of the literature on teaching and learning strategies

for international students by universities has been evolving to respond to the increasing number of international students in each phase. However, the first two phases of the literature were centered on the concept of fixing solutions with a deficit thinking mindset to “fix” students to adapt to the host socio-culture and norms.

The first phase was from the early to the late 1990s (Ryan, 2011). In this phase, universities carried the deficit thinking to “fix” international students, because they often viewed international students’ culture and language differences as a deficiency in adapting to the academic and social culture and skills in the host culture (Ryan, 2011). As a result, the remedial programs before the academic programs were developed in many universities focusing on helping international students to improve their academic English and Western academic skills, such as English Language Institute or English for academic programs (Ryan, 2011). Therefore, the literature focused on international students’ problems and challenges, such as English language issues (Ballard & Clanchy, 1991), and students’ adaptive strategies to the host culture (Volet & Renshaw, 1995). One example is that one case study in an Australian university showed that three out of the top five concerns from faculty about international students were related to their language proficiency (Robertson et al., 2000). These three concerns were difficulty in understanding the lecture, challenges in participating in class discussion, and low performance in English writing tasks (Robertson et al., 2000). These concerns and difficulties were primarily attributed to international students’ issues but rarely reflected the external factors, such as contextual and pedagogical factors.

The second phase lasted from around the year 2000 to recent years (Ryan, 2011). In this phase, many universities recognized the cultural differences and called for changes in teaching to accommodate international students' needs (Ryan, 2011). This accommodation was not about substantive changes in pedagogy or policy, but more about being explicit on current rules, policies, and norms in the host culture for international students to understand and adhere to the rules and norms in class (Kettle, 2017; Ryan & Carroll, 2005). The essence of this phase still reflects the deficit thinking mindset, expecting international students to adapt to the standards in the host culture. The consequences of this accommodation often led to the binary and opposite relationships between international students and domestic students, West and East in class, which creates an imbalanced power between students and perpetuates the superiority of domestic students and inferiority of international students, resulting in stereotyping and discrimination issues (Kettle, 2017). Thus, in this phase, the connectedness to international students' home culture and connectedness to host culture were viewed as conflicting from the deficit thinking lens, viewing intercultural learning as one-way learning instead of reciprocal learning.

One example of the literature in this phase is Doherty and Singh's (2003) study on international students in Australia. Doherty and Singh (2003) used the concept of "otherness" out of the postcolonial theory to investigate the Western knowledge presented and delivered to international students. The researchers concluded that the Australian universities' academic program presented knowledge in clear culture boundary between the West and the East and created a stark contrast between us and them and the

West and the East as oppositions for many Asian international students (Doherty & Singh, 2003). In Bretag's (2007) study, the interviewed faculty believed that international students' low English proficiency was one of the reasons leading to plagiarism, and lowering academic standards to accommodate their language needs was considered to affect academic integrity and fairness to the students in the host culture. These issues reported in this literature clearly illustrated the deficit-thinking mindset even though the faculty who were trying to accommodate international students' needs in class, likely resulting in the stereotyping and discrimination issues by putting "us" and "them" in the opposite binary continuum.

Currently, the literature is transitioning to the third phase of teaching and learning for international students, with the trending focus on the internationalization of the curriculum and global learning for both international students and domestic students (Robson, 2011; Ryan, 2011). Huisman (2010) frames global learning for all as the cultural dynamics of teaching and learning, in which international students are perceived as positive culture flow and an integral part of the learning environment. This concept of the cultural dynamic of teaching and learning could serve a pivoting phase from the adaption-as-problem approach, focusing on one-way intercultural learning with fixing "deficiency" mindset, to the adaptation-as-growth approach, enabling two-way of learning by recognizing international students' home cultures as the valuable assets for their intercultural learning (Yosso, 2005).

This approach has been under-studied and has not been implemented by many universities in the U.S. Universities have typically responded to these international

students' challenges by providing a series of support services for international students, such as pre and arrival orientation and cultural activities (Ryan & Carroll, 2005).

However, these services are still considered the adaptation-as-problem approach to “fix” international students' deficiencies and issues at the cognitive and skill levels to adapt to the host culture and norms. This emphasis on cognitive and skill levels without considering affective level, especially psychological adjustment, might not “fix” the impaired self-confidence caused by stereotypes and neo-discrimination.

By contrast, the adaptation-as-growth approach, viewing international students' home cultures as valuable assets and resources to foster their intercultural confidence and activate intercultural connectivity and cohesion (De Vita, 2005), has been rarely studied and hardly implemented in practice. Therefore, to support Chinese international students' intercultural learning from a positive growth-minded perspective and approach, it is crucial to learn about the role of home culture connectedness in helping Chinese international students' psychological adaptation and sociocultural adaptation in their acculturation process while studying at the universities in the U.S. In addition, as the functional model of international friendship patterns suggested in the preceding literature, international students' personal connectedness to home culture and host culture groups have separate functions and roles in their intercultural learning process (Bochner, 1982). Particularly, connectedness to home cultural group serves a protective role for international students' “psychological security, self-esteem, and a sense of belonging” (Church, 1982, p. 552). Therefore, there is a need to study how this protective role of home culture connectedness impacts Chinese international students' psychological

adaptation and sociocultural adaptation in their acculturation process. The specific role of home culture connectedness in the acculturation process will be explored in the theoretical framework of acculturation theory and the relevant empirical studies in the following sections with the aim to further postulate the specific hypotheses on the role of the home culture connectedness in the acculturation process.

Negative Societal Attitude toward China and Chinese International Students

Furthermore, this deficit-thinking mindset toward Chinese international students, as described in the preceding section, can be also possibly strengthened by the substantively negative shift of societal attitude toward China and Chinese international students. Since President Trump's administration took office in 2017, the shift in the approaches to the U.S.-China relationship to more contentious rhetoric and strategy including tariff and trade war, along with the impact of the pandemic, the negative view of China by Americans has been growing (Pew Research Center, 2020). According to a survey of U.S. adults conducted by Pew Research Center in March 2020, there were about two-thirds of Americans holding a negative view of China, which is the most negative rating since 2005 and a nearly 20% increase since President Trump's administration took office (Pew Research Center, 2020). This growth of negative view of China continues in 2021. Pew Research Center conducted another survey of U.S. adults in February 2021, and the finding indicated that 89% of Americans considered China as an enemy of the U.S. (Pew Research Center, 2021). This survey result aligns with the finding of Gallup's poll conducted in February 2021, which indicated that about 45% of

Americans view China as the greatest enemy of the U.S. and the percentage of Americans holding a favorable view of China falls to a historically low 20% (Gallup, 2021).

In addition, this negative view of China also reaches Chinese scholars and students at American universities. The study by Pew Research Center (2021) indicated that 80% of Americans welcome international students in general, however, 55% of Americans supported the idea of limiting the number of Chinese international students studying in the U.S., including 20% of Americans indicating “strong support” this idea. This survey result was reflected in the news reported by NPR (Feng, 2019), in which the U.S. intelligence agencies encouraged American universities to develop procedures to monitor Chinese students and scholars (Feng, 2019). This negative societal attitude toward China, along with a rise of hate crimes against Asians in the U.S., and the negative media coverage on the association of COVID-19 with China led to public fear and alienation of Chinese international students studying in the U.S., resulting in a negative impact on the well-being of Chinese international students (McGregor, 2021).

These consequences of a negative societal attitude toward Chinese international students on their well-being were revealed in news reports and interviews. There is a paucity of empirical studies on the impact of societal attitude on Chinese international students’ acculturation. Therefore, how the current negative societal attitude toward China and Chinese international students in the U.S. impacts Chinese international students’ acculturation, especially on the relationships between home culture connectedness, host culture connectedness, psychological adaptation, and sociocultural adaptation became a timely question to be explored in this study, as well.

Theoretical Framework – Acculturation Theory

The term – acculturation was first introduced more than a century ago by Powell (1883), which was referred to as psychological changes from intercultural contacts. However, acculturation was equated to assimilation from a sociological perspective (Simons, 1901). Thus, acculturation and assimilation were used synonymously in various fields. Anthropologists used acculturation and assimilation to describe the process of a primitive society or culture changing or assimilating to a more civilized culture (Sam, 2006). Sociologists used acculturation or assimilation to describe the process of immigrants assimilating their life into the host culture (Sam, 2006), which still influences the perspectives on today's international students' acculturating experiences. In 2004, the concept of acculturation was defined by the International Organization for Migration (IOM) as a process of adopting the host cultural elements, including the values, standards, norms, behaviors, and words.

In contrast to this one-way acculturation, Redfield et al. (1936) proposed a more formal definition of acculturation that reflects a reciprocal change in both host and home cultural groups. In this definition, acculturation was referred to as “those phenomena which result 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 et al., 1936, p. 149). This definition is considered the classical definition of acculturation, which has been cited most in acculturation research (Sam, 2006). In Redfield and colleagues' definition, the changes were described as cultural and behavioral changes. The psychological aspect in acculturation was first mentioned by

psychologist G. Stanley Hall (Hall, 1904) and it was further developed and defined by Graves (1967) as psychological acculturation to emphasize the psychological changes resulting from intercultural contacts. Berry (2005) took a further step and included both cultural and psychological changes in her acculturation theory, which reflects a reciprocal acculturating process between home culture and host culture, as well as psychological adaptation and sociocultural adaptation as the outcomes of acculturation. In the present study, Berry's acculturation theory will be used as the theoretical framework and the details of this model will be further explained in the following section.

Berry's Acculturation Model

In Berry's acculturation model, the role of both host culture connectedness and home culture connectedness in psychological and sociocultural adaptations are revealed. Acculturation is defined by Berry (2005) as a "dual process of cultural and psychological change that takes place as a result of contact between two or more cultural groups and their individual members" (p. 698). In the framework, the interaction between an individual's home culture and host culture results in dynamic cultural changes for both the sojourner group and the host group; meanwhile, it brings individual internal psychological changes during the adaptation process into a new culture and environment (Berry, 2005; Ryder et al., 2000). These cultural changes and psychological changes lead to sociocultural adaptation and psychological adaptation over time (Berry, 2005). Thus, to briefly summarize Berry's acculturation model, an individual's acculturation process involves acculturation experience via intercultural contact, in which the individual will

experience acculturation difficulties and stressors that lead to stress, ultimately impacting psychological and sociocultural adaptations (Berry & Sam, 1996).

Psychological Adaptations and Sociocultural Adaptations

The psychological and sociocultural adaptations are construed as the long-term outcomes of acculturation, which are often manifested in individual's confidence and competence in their daily intercultural interaction (Berry, 2005). Psychological adaptation is referred to as feelings of well-being or satisfaction during cross-cultural transitions (Searle & Ward, 1990). Sociocultural adaptation is defined as the ability to "fit in" or initiate effective interactions in a new cultural environment (Searle & Ward, 1990). Berry's acculturation model reveals a bidimensional perspective on acculturation experiences resulting in psychological and sociocultural adaptations. Namely, during intercultural contacts, changes for the home culture and the host culture can occur independently, meaning the home culture can be maintained or lost, while the host culture can be either rejected or adopted (Sam, 2006). The extent of psychological adaptation and sociocultural adaptations are varied with the various combination of changes in home culture connectedness and host culture connectedness (Sam, 2006). This is framed in acculturation strategies and will be explained in the next section.

Acculturation Strategies

In the process of engaging in acculturation, Berry (2005) proposed four acculturation strategies based on an individual's attitude and orientation to maintain home culture or connect with host culture. In the empirical literature, the two dimensions of acculturation strategy/orientation have been labeled with various terms: home culture

connectedness – host culture connectedness (Gibbs et al., 2020); adherence to home culture – adherence to host culture (Zhang & Goodson, 2011); identification with home heritage – identification with host culture (Cao et al., 2017; Ryder et al., 2000; Wei et al., 2012); identification of co-national – identification of host national (Ward & Kennedy, 1994); and home culture orientation-host culture orientation (Sam, 2006). In the present study, home culture connectedness and host culture connectedness will be used to describe the two dimensions of acculturation strategy – maintaining home culture and connecting with host culture. The four acculturation strategies include integration, assimilation, separation, and marginalization (Berry, 2005). Integration occurred when individuals maintained their home culture and identity, as well as actively participated in the host culture (Berry, 1997). Assimilation occurred when individuals did not value and maintain their heritage, home culture, and identity but actively interacted with the host culture (Berry, 1997). When individuals were inclined to value and maintain their heritage culture and to avoid contact with the host culture, separation emerged (Berry, 1997). Marginalization was a result of little interest in maintaining home culture and contacting with host culture (Berry, 1997). During the acculturation process, Berry (2006) proposed a theory of acculturation strategies/orientations as one of the moderators. Specifically, psychological adaptation and sociocultural adaptation are a function of an individual's acculturation strategies (Berry, 2005). Namely, various levels of combining home culture connectedness and host culture connectedness lead to different extents of psychological adaptation and sociocultural adaptation. This theoretically implied

interaction of connecting with home culture and contacting with host culture is also studied in the empirical literature.

Societal Attitude

In addition, in Berry's (2006) acculturation model, societal attitude is also proposed as a moderator during acculturation. Specifically, the societal attitude is framed with prejudice and discrimination (Berry, 1997). In this vein, the experience of prejudice and discrimination has been reported with a negative effect on an individual's well-being (Halpern, 1993). Thus, in the acculturation framework, the experience of prejudice and discrimination is considered a risk factor (Beiser et al., 1988). Fernando (1993) specifically designated racism as the risk factor for immigrants' mental health.

However, there is a paucity of literature studying the specific role of societal attitude in acculturation. Given the current negative attitude toward China and Chinese international students (Pew Research Center, 2021), Berry's (2006) acculturation model frames societal attitude as perceived societal discrimination as the variable in this study and provides a theoretical framework for this study to explore the role of societal attitude in the acculturation process, especially how it interacts with home culture connectedness, host culture connectedness, psychological adaptation, and sociocultural adaptation. In the following sections, this study will explore the relationships between home culture connectedness, host culture connectedness, psychological adaptation, and sociocultural adaptation in the empirical study, as well as the research gap about the role of societal attitude in acculturation. This empirical rationale will help to specifically frame the research purpose and research questions.

Empirical Rationale

In empirical studies, the interaction effect of home culture connectedness and host culture connectedness was studied by two major ways of measuring acculturation strategies. One way is to measure the four acculturation strategies directly by a four-cluster of acculturation strategies ranking approach (Demes & Geeraert, 2014; Ryder et al., 2000). The other category is a bi-dimensional approach measuring home culture connectedness and host culture connectedness independently (Demes & Geeraert, 2014; Ryder et al., 2000). Previous studies under both approaches consistently indicated an interaction effect between home culture connectedness and host culture connectedness, meaning that psychological and sociocultural adaptations vary with different levels of combinations between home culture connectedness and host culture connectedness.

Under the Four-cluster of Acculturation Strategies Ranking Approach

The acculturation strategies in Berry and colleagues' (2006) study were measured under the four-cluster of acculturation strategies ranking approach. Studying the relationship between youth immigrants' acculturation strategies and adaptations, Berry et al. (2006) concluded that integration is associated with the highest level of psychological and sociocultural adaptations and marginalization is associated with the lowest level of both adaptations. The study surveyed 7,997 adolescents, including 5,366 youth immigrants from 26 different cultural backgrounds residing in Australia, Canada, Israel, New Zealand, and the US and 2,632 national youth in these countries (Berry et al., 2006). The four categories of acculturation strategies- integration, separation, assimilation, and marginalization were assessed by cluster analysis which groups individuals into the four

acculturation strategy categories based on the pattern similarity of the variables in the acculturation process (Berry et al., 2006). The variables used to assess acculturation strategies include acculturation attitude, ethnic identity, language proficiency, ethnic and national peer contact, and family relationship values (Berry et al., 2006), which reflects the two dimensions of acculturation strategies – home culture connectedness and host culture connectedness. These variables were measured by separate instruments (Berry et al., 2006). In addition, the psychological adaptation was measured by three scales: life satisfaction, self-esteem, and psychological problems (Berry et al., 2006). The sociocultural adaptation was assessed by scales for school adjustment and behavior problems (Berry et al., 2006). These scales were validated by a principal component analysis to load onto two factors -psychological adaptation and sociocultural adaptation (Berry et al., 2006).

Two statistical approaches were used – comparing the mean of psychological and sociocultural adaptations in four acculturation categories and a structural equation analysis (Berry et al., 2006). The results from both statistical approaches revealed that the integration with a high level of home culture connectedness and host culture connectedness was associated with the highest level of psychological adaptation and sociocultural adaptation (Berry et al., 2006). Marginalization was associated with the lowest level of both adaptations (Berry et al., 2006). Although separation and assimilation were associated with an intermediate level of both adaptations compared with integration and marginalization, separation was associated with positive

psychological adaptation, and assimilation was associated with positive sociocultural adaptation (Berry et al., 2006).

Meanwhile, a latent variable – ethnic contact, reflecting the nature of connecting home culture, was created in the structural equation analysis (Berry et al., 2006). The result also indicated that ethnic contact is significantly and positively related to psychological adaptation but did not have a significant relationship with sociocultural adaptation (Berry et al., 2006). This result also implies the protective role of home culture connectedness in the acculturation process.

Similar findings on the relationship between acculturation strategies and adaptations were found in Sam's (1994) research. Sam (1994) surveyed 568 young immigrants aged from 10 to 17 years old from 25 different countries to examine the relationship between young immigrants' psychological adjustment and their acculturation attitude orientations. The four acculturation strategies were measured by the acculturation attitude scale with 10 items on a three-point Likert scale developed based on Berry's acculturation strategy model (Sam, 1994). The psychological adjustment was measured by global negative self-evaluation which was developed from Rosenberg's self-esteem instrument (Rosenberg, 1965), depressive tendencies, anti-social behavior scale, as well as psychological and somatic symptoms (Sam, 1994). The finding revealed that both acculturation strategies - integration and marginalization had a significant relationship with psychological adjustment (Sam, 1994). In addition, integration and marginalization showed a consistent opposition relationship with each psychological measure (Sam, 1994). Specifically, the young immigrants with the integration strategy reported less

global negative self-evaluation, less depressive tendencies, fewer somatic and psychological symptoms, healthier and happier than those holding the marginalization strategy (Sam, 1994).

