The Antecedents and Outcomes of Host National Connectedness: A Study of International Students in New Zealand

By

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I used to think that I would make a lot of foreign friends after coming to New Zealand.
I could chat with them heartily.
But this has never happened.
It is very difficult to make friends with the locals.

Participant #65 (Ho, Li, Cooper, & Holmes, 2007)

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Abstract

While research on international students' acculturative outcomes typically indicates that they generally thrive, one common source of struggle, noted by practitioners, researchers, educators, and the students themselves, is their inability to form connections with locals. Situated within the stress and coping and cultural learning frameworks of acculturation research, this study ($N = 1527$) examines the antecedents and outcomes of host national connectedness (HNC) among international students in New Zealand. Results indicate that both individual (age, gender, English language proficiency, and the motivation to belong) and contextual (cultural distance and perceived cultural inclusion) predict international students ability to connect with New Zealanders. Contextual variables explain additional variance in HNC above and beyond that explained by the individual variables. Results also provide support for the important role of connections in overall adjustment outcomes, as host national connectedness mediates the relationship between cultural distance, cultural inclusion in the classroom, and English language proficiency and both socio-cultural and psychological adaptation. Hence, host national connectedness serves as the mechanism through which international students attain positive psycho-social adjustment during the acculturation process. Applications for international students, institutions, and policy makers are discussed.

Keywords:

International Students, Host National Connectedness, Acculturative Outcomes

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Introduction

Whether temporarily traveling internationally for pleasure or crossing borders for permanent migration, global mobility is increasing exponentially. In 2013, there were 232 million international migrants living outside of their country of origin (United Nations, 2013) and over one billion international tourists (World Tourism Organization UNWTO, 2013). Although cross-cultural contact can be noted throughout human history, the ease and speed with which individuals can do so in modern society are making it easier for culturally different peoples to interact with one another. This contact and the resulting changes are known as acculturation. The theoretical paradigm of acculturation is useful when examining the transitions of individuals as they cross cultures. Acculturation is the "phenomena which result when groups of individuals having different cultures come into continuous first-hand contact, with subsequent changes in the original cultural patterns of either or both groups" (Redfield, Linton, & Herskovits, 1936, p. 149). Although the notion and definition of acculturation originated in the field of anthropology, psychologists have been increasingly interested in the stresses linked to the process as well as the attitudinal and behavioral changes associated with cultural contact (Berry, 1990).

Broadly, acculturation research examines all groups that come into cultural contact with one another. However, not all contact between groups is identical. Berry (2006) has examined a range of groups that come into cross-cultural contact and classified them based on three primary conditions: the mobility of the group, the permanence of the mobility, and the voluntariness of contact between groups. Hence, acculturation research examines the cross-cultural transitions of those who travel to culturally diverse locations, as well as the intra-national contact of culturally diverse groups. Figure 1.1 illustrates the resulting categories.

Figure 1.1 Classification of Groups in Cross-Cultural Contact

Mobility		Voluntariness of Contact	
		Voluntary	*Involuntary*
Sedentary		Ethnocultural Groups	Indigenous Peoples
Migrant	*Permanent*	Immigrants	Refugees
	Temporary	Sojourners	Asylum Seekers

Figure 1. Adapted from "Contexts of acculturation" by J. W. Berry, 2006, in D. L. Sam & J. W. Berry (Eds.). *The Cambridge Handbook of Acculturation Psychology,* p. 30. Copyright 2006 by the Cambridge University Press.

When examining individuals who cross cultures, the literature has divided the research into those that voluntarily want to leave their country of origin (immigrants and sojourners) and those who are pushed from their countries (refugees and asylum seekers). Moreover, the groups are divided based upon the permanence of their migration, with immigrants and refugees intending to stay in the new location, and sojourners and asylum seekers' temporarily migrating.

These classifications are important, as the acculturation process can be significantly dissimilar for people from the aforementioned categories. The groups theoretically differ in the privileges, power, and means afforded to them in both their countries of origin and settlement. Furthermore, the groups contrast in their approaches, motivations, values, and abilities within the acculturation process. As a result, these individuals vary on both practical and psychological aspects that impact their engagement and contact within the new culture (Berry, 2006). Therefore, acculturative studies typically focus on one sub-category to ensure interpretation of results.