These studies provided empirical support for the theoretical proposition that psychological adaptation and sociocultural adaptation are varied with acculturation strategies, which are various combinations of different levels of home culture connectedness and host culture connectedness. This implies an interaction effect of home culture connectedness and host culture connectedness on psychological and sociocultural adaptations. This implication can be better explained in the studies with the bi-dimensional approach to assessing acculturation strategies.

Under the Bi-dimensional Approach

Under the bi-dimensional approach, home cultural connectedness and host culture connectedness are measured and assessed independently. Under this approach, a key empirical study in the field of acculturation conducted by Ward and Kennedy (1994) contributed to a further understanding of acculturation strategy, psychological adaptation, and sociocultural adaptation. The two dimensions of acculturation strategy – contacting with host culture and maintaining home culture were framed as host national identification and co-national identification in this study (Ward & Kennedy, 1994). The study was conducted to examine host national identification and co-national identification in relation to psychological and sociocultural adaptation during the cross-cultural transition by surveying 98 New Zealand citizens who were working for a large international organization based in New Zealand and were assigned to work in other

countries (Ward & Kennedy, 1994). In this study, a bi-dimensional measurement - Acculturation Index was used to measure host-national identification and co-national identification separately and then a median split analysis method was used to categorize the four acculturation strategies, in contrast with a four-cluster measurement ranking individuals' preference of integration, separation, assimilation, and marginalization (Ward & Kennedy, 1994).

Based on a 2*2 ANOVA analysis, the finding revealed two significant main effects: co-national identification has a significant main effect on psychological adjustments, and host national identification has a significant main effect on sociocultural adjustment (Ward & Kennedy, 1994). Meanwhile, interaction effects on psychological and sociocultural adjustments were also revealed. For psychological adaptation, participants in the integrated strategy group with high co-national and high host national identifications experienced significantly less psychological adjustments than participants in the assimilation strategy group with low co-national and high host national identifications (Ward & Kennedy, 1994). For sociocultural adaptation, participants in the separation strategy group with high co-national and low host national identities experienced the greatest sociocultural adjustment difficulties; marginalization group with low co-national and low host national experienced an intermediate amount of sociocultural adjustment difficulties; and integration and assimilation groups experienced the least sociocultural adjustment difficulties (Ward & Kennedy, 1994).

Although empirical studies under both approaches indicated the interaction effect of home culture connectedness and host culture connectedness on psychological and

sociocultural adaptations, they did not specify how home culture connectedness and host culture connectedness interplay with each other. Several studies also stressed the need to further explore the interplay between host majority culture and the immigrants' home culture (Berry, 1997; Kim, 1999). The empirical studies have primarily focused on the host culture connectedness and emphasized its influence in the process of acculturation. As suggested by Church (1982), the center for international students' adjustment in host culture is the connection and contact with the hosts. It emphasized that international students with a high level of connectedness with the host culture were more likely to have better adjustment (Church, 1982). In addition, Hendrickson and colleagues' (2011) study indicated that international students with a high level of contact with host individuals were associated with a high level of satisfaction and a lower level of homesickness and social stress.

These studies have primarily focused on the role of host culture connectedness. Although the role of home culture connectedness was rarely explicitly mentioned, it was also implied in these studies. The implied role of home culture connectedness can help to further frame the purpose of the present study and specify the research questions on exploring the role of home culture connectedness in psychological adaptation and sociocultural adaptation. In the following sections, the implied role of home culture connectedness in the relationship of host culture connectedness with psychological adaptation and sociocultural adaptation, which are considered the central relationships for international students' adjustment, were explained in the empirical studies.

An Inconsistent Relationship between Host Culture Connectedness and Psychological Adaptation

The empirical studies have shown an inconsistent relationship between host culture connectedness and psychological adaptation. Searle and Ward's (1990) study on adaptations revealed a predictive model of psychological adaptation, in which satisfaction with host nationals' connectedness was one of the significant predictors for psychological adaptations. Zhang and Goodson's study on specific Chinese international students studying in the U.S. indicated that adherence to host culture was negatively associated with Chinese international students' depression, which was identified as an indicator of psychological adaptation. However, Ward and Kennedy (1994) claimed that identification with host nationals, a variable used to measure host culture connectedness as one dimension in the acculturation strategy model, did not have a significant effect on psychological adaptation. Whereas identification with co-national, a variable used to measure home culture connectedness as one dimension of acculturation strategy, had a significant and positive effect on psychological adaptation (Ward & Kennedy, 1994). In addition, a significant interaction effect between home national identification and host national identification on psychological adaptation emerged (Ward & Kennedy, 1994).

This interaction effect helps to explain the inconsistent relationship between host culture connectedness and psychological adaptation, which means a moderator could impact this relationship. Given the interaction effect of connecting with home culture and contacting with host culture on psychological adaptation as well as the theoretically supported protective role of home culture connectedness, it leads to the hypothesis that

home culture connectedness can moderate the relationship between host culture connectedness and psychological adaptation.

A Consistent Relationship between Host Culture Connectedness and Sociocultural Adaptation and a Protective Role of Home Culture Connectedness

The literature has revealed a consistent relationship between host culture connectedness and sociocultural adaptation as well as a protective role of home culture connectedness in acculturation. In one study on the relationships between Asian international students' contact with host nationals, own ethnic identity, cross-cultural self-efficacy, and sociocultural adaptation, Li and Gasser (2005) surveyed 117 Asian international students from two Midwestern universities in the U.S. The findings of this study indicated that social interaction with host culture was positively associated with Asian international students' sociocultural adaptation (Li & Gasser, 2005).

This finding was also supported by the study conducted by Gibbs et al. (2020), which studied the predictive model of international students' adaptation. Based on Searle and Ward's adaptation theory, Gibbs et al. (2020) identified the key variables as the predictors for the adaptations, including the need for cognitive closure measured by ambiguity tolerance, local language, and English proficiency, social ties with co-national, with host nationals, and with internationals, as well as cultural distance. Gibbs et al. (2020) surveyed 161 international students at a large public university in Ankara, Turkey. The international participants were from about 40 different countries, among which Iran (16.3%), Azerbaijan (14.2%), Turkmenistan (7.1%), Mongolia (6.4%), and Indonesia (5.6%) were the top countries where students came from. In the study, psychological

adaptation was measured by the mental health inventory, which was developed to assess psychological distress and wellbeing (Gibbs et al., 2020). Sociocultural adaptation was measured by the sociocultural adaptation scale developed by Ward and Kennedy (Gibbs et al., 2020). Social ties were measured by an assessment developed by Kashima and Loh (2006), in which participants were asked to list up to 14 friends in the local context with two requests for information – name initials and country of origin (Gibbs et al., 2020). Then the number of friends representing each of the three social ties was counted (Gibbs et al., 2020). This study carried out a structural equation modeling analysis (Gibbs et al., 2020). In this model, connection with host nationals was a significant and a stronger predictor for sociocultural adaptation (Gibbs et al., 2020). This association between host culture connectedness and sociocultural adaptation was also revealed in Ward and Kennedy's (1994) study as mentioned in the preceding section, which indicated that a significant main effect of identification with host nationals on sociocultural adaptation.

Although host culture connectedness has a consistent significant relationship with sociocultural adaptation, which indicates the importance of connecting with host nationals and culture in students' sociocultural adaptation, in reality, Chinese international students frequently reported difficulties in social interaction with local peers in the host culture and other international students. In Cao and associates' (2017) study on 183 Chinese international students studying in Belgium, the findings showed that all three social ties – connection with co-nationals, host nationals, and internationals were present in Chinese international students' social interaction. However, their co-national ties were in the primary position, international ties were in the secondary position, and

host-national ties were in the last position (Cao et al., 2017). Host-national ties, international ties, co-national ties, local language proficiency, and prior adaptation experiences were discriminative factors to distinguish Chinese international students' acculturation strategies (Cao et al., 2017). Specifically, students following an integration strategy tended to develop stronger co-national ties than those adopting assimilation or marginalization strategies (Cao et al., 2017).

Moreover, Cao and colleagues (2018) conducted a qualitative study to further explore the role of home culture connectedness in dealing with Chinese international students' academic stressors. The authors conducted semi-structured interviews with 18 Chinese international students who were full-time students in three Belgian universities (Cao et al., 2018). The findings revealed that co-national peers were the primary source of social support for Chinese international students (Cao et al., 2018). In addition, Chinese international students' home culture connectedness, instead of the host academic culture context, strongly impacted Chinese international students' behaviors in class and ways of dealing with stress (Cao et al., 2018). Thus, these studies demonstrated the primary presence of home culture connectedness and the implied protective role in the process of Chinese international students' intercultural contacts, although they frequently reported difficulties in connecting with host nationals.

This leads to a question as to how this protective role of home culture connectedness can play in the consistently significant relationship between host culture connectedness and sociocultural adaptation. In Ward and Kennedy's (1994) study, the findings not only revealed the significant effect of identification with host nationals on

sociocultural adaptation, but also claimed an interaction effect between connection with host national identification and connection with co-national identification on sociocultural adaptation. Therefore, this illustrates that home culture connectedness and host culture connectedness can interplay to impact sociocultural adaptation. Connecting this interaction effect between home culture connectedness and host culture connectedness, the consistently significant relationship between host culture connectedness and sociocultural adaptation, and the protective role of home culture connectedness, leads to the hypothesis that home culture connectedness can moderate the relationship between host culture connectedness and sociocultural adaptation. Specifically, when students with a high level of home culture connectedness, there would be a stronger relationship between host culture connectedness and sociocultural adaptation. These hypotheses in the moderating mechanism of home culture connectedness in psychological and sociocultural adaptations further framed the purpose of the present study and the research questions.

Moderating Mechanism in Acculturation

The literature supported the postulated hypothesis: home culture connectedness moderates the relationship of host culture connectedness with Chinese international students' psychological adaptation as well as sociocultural adaptation, which frames the moderating mechanism of home culture connectedness in Chinese international students' acculturation. Although this moderating mechanism has not been studied directly, it was implicitly reflected in Spencer-Oatey and Xiong's (2006) study and other empirical studies on the moderating effect of host culture connectedness. Spencer-Oatey and Xiong

(2006) took a mixed method to explore the psychological and sociocultural adaptations of two cohorts of Chinese international students studying at a British university. Spencer-Oatey and Xiong (2006) surveyed 126 Chinese international students from two cohorts, who were taking one-year foundation courses together prior to taking degree required courses, to learn about their psychological and sociocultural adaptation by using Zung's (1965) Self Rating Depression Scale and the Sociocultural Adaptation Scale developed by Ward and Kennedy (1999). In addition, a demographic questionnaire was also included to collect information on gender, age, length of residence at the university, previous overseas experiences, the field of study, and general impression of the university (Spencer-Oatey & Xiong, 2006). Then the authors interviewed 20 Chinese international students from the cohorts to further explore their daily life experiences, social interaction with co-national peers, international students and host students, and their academic studies (Spencer-Oatey & Xiong, 2006).

The quantitative data indicated that the majority of Chinese international students in the two cohorts did not have undue psychological stress, but only 7.1% of participants indicated signs of clinical depression (Spencer-Oatey & Xiong, 2006). Similarly, the majority of Chinese international students in the cohorts indicated few difficulties in sociocultural adaptation, in which "65.9% of respondents rated their overall difficulty as slight or minimal, 32.5% rated it as moderate and 1.6% rated it as great" (Spencer-Oatey & Xiong, 2006, p. 43). The interview data also confirmed that the majority of participants from the cohorts had few psychological and sociocultural adjustment difficulties (Spencer-Oatey & Xiong, 2006). However, their social interactions with international

peers and host national students were consistently perceived as problematic with a high level of difficulty (Spencer-Oatey & Xiong, 2006). This finding can also be interpreted that although Chinese international students in the cohort program encountered difficulty in connecting with host national peers, they also had few difficulties in psychological adaptation and sociocultural adaptation (Spencer-Oatey & Xiong, 2006). This study did not discuss the impact of the cohort model. However, the nature of the cohort model, in which Chinese international students studied together for the same courses and in the same classroom in Spencer-Oatey & Xiong's (2006) study, provided the structure to nurture the connectedness to home culture and co-national peers (Barnett et al., 2000). The interview data also revealed that Chinese co-national peers in the cohort provided effective emotional and practical support (Spencer-Oatey & Xiong, 2006), which implies the positive role of home culture connectedness in their psychological and sociocultural adaptations while Chinese international students encountered difficulty in connecting with host culture. However, it requires further study to explore whether this home culture connectedness contributes to the result that Chinese international students had few psychological and sociocultural adjustment difficulties.

Meanwhile, in Wei and colleagues' (2012) study, this protective role of home culture connectedness was revealed in a three-way interaction effect with forbearance coping strategy and acculturative stress on psychological distress. Wei et al. (2012) studied the moderating role of identification with heritage culture along with acculturation stress in the relationship between Chinese international students' forbearance coping strategy and psychological distress. Wei et al. (2012) surveyed 188

Chinese international students studying in a public midwestern university in the U.S. by using a bi-dimensional instrument - Vancouver Index of Acculturation (VIA) developed by Ryder et al. (2000) based on Berry's acculturation model to measure the two dimensions of acculturation strategies. The hierarchy multiple regression was used to analyze survey data (Wei et al., 2012). The results revealed a significant three-way interaction effect of forbearance coping strategy, identification with heritage culture, and acculturation stress on psychological distress (Wei et al., 2012). Specifically, the use of forbearance coping strategy is positively related to psychological distress when Chinese international students have a weaker identification with heritage culture and their acculturative stress is low (Wei et al., 2012). Meanwhile, when Chinese international students have a strong identification with heritage culture, the use of forbearance coping strategy is not significantly associated with psychological distress, no matter whether acculturative stress is high or low (Wei et al., 2012).

These findings also reflected the protective role of home culture orientation or connectedness in the moderating effect, although this is a three-way interaction effect with forbearance and acculturative stress. Specifically, when Chinese international students have a weak connectedness or identification with home heritage, they might lose the protective ground for them to use culturally derived coping strategies, which can result in a higher level of psychological distress. This study can serve as a rationale to further explore the protective function of home culture connectedness or orientation in acculturation strategies and acculturation outcomes – psychological and sociocultural adaptations.

Although there is a paucity of studies on the moderating effect of home culture connectedness on psychological and sociocultural adaptations, the protective role of home culture connectedness was also revealed in Zhang and Goodson's (2011) study about the moderating mechanism of host culture connectedness. Zhang and Goodson (2011) explored the mediating and moderating mechanism of host culture connectedness in Chinese international students' psychological adaptation by surveying 508 Chinese international students studying in four American universities in Texas. Zhang and Goodson (2011) took the bi-dimensional approach to measure two acculturation strategy/orientation dimensions independently by using the Vancouver Index of Acculturation (VIA) developed by Ryder et al. (2000) based on Berry's acculturation model. Specifically, the two dimensions of acculturation strategy were labeled as adherence to home culture and adherence to host culture (Zhang & Goodson, 2011). Meanwhile, Zhang and Goodson measured social interaction with host nationals and social connectedness with host nationals separately and used depression as the indicator for psychological adaptation (Zhang & Goodson, 2011). The hierarchy multiple regression was used for data analysis (Zhang & Goodson, 2011). The major finding of the moderating model revealed that social interaction with Americans moderated the relationship between adherence to home culture and depression (Zhang & Goodson, 2011). Specifically, when Chinese international students have a low level of social connection with Americans, a higher level of adherence to home culture is significantly associated with less depression (Zhang & Goodson, 2011). However, when Chinese

students have a high level of social interaction with Americans, the relationship between adherence to home culture and depression is not significant (Zhang & Goodson, 2011).

Although Zhang and Goodson's (2011) study focused on the moderating role of Chinese international students' host culture connectedness in the relationship between home culture connectedness and psychological adaptation, it provides support for this study in three areas. First, the findings of Zhang and Goodson's (2011) study provide a basic understanding of the relationships between home culture connectedness, host culture connectedness, psychological adaptation, and sociocultural adaptation, which paves the foundation for this study to further investigate the hypothesized moderation of home culture connectedness. Second, Zhang and Goodson's (2011) study provides methodological guidance for this study to test the hypothesized moderating role of home culture connectedness. Third, the finding of Zhang and Goodson's (2011) study on the moderating role of host culture connectedness also reveals the protective role of home culture connectedness on Chinese international students' psychological adaptation, especially when Chinese international students have a low level of social connection with the host culture.

The third point provides an empirical rationale for investigating the hypothesized moderating role of home culture connectedness under the current negative societal attitude toward China and Chinese international students (Pew Research Center, 2021). The negative societal attitude creates a hostile environment for Chinese international students to interact and connect with the host culture, which means the protective role of home culture connectedness becomes significant based on Zhang and Goodson's (2011)

findings. Thus, how this protective role of home culture connectedness moderates the relationships of host culture connectedness with Chinese international students' psychological adaptation and sociocultural adaptation becomes a timely research question, given today's negative societal attitude toward China and Chinese international students (Pew Research Center, 2011). In addition, how societal attitude relates to the variables in the hypothesized moderating model of home culture connectedness was also explored in this study.

Summary

The literature review in this chapter helped build a theoretical and empirical foundation to study the moderating role of home culture connectedness in the relationship of host culture connectedness with Chinese international students' psychological adaptation and sociocultural adaptation. First, the literature review offered a historical overview of Chinese international students' acculturation experiences as a holistic context to identify and understand Chinese international students' challenges and issues in their psychological and sociocultural adaptations. Second, this chapter explored the deficit-thinking-oriented mindset as one primary cause of Chinese international students' adaptation issues through the historical involvement of literature on international students' teaching and learning. It provided historical context for the significance of studying the role of home culture connectedness in Chinese international students' acculturation and adaptations. Third, this chapter further explained the conceptual framework by elaborating on Berry's acculturation as the theoretical framework and related empirical studies to provide theoretical and empirical support and rationale to postulate the

hypothesis for this study. The hypothesis is that: home culture connectedness moderates the relationships between host culture connectedness and both Chinese international students' psychological adaptation and sociocultural adaptation. Meanwhile, the negative shift of societal attitude toward China and Chinese students posed an exploratory question on the role of societal attitudes in the hypothesized mechanism of home culture connectedness in acculturation. To test this moderating model requires a quantitative research method, which was explained in full detail in the next chapter.

Chapter Three

This chapter describes the research methodology used to examine the moderating mechanism of home culture connectedness in Chinese international students' psychological adaptation and sociocultural adaptation while studying in U.S. universities. This chapter presents the methodology used in this study in the following sections: (1) a description of research questions and hypothesis, (2) an overview of research design, (3) setting and study participants, (4) measurements, (5) data collection procedures, (6) data analysis strategies, and (7) summary.

Research Questions and Hypothesis

With the support of theoretical frameworks and empirical studies explained in the literature review, the research questions of this study were logically formed and will be statistically analyzed by testing a hypothesis (H) for each question. Especially Zhang and Goodson's (2011) study on the moderating role of host culture connectedness has provided a basic understanding of the relationships between home culture connectedness, host culture connectedness, psychological adaptation, and sociocultural adaptation for research questions formation. It also provides guidance on the methodology for this study to duplicate Zhang and Goodson's (2011) study to further explore the moderating role of home culture connectedness in the relationships of host culture connectedness with psychological adaptation and sociocultural adaptation. Furthermore, compared with the macro-context in 2011 when Zhang and Goodson conducted their study, today's societal attitude toward China and Chinese international students has become more negative (Pew

Research Center, 2021). The negative societal attitude creates a hostile environment for Chinese international students to interact and connect with the host culture, which means the protective role of home culture connectedness identified in Zhang and Goodson's (2011) study can be more significant in Chinese international students' acculturation. Thus, how this protective role of home culture connectedness moderates the relationships of host culture connectedness with Chinese international students' both psychological adaptation and sociocultural adaptation becomes a timely research question, given today's negative societal attitude toward China and Chinese international students (Pew Research Center, 2021). In addition, how societal attitude as a macro-contextual factor relates to the variables in the hypothesized moderating model of home culture connectedness is also explored in this study.

Therefore, based on the theoretical framework and relevant empirical studies discussed in the literature review chapter, a hypothesized model indicating the moderating role of home culture connectedness in the relationships of host culture connectedness with both psychological and sociocultural adaptations is forged. The purpose of using hypotheses is not to prove a hypothesis but to collect data to support or not support a hypothesis (Gay et al., 2009). The hypothesis is postulated to address the research questions, as follows:

RQ1: Does home culture connectedness moderate the relationship between host culture connectedness and Chinese international students' both psychological adaptation and sociocultural adaptation?

H(1): Home culture connectedness moderates the relationship between host culture connectedness and Chinese international students' both psychological adaptation and sociocultural adaptation.

In addition, based on Pew Research Center's (2021) study, the societal attitude toward China and Chinese international students has been significantly shifted to a negative attitude since 2017. Berry's (2006) acculturation model also suggests a moderating role of societal attitude in the acculturation process. However, the relationships of societal attitude with other variables in the acculturation process have not been tested in empirical studies. Therefore, this study includes an exploratory question on societal attitude to explore its possible relationships with the variables in the hypothesized moderating model of home culture connectedness in Chinese international students' acculturation. Particularly, it is articulated as follows:

RQ2: Explore the moderating role of societal attitude in Chinese international students' acculturation process.

Research Design

This study was carried out in a quantitative research design with the survey method and a correlational study to test the hypotheses. A survey study method is defined as a method used to answer three types of research questions – descriptive questions, questions about relationships between variables, and questions about predictive relationships between variables (Creswell & Creswell, 2018), which aligns with the hypothesis in the current study to explore the relationships between variables. A self-reported comprehensive questionnaire was developed in two parts to survey a group of

Chinese international students studying in U.S. universities. The first part was designed to collect demographic information, including gender, age, previous study abroad history, time length of studying in the U.S., and English proficiency, which were used for the description analysis to understand participants and the context in the present study. In addition, the demographic information facilitated the inferential analysis of the variables by controlling the factors in the demographic survey that might impact psychological and sociocultural adaptations (Bethel et al., 2020; Searle & Ward, 1990). The second part of the comprehensive questionnaire was used to measure variables –home culture connectedness, host culture connectedness, psychological adaptation, sociocultural adaptation, and perceived societal discrimination. This portion of the questionnaire was composed of existing instruments – the Vancouver Index of Acculturation (VIA), the Brief Psychological Adaptation Scale (BPAS), the Sociocultural Adaptation Scale (SCAS), and the revised Perceived Discrimination Scale (PDS). This comprehensive questionnaire was a cross-sectional survey. Namely, it was conducted at one point in time (Creswell & Creswell, 2018) by email distribution with the online link to the comprehensive questionnaire to Chinese international students studying in U.S. colleges. The data were collected by the online questionnaire website system - Qualtrics.

Setting and Participants

The self-reported questionnaires were developed electronically on a survey website and were distributed as a link via emails to reach participants at U.S. universities. The participants of this study were Chinese international students studying in U.S. universities or colleges. Chinese international students in the present study are defined as

students who are at least 18 years old from the People's Republic of China and studying in U.S. universities on an F1 visa. Based on this definition, there were about 370,000 Chinese international students in U.S. universities in the academic year of 2019-2020 (IIE, 2020). The target sample size is 200 Chinese international students. A snowball sampling method was implemented in the process of selecting participants in U.S. colleges and universities. The major reason for using snowball sampling was because Chinese international students were widely located in the U.S. and it was hard to implement a random sampling with the difficulty of obtaining contacts or access to the population. Snowball sampling was considered the alternative sampling to locate the participants by identifying the initial group of participants and asking each participant to identify and invite potential participants without providing the names and contacts to the researcher (Johnson & Christensen, 2017). The specific participant selection process was elaborated on in the procedure section.

Measurement/Instruments

This study's data source was a comprehensive questionnaire composed of two major parts: a demographic questionnaire (Appendix A) and existing instruments used to measure the variables in this study. The demographic questionnaire was used in the current study for two purposes. One was to help form an understanding of the participants to provide the context for the data analysis on variables and help with the generalizability of the sample to the population (Allen, 2017). In this study, the general demographic information, including the age and gender of Chinese international students was collected. In addition, information about Chinese international students' previous

studying abroad experiences, residence length in the U.S. and current institution, and their English proficiency scores, such as oral English and written English, was collected. These factors have been indicated in the literature as the elements that might impact Chinese international students' psychological adaptation and sociocultural adaptation (Wei et al., 2012). Thus, this demographic information served the second purpose of the demographic questionnaire which was to facilitate the inferential analysis of the relationships between home culture connectedness, host culture connectedness, perceived societal discrimination, psychological adaptation, and sociocultural adaptation by controlling these possible confounding factors – previous study abroad history, residence length in the U.S. and English proficiency (Allen, 2017). In the following sections, the instruments used to measure the variables – home culture connectedness, host culture connectedness, perceived societal discrimination, psychological adaptation, and sociocultural adaptation were explained in detail.

Instruments for Home Culture Connectedness and Host Culture Connectedness

The Vancouver Index of Acculturation (VIA) developed by Ryder et al. (2000) based on Berry's acculturation model was used to measure home culture connectedness and host culture connectedness (Appendix B). There were several reasons for selecting VIA to be used for this study. Firstly, it was a bi-dimensional instrument to measure the two dimensions of acculturation strategies independently, which matched Berry's conceptualization of the bi-dimensions of the acculturation strategies model, which responded to the acculturating individual's attitude and behavior toward home culture or host culture independently (Berry, 2005; Ryder et al., 2000). Secondly, VIA was

originally developed with a group of Chinese immigrants living in Western cultures as the sample participants (Ryder et al., 2000) and has been widely used in studies on Chinese international students to measure their home culture and host culture domains in acculturation strategies (Wei et al., 2012; Zhang & Goodson, 2011).

The VIA includes a home culture subscale and a host culture subscale with ten items each to measure the acculturating individuals' tendencies toward home culture and host culture, which are the two dimensions of acculturation strategies - home culture connectedness and host culture connectedness, respectively (Ryder et al., 2000). The items cover the attitude toward cultural values and traditions, as well as behaviors in social interaction in both home and host culture (Ryder et al., 2000). The VIA items are on a nine-point Likert scale from "strongly disagree" to "strongly agree" (Ryder et al., 2000). One sample of paired items is "I often participate in my heritage cultural traditions" and "I often participate in mainstream North American cultural traditions" (Ryder et al., 2000, p. 65). In the present study, the paired items regarding marriage are removed from the scale because this is mainly used for permanent immigrants and does not serve the purpose of surveying the Chinese international students studying in the U.S., who are considered temporary sojourners. The revised VIA survey is included in the appendix.

The reliability of the VIA has been tested in various studies with consistently high internal reliability. In Ryder and colleagues' study on Chinese immigrants in Canada, the internal reliability of the VIA was supported by a high Cronbach's α ranging from 0.85 to 0.92 (Ryder et al., 2000). The studies specific on Chinese international students studying

in the U.S. also indicated high reliability of the VIA with Cronbach's α of .86 for the home culture subscale and .80 for the host subscale (Zhang & Goodson, 2011).

Instrument for Psychological Adaptation

The concept of psychological adaptation used in the present study is defined as feelings of well-being or satisfaction during cross-cultural transitions (Searle & Ward, 1990). This definition can include both positive and negative psychological adaptation. Although many studies only measured the negative aspects of psychological adaptation by using depression or acculturative stress as the indicator for psychological adaptation (Demes & Geeraert, 2014; Searle & Ward, 1990), such as the Zung Self-Rating Depression Scale (Zung, 1965), this study will take into account both the positive and negative feelings and symptoms regarding psychological adaptation. With this consideration, the Brief Psychological Adaptation Scale (BPAS), which was developed by Demes and Geeraert (2014) to assess both positive and negative feelings, satisfaction, and psychological symptoms specifically derived from cultural relocation, was used for this study (Appendix C). The BPAS includes eight items adopted from the existing Cultural Shock Questionnaire (Mumford, 1998) and the 10th edition of the International Statistical Classification of Diseases and Related Health Problems (ICD-10) developed by the World Health Organization (1992). These items are designed to assess both positive and negative feelings related to both home culture and host culture by rating a seven-point Likert scale from 1=never to 7=always (Demes & Geeraert, 2014). Some examples of the items are listed as follows: "Happy with your day-to-day life in the host country" (Demes & Geeraert, 2014, p. 105); "Homesick when you think of home

country” (Demes & Geeraert, 2014, p. 105). The reliability of this instrument meets the internal consistency requirement with Cronbach’s $\alpha > .70$ in 11 different languages, including English and Chinese (Demes & Geeraert, 2014).

Instrument for Sociocultural Adaptation

In the present study, the concept of sociocultural adaptation is defined as the ability to “fit in” or initiate effective interactions in a new cultural environment (Searle & Ward, 1990). Searle and Ward (1990) also suggested that sociocultural adaptation can be “more effectively analyzed within a social learning framework” (p. 458). The social learning framework is composed of the cognition component and the behavior component (Searle & Ward, 1990). Thus, derived from the same definition and theoretical framework, the Sociocultural Adaptation Scale (SCAS) was developed to measure sociocultural adaptation (Ward & Kennedy, 1999). The SCAS (Appendix D) was originally developed to assess intercultural competence with a focus on the behavioral component, and it was expanded to the cognitive component in the recently revised version with 29 items (Ward & Kennedy, 1999). The revised SCAS was designed to assess the understanding of host cultures, norms, and values, as well as the behavior in interacting with people and engaging in activities in the host culture (Ward & Kennedy, 1999). The items are on a five-point Likert scale from (1) no difficulty to (5) extreme difficulty. Some examples of the items are listed as follows: “Rate the difficulty in making going to social events/gatherings/functions”; “Rate the difficulty in getting used to the local food/finding food you enjoy” (Ward & Kennedy, 1999, p. 663)

In addition, Ward and Kennedy (1999) conducted a factor analysis on these items. The results also suggested that the SCAS items are related to two factors – cognition and behavior management in interpersonal interactions and dealing with awkward situations (Ward & Kennedy, 1999), which well reflects the cognition and behavior domains in the theory of sociocultural adaptation. In addition, a high level of reliability of the SCAS was indicated in studies, specifically the ones studying Chinese international students, with a high Cronbach's $\alpha = .85$ (Ward & Kennedy, 1999).

Instrument for Perceived Societal Discrimination

In Berry's acculturation model, societal attitude is framed with prejudice and discrimination (Berry, 1997). Thus, for this study with a sample of Chinese international students studying in the U.S., perceived societal discrimination was used as the variable to be measured by the revised Perceived Discrimination Scale (PDS). The original PDS was developed by Finch et al. (2000) to measure the perceived discrimination among Mexican-origin individuals living in the U.S. on a four-point Likert scale with the internal reliability – a Cronbach's alpha = .77. Lee (2005) revised items in PDS to measure the perceived discrimination among Korean Americans. Lee's revised PDS is also on a four-point Likert Scale with internal reliability of a Cronbach's alpha that ranged from .63 to .67 (Lee, 2005). Based on the original PDS and Lee's revised PDS, a newly revised PDS (Appendix E) was used for this study with the items of Korean-related characteristics replaced with Chinese-related characteristics. The items are on a four-point Likert scale from (1) strongly disagree to (4) strongly agree. The items are listed as follows: "People treat you badly because they think you do not speak English

well; People treat you unfairly because you are Chinese or of Chinese origin, and; You feel unaccepted by others in the U.S. because of your Chinese culture.”

Procedures

The data collection procedures were developed based on snowball sampling for this study. Firstly, I recruited Chinese international students who I knew and still studied in U.S. universities. In addition, I emailed the Consulate General of the People’s Republic of China in Chicago to request help in forwarding my IRB-approved recruiting email to students in Chinese Student and Scholar Associations (CSSA) at many U.S. universities. The online consent form and online questionnaire links were included in the recruiting email. Participants’ responses to the consent form and questionnaires were automatically recorded by the survey website service – Qualtrics. Secondly, each student in the first identified group was also asked to identify and invite other qualified Chinese students to participate in this study by sharing the recruiting email. Then the second step was repeated a couple of times in order to reach the targeted sample size. All participating Chinese international students can complete the survey by filling out the online consent form and the online questionnaires via the link provided in the recruiting email. All the data of questionnaires were collected electronically through the password-protected survey website – Qualtrics without recording any identifier information of the participants.

Data Analysis

In the data analysis section, the IBM SPSS Statistics 28 for Windows software (IBM, 2021) was employed to process data. The data analysis process comprised two

major parts— descriptive analysis and inferential analysis (Creswell & Creswell, 2018). In the descriptive analysis, participants' demographic information, for instance, age, gender, the time length of studying in the U.S, and studying or traveling abroad history, English proficiency, and data for all independent and dependent variables, such as the means, standard deviations, and range of scores, were reported. In the inferential analysis, two multiple regression tests were implemented to test the hypothesis pertaining to the moderating mechanism of Chinese international students' home culture connectedness in the relationship of host culture connectedness with psychological adaptation and sociocultural adaptation and the exploratory question about perceived social discrimination in this hypothesized model (Tabachnick & Fidell, 2019). Before the actual analysis tests, there are pre-analysis steps to be taken to clean and prepare data, check the assumptions of multiple regression and create interaction terms.

Hierarchical Multiple Regression when Psychological Adaptation as the Dependent Variable

The multiple regression models when Chinese international students' psychological adaptation was the dependent variable were to test the hypothesized moderating role of home culture connectedness in the relationship between host culture connectedness and psychological adaptation, as well as to explore the role of perceived social discrimination in this hypothesized model. To test these relationships, there were three steps to run for the hierarchical multiple regression. Step one was to test the demographic variables as control variables. Step two was to test the main effect of home

culture connectedness, host culture connectedness, and perceived social discrimination.

Step three was to test the interaction effect between these predictors.

- Step 1: Enter the dependent variable psychological adaptation and the demographic variables as the dependent variables— age, gender, previous study abroad experience, residence length in the U.S., oral English and written English.
- Step 2: Add centered home culture connectedness, centered host culture connectedness, and centered perceived social discrimination.
- Step 3: Add interaction terms – interaction home culture * host culture, home culture * perceived social discrimination, host culture * perceived social discrimination, and home culture*host culture*perceived social discrimination.
- In step 3, the model can test only the two-way interaction effects after removing the three-way interaction variable if it is not statistically significant.

Hierarchy Multiple Regression when Sociocultural Adaptation as Dependent Variable

The multiple regression models when Chinese international students' sociocultural adaptation was the dependent variable were to test the hypothesized moderating role of home culture connectedness in the relationship between host culture connectedness and sociocultural adaptation, as well as to explore the role of perceived social discrimination in this hypothesized model. Similarly, to test these relationships, there are three steps to run for the hierarchical multiple regression. Step one was to test the demographic variables as control variables. Step two was to test the main effect of

home culture connectedness, host culture connectedness, and perceived social discrimination. Step three was to test the interaction effect between these predictors.

- Step 1: Enter the dependent variable – sociocultural adaptation and the demographic variables as the independent variables – age, gender, previous study abroad experience, residence length in the U.S., oral English and written English.
- Step 2: Add centered home culture connectedness, centered host culture connectedness, and centered perceived social discrimination.
- Step 3: Add interaction terms – interaction home culture * host culture, home culture * perceived social discrimination, host culture * perceived social discrimination, and home culture*host culture*perceived social discrimination.
- In step 3, the model can test only the two-way interaction effects after removing the three-way interaction variable if it is not statistically significant.

For each hierarchical multiple regression, the analysis of the simple slope was conducted to further investigate the statistically significant interaction effects and particularly to explore the moderating role of home culture connectedness and perceived social discrimination in the models. In addition, a descriptive analysis summary table, including participants' demographic information and all variables' descriptive data, as well as multiple regression summary tables were presented and further discussed in the following chapters about data analysis and discussion.

Summary

In summary, this chapter describes a quantitative survey method with the hierarchy multiple regression analysis to test the hypothesis focusing on the moderating effect of home culture connectedness in Chinese international students' psychological adaptation and sociocultural adaptation. In addition, an exploratory study on the possible relationships of perceived societal discrimination with variables in the hypothesized moderating model was also conducted. Findings from this study can contribute to the acculturation theory by specifying the role of home culture connectedness and explaining the role of societal attitude in the acculturation strategies. The implication of this study can provide practical insights for educators and administrators at universities to further understand Chinese international students' acculturation process and improve intercultural learning strategies and policies.

Chapter Four

In response to the need for studying the role of Chinese international students' home culture connectedness in their intercultural learning process, especially under the current negative societal attitude toward China and Chinese international students (Pew Research Center, 2021), the present study aimed to examine the moderating role of Chinese international students' home culture connectedness in the relationships between host culture connectedness and both psychological adaptation and sociocultural adaptation. In addition, the role of perceived societal attitude as a contextual factor in the hypothesized moderating model of home culture connectedness is explored in this study. Thus, the purpose of this research led to a hypothesis of the moderating role of home culture connectedness and one exploratory research question on the role of perceived societal attitude in Chinese international students' acculturation process.