Due to practical and applied purposes, this study focuses on international students; as a sub-grouping of sojourners, this category of culture-crossers warrants a more detailed discussion. Sojourners are individuals who leave their country of origin to accomplish a particular goal for a finite period of time. While the time period may be one week, a few months, or several years, the sojourner intends to return to his or her country of origin. Within the sojourner category, further

subdivisions have been drawn (Bochner, 2006). This category consists of "tourists, international students, expatriates, international civil servants, and military personnel" (Bochner, 2006, p. 183).

With particular attention to international students, members of this group are considered sojourners in that they leave their country of origin to complete a program of study within a specified period of time. However, it is widely recognized that the lines between groups of culture-crossers are blurring. In particular, research has highlighted the link between education-related migration and other forms of international migration (Li, Findlay, Jowett, & Skeldon, 1996). Although international students may not originally intend to permanently migrate to their host country, these intentions can change during the course of their studies, reporting desires to find jobs after their qualification completion (Alberts & Hazen, 2005; Hazen & Alberts, 2006). Furthermore, some national agendas, for example in New Zealand and Australia, focus on the recruitment and subsequent retention of international students to support the labor market (Ziguras & Law, 2006).

Despite the blurring of categories, international students are of practical interest to researchers, institutions, educators, and governments as their numbers are increasing around the world. In 2012, over 4 million students studied abroad, representing 1.8% of total tertiary enrollments (UNESCO: Institute for Statistics, 2014). Given that nations and institutions are engaging in internationalization strategies to increase the recruitment and retention of international students (Childress, 2009; Shannon, 2009), understanding the acculturative process of this particular population is of vital importance for helping practitioners reach their objectives and enhancing the experience of international students.

International Student Adaptation and Adjustment

All cross-cultural travelers are faced with two major challenges: learning the culture-specific skills necessary to survive in a new environment and managing the stress related to the acculturation process. Within acculturation literature, two theoretical frameworks assess an individual's ability to handle these challenges: the cultural learning framework (Argyle, 1969) and the stress and coping framework (Lazarus & Folkman, 1984). Moreover, the two challenges have been associated with two distinct acculturative outcomes: socio-cultural adaptation and psychological adjustment (Searle &Ward, 1990; Ward & Kennedy, 1992, 1993).

Socio-Cultural Adaptation

Socio-cultural adaptation is the ability to learn new social rules and demonstrate behavioral skills in order to function practically and socially in an unfamiliar environment. Searle and Ward (1990) note that socio-cultural adaptation aligns with the cultural learning framework of acculturation as proposed by Argyle (1969) and emphasizes the behavioral component within cross-cultural transitions (Ward, Bochner, & Furnham, 2001).
The cultural learning framework suggests that culture-crossers are novices to their new cultural environment. Hence, they lack the skills necessary for successful adaptation. They must learn and demonstrate the specific inter-personal and behavioral skills necessary to successfully interact and function in the new cultural surroundings (Argyle, 1969).

From infancy, humans are socialized to learn the patterns of interactions and rules that govern social situations, including the relevant sensory stimuli (norms regarding smells, touching patterns, visual cues, and linguistic cues) that communicate meaning. Within a particular culture, social conventions and patterns are generally understood. For example, knowledge of how long a

social interaction is expected to last, what to wear, what to bring, and appropriate etiquette creates a shared cultural code (Argyle, 1969).

During cultural transition, the socialized code to which an individual is accustomed is no longer valid (Cushner & Brislin, 1996). In fact, the existing catalogue of appropriate responses from which the individual draws may be of either limited use or counter-productive to a successful navigation of a social interaction in the new context (Bochner, 1972). Therefore, the acculturating individual must learn the appropriate social code for the new environment.

Within the cultural learning framework, research has focused on two lines of inquiry: intercultural effectiveness and the prediction of successful adaptation. The intercultural effectiveness literature focuses on what must be learned to successfully adapt. This research focuses on language acquisition, understandings of communication styles, and the recognition of differing rules, conventions, norms and values (Masgoret & Ward, 2006).