H1: Home culture connectedness moderates the relationship of host culture connectedness with both psychological and sociocultural adaptations.

RQ: Explore the moderating role of societal attitude in Chinese international students' acculturation process.

Data Preparation and Cleaning

To test these hypotheses and explore the research question, a quantitative study with a survey study method was conducted. 206 Chinese international students from 32 universities or colleges across the U.S. completed the survey. Before analyzing the collected data, there was the procedure of preparing measured variables and cleaning

data. The procedure included calculating variables, handling missing data, checking outliers, computing new variables, as well as checking assumptions for running multiple regressions. Each part of the procedure was discussed in the following sections.

Calculating or Coding Variables

Among the demographic data, the variables of gender and previous study abroad experience are dummy variables. Thus, the male in the gender variable was coded as “1” and the other gender category - the female was coded as “0” to reflect the value of the gender variable. In the same vein, students who answered yes to previous study abroad experience were coded as “1” and the ones with the answer “no” were coded as “0” to reflect the value of the previous study abroad experience variable. The variable of residence length in the U.S. was converted into the number of months living in the U.S. The value of other demographic variables – age, oral English, and written English was measured by the value entered by survey participants.

As to the computed variables, home culture connectedness and host culture connectedness were measured by the subscales of the Vancouver Index of Acculturation (VIA) developed by Ryder et al. (2000) based on Berry’s acculturation model. The home culture connectedness subscale included nine items for this study. The average of the scores of these nine items was used as the value of the home culture connectedness variable. The reliability of the home culture connectedness subscale used for the current study was supported by a high level of Cronbach’s Alpha ($\alpha=.86$), indicating a high level of internal consistency. Similarly, the host culture connectedness subscale included nine

items for this study. The average score of the subscale was used as the value of the host culture connectedness variable with a high level of reliability ($\alpha=.83$).

The variable of sociocultural adaptation was measured by the Sociocultural Adaptation Scale (SCAS) including 28 items (Ward & Kennedy, 1999). The value of sociocultural adaptation in this study was computed by averaging SCAS's 28 items with a high level of reliability ($\alpha=.93$). In addition, perceived societal discrimination was used as the variable to reflect the societal attitude, which was measured by the revised Perceived Discrimination Scale (PDS) including three items (Finch et al, 2000; Lee, 2005). The value of perceived social discrimination was computed by averaging these three items with a high level of reliability ($\alpha=.77$) in this study.

As for the variable of psychological adaptation, it was measured by the Brief Psychological Adaptation Scale (BPAS), which was developed by Demes and Geeraert (2014) to assess both positive and negative feelings, satisfaction, and psychological symptoms specifically derived from cultural relocation. Eight items of BPAS were used in this study. Since some items were worded negatively, these items were reverse coded first. The mean of the BPAS was calculated for the value of psychological adaptation with a high level of reliability ($\alpha=.79$). After each variable was calculated, the next steps were to clean the data, including handling missing data and identifying outliers.

Missing Data

In this step, one missing data was identified. The value of the perceived social discrimination variable in case 206 was missing, because of the unanswered survey questions in the perceived social discrimination section by case 206. Based on the

histogram of the perceived social discrimination (Figure 1), it followed a normal distribution. Thus, the mean of the perceived social discrimination variable 2.40 ($N=205$, $SD=.76$) was used for the missing value of case 206.

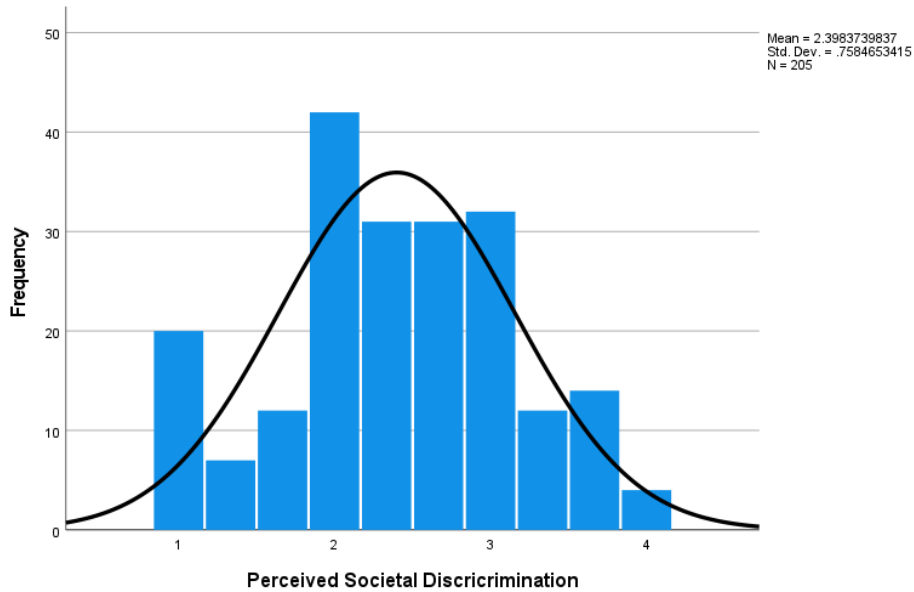


Figure 1.

Histogram of Perceived Social Discrimination

Check Outliers

This step included identifying univariate outliers and checking the multivariate outliers. To identify univariate outliers in SPSS, the z-scores of continuous variables were calculated and compared with the critical range from -3.29 to 3.29. Any z-score out of this critical range would be considered a potential univariate outlier. The results indicate

two potential univariate outliers - case 203 with a z-score of home culture connectedness of -4.67, a z-score of host culture connectedness of -3.99, and a z-score of sociocultural adaptation of -4.03, as well as the case 167 with a z-score of home culture connectedness of -3.76. Further review of the survey data entry of case 203 and case 167 were conducted. In case 203, the data showed that items throughout the Likert-scale measurements were marked with the same extreme scores. The value “1” was entered for all the instruments of home culture connectedness, host culture connectedness, and sociocultural adaptation, which were relevantly extreme values compared with the rest of the sample. The value “5” entered for all items in the psychological adaptation scale, which included both positive and negative items, pointed to conflicting points of view for case 203. Thus, case 203 was considered an outlier. Similarly, in case 167, all items in home culture connectedness were scored the same value “1” and all items in the host culture connectedness scale were marked with the same score “5”, which was relevantly extreme compared with the rest of the sample. Therefore, case 167 was also considered an outlier. Both case 203 and case 167 were deleted from the dataset.

To identify multivariate outliers, Mahalanobis distance was calculated by entering an unrelated variable – the case number as the dependent variable and all other 11 variables used in the models, including age, gender, previous study abroad, residence length in the U.S., oral English, written English, home culture connectedness, host culture connectedness, psychological adaptation, sociocultural adaptation, and perceived social discrimination. The Mahalanobis distance was compared with the critical value of chi-square ($\chi^2(11, N=204) = 31.26, p=.001$). Any case with Mahalanobis distance larger than

31.26 will be suggested as a potential multivariate outlier. Thus, as a result, case 150 with a Mahalanobis distance of 131.08, and case 22 with a Mahalanobis distance of 31.45 can be potentially identified as multivariate outliers. Then a further review of survey data entry of case 150 and case 22 was conducted. The data of case 22 pointed to an integration acculturation profile with a high level of home culture connectedness, host culture connectedness, a high level of English proficiency, and a lengthy residence in the U.S., which aligns well with Berry's (2006) acculturation theory. In addition, the Mahalanobis distance of case 22 is roughly around the critical value of chi-square. Thus, case 22 was not considered an outlier. However, the data of case 150 did not quite make sense and it included a full of extreme values for all the items throughout the survey, such as 99 years old, full score on both TOEFL and IELTS items, and either "5" or "1" for all the items in the Likert-scale measurements. Especially for the psychological adaptation scale with positive and negative items, entering "1" for all these items created conflicting points of view, which did not quite make sense. Thus, case 150 was considered a multivariate outlier and it was removed from the dataset. After removing three outliers, the sample size of 203 Chinese international students was included in the present study.

Creating New Variables

To test moderation, interaction variables need to be created. Before creating interaction variables, independent variables need to be centered in order to reduce the collinearity between the interaction variables and the other independent variables (Tabachnick & Fidell, 2019). Thus, centered home culture connectedness, centered host culture connectedness, and centered perceived social discrimination were created by

subtracting the mean of each independent variable from the corresponding independent variable. In addition, the interaction variables between home culture connectedness and host culture connectedness, home culture connectedness and perceived social discrimination, host culture connectedness and perceived social discrimination, as well as the interaction term of home culture connectedness, host culture connectedness, and perceived social discrimination were computed by multiplying the corresponding centered variables together, which were also used to test a three-way interaction effect to address the exploratory question on the role of perceived social discrimination in the model. With all necessary variables created, the assumptions of running the multiple regression were tested in the following section prior to further data analysis.

Check Assumptions

The assumptions of running a multiple regression analysis include normality, linearity, and homoscedasticity of the data (Tabachnick & Fidell, 2019). The assessment of these three assumptions can be conducted by analysis of residuals, which are the differences between obtained and predicted dependent variable values (Tabachnick & Fidell, 2019). The analysis of residuals was conducted with psychological adaptation and sociocultural adaptation as the dependent variable respectively.

When psychological adaptation was the dependent variable, normality, linearity, and homoscedasticity of residuals were examined by histogram, normal probability plot, and scatter plot of residuals. As the result of the histogram (Figure 2) indicates, the distribution of residuals follows a normal distribution (Tabachnick & Fidell, 2019). The normality of residual is met when psychological adaptation is the dependent variable. The

result of the normal probability plot (Figure 3) shows that the data fit on a straight line, meaning a normal distribution of residuals and a linear relationship between predictors and the dependent variable (Tabachnick & Fidell, 2019). Thus, the assumption of linearity is also met. The assumption of homoscedasticity of residuals was tested by the residual scatterplot. The scatterplot (Figure 4) shows the variance between the standardized residual and the projected residual are evenly scattered above and below the line “0” in the middle in football shape. This indicates that the variance is not a function of the independent variables, and thus, the assumption of the homoscedasticity is met (Tabachnick & Fidell, 2019).

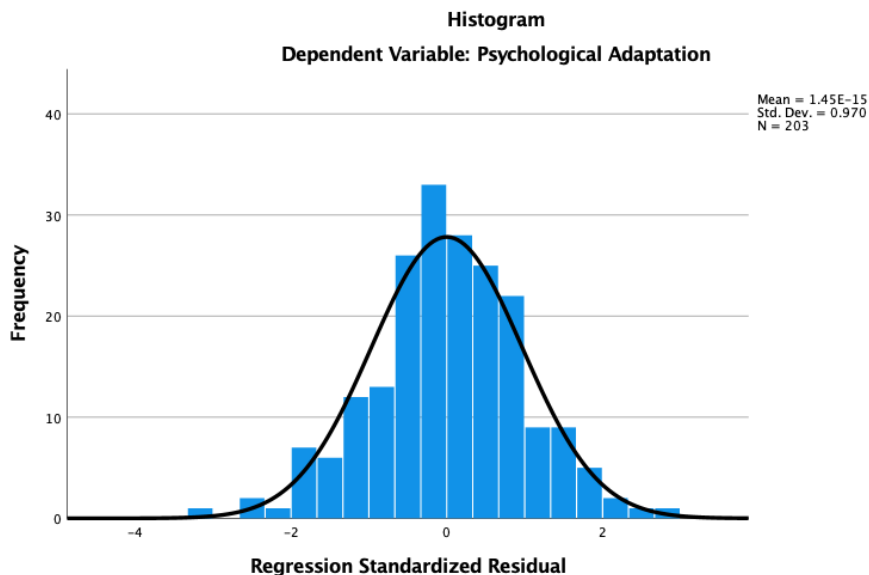


Figure 2.

Histogram of Residual When Psychological Adaptation as Dependent Variable

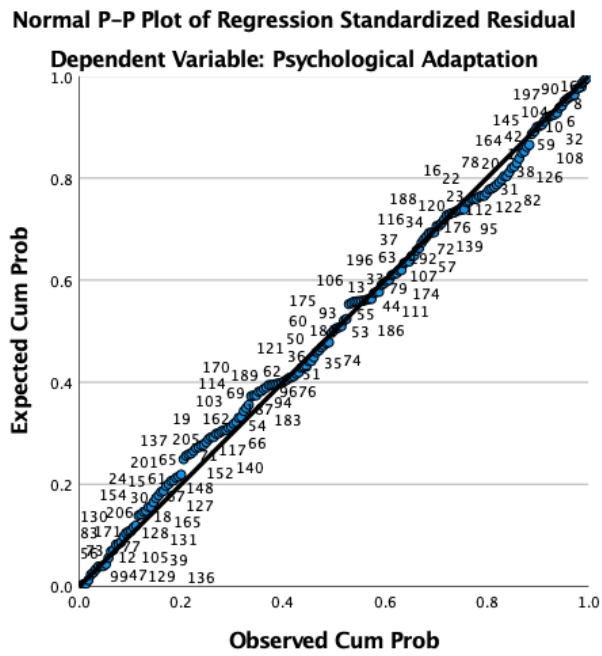


Figure 3.

Normal P-P Plot of Residual When Psychological Adaptation as Dependent Variable

normality, linearity, and homoscedasticity are met. The data analysis was further conducted and the findings were revealed through descriptive analysis and inferential analysis.

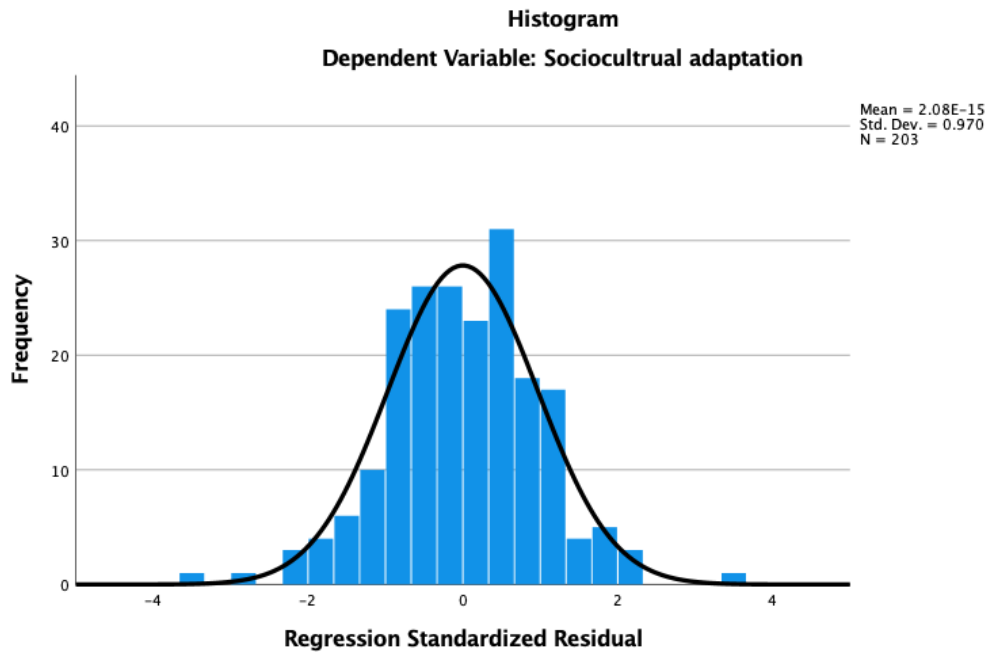


Figure 5.

Histogram of Residual When Sociocultural Adaptation as Dependent Variable

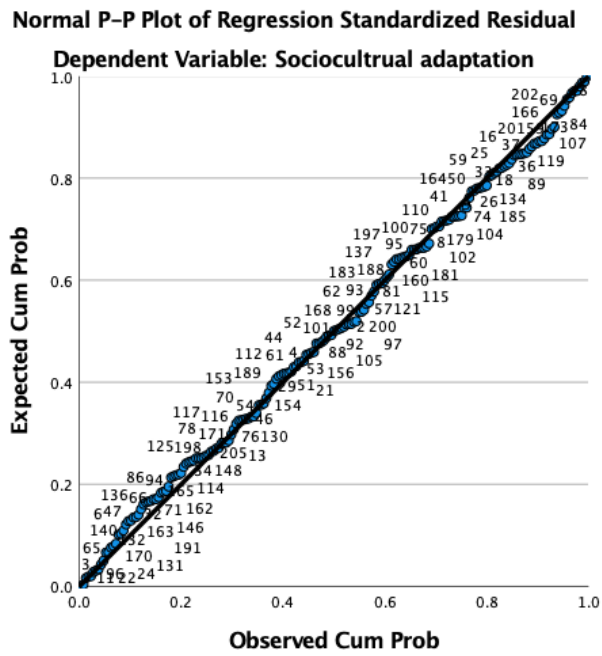


Figure 6.

Normal P-P Plot of Residual When Sociocultural Adaptation as Dependent Variable

Demographics of Survey Participants

Among 203 Chinese international students, as Table 1 shows, 33% ($n=67$) of the survey participants are male students, and 66% ($n=134$) are female students. The mean of survey participants' age is 23.5 ($SD=4.3$) ranging from 18 to 44. The mean of survey participants' residence length in the U.S. is 36.9 months ($SD=33.7$). 44% ($n=90$) of participants had previous study abroad experiences in contrast with 56% ($n=113$) of participants who did not have previous study abroad experiences. Participants' English proficiency was measured by levels of difficulty in oral English and written English, which were evaluated by self-entered five-point Likert scales. For oral English, 3% of participants reported the level as very difficult, 21% difficult, 28% neutral, 29% easy, and 19% very easy (Figure 8). As to written English, 3% of participants reported the level as very difficult, 22% difficult, 36% neutral, 29% easy and 10% very easy (Figure 9). The means of participants' level of difficulty in oral English and written English were 3.4 ($SD=1.1$) and 3.2 ($SD=1.0$), respectively, which means between levels of neutral and easy.

As to the main variables collected through five-point Likert scales, the average score of home culture connectedness is 3.9 ($SD=.6$). The mean of host culture connectedness is 3.3 ($SD=.5$). The average point of perceived social discrimination is 2.4 ($SD=.7$). In addition, the means of psychological adaptation and sociocultural adaptation are 3.2 ($SD=.6$) and 3.5 ($SD=.5$), respectively.