Learning the language is commonly noted as essential for successfully navigating cultural transition (Gullahorn & Gullahorn, 1966; Ward & Kennedy, 1993). However, language alone is not enough for effective communication in a new cultural context. Individuals must learn culture-specific knowledge (Ward & Searle, 1991), as well as appropriate emotional reactions, self-presentation rules, non-verbal cues, gestures and facial expressions, and norms regarding bodily contact, proxemics, posture, and eye gaze in order to effectively communicate in their new cultural context. Furthermore, culture-crossers must learn to examine and self-regulate their perceptions and attributions of behaviors within the new context (Argyle, 1969).

Moreover, practical aspects of daily life require further adjustments on the part of the cultural newcomer. Individuals in cultural transition potentially must learn to navigate and adapt to a new physical environment and climate, eat new foods, observe new customs, and follow new

laws (Guthrie, 1975). Social structures, levels of hierarchy, and gender roles may all be unfamiliar to culture-crossers and require an adaptation process to acclimatize to the new situation (Argyle, 1969).

Cultural learning theory poses that these new rules and appropriate behaviors can be learned through first-hand experience, training, and education (Argyle, 1969). Within the first-hand experience, cultural learning takes place via observation, participation, and explicit communication with members of the host society (Bochner, 1972). Once learned cognitively, the successful demonstration of culturally appropriate behaviors and responses in social interactions and an acclimation to the physical environment suggest that the individual has adjusted socio-culturally.

The second line of inquiry within the cultural learning framework is the prediction of successful adaptation (Masgoret & Ward, 2006). While culture specific knowledge (Ward & Searle, 1991) and language skills (Ward & Kennedy, 1993, 1994) have been found to predict socio-cultural adaptation, other individual and situational predictors have been examined. Individual qualities such as expectations (Searle & Ward, 1990), personality (Ward & Searle, 1991; Ward, Leong, & Low, 2004), identity (Ward & Kennedy, 1993), and cultural intelligence (Earley & Ang, 2003; Shaffer & Miller, 2008) have been found to predict socio-cultural adaptation. Furthermore, situational predictors of socio-cultural adaptation include: previous cross-cultural experience (Klineburg & Hull, 1979, as cited in Masgoret & Ward, 2006), the length of residence in the host culture (Ward & Kennedy, 1992, 1994; Ward, Okura, Kennedy & Kojima, 1998), and cultural distance (Furnham & Bochner, 1982; Ward & Kennedy, 1999). Finally, the amount and depth of contact with individuals from the host culture have also been

examined as critical components in a sojourner's ability to adapt socio-culturally (Bochner, McLeod, & Lin, 1977; Furnham & Bochner, 1982).

In general, international students display a learning curve of socio-cultural adaptation (Ward & Kennedy, 1992, 1994). Over time, adaptation steadily improves and then plateaus. Ward et al.'s (1998) study of international students in New Zealand indicates that adaptation improved dramatically over the first four months, but no significant improvements were made between six and twelve months. With increased length of residence in the host society, international students successfully learn the rules for effective interaction, exhibit the appropriate behaviors, and successfully function in day-to-day life in their new environment (Masgoret & Ward, 2006).

Psychological Adjustment

The stress and coping framework, highly influenced by the research of Lazarus and Folkman (1984) and Berry (1997), examines cross-cultural transitions as a progression of stress-inducing life changes that require the culture-crosser to employ coping strategies in order to adjust to the new cultural environment. This framework emphasizes the affective nature of cross-cultural transitions (Ward et al., 2001) and is commonly measured via psychological adjustment (Berry, 1997).

Within the stress and coping framework, individual characteristics, in conjunction with situational external triggers, either positive or negative, induce internal perceptions and appraisals of the event that necessitate coping strategies in order to manage (Lazarus & Folkman, 1984). These external stressors include both physical stressors, such as adverse environmental conditions or poor living and working conditions, and socio-cultural stressors, like a change in status, lack of social resources, or unfamiliar structure of social roles (Aldwin, 2007). During the

process of cultural-transition, individuals may face one or many of these stressors as the process of acculturation is inherently taxing, both psychologically and physically (Berry, 1997).

To alleviate stress during cultural transition, sojourners must invoke coping strategies. The reciprocal of stress, coping is the process through which individuals deal with life conditions and situations that are stressful (Lazarus, 1999). Lazarus and Folkman (1984) "define coping as constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person" (p. 141). Coping requires the accumulation of both tangible and intangible resources, such as knowledge, skills, connections, status, power, and money that aid in the coping process (Aldwin, 2007).