Table 1*Descriptive Statistics for Variables*

Variable	<i>n</i>	<i>M</i>	<i>SD</i>
Gender			
Male	67		
Female	134		
Previous study abroad experience			
Yes	90		
No	113		
Age	203	23.5	4.3
Residence length in the U.S.	203	36.9	33.7
Oral English	203	3.4	1.1
Written English	203	3.2	1.0
Home culture connectedness	203	3.9	.6
Host culture connectedness	203	3.3	.5
Perceived Social Discrimination	203	2.4	.7
Psychological adaptation	203	3.2	.6
Sociocultural adaptation	203	3.5	.5

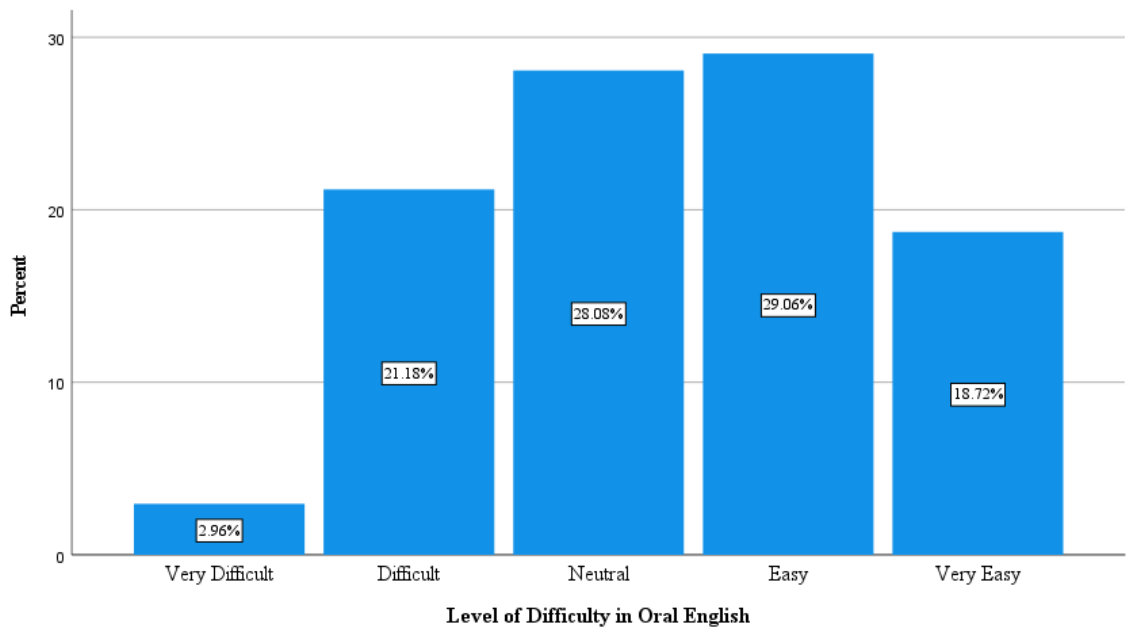


Figure 8.

Bar Char for Level of Difficulty in Oral English

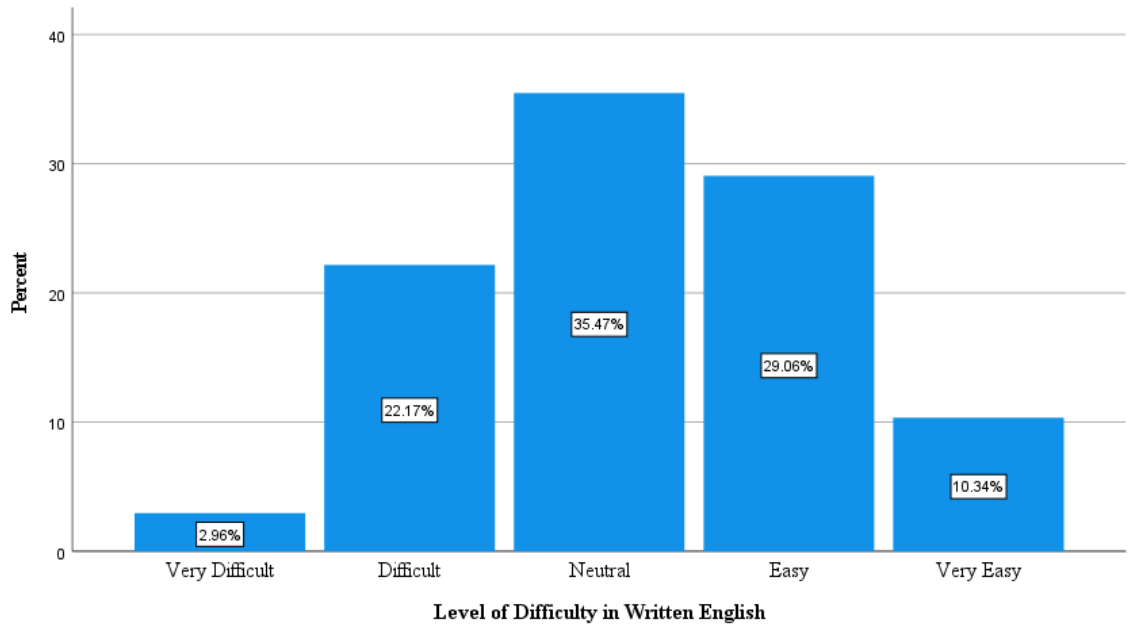


Figure 9.

Bar Char for Level of Difficulty in Written English

Correlation. Before the multiple regression test was conducted, correlations were examined to test whether there is a concern of multicollinearity. The Pearson r values for the variables are summarized below in Table 2. The results indicate that there is not a high level of correlation between independent variables. Thus, there are no multicollinearity concerns.

Table 2*Intercorrelations among Continuous Variables*

Measure	1	2	3	4	5	6	7	8	9
1 Oral English	–								
2 Written English	.67**	–							
3 Age	-.04	.00	–						
4 ResidenceLength	.36**	.20**	.25**	–					
5 Home Culture Connectedness	.12	.08	.05	.13	–				
6 Host Culture Connectedness	.37**	.24**	.15*	.16*	.24**	–			
7 Perceived social discrimination	-.10	-.04	.07	.02	-.09	-.13	–		
8 PsychologicalAdapt	.25**	.18**	.04	-.02	-.21**	.24**	-.20**	–	
9 SocioculturalAdapt	.51**	.37**	-.18*	.12	-.01	.49**	-.26**	.44**	–

* p<.005.
** p<.01.

Inferential Analysis

To test the hypothesis of home culture connectedness as the moderator in the relationships of host culture connectedness with both psychological adaptation and sociocultural adaptation, as well as to explore the moderating role of societal attitude as a macro-environmental factor in the acculturation process, two hierarchical multiple regressions were conducted with psychological adaptation and sociocultural adaptation as the dependent variable, respectively. Each hierarchical multiple regression included three

steps. Step one was to test the demographic variables as control variables. Step two was to test the main effect of home culture connectedness, host culture connectedness, and perceived social discrimination. Step three was to test the interaction effect between these predictors.

Model of Psychological Adaptation as Dependent Variable

When the psychological adaptation is the dependent variable (Table 3), the results of step one indicate that the variables - age, gender, previous study abroad experience, residence length in the U.S., oral English, and written English can predict a 13% variance of psychological adaptation, $R^2 = .13$, $F(6, 196) = 4.97$, $p < .001$. In this model, gender is a statistically significant predictor for psychological adaptation, $\beta = -.20$, $t = -2.36$, $p < .05$. This also means that the gender – male has a significantly lower level of psychological adaptation than the female. Previous abroad experience has a significant positive relationship with psychological adaptation, $\beta = .18$, $t = 2.19$, $p < .05$. Chinese international students with previous study abroad experience have better psychological adaptation than students without previous study abroad experience. Residence length in the U.S. has a significant negative relationship with psychological adaptation, $\beta = -.004$, $t = -2.58$, $p < .05$. An increase in residence length in the U.S. by one month is associated with a decrease of .004 units of psychological adaptation. This negative relationship between residence length in the U.S. and Chinese international students' psychological adaptation was also revealed in the study by Wei et al. (2012). In addition, oral English has a significant positive relationship with psychological adaptation, $\beta = .18$, $t = 3.41$, $p < .001$. Chinese international students with better oral English have a better psychological

adaptation. However, the variables of age and written English are not significant predictors in the present study.

In step two, when controlling all these demographic variables, the results indicate that home culture connectedness, host culture connectedness, and perceived social discrimination predict an additional 13% variance of psychological adaptation, $\Delta R^2 = .13$, $F(3, 193) = 11.31$, $p < .001$. In this model, home culture connectedness has a significant negative relationship with psychological adaptation, $\beta = -.31$, $t = -4.31$, $p < .001$. In other words, when controlling other variables, an increase of one unit of home culture connectedness is associated with a decrease of .31 units of psychological adaptation. By contrast, host culture connectedness has a significant positive relationship with psychological adaptation, $\beta = .22$, $t = 2.81$, $p < .01$. This means when controlling other variables, an increase of one unit of host culture connectedness is associated with an increase of .22 units of psychological adaptation. Perceived social discrimination has a significant negative relationship with psychological adaptation, $\beta = -.17$, $t = -3.33$, $p = .001$. When controlling other variables, an increase of one unit of perceived social discrimination is associated with a decrease of .17 units of psychological adaptation. In addition, among demographic variables, only gender, $\beta = -.27$, $t = -3.34$, $p = .001$, and oral English, $\beta = .14$, $t = 2.70$, $p < .01$, are still significant predictors for psychological adaptation in this model.

In step three, when controlling all the demographic variables and main variables, the test results indicate that the interaction variables between home culture connectedness and host culture connectedness, home culture connectedness and perceived social

discrimination, host culture connectedness and perceived social discrimination, as well as a three-way interaction variable between host culture connectedness, home culture connectedness, and perceived social discrimination, add a significant amount of variance for explaining psychological adaptation, $\Delta R^2 = .04$, $F(4, 189) = 2.69$, $p < .05$. In this model, a three-way interaction effect was tested as well, but no significant three-way interaction effect was found, $\beta = .11$, $t = .68$, $p > .05$. In addition, the interaction effect between home culture connectedness and host culture connectedness was statistically significant, $\beta = -.20$, $t = -2.08$, $p < .05$.

Because of the non-significant three-way interaction, the present study also tested the model without the three-way interaction variable but including all the two-way interaction effects in step three. The test showed similar results to the model with the three-way interaction variable. Specifically, when controlling other variables, the model entailing two-way interaction variables – home cultural connectedness and host culture connectedness, home culture connectedness and perceived social discrimination, as well as host culture connectedness and perceived social discrimination can add a significant variance to predict psychological adaptation, $\Delta R^2 = .04$, $F(3, 190) = 3.43$, $p < .05$.

Meanwhile, some different test results indicate two significant interaction effects in this model with two-way interaction variables. Particularly, the interaction effect between home culture connectedness and host culture connectedness on psychological adaptation is significant, $\beta = -.20$, $t = -2.13$, $p < .05$. The interaction effect between host culture connectedness and perceived social discrimination on psychological adaptation is also significant, $\beta = .22$, $t = 2.36$, $p < .05$.

In addition, the main effect variable home culture connectedness remains a significant negative relationship with psychological adaptation, $\beta = -.37, t = -4.96, p < .001$. Host culture connectedness remains a significant positive relationship with psychological adaptation, $\beta = .26, t = 3.38, p < .001$. Perceived social discrimination remains a significant negative relationship with psychological adaptation, $\beta = -.17, t = -3.30, p = .001$. Among demographic variables, gender remains a significant negative relationship with psychological adaptation with an indication that the male has a lower level of psychological adaptation than the female, $\beta = -.29, t = -3.58, p < .001$. The variable -oral English still remains a significant positive predictor for psychological adaptation in this model, $\beta = .13, t = 2.67, p < .01$.

To further analyze the significant interaction effects and specifically address the first part of the hypothesis on the moderating role of home culture connectedness as well as the exploratory question about perceived social discrimination when psychological adaptation is the dependent variable in the model, two analyses of simple slopes were conducted. In the simple slopes analysis of the significant interaction effect between home culture connectedness and host culture connectedness, home culture connectedness was entered as the moderator and home culture connectedness was categorized into a high level of home culture connectedness and a low level of home culture connectedness. The home culture connectedness with a score at one standard deviation above the mean was considered a high level of home culture connectedness. The home culture connectedness at a score that is one standard deviation below the mean was considered a low level of home culture connectedness. Therefore, the high level of home culture

connectedness is 4.42, which was calculated by adding one standard deviation ($SD = .55$) to the mean of home culture connectedness ($M=3.87$). The low level of home culture connectedness is 3.32, which was calculated by subtracting one standard deviation ($SD = .55$) from the mean of home culture connectedness ($M=3.87$).

Findings on Home Culture Connectedness as the Moderator When Psychological Adaptation as the Dependent Variable. Based on the analysis of simple slopes (Figure 10), home culture connectedness moderates the relationship between host culture connectedness and psychological adaptation. Specifically, when Chinese international students have a low level of home culture connectedness at the score of 3.32, the relationship between host culture connectedness and psychological adaptation is statistically significant and positively associated, $\beta=.37$, $t=3.75$, $p<.001$. In other words, when Chinese international students loosely connect with home culture, a one-point increase in host culture connectedness is associated with a .37 increase in psychological adaptation. When Chinese international students have a medium level of home culture connectedness, a one-point increase in host culture connectedness is associated with a .26 increase in psychological adaptation and host culture connectedness remains a significant predictor, $\beta = .26$, $t = 3.38$, $p<.001$. However, at a high level of home culture connectedness with a score of 4.42, the relationship between host culture connectedness and psychological adaptation are non-significant, $\beta=.15$, $t=.1.71$, $p>.05$.

In addition, based on the outputs of Johnson-Neyman significance region(s), the tipping point of home culture connectedness 4.39 was identified, where exactly divides the significance and non-significance of the relationship between host culture

connectedness and psychological adaptation, $\beta=.16$, $t=.1.97$, $p=.05$. This means when students scored higher than 4.39 on the five-point Likert scale of home cultural connectedness from 1-strongly disagree to 5- strongly agree, the relationship between host culture connectedness and psychological adaptation becomes non-significant. When students scored lower than 4.39 on the five-point Likert scale of home culture connectedness, the positive relationship between host culture connectedness and psychological adaptation becomes significant. As the score decreases from 4.39 on home culture connectedness, the positive relationship between host culture connectedness and psychological adaptation becomes stronger, meaning the increase of one unit of host culture connectedness is associated with a bigger increase in psychological adaptation. Therefore, home culture connectedness has a buffering moderation effect in the relationship between host culture connectedness and psychological adaptation from a strong positive relationship at the low level of home culture connectedness to a non-significant relationship at the high level of home culture connectedness at the tipping point of home culture connectedness 4.39.

Findings on Perceived Social Discrimination as the Moderator When Psychological Adaptation as the Dependent Variable. In the simple slopes analysis of the significant interaction effect between perceived social discrimination and host culture connectedness, perceived social discrimination was entered as the moderator and perceived social discrimination was categorized into a high level of perceived social discrimination and a low level of perceived social discrimination. The perceived social discrimination with a score at one standard deviation above the mean was considered a

high level of perceived social discrimination. The perceived social discrimination with a score at one standard deviation below the mean was considered a low level of perceived social discrimination. Therefore, the high level of perceived social discrimination is at a score of 3.16, which was calculated by adding one standard deviation ($SD = .74$) to the mean of perceived social discrimination ($M=2.42$). The low level of perceived social discrimination is at the score of 1.68, which was calculated by subtracting one standard deviation ($SD = .74$) from the mean of home perceived social discrimination ($M=2.42$).

The results of simple slopes analysis (Figure 11) suggest that perceived social attitude is a significant moderator for the relationship between host culture connectedness and psychological adaptation. Specifically, when Chinese international students have a high level of perceived social discrimination with a score of 3.16, the relationship between host culture adaptation and psychological adaptation is statistically significant and positively associated, $\beta = .42$, $t=4.12$, $p<.001$. In other words, when Chinese international students perceived a high level of social discrimination, a one-point increase in host culture connectedness is associated with a .42 increase in psychological adaptation. When Chinese international students have a medium level of perceived social discrimination, a one-point increase in host culture connectedness is associated with a .26 increase in psychological adaptation and host culture connectedness remains a significant predictor, $\beta = .26$, $t = 3.38$, $p<.001$. However, at the low level of perceived social discrimination with a score of 1.68, the relationship between host culture connectedness and psychological adaptation is non-significant, $\beta = .10$, $t=.99$, $p>.05$.

In addition, based on the outputs of Johnson-Neyman significance region(s), the tipping point of perceived social discrimination 1.96 was identified, where exactly divides the significance and non-significance of the relationship between host culture connectedness and psychological adaptation, $\beta=.17$, $t=.1.97$, $p=.05$. This means when students scored lower than 1.96 on the five-point Likert scale of perceived social discrimination from 1-strongly disagree to 5- strongly agree, the relationship between host culture connectedness and psychological adaptation becomes non-significant. When students scored higher than 1.96 on the five-point Likert scale of perceived social discrimination, the positive relationship between host culture connectedness and psychological adaptation becomes significant. As the score increases from 1.96 on perceived social discrimination, the positive relationship between host culture connectedness and psychological adaptation becomes stronger, meaning the increase of one unit of host culture connectedness is associated with a bigger increase in psychological adaptation. Thus, the moderating effect of perceived social discrimination shifts the relationship between host culture connectedness and psychological adaptation from being positively significant at a high level of perceived social discrimination to being non-significant at a low level of perceived social discrimination with the tipping point 1.96. Although the relationship between host culture connectedness and psychological adaptation is not statistically significant when perceived social discrimination is lower than 1.96, the results of simple slopes analysis suggest that Chinese international students have a higher level of psychological adaptation than that when perceived social discrimination is at a high level.

Table 3*Hierarchical Multiple Regression Analysis Summary for Psychological Adaptation*

Variable	SE		t	p
	B	B		
Step 1:				
Constant	2.451	.270	9.090	<.001
Age	.015	.010	.111	.114
Male	-.203	.086	-2.356	.019
Previous Abroad	.182	.083	2.185	.030
Experience				
Residence Length in the U.S.	-.004	.001	-1.99	.011
Oral English	.176	.052	3.414	<.001
Written English	-.015	.054	-.278	.782
Step 2:				
Constant	2.628	.264	9.952	<.001
Age	.014	.009	1.504	.134
Male	-.271	.081	-3.337	.001
Previous Abroad	.117	.081	1.454	.147
Experience				
Residence Length in the U.S.	-.003	.001	-1.974	.050
Oral English	.135	.050	2.690	.008
Written English	-.010	.050	-.209	.835
Centered Home Culture	-.310	.072	-4.305	<.001
Centered Host Culture	.217	.077	2.814	.005
Centered Social	-.170	.051	-3.333	.001
Discrimination				
Step 3:				
Constant	2.673	.266	10.059	<.001
Age	.012	.009	1.312	.191
Male	-.286	.080	-3.575	<.001
Previous Abroad	.129	.079	1.630	.105
Experience				

Residence Length in the U.S.	-.002	.001	-.123	-1.694	.092
Oral English	.134	.050	.247	2.674	.008
Written English	-.007	.049	-.011	-.138	.891
Centered Home Culture	-.367	.074	-.341	-4.964	<.001
Centered Host Culture	.261	.077	.235	3.378	<.001
Centered Social Discrimination	-.165	.051	-.205	-3.297	.001
Interaction C_Home x C_Host	-.201	.095	-.139	-2.128	.035
Interaction C_Host x C_SD	.215	.091	.149	2.361	.019
Interaction C_Home x C_SD	-.057	.096	-.038	-.595	.553

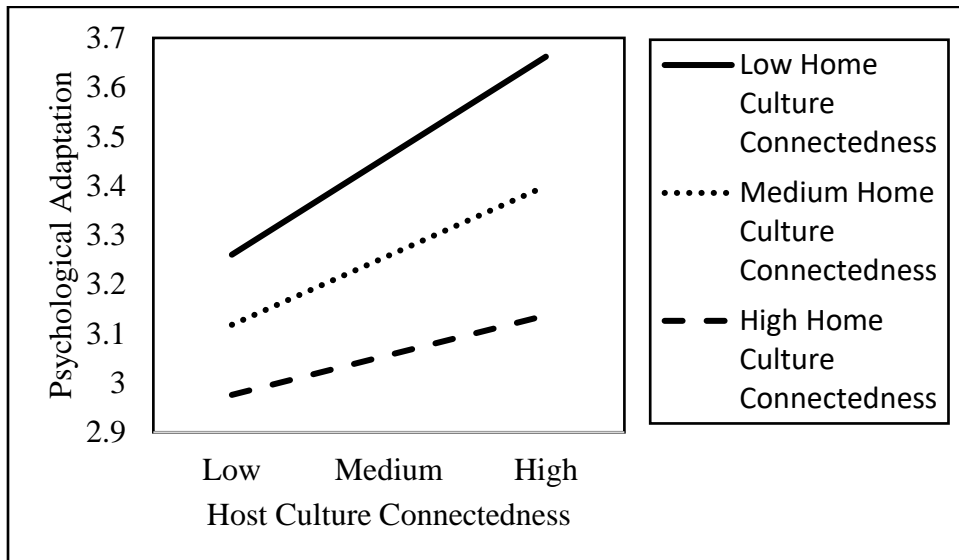


Figure 10.

Simple Slopes of Significant Interactions between Home Culture Connectedness and Host Culture Connectedness Predicting Psychological Adaptation

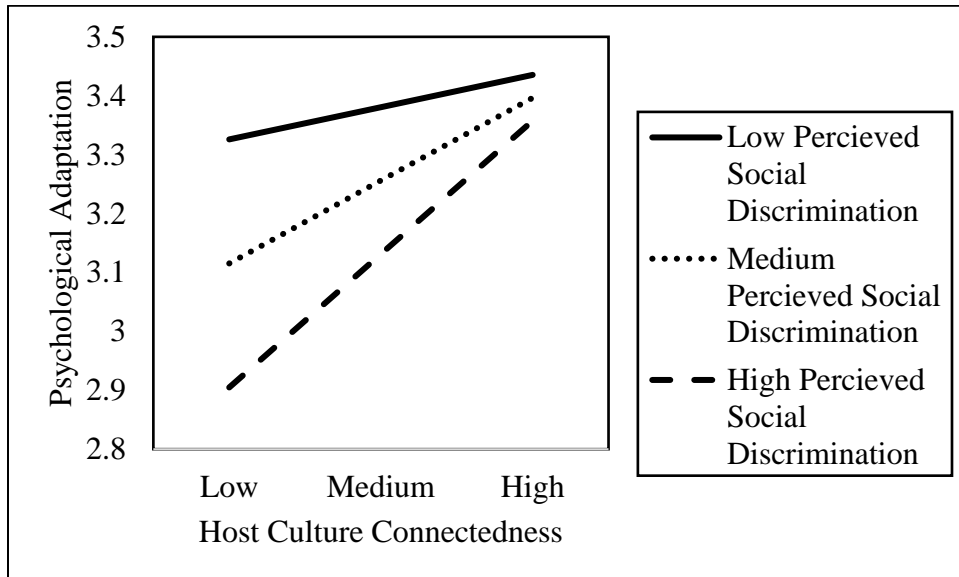


Figure 11.

Simple Slopes of Significant Interactions between Perceived Social Discrimination and Host Culture Connectedness Predicting Psychological Adaptation

Model of Sociocultural Adaptation as Dependent Variable

When sociocultural adaptation is the dependent variable (Table 4), the same three steps in the second hierarchical multiple regression were taken. The results of step one indicate that the variables - age, gender, previous study abroad experience, residence length in the U.S., oral English, and written English can predict a 30% variance of sociocultural adaptation, $R^2 = .30$, $F(6, 196) = 13.90$, $p < .001$. In this model, age is a

statistically significant predictor for sociocultural adaptation, $\beta = -.02$, $t = -2.34$, $p < .05$. This means that older Chinese international students are associated with a lower level of sociocultural adaptation than younger Chinese international students. Oral English has a significant positive relationship with sociocultural adaptation, $\beta = .22$, $t = 5.51$, $p < .001$. In other words, Chinese international students with better oral English have a better sociocultural adaptation. However, the other demographic variables - gender, previous study abroad experience, residence length in the U.S., and written English are not significant predictors.

In step two, when controlling all these demographic variables, the results indicate that home culture connectedness, host culture connectedness, and perceived social discrimination predict an additional 18% variance of sociocultural adaptation, $\Delta R^2 = .18$, $F(9, 193) = 19.53$, $p < .001$. In this model, home culture connectedness has a significant negative relationship with sociocultural adaptation, $\beta = -.12$, $t = -2.36$, $p < .05$. Namely, when controlling other variables, an increase of one point in home culture connectedness is associated with a .12 decrease in sociocultural adaptation. Host culture connectedness has a significant positive relationship with sociocultural adaptation, $\beta = .39$, $t = 6.92$, $p < .001$. In other words, when controlling other variables, an increase of one point in host culture connectedness is associated with an increase of .31 in sociocultural adaptation. Perceived social discrimination has a significant negative relationship with sociocultural adaptation, $\beta = -.13$, $t = -3.41$, $p < .001$. When controlling other variables, an increase of one point in perceived social discrimination is associated with a decrease of .13 in sociocultural adaptation. In addition, among demographic variables, age, $\beta = -.02$, $t = -$

3.63, $p < .001$, and oral English, $\beta = .14$, $t = 3.87$, $p < .001$, still remain as significant predictors for sociocultural adaptation in this model.

In step three, the test results show that along with demographic variables and main variables, the model including all the interaction variables between home culture connectedness and host culture connectedness, home culture connectedness and perceived social discrimination, host culture connectedness and perceived social discrimination, as well as a three-way interaction variable between host culture connectedness, home culture connectedness, and perceived social discrimination, can predict 70% variance of sociocultural adaptation, $R^2 = .70$, $F(13, 189) = 14.13$, $p < .001$. However, with this three-way interaction variable included in the model, no significant interaction effect was found.

In addition, the present study also tested the model without the three-way interaction variable but including all the two-way interaction effects in step three. The test showed similar results to the model with the three-way interaction variable. Specifically, the model entailing demographic variables, main effect variables, and all two-way interaction variables – home cultural connectedness and host culture connectedness, home culture connectedness and perceived social discrimination, as well as host culture connectedness and perceived social discrimination predicts a 70% variance of sociocultural adaptation, $R^2 = .70$, $F(12, 190) = 15.39$, $p < .001$. Meanwhile, in this model, the test results also show that the interaction effect between home culture connectedness and perceived social discrimination on sociocultural adaptation is significant, $\beta = -.14$, $t = -2.02$, $p < .05$.

Findings on Home Culture Connectedness as the Moderator When Sociocultural Adaptation as the Dependent Variable. However, the interaction effect between home culture connectedness and host culture connectedness on sociocultural adaptation is not statistically significant, $\beta = -.06$, $t = -.88$, $p > .05$. Therefore, the hypothesis that home culture connectedness moderates the relationship between host culture connectedness and sociocultural adaptation is not supported. In addition, the main effect of variable home culture connectedness remains a significant negative relationship with sociocultural adaptation, $\beta = -.13$, $t = -2.49$, $p < .05$. Host culture connectedness remains a significant positive relationship with sociocultural adaptation, $\beta = .40$, $t = 7.14$, $p < .001$. Perceived social discrimination remains a significant negative relationship with sociocultural adaptation, $\beta = -.12$, $t = -3.19$, $p < .01$. Among demographic variables, age, $\beta = -.02$, $t = -3.59$, $p < .001$, and oral English, $\beta = .15$, $t = 4.03$, $p < .001$, still remain as significant predictors for sociocultural adaptation in this model.

Findings on Perceived Social Discrimination as the Moderator When Sociocultural Adaptation as the Dependent Variable. To further analyze the significant interaction effect in this model and specifically address the exploratory question about perceived social discrimination when psychological adaptation is the dependent variable, an analysis of simple slopes was conducted. In the simple slopes analysis of the significant interaction effect between perceived social discrimination and home culture connectedness, perceived social discrimination was entered as the moderator. In addition, as categorized in the previous section, a high level of perceived social discrimination and a low level of perceived social discrimination were used in this

analysis. Specifically, a high level of perceived social discrimination is a score at 3.16, which was calculated by adding one standard deviation ($SD = .74$) to the mean of perceived social discrimination ($M=2.42$). A low level of perceived social discrimination is a score at 1.68, which was calculated by subtracting one standard deviation ($SD = .74$) from the mean of home perceived social discrimination ($M=2.42$).

The results of simple slopes analysis (Figure 12) indicate that perceived social discrimination moderates the relationship between home culture connectedness and sociocultural adaptation. Based on this analysis of simple slopes, when Chinese international students have a high level of perceived social discrimination with a score of 3.16, the relationship between home culture connectedness and sociocultural adaptation is statistically significant and negatively associated, $\beta=-.24$, $t=-3.13$, $p<.01$. Specifically, when Chinese international students perceived a high level of social discrimination, a one-point increase in home culture connectedness is associated with a .24 decrease in sociocultural adaptation. When Chinese international students have a medium level of perceived social discrimination, a one-point increase in home culture connectedness is associated with a .13 decrease in sociocultural adaptation and home culture connectedness remains a significant predictor, $\beta = -.13$, $t = -2.49$, $p<.05$. However, at the low level of perceived social discrimination with a score of 1.68, the relationship between home culture connectedness and sociocultural adaptation is not statistically significant, $\beta = -.03$, $t = -.37$, $p>.05$.

In addition, based on the outputs of Johnson-Neyman significance region(s), the tipping point of perceived social discrimination 2.23 was identified, where exactly

divides the significance and non-significance of the relationship between home culture connectedness and sociocultural adaptation, $\beta = -.11$, $t = -1.97$, $p = .05$. This means when students scored lower than 2.23 on the five-point Likert scale of perceived social discrimination from 1-strongly disagree to 5- strongly agree, the relationship between home culture connectedness and sociocultural adaptation becomes non-significant. When students scored higher than 2.23 on the five-point Likert scale of perceived social discrimination, the negative relationship between home culture connectedness and sociocultural adaptation becomes significant. As the score increases from 2.23 on perceived social discrimination, the negative relationship between home culture connectedness and sociocultural adaptation becomes stronger, meaning the increase of one unit of home culture connectedness is associated with a bigger decrease in sociocultural adaptation. Thus, the moderating effect of perceived social discrimination shifts the relationship between home culture connectedness and sociocultural adaptation from being significantly negative at a high level of perceived social discrimination with a score of 3.16 to being non-significant at a low level of perceived social discrimination at the tipping point of 2.23. Although the relationship between home culture connectedness and sociocultural adaptation is not statistically significant when the perceived social discrimination is low, the analysis of simple slopes suggested that sociocultural adaptation stays at a higher level than that when perceived social discrimination is high.

Table 4*Hierarchical Multiple Regression Analysis Summary for Sociocultural Adaptation*

Variable	B	SE B	β	t	p
Step 1:					
Constant	3.018	.208		14.527	<.001
Age	-.017	.007	-.147	-2.344	.020
Male	.005	.066	.005	.077	.939
Previous Abroad Experience	.109	.064	.106	1.698	.091
Residence Length in the U.S.	-.001	.001	-.060	-.860	.391
Oral English	.220	.040	.474	5.514	<.001
Written English	.031	.042	.061	.746	.457
Step 2:					
Constant	3.416	.191		17.922	<.001
Age	-.024	.007	-.203	-3.634	<.001
Male	-.024	.059	-.022	-.406	.685
Previous Abroad Experience	.094	.058	.091	1.611	.109
Residence Length in the U.S.	.000	.001	-.027	-.438	.661
Oral English	.140	.036	.303	3.866	<.001
Written English	.038	.036	.075	1.054	.293
Centered Home Culture	-.123	.052	-.133	-2.357	.019
Centered Host Culture	.385	.056	.405	6.918	<.001
Centered Social	-.126	.037	-.182	-3.405	<.001
Discrimination					
Step 3:					
Constant	3.396	.194		17.519	<.001
Age	-.024	.007	-.202	-3.586	<.001
Male	-.034	.058	-.031	-.576	.565
Previous Abroad Experience	.101	.058	.099	1.750	.082
Residence Length in the U.S.	.000	.001	-.025	-.402	.688
Oral English	.147	.036	.317	4.029	<.001
Written English	.037	.036	.073	1.033	.303
Centered Home Culture	-.133	.054	-.144	-2.486	.014
Centered Host Culture	.403	.056	.424	7.144	<.001
Centered Social	-.118	.037	-.168	-3.194	.002
Discrimination					

Interaction C_Home x C_Host	-.061	.069	-.049	-.878	.381
Interaction C_Host x C_SD	.095	.066	.078	1.441	.151
Interaction C_Home x C_SD	-.141	.070	-.109	-2.023	.044

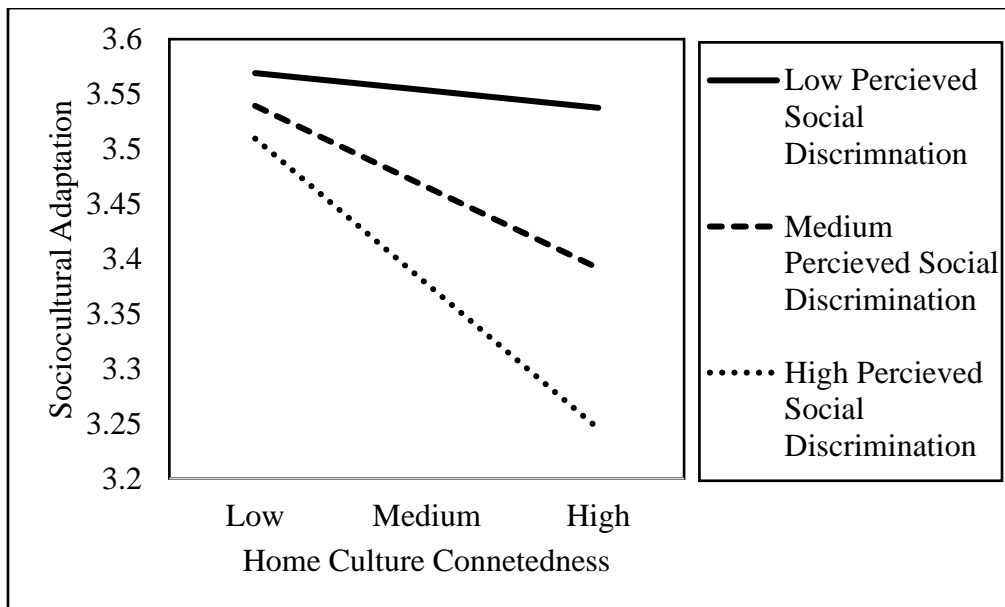


Figure 12.

Simple Slopes of Significant Interactions between Perceived Social Discrimination and Home Culture Connectedness Predicting Sociocultural Adaptation

Summary of Findings

The major findings of this study reveal the moderating role of home culture connectedness in psychological adaptation, as well as how perceived social discrimination relates to home culture connectedness and host culture connectedness in

psychological adaptation and sociocultural adaptation. First, the findings support the hypothesis that home culture connectedness moderates the relationship between host culture connectedness and psychological adaptation. Specifically, home culture connectedness has a buffering moderation effect in the relationship between host culture connectedness and psychological adaptation, shifted from a strong positive relationship at the low level of home culture connectedness to a non-significant relationship at the higher level of home culture connectedness than the tipping point 4.39. Second, the findings do not support the hypothesis of the moderating role of home culture connectedness in sociocultural adaptation, suggesting that home culture connectedness does not moderate the relationship between host culture connectedness and sociocultural adaptation.

In addressing the exploratory question on the moderating role of societal attitude in the acculturation process, the societal attitude was framed and measured by perceived social discrimination. The findings from the two multiple regression models reveal that perceived social discrimination has a significant negative relationship with psychological adaptation and sociocultural adaptation. In addition, perceived social discrimination is a significant moderator for the relationship between host culture adaptation and psychological adaptation. Specifically, the moderating effect of perceived social discrimination shifts the relationship between host culture connectedness and psychological adaptation from being positively significant at a high level of perceived social discrimination to being non-significant at a lower level of perceived social discrimination than the tipping point 1.96. Although the relationship between host culture

connectedness and psychological adaptation is not statistically significant when perceived social discrimination is low, the results of the analysis of simple slopes suggest that Chinese international students have a higher level of psychological adaptation than that when perceived social discrimination is at a high level.