When coping strategies are successful, stress is limited; contrarily, when coping is ineffective, stress is high, or even increased (Lazarus, 1999). If not coped with effectively, stress has physiological reactions that effect hormonal responses, the immune system, heart rate, and a myriad of other biological processes. Psychologically, an individual under stress may experience negative affect, such as anger, depression, or frustration. These negative responses interplay with each other and may potentially manifest in poor health outcomes (Aldwin, 2007). Therefore, within acculturation literature, psychological adjustment has been measured via psychological symptoms, particularly depression and anxiety, levels of satisfaction, and feelings of wellbeing (Berry, 2006; Ward et al., 2001).

Within the acculturation paradigm, researchers have attempted to identify the factors which influence psychological adjustment, exploring a myriad of individual and contextual elements. Given their relationship to stress, coping strategies (Ward & Kennedy, 2001) and cognitive appraisal (Zheng & Berry, 1991) have naturally been examined as predictors of psychological adjustment. Similarly, demographic factors, such as age (Beiser et al., 1988; Kuo

& Roysircar, 2004; Yeh, 2003), gender (Beiser et al., 1988; Furnham & Shiekh, 1993), education (Beiser et al, 1988), and economic status (Beiser et al., 1988; Kuo & Roysircar, 2004) have been examined. Researchers have also investigated individual factors such as language ability (Dao, Lee, & Chang, 2007; Duru & Poyrazli, 2007; Kuo & Roysircar, 2004), cultural distance (Babiker, Cox, & Miller, 1980; Fritz, Chin, & DeMarinis, 2008; Sam, 2001; Ward & Searle, 1991), locus of control (Ward & Kennedy, 1992), and personality factors (Searle & Ward, 1990; Ward & Kennedy, 1992). Motivational components, such as whether or not the migration was voluntary (Kim, 1988), and levels of discrimination within the host society (Greene, Way, & Pahl, 2006; Major, Quinton, & McCoy, 2002; Sam, 2001) have been investigated to further understand psychological adjustment. Finally, levels of social support (Adelman, 1988; Fontaine, 1986; Furnham & Shiekh, 1993) and contact with members of the host society (Ward & Kennedy, 1992) have been studied as predictors of positive psychological adjustment outcomes.

In longitudinal studies of acculturation, psychological adjustment has been found to be variable over time. For example, Ward and colleagues (1998) found that psychological symptoms were highest among international students at the time of entry and were significantly lower at 4 months. Evidence has not always consistently supported this finding, however, and more recent research indicates that psychological adjustment is variable, dependent upon a multitude of stress predictors and, therefore, not all encountering the acculturation process follow a unitary adjustment course (Geeraert & Demoulin, 2013).

Although psychological adjustment and socio-cultural adaptation are typically empirically related, they are seen as separate indicators of acculturative outcomes (Berry, 2006; Ward, 2001). Socio-cultural adaptation and psychological adjustment are theoretically and conceptually different. Moreover, their predictors and time courses are distinct (Ward, 2001).

International Student Connectedness

Cross-cultural transitions do not occur in social isolation. Social networks, comprised of family, friends, neighbors, colleagues, and formal and informal associates (Fontaine, 1986) are sources of instrumental, emotional, or informational assistance that aid sojourners in the process of cultural transition (Thoits, 1995). As a result, it is no surprise that research on the acculturation process highlights international students' social networks and support as predictors of both socio-cultural adaptation and psychological adjustment.

Within the broader stress and coping literature, social support has consistently been found to be an important coping resource. Moreover, for some, the lack of human interaction and connection can be a stressor in and of itself (Thoits, 1995). This important coping resource has been found to positively predict mental and physical health and reduce psychological distress, whereas social isolation is linked to high levels of stress and poor psychological adjustment (McColl, Lei, & Skinner, 1995; Taylor & Stanton, 2007; Thoits, 1995).

Social networks and support have also been argued to aid in sojourner's socio-cultural adaptation. These networks help the culture-crossers to understand and interpret behaviors, form accurate attributions, and clarify situations (Adelman, 1988). Therefore, social networks have been argued to help international students adapt to their new cultural environment.

Research has consistently highlighted three major groups within international students' social circles: host-nationals (native-born), co-nationals (compatriots), and multi-nationals (others) (Bochner et al., 1977; Furnham & Alibhai, 1985). More recently, technological advancements and the ease of communication have also made home-country connections increasingly important (Bochner, 2006; Van Oudenhoven & Ward, 2012).

These groups have been found to be important sources of connection for international students, but research indicates that the groups vary in the amount and type of support that they provide (Church, 1982; Furnham & Alibhai, 1985; Furnham & Bochner, 1982; Ward & Rana-Deuba, 2000). The co-national support networks have been argued to provide the primary network of connections, serving as a strong source of emotional support for international students. Likewise, it has been argued that international students rely on the multi-national network for recreation; international students from various countries connect socially because they all have limited support networks in the new country and have similar goals and needs. Finally, the host-national networks have been claimed to be used in a utilitarian fashion by international students seeking practical and academic information, advice, and direction (Bochner et al., 1977).

Despite their positive benefits, research generally notes that international students have difficulties forming social networks. Zheng and Berry (1991) found that sojourners and international students reported more difficulties in making friends than domestic students. Given the demands of adjusting to a new environment, as well as the academic pressures placed on international students, researchers have noted that social goals are often forfeited to the pursuit of academic goals; the demands of academic life are so rigorous that international students who prioritize their studies lack the time and opportunity to form social networks (Selby & Woods, 1966).

Defining Connectedness

While most international students thrive, researchers, educators, practitioners, and students have all noted that social connectedness is an area of major concern among international students and other immigrants, which in turn is linked to their resulting success in the new

culture (Sonn, 2002; Sumer, Poyrazli, & Grahame, 2008; Yeh & Inose, 2003). Yet, the idea of connectedness is a difficult term to define. Within the child development literature, Barber, Stolz, and Olsen (2005) define connection as:

> A tie between the child and significant other persons (groups or institutions) that provides a sense of belonging, an absence of aloneness, a perceived bond. Depending on the intimacy of the context, this connection is produced by different levels, degrees or combinations of consistent, positive, predictable, loving, supportive, devoted, and/or affectionate interaction. (p. 119)

This conceptualization of connection can be extended to the context of international students and will be used in this study.

Measuring Connectedness

The connectedness of international students has been studied in a myriad of ways. Early studies of international students' connectedness focused on objective measures, such as the number of friends, frequency of contact, or the amount of time spent with friends (Bochner, Hutnik, & Furnham, 1984; Bochner et al., 1977). Subsequent studies continued to use these objective measures of connections (Hendrickson, Rosen, & Aune, 2011; Ward & Searle, 1991).

While frequency measures have provided important insights into international students' social circles, Church (1982) notes that they often do not account for the level of intimacy within the relationship. Hence, subjective measures, like one's sense of belonging and feelings of social support, have increasingly been used to assess international students' connectedness (Hendrickson et al., 2011; Ward & Searle, 1991; Yang & Clum, 1995). Such measures of the construct have indicated that the lack of social connectedness has been associated with loneliness and homesickness (Rajapaksa & Dundes, 2003), while social support has been found to buffer

the negative effects of acculturative stress on psychological symptoms for international students (Lee, Koeske, & Sales, 2004). Additionally, Ward and Rana-Deuba (2000) found that the quality of social connections was more important than the frequency or volume of connections in the prediction of psychological adjustment. As a result of these collective findings, this study will measure connectedness via both objective and subjective indicators.

Examining Host National Connections[1]

Whilst connectedness, in a general sense, has been noted as a source of difficulty for international students, forming relationships with domestic students and other host nationals, more specifically, is a prominent, consistent source of struggle in host nations around the world (Bochner et al., 1977; Furnham & Bochner, 1982; Gareis, 2012; Montgomery, 2010; Selby & Woods, 1966; Zaidi, 1975). For instance, Gareis' (2012) study of international students in the United States found that 38% of participants had no close American friends and only 27% had three or more American friends, while Zaidi (1975) found that only 47% of international students in Pakistan had any social relationship with locals, including classmates. Additionally, a qualitative study by Montgomery (2010) noted that international students in the United Kingdom reported having only a few individuals from the UK in their friendship groups, remarking that their closest friends tended to be co-nationals.