The results of slopes analysis also indicate that perceived social discrimination is a significant moderator for the relationship between home culture adaptation and sociocultural adaptation. Specifically, the moderating effect of perceived social discrimination shifts the relationship between home culture connectedness and sociocultural adaptation from being significantly negative at a high level of perceived social discrimination to being non-significant at a lower level of perceived social discrimination than the tipping point 2.23. Although the relationship between home culture connectedness and sociocultural adaptation is not statistically significant when the perceived social discrimination is low, the analysis of simple slopes suggested that sociocultural adaptation stays at a higher level than that when perceived social discrimination is at the high level. Thus, social attitude, as a macro-environmental factor, plays a role in the relationships of home culture connectedness and host culture connectedness with psychological adaptation and sociocultural adaptation.

Throughout the models with psychological adaptation as the dependent variable, the demographic variable - gender remains a significant negative relationship with psychological adaptation with an indication that the male has a lower level of psychological adaptation than the female. The variable - oral English remains a significant positive predictor for psychological adaptation. In the models with sociocultural

adaptation as the dependent variable, the demographic variable – age remains a significant negative relationship with sociocultural adaptation, while oral English remains a significant positive predictor for sociocultural adaptation. Further discussions on these models and explanations of implications were examined in the following chapter.

Chapter Five

The salient motivation for many international students to study at universities in the U.S. is to gain intercultural experiences and advance their future international career development (IIE, 2005). During these intercultural experiences, an acculturation process usually occurs, which is defined as a “dual process of cultural and psychological change that takes place as a result of contact between two or more cultural groups and their individual members” (Berry, 2005, p. 698). Chinese international students, as the largest student group among international students (IIE, 2019), have often reported more difficulties and challenges in their psychological and sociocultural adaptations than other international students from Western cultures (Gill, 2009; Lowinger et al., 2014; Poyrazli & Kavanaugh, 2006). These challenges, however, have partly been attributed to the deficit-thinking oriented adaptation-as-problem approach in acculturation, viewing Chinese international students’ home culture as a deficient barrier to their adaptations (Lee & Rice, 2007; Ryan & Carroll, 2005). Meanwhile, the issues in adaptation can be exacerbated by an unfavorable societal attitude to China during tense geopolitical relations between the U.S. and China.

This study addressed a need to explore the role of home culture connectedness in Chinese international students’ psychological and sociocultural adaptations. Specifically, it aimed to examine the theoretically implied moderating role of Chinese international students’ home culture connectedness in psychological adaptation and sociocultural adaptation. In addition, as suggested in Berry’s (2006) acculturation theory, this study

explored the moderating role of perceived societal attitudes in Chinese international students' acculturation process, which revealed how societal attitudes as an environmental factor interplay with home culture connectedness and host culture connectedness to predict psychological adaptation and sociocultural adaptation. These purposes led to a hypothesis on the moderating role of home culture connectedness in the relationships of host culture connectedness with both psychological adaptation and sociocultural adaptation, as well as an exploratory question on the moderating role of perceived societal attitude in the acculturation process.

H1: Home culture connectedness moderates the relationship between host culture connectedness and both psychological and sociocultural adaptations.

RQ: Explore the moderating role of societal attitude in Chinese international students' acculturation process.

To address these questions, a quantitative study with a survey method was conducted. By using a snowball sampling method, this study received 206 survey responses from Chinese international students from 32 universities or colleges across the U.S. Two hierarchical multiple regressions were conducted to analyze the survey data. The findings are further discussed in the next section.

Discussion of Findings

After analyzing the survey data, the major findings revealed a moderating role of home culture connectedness in the relationship between host culture connectedness and psychological adaptation, but no moderating role of home culture connectedness in the relationship between host culture connectedness and sociocultural adaptation was

identified. Specifically, home culture connectedness has a buffering moderation effect in the relationship between host culture connectedness and psychological adaptation, shifted from a strong positive relationship at the low level of home culture connectedness to a non-significant relationship at the higher level of home culture connectedness than the tipping point 4.39 on a five-point Likert scale. In other words, when Chinese international students loosely connect with their home culture, the closer they connect with the host culture, the better psychological adaptation they will have. However, when Chinese international students maintain a high level of home culture connectedness, no matter how loosely or closely students connect with the host culture, it will not mean anything for students' psychological adaptation.

In addition, the results of these two multiple regressions revealed that the perceived societal attitude, measured by perceived social discrimination, moderates the relationships between host culture connectedness and psychological adaptation, as well as the relationship between home culture connectedness and sociocultural adaptation. Specifically, when Chinese international students have a high level of perceived social discrimination, a positive relationship between host culture connectedness and psychological adaptation, as well as a negative relationship between home culture connectedness and sociocultural adaptation become statistically significant. However, these relationships between host culture connectedness and psychological adaptation, as well as home culture connectedness and sociocultural adaptation become non-significant at a low level of perceived social discrimination, specifically with a score of perceived social discrimination lower than the tipping point 1.96 and 2.23, respectively.

In other words, when Chinese international students often perceive social discrimination, students who still maintain a close connection with the host culture have a better psychological adaptation. In the same circumstance when Chinese international students have a high level of perceived social discrimination, the less they connect with their home culture, the better sociocultural adaptation they will have. However, in the context where Chinese international students rarely encounter social discrimination, no matter how closely or loosely students connect with the host culture, it means nothing for students' psychological adaptation. The level of students' home culture connectedness is also not associated with their sociocultural adaptation.

Throughout the models with psychological adaptation as the dependent variable, the demographic variable - gender remains a significant negative relationship with psychological adaptation with the indication that males have a lower level of psychological adaptation than females in this group. The variable oral English still remains a significant positive predictor for psychological adaptation. In the models with sociocultural adaptation as the dependent variable, the demographic variable – age remains a significant negative relationship with sociocultural adaptation, while oral English remains a significant positive predictor for sociocultural adaptation.

Furthermore, the outbreak of COVID-19 during this study as a major different contextual factor from previous empirical studies on Chinese international students' acculturation might complicate the test results of this study. It needs to be considered as a macro-contextual factor in the discussion of findings. The major findings are discussed in detail in the following sections.

Finding One - Home Culture Connectedness as a Moderator in Psychological Adaptation

The first part of the hypothesis in this study asserted that home culture connectedness moderates the relationship between host culture connectedness and psychological adaptation. After running the first hierarchical multiple regression, the results indicated that home culture connectedness does moderate the relationship between host culture connectedness and psychological adaptation. In this moderation mode, the host culture connectedness has a significant positive relationship with psychological adaptation. This finding is consistent with Zhang and Goodson's (2011) finding on the relationship between host culture connectedness and psychological adaptation. However, the relationship between home culture connectedness and psychological adaptation was found in this study to be inconsistent with Zhang and Goodson's (2011) study and previous empirical research (Ward & Kennedy, 1994). In the present study, Chinese international students' home culture connectedness was negatively associated with psychological adaptation. In other words, a high level of home culture connectedness was associated with a low level of psychological adaptation. By contrast, Zhang and Goodson (2011) indicated that Chinese international students' home culture connectedness had a protective effect on psychological adaptation with a positive relationship with psychological adaptation. This positive relationship between home culture connectedness and psychological adaptation was also supported in Ward and Kennedy's (1994) study, which was a major literature contribution to Berry's (2006) acculturation theory. The negative relationship between home culture connectedness and psychological adaptation

revealed in the current study might be partly explained by the impact of COVID-19, which the survey participants were experiencing when they responded to the online survey. These influences were found in many recent studies (Wang & Zhao, 2020; Wilczewski et al., 2021) and are further discussed in the following sections.

Negative Effect of COVID-19 on Psychological Adaptation. When COVID-19 became a pandemic, it created widespread panic and increased individual stress and anxiety around the world (World Health Organization, 2020). Social distancing and self-isolation during COVID-19 increased mental health issues and posed more challenges for international students' psychological adaptation. In Wilczewski et al.'s (2021) study, the findings indicated significantly higher acculturation stress and emotional loneliness in the participant group of international students experiencing self-isolation. Specifically for Chinese students, they reported a high level of anxiety toward COVID-19 (Wang & Zhao, 2020). Therefore, these findings on the impact of COVID-19 on students' mental and psychological health from empirical studies might explain the relevantly low level of Chinese international students' psychological adaptation in this research study.

A High Level of Home Culture Connectedness during a Pandemic. When a crisis, such as a pandemic, occurs, families and friends from the home culture often serve as a safety net for Chinese international students (Hu & Scott, 2016; Sapat & Esnard, 2012). Based on the functional model of international students' friendship patterns (Bochner et al., 1977), the co-national network serves as international students' primary social network and provides a protective role for international students' "psychological security, self-esteem, and a sense of belonging" (Church, 1982, p. 552).

Specifically, given that Chinese home culture emphasizes strongly familial collectivism, families and friends in home culture play a significant role in providing essential support and resources (Hu & Scott, 2016). With this in mind, Hu et al. (2022) conceptualized “family-mediated migration infrastructure” (p.63) in their studies on the impact of COVID-19 on Chinese students. The findings on the role of family-mediated infrastructure for Chinese international students’ acculturation during COVID-19 revealed that when the normal institutional and social support infrastructure in the host country was disrupted or disappeared due to the outbreak of COVID-19. Chinese international students’ families and friends in their home country stepped up to fill in as the support sources to broker information and mobilize resources during the crises (Hu et al., 2022). Thus, these empirical findings might explain that Chinese international students tend to have a high level of home culture connectedness during this pandemic.

A High Level of Confusion and Anxiety Resulting from a High Level of Home Culture Connectedness during COVID-19. Meanwhile, along with the role of family-mediated infrastructure in brokering information, a high level of home culture connectedness increases the opportunities for Chinese international students to face conflicting media coverage from their home country on the COVID handling policies in the host country (Hu et al., 2022). Compared with China’s aggressive “zero COVID” strategy, the U.S.’s approach to combating COVID-19 was often portrayed as a loose approach resulting in “mishandling” the pandemic in Chinese media coverage (Tsao, 2021). This stark contrast led to an unsafe sense of living in the host country with more anxiety for Chinese international students, especially when they were closely connected

with home culture groups and media (Hu et al., 2022). Therefore, the statistically negative relationship between home culture connectedness and psychological adaptation might be explained by the increased psychological issues due to COVID-19, the misinformation and biased media coverage on COVID-19 handling approaches brokered through home culture, and Chinese international students' natural response to connecting with home culture during a crisis. In addition, the impact of COVID-19 also can help to interpret the negative interaction effect between home culture connectedness and host culture connectedness in the moderating model of home culture connectedness in psychological adaptation.

Moderating Role of Home Culture Connectedness Suggesting Assimilation

Strategy. Specifically for the moderating role of home culture connectedness, the present study revealed that when Chinese international students have a lower level of home culture connectedness than 4.39 on a five-point Likert scale, the relationship between host culture connectedness and psychological adaptation is statistically significant and becomes more positively associated. However, at the higher level of home culture connectedness than 4.39, the relationship between host culture connectedness and psychological adaptation is not statistically significant. Based on Berry's (2006) acculturation theory, the findings of the present study on the moderating role of home culture connectedness suggest that assimilation strategy – a high level of host culture connectedness and a low level of home culture connectedness is associated with a better psychological adaptation.

This suggestion is not consistent with the findings of other major studies on the relationships between acculturation strategies and psychological adaptation (Ward & Kennedy, 1994). In Berry and colleagues' (2006) study, the integration strategy, meaning a high level of home culture connectedness and a high level of host culture connectedness, was suggested to be associated with the highest level of psychological adaptation. The assimilation strategy and the separation strategy – a high level of home culture connectedness and a low level of host cultural connectedness are associated with an intermediate level of psychological adaptation (Berry et al., 2006). In these relationships, a protective role of home culture connectedness was identified and a positive interaction effect of home culture connectedness and host culture connectedness on psychological adaptation was revealed. Specifically, in Sam's (1994) study, young immigrants with an integration strategy tended to report less global negative self-evaluation, less depressive tendencies, fewer psychological and somatic symptoms, and were happier and healthier.

However, the protective role of home culture connectedness was not supported in the current study's moderating role of home culture connectedness on psychological adaptation. A negative interaction effect between home culture connectedness and host culture connectedness on psychological adaptation was revealed. This negative interaction effect or the loss of the protective role of home culture connectedness on psychological adaptation can be primarily attributed to the negative relationship between home culture connectedness and psychological adaptation, while host culture connectedness remains a positive relationship with psychological adaptation. As

discussed in the preceding section, this statistically negative relationship between home culture connectedness and psychological adaptation can be likely interpreted by the impact of COVID-19. Thus, in the current findings, the consistent relationship between host culture connectedness and psychological adaptation accentuates the importance of maintaining a high level of host culture connectedness for Chinese international students' psychological adaptation, especially during the COVID-19 pandemic. However, the statistically negative interaction effect between home culture connectedness and host culture connectedness on psychological adaptation, primarily attributed to the negative relationship between home culture connectedness and psychological adaptation, should not deny the protective role of home culture connectedness on Chinese international students' psychological adaptation. This protective role of home culture connectedness might still exist but be outweighed by the impact of COVID-19 in the statistics calculation. By contrast, the protective role of home culture connectedness may play a more positive role in psychological adaptation in the post-COVID era, which requires future research to examine.

Finding Two – Home Culture Connectedness as a Non-moderator in Sociocultural Adaptation

The second part of the hypothesis asserted that home culture connectedness can moderate the relationship between host culture connectedness and sociocultural adaptation. The findings indicated that there was no significant interaction effect between home culture connectedness and host culture connectedness on sociocultural adaptation. Therefore, home culture connectedness does not moderate the relationship between host

culture connectedness and sociocultural adaptation. Meanwhile, the findings also suggest that host culture connectedness had a positive relationship with sociocultural adaptation, which is a consistent result with Zhang and Goodson's (2011) study and other major empirical studies contributing to the acculturation theory (Ward & Kennedy, 1994). Specifically, in Ward and Kennedy's (1994) study, the findings indicated that study participants with strong host culture connectedness experienced less sociocultural adaptation difficulty. In addition, Ward and Kennedy (1994) suggested that the integration and assimilation strategies with a high level of host culture connectedness were associated with the highest level of sociocultural adaptation and the separation strategy – a high level of home culture connectedness and a low level of host culture connectedness was associated with the lowest level of sociocultural adaptation. In other words, when Chinese international students isolate themselves with their own home culture connections, they will experience more sociocultural adaptation difficulties. This result also resonates with the significant negative relationship between home cultural connectedness and sociocultural adaptation revealed in this study, as well as helps to interpret Chinese international students' sociocultural adaptation under COVID-19. As mentioned in the finding one discussion, Chinese international students naturally turned to and connected with the home culture group during a crisis. Hu et al.'s (2022) study also found that when the normal institutional and social support infrastructure in the host country was disrupted or disappeared due to the pandemic, Chinese international students' families and friends in the home country stepped up to fill in as the support sources to broker information and mobilize resources. Thus, this family-mediated

infrastructure closely connected Chinese international students with their home culture group and reduced the connection and interaction with the host culture (Hu et al., 2022), leading to the separation strategy and social isolation during the pandemic.

This negative relationship between home culture connectedness and sociocultural adaptation might also be attributed to the rise of anti-Asian rhetoric and crime during the pandemic and a more rivalry geopolitical tension between the U.S. and China. The moderating role of perceived social discrimination in Chinese international students' psychological adaptation and sociocultural adaptation identified in this study might help to further explain Chinese international students' acculturation under the context of COVID-19. This moderating role is discussed in detail in the following section.

Finding Three – Moderating Role of Perceived Societal Attitude

The current study sought to explore the moderating role of perceived societal attitude in the acculturation process. Societal attitude, measured by perceived social discrimination, had significant negative relationships with psychological adaptation and sociocultural adaptation. In addition, it moderated the relationships between host culture connectedness and psychological adaptation, as well as home culture connectedness and sociocultural adaptation. When Chinese international students perceive a high level of social discrimination, the positive relationship between host culture connectedness and psychological adaptation is significant, as well as the negative relationship between home culture connectedness and psychological adaptation is significant. When Chinese international students perceive a low level of social discrimination, the relationship between host culture connectedness and psychological adaptation becomes non-

significant, as well as the relationship between home culture connectedness and sociocultural adaptation is not significant. Although these relationships become non-significant at a low level of perceived social discrimination, Chinese international students have better psychological adaptation and sociocultural adaptation than those when they experience a high level of perceived social discrimination.

This finding specified the moderating role of societal attitude as suggested in Berry's acculturation theory (2006), however, this moderating role was studied under a special circumstance of COVID-19. Based on the current moderating role of perceived social discrimination, the findings suggest two ways that can help Chinese international students with their psychological adaptation and sociocultural adaptation. When there is a rise in negative rhetoric about China and Chinese international students, as well as increasingly intense geopolitical tension between the U.S. and China, it likely leads to a high level of social discrimination perceived by Chinese international students. Under this context, the assimilation strategy – maintaining a high level of host cultural connectedness and a low level of home culture connectedness – was suggested by the current study's findings to maximize the positive effect of host culture connectedness on psychological adaptation and attenuate the negative effect of home culture connectedness on sociocultural adaptation. The second approach is to help Chinese international students to mitigate their perceived social discrimination. Because although the relationships between host culture connectedness and psychological adaptation, as well as home culture connectedness and sociocultural adaptation, become non-significant under this

approach, the low perceived social discrimination is associated with a higher level of both psychological adaptation and sociocultural adaptation for Chinese international students.

Limitations

The limitations of this study are derived from two factors – the impact of the COVID-19 pandemic and the non-probability sampling method. The impact of COVID-19 might statistically outweigh the protective role of home cultural connectedness. As the normal institutional and social support system or infrastructure was disrupted due to the outbreak of COVID-19, Chinese international students tended to connect closely with their family and friends in their home culture for help and support, resulting in a high level of home culture connectedness. Meanwhile, the increase in mental health issues during COVID isolation or quarantine results in a relevantly low level of psychological adaptation when Chinese international students participated in the survey. Thus, these phenomena might contribute to a statistically negative relationship between home culture connectedness and psychological adaptation, which is an opposite result from other empirical studies (Zhang & Goodson, 2011) and Berry's (2006) acculturation theory.

The second limitation of this study is the limited generalization of this study due to the non-probability sampling method. The snowball sampling method was employed in order to reach out to a large number of Chinese international students who lived across the U.S. Thus, a future study with a random sampling method will be needed when exploring the role of home culture connectedness in Chinese international students' acculturation.

Implications

The findings of this study help to enrich the literature and theory about acculturation under a disruptive circumstance and a global health crisis. Berry's acculturation theory and other empirical studies (Ward & Kennedy, 1994; Zhang & Goodson, 2011) on acculturation were studied in static and stable circumstances. By contrast, this study was conducted during COVID-19. As a result, the statistically significant negative relationship between home culture connectedness and psychological adaptation revealed in this study is an opposite finding of Berry's (2006) theory and other empirical studies (Ward & Kennedy, 1994; Zhang & Goodson, 2011). These negative relationships are primarily attributed to a negative interaction effect between home culture connectedness and host culture connectedness. In addition, this study also explored the moderating role of perceived social attitude in Chinese international students' acculturation process, which was suggested in Berry's acculturation theory (2006), but rarely studied in previous literature.

Besides the contribution to the literature on the roles of home culture connectedness and perceived societal attitude in the acculturation process, the specific moderating roles of home culture connectedness and perceived societal attitudes identified in this study can provide practical insights for university administrators or practitioners to support Chinese international students' psychological adaptation and sociocultural adaptation during a pandemic or a similar situation in the future. The findings suggested the assimilation strategy as a better approach to support Chinese international students' psychological adaptation and sociocultural adaptation. When

Chinese international students are loosely connected with their home culture, a high level of connection with the host culture during a pandemic is positively associated with a high level of psychological adaptation. When Chinese international students perceived a high level of social discrimination, universities' intentional support to facilitate Chinese international students' close connection with the host culture can positively help with students' psychological adaptation. More importantly, when universities implement policies or programs to help Chinese international students to nurture favorable perceptions of societal attitudes toward themselves and encounter less discriminative experiences during the pandemic, those students tend to have a higher level of psychological adaptation and sociocultural adaptation in general than that when they perceive a high level of social discrimination.

In the present study, the positive role of host culture connectedness in Chinese international students' adaptations was validated and emphasized. However, the negative relationships of home culture connectedness with both psychological adaptation and sociocultural adaptation should not be viewed from a deficit perspective, resulting in a conclusion that Chinese international students' home culture is a deficient barrier to their psychological adaptation and sociocultural adaptation. These negative relationships of home culture connectedness identified in this unusual circumstance need more attention to further discern the essence of this negative effect. Based on the other studies on the impact of COVID-19 on students (Hu et al., 2022), it seems that the protective role of home culture connectedness still exists and the positive impact might be outweighed in this instance by the challenges of COVID-19. It was further exacerbated by the

misinformation or biased information brokered through home culture connectedness in the family-mediated infrastructure during the pandemic.

In a qualitative study on Chinese students' acculturation during the COVID, the positive role of Chinese international students' home culture was discussed (Yu, 2021). The findings of Yu's (2021) study indicated that Chinese home culture valuing resilience nurtures students' tendency of living and studying resiliently in uncertain and challenging situations as well as their consciousness of overcoming challenges in sociocultural adaptation. Thus, home culture connectedness might play a favorable role in Chinese international students' psychological adaptation and sociocultural adaptation, when universities intentionally embed the reflexivity in the connectedness to home culture and value the resilience and protective role of the home culture.

Future Research

The present study on the role of Chinese international students' home culture connectedness was carried out with the snowball sampling method, which is a non-probability sampling method. The snowball sampling method was employed with the purpose to reach out to a large number of Chinese international students who lived across the U.S. Thus, a future study with a probability sampling method will be needed to increase the generalizability of the findings on the role of home culture connectedness in Chinese international students' acculturation.

In addition, as indicated in the implications, the statistically negative relationships of home culture connectedness with both psychological adaptation and sociocultural adaptation gave rise to the loss of the protective role of home culture connectedness in

Chinese international students' acculturation. This is a contrast to the role of home culture connectedness indicated in Berry's acculturation theory and other related empirical studies (Ward & Kennedy, 1994; Zhang & Goodson, 2011). However, given the outbreak of COVID-19 as a disruptive and unique circumstance compared with previous empirical studies, the protective role of home culture connectedness might be outweighed in this instance by the challenges of COVID-19. It was further exacerbated by the misinformation or biased information brokered through home culture connectedness in the family-mediated infrastructure during the pandemic. This reasoning was not explored in this study but will need future research to examine the impact of COVID-19 on Chinese international students' acculturation and the protective role of home culture connectedness during COVID-19. Furthermore, because this study on the role of home culture connectedness in Chinese international students' acculturation was conducted in such an emergency and unusual situation, there is still a need to examine the role of home culture connectedness in Chinese international students' acculturation in normal situations under the post-COVID era, in order to further contribute to the current acculturation theory.

Conclusions

Chinese international students have often reported encountering more difficulties and challenges in their psychological and sociocultural adaptations while studying in U.S. universities than international students from Western cultures. These challenges were partly attributed to the deficit-thinking oriented adaptation-as-problem approach in acculturation, viewing students' home culture as a deficient barrier to their adaptations.

Meanwhile, the issues in adaptations can be exacerbated by an unfavorable societal attitude to China during tense geopolitical relations between the U.S. and China.

Thus, this study called for a need to explore the role of home culture connectedness in Chinese international students' psychological and sociocultural adaptations. The present study examined the moderating role of Chinese international students' home culture connectedness in the relationships between host culture connectedness and both psychological and sociocultural adaptations. In addition, as societal attitudes toward China and Chinese students had a more negative shift in recent years, this study also explored the moderating role of perceived societal attitude in Chinese international students' acculturation in the U.S. The theoretical framework of Berry's acculturation theory and the relevant empirical studies framed this study with a hypothesis on the moderating role of home culture connectedness in the relationships of host culture connectedness with both psychological adaptation and sociocultural adaptation, as well as an exploratory question on the moderating role of perceived societal attitude in the acculturation process.

To address these questions, a quantitative study with a survey method was conducted. By using a snowball sampling method, this study received 206 survey responses from Chinese international students from 32 universities or colleges across the U.S. After analyzing the survey data, the findings revealed a moderating role of home culture connectedness in the relationship between host culture connectedness and psychological adaptation, but no moderating role of home culture connectedness in the relationship between host culture connectedness and sociocultural adaptation was

identified. Specifically, home culture connectedness has a buffering moderation effect in the relationship between host culture connectedness and psychological adaptation, shifted from a strong positive relationship at the low level of home culture connectedness to a non-significant relationship at the higher level of home culture connectedness than the tipping point 4.39 on a five-point Likert scale. In other words, when Chinese international students loosely connect with their home culture, the closer they connect with the host culture, the better psychological adaptation they will have. However, when Chinese international students maintain a high level of home culture connectedness, no matter how loosely or closely students connect with the host culture, it will not mean anything for students' psychological adaptation.

In addition, the findings indicated that the perceived societal attitude, measured by perceived social discrimination, had significant negative relationships with psychological adaptation and sociocultural adaptation. Perceived social discrimination also moderated the relationships between host culture connectedness and psychological adaptation, as well as home culture connectedness and sociocultural adaptation. Specifically, when Chinese international students have a high level of perceived social discrimination, a positive relationship between host culture connectedness and psychological adaptation, as well as a negative relationship between home culture connectedness and sociocultural adaptation, are statistically significant. However, these relationships between host culture connectedness and psychological adaptation, as well as home culture connectedness and sociocultural adaptation, become non-significant at a lower level of perceived social discrimination than the tipping point 1.96 and 2.23,

respectively. In other words, when Chinese international students often perceive social discrimination, students who still maintain a close connection with the host culture have a better psychological adaptation. In the same circumstance when Chinese international students have a high level of perceived social discrimination, the less they connect with their home culture, the better sociocultural adaptation they will have. However, in the context where Chinese international students rarely encounter social discrimination, no matter how closely or loosely students connect with the host culture, it means nothing for students' psychological adaptation. The level of students' home culture connectedness is also not associated with their sociocultural adaptation.

Based on Berry's acculturation theory, these findings suggested that when Chinese international students perceived a high level of social discrimination, the assimilation strategy – maintaining a high level of host culture connectedness and a low level of home culture connectedness – can better support Chinese international students' both psychological adaptation and sociocultural adaptation by maximizing the positive relationship between host culture connectedness with psychological adaptation and attenuating the negative relationships of home culture connectedness with psychological and sociocultural adaptations. When Chinese international students perceive a low level of social discrimination, they tend to have a better psychological adaptation and sociocultural adaptation in general than that at a high level of perceived social discrimination.

These findings lead to three implications. First, the findings of this study help to enrich the literature and theory about acculturation under a disruptive circumstance and a

global health crisis, such as a pandemic, which was rarely studied in previous literature and not reflected in acculturation theories. Second, the findings of the moderating roles of home culture connectedness and perceived societal attitudes during acculturation provide practical insights for university administrators or practitioners to support Chinese international students' psychological adaptation and sociocultural adaptation during a pandemic or other major negative events. Specifically, the findings suggested that universities encourage Chinese international students to closely connect to the host culture during the pandemic and/or implement policies or programs to intentionally help Chinese international students to nurture favorable perceptions of societal attitudes toward themselves and to encounter less discriminative experiences under an unfavorable environment.

Last, the statistically negative relationships of home culture connectedness with psychological adaptation and sociocultural adaptation should not be viewed from a deficit perspective with the conclusion that Chinese international students' home culture is a deficient barrier to their psychological adaptation and sociocultural adaptation. Based on the other studies on the impact of the COVID on students, it seems the protective role of home culture connectedness as indicated in acculturation theories might be outweighed by the issues and challenges caused by the COVID's emergency handling policies, such as isolation and social distancing. It was exacerbated by the misinformation or biased information brokered through home culture connectedness in the family-mediated infrastructure during the COVID. Universities should not ignore the protective role of home culture connectedness based on one study with statistically negative relationships,

which were impacted by many factors during a pandemic. The positive role of home culture connectedness was reflected in a qualitative study on the impact of the COVID on Chinese international students as resilience that was nurtured in Chinese home culture to empower Chinese international students to overcome challenges and issues for adaptations during uncertain situations (Yu, 2021). Therefore, with the resilience that is valued and nurtured in Chinese international students' home culture, the variable of home connectedness might play a favorable role instead of a barrier in Chinese international students' psychological adaptation and sociocultural adaptation, when universities intentionally foster the reflexivity in the process of Chinese international students' connecting to home culture. This requires future research to explore in the post-pandemic era.

Appendix A

Demographic Questionnaire

Please enter your information below:

- 1) Age:
- 2) Gender
 1. Male; 2. Female; 3. Non-binary/third gender; 4. Prefer not to say
- 3) Academic major:
- 4) Level of study (undergraduate or graduate)
 1. Undergraduate; 2. Graduate
- 5) Current Institution_____
- 6) Do you have previous studying abroad experiences other than current institution?
Yes; 2. No
- 7) How long have you been living in the U.S.? (Residence length can be entered either by the number of Month(s) or the number of Year(s)).
- 8) English proficiency scores
 1. Rate your oral English with a level of difficulty
 1. Very difficult; 2. Difficult; 3. Neutral; 4. Easy; 5. Very easy
 2. Rate your written English with a level of difficulty
 2. Very difficult; 2. Difficult; 3. Neutral; 4. Easy; 5. Very easy

Appendix B

Vancouver Index of Acculturation

The Vancouver Index of Acculturation (VIA) developed by Ryder et al. (2000) based on Berry's acculturation model is used to measure the two dimensions of acculturation strategies - home culture connectedness and host culture connectedness, independently. Please answer each question as carefully as possible by choosing one of the numbers for each question to indicate your degree of agreement or disagreement.

The heritage culture indicated in the questions is referred to as your home culture, which is Chinese culture specifically for this study. The mainstream culture indicated in the questions means the host culture, specifically the American culture in this study.

Strongly Disagree – 1; Disagree – 2; Neutral – 3; Agree – 4; Strongly Agree -5

1. I often participate in my heritage cultural traditions.
2. I often participate in mainstream American cultural traditions.
3. I enjoy social activities with people from the same heritage culture as myself.
4. I enjoy social activities with typical American people.
5. I am comfortable working with people of the same heritage culture as myself.
6. I am comfortable working with typical American people.
7. I enjoy entertainment (e.g., movies, music) from my heritage culture.
8. I enjoy American entertainment (e.g., movies, music).
9. I often behave in ways that are typical of my heritage culture.
10. I often behave in ways that are “typically American”.
11. It is important for me to maintain or develop the practices of my heritage culture.
12. It is important for me to maintain or develop American cultural practices.
13. I believe in the values of my heritage culture.
14. I believe in mainstream American values.
15. I enjoy the jokes and humor of my heritage culture.
16. I enjoy typical American jokes and humor.
17. I am interested in having friends from my heritage culture.
18. I am interested in having American friends.

Note: The heritage subscore is the mean of the odd-numbered items, whereas the mainstream subscore is the mean of the even-numbered items. Copyright 1999 by Andrew G. Ryder, Lynn E. Alden, and Delroy L. Paulhus. Adopted from Ryder et al., 2000

Appendix C

Brief Psychological Adaptation Scale Items

The Brief Psychological Adaptation Scale (BPAS) was developed by Demes and Geeraert (2014) to assess both positive and negative feelings, satisfaction, and psychological symptoms specifically derived from cultural relocation. Please answer each question as carefully as possible by choosing one of the numbers representing the frequency of your feeling in response to the following questions.

The host country is referred to as the U.S. in this study, and the home country means China specifically in this study.

1=Never, 2= Rarely, 3=Sometimes, 4= Frequently, 5=Always

“Think about living in [host country]. In the last two weeks, how often have you felt...”

1. Excited about being in [host country]
2. Out of place, like you don't fit into [host country] culture
3. Sad to be away from [home country]
4. Nervous about how to behave in certain situations
5. Lonely without your [home country] family and friends around you
6. Homesick when you think of [home country]
7. Frustrated by difficulties adapting to [host country]
8. Happy with your day-to-day life in [host country]

Appendix D

Sociocultural Adaptation Scale (SCAS)

The SCAS was designed to assess the understanding of host cultures, norms, and values, as well as the behavior in interacting with people and engaging in activities in the host culture (Ward & Kennedy, 1999). In this scale, the participants are asked to rate the level of difficulty in engaging the following activities in the host culture. In this study, the host culture is referred to as American culture.

1. Very difficult; 2. Difficult; 3. Neutral; 4. Easy; 5. Very easy

“Rate difficulty in... while studying in the U.S.”

1. Making friends	1	2	3	4	5
2. Using the transport system	1	2	3	4	5
3. Making yourself understood	1	2	3	4	5
4. Getting used to the pace of life	1	2	3	4	5
5. Going shopping	1	2	3	4	5
6. Going to social events/gatherings/functions	1	2	3	4	5
7. Worshipping in your usual way	1	2	3	4	5
8. Talking about yourself with others	1	2	3	4	5
9. Understanding jokes and humor	1	2	3	4	5
10. Dealing with someone who is unpleasant/cross/aggressive	1	2	3	4	5
11. Getting used to the local food/finding food you enjoy	1	2	3	4	5
12. Following rules and regulations	1	2	3	4	5
13. Dealing with people in authority	1	2	3	4	5
14. Dealing with the bureaucracy	1	2	3	4	5
15. Making yourself understood	1	2	3	4	5
16. Adapting to local accommodation	1	2	3	4	5
17. Communicating with people of a different ethnic group	1	2	3	4	5
18. Relating to members of the opposite sex	1	2	3	4	5
19. Dealing with unsatisfactory service	1	2	3	4	5
20. Finding your way around	1	2	3	4	5
21. Dealing with the climate	1	2	3	4	5
22. Dealing with people staring at you	1	2	3	4	5
23. Accepting /understanding the local political system	1	2	3	4	5
24. Understanding the locals' world view	1	2	3	4	5
25. Taking a local perspective on the culture	1	2	3	4	5
26. Understanding the local value system	1	2	3	4	5
27. Seeing things from the locals' point of view	1	2	3	4	5

28. Understanding cultural differences	1	2	3	4	5
29. Being able to see two sides of an intercultural issue	1	2	3	4	5

Appendix E

Revised Perceived Discrimination Scale

The revised perceived discrimination scale is used to measure perceived societal discrimination. Please answer each question as carefully as possible by choosing one of the numbers for each question to indicate your degree of agreement or disagreement.

Please rate the items on the following five-point Likert scale with higher scores representing higher personal ethnic discrimination.

1. Strongly disagree; 2. Disagree; 3. Neutral; 4. Agree; 5. Strongly agree,

1. People treat you badly because they think you do not speak English well.
2. People treat you unfairly because you are Chinese or of Chinese origin.
3. You feel unaccepted by others in the U.S. because of your Chinese culture.

Appendix F

George Mason University Institutional Review Board Exemption Letter



Office of Research Integrity and Assurance

Research Hall, 4400 University Drive, MS 6D5, Fairfax, Virginia 22030
Phone: 703-993-5445; Fax: 703-993-9590

DATE: December 13, 2021

TO: Angela Miller, PhD
FROM: George Mason University IRB

Project Title: [1846072-1] Examining the moderating role of home culture connectedness in Chinese international students' acculturation in U.S. universities

SUBMISSION TYPE: New Project

ACTION: DETERMINATION OF EXEMPT STATUS
DECISION DATE: December 13, 2021

REVIEW CATEGORY: Exemption category #2

Thank you for your submission of New Project materials for this project. The Institutional Review Board (IRB) Office has determined this project is EXEMPT FROM IRB REVIEW according to federal regulations.

You are required to follow the George Mason University Covid-19 research continuity of operations guidance. You may not begin or resume any face-to-face interactions with human subjects until (i) Mason has generally authorized the types of activities you will conduct, or (ii) you have received advance written authorization to do so from Mason's Research Review Committee. In all cases, all safeguards for face-to-face contact that are required by Mason's COVID policies and procedures must be followed.

Please remember that all research must be conducted as described in the submitted materials.

Please note that any revision to previously approved materials must be submitted to the IRB office prior to initiation. Please use the appropriate revision forms for this procedure.

If you have any questions, please contact Kim Paul at (703) 993-4208 or kpaul4@gmu.edu. Please include your project title and reference number in all correspondence with this committee.

Please note that all research records must be retained for a minimum of five years, or as described in your submission, after the completion of the project.

Please note that department or other approvals may also be required to conduct your research.

GMU IRB Standard Operating Procedures can be found here: <https://oria.gmu.edu/topics-of-interest/human-subjects/>

This letter has been electronically signed in accordance with all applicable regulations, and a copy is retained within George Mason University IRB's records.

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Biography

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