General discussions of the international students' social groups often claim that the sojourners have no desire to mingle with host nationals, rather preferring to stay in ethnic enclaves. For example, in a chapter of sojourner acculturation, Bochner (2006) notes, "the degree

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[1] It is important to note that, while all of the connections discussed by Bochner and colleagues (1977) are important for international students, this study will focus only on those connections with host nationals. This focus is by no means intended to diminish the importance of maintaining co-national or multi-national connections, nor is it intended to imply that international students should only have host national connections. Rather, the investigation stems from the knowledge that international students simultaneously desire greater host national connections and have difficulty forming these relationships.

of a sojourner's *emotional investment* in their host societies can be inferred from the nature of their *social networks*, in particular whether they have local friends and associates" (p. 184). Studies have also noted that international students prioritize their studies and therefore make the conscious choice not to socialize with others (Selby & Woods, 1966). Furthermore, research specifically with international students has noted higher frequencies of co-national friendships than host national friendships among international students and has implied that international students favored having culturally similar friends (Bochner et al., 1984; Furnham & Alibhai, 1985; Furnham & Bochner, 1982). These general claims are supported by theories of homophily, which state that like attracts like (Centola, Gonzalez-Avella, Eguiluz, & San Miguel, 2007) and assume that international students voluntarily choose not to connect with the host society.

Yet, this notion is directly contradicted by research on international student preferences, satisfaction levels, and expectations. Selby and Woods (1966) note that the international students, in general, were extremely dissatisfied with their relationships with host, American students. Zaidi's (1975) study of international students in Pakistan found that 93% were not satisfied with their social life. International students in Canada had significantly higher social incongruence scores, between desired and actual contact with Canadians, than domestic students (Zheng & Berry, 1991). Furthermore, a 2012 Australian national survey of international students indicated that 86% of international students would like to have more Australian friends (Australian Education International, 2013). Hence, research consistently indicates that the level of connections that international students desire is incongruent to the level of connection attained. As a result, claims that students do not desire connections seem ill-founded.

Host National Connectedness and Acculturation Outcomes

Acculturation research has highlighted that above and beyond general social support, host national connectedness (HNC), in particular, serves as a positive predictor of socio-cultural adaptation and psychological adjustment. Since connections provide learning opportunities for international students, studies have indicated that HNC positively predicts socio-cultural adaptation within the cultural learning framework (Ward & Kennedy, 1993, 1994). Original studies in this area claimed that by making friends with host nationals, international students were able to learn necessary behavioral skills and social rules more easily and therefore more readily adapt to the new culture (Furnham & Bochner, 1986). More recent studies of international students and sojourners corroborate these findings (Brisset, Safdar, Lewis, & Sabetier, 2010; Ward & Rana-Deuba, 2000; Ying & Han, 2006, 2008). However, a meta-analysis by Wilson, Ward, and Fischer (2013) notes that, contrary to psychological adjustment, the quantity of contact is a better predictor of socio-cultural adaptation than the quality of contact.

Connections serve as important coping resources (Thoits, 1995). Hence, it is no surprise that social support generally eases stress, aids in coping, and is linked to positive outcomes (McColl et al., 1995; Taylor & Stanton, 2007). Research on stress and coping indicates that social support serves an important function, as it provides feedback about an individual's appraisals and regulates the coping process (Aldwin, 2007; Thoits, 1986).

Likewise, international students' HNC has been linked to positive psychological adjustment within the stress and coping framework of acculturation, as it attenuates the negative effects of acculturative stress (Cheung & Yue, 2013; Kashima & Loh, 2006; Searle & Ward, 1990; Zhang & Goodson, 2011). Research indicates that international students' HNC is linked to higher levels of satisfaction with the international study experience (Furnham & Bochner, 1986;

Rohrlich & Martin, 1991) and less homesickness, social isolation, and acculturative stress (Hendrickson et al., 2011; Ying & Han, 2006). However, research has not always supported this relationship (Ward & Kennedy, 1992) and evidence suggests that the quality of HNC is a more important factor in psychological adjustment than the quantity (Ward & Rana-Deuba, 2000).

In sum, these studies show that HNC is not simply an important variable because international students desire to obtain more connections with hosts. Rather, HNC is an instrumental variable in the prediction of positive acculturation outcomes, in that it helps international students handle the two major challenges of crossing cultures: learning the skills and rules necessary to function successfully and managing the stress of cultural transition.

Factors Influencing Host National Connectedness

In order to successfully foster HNC, researchers have examined the factors that promote and prevent the formation of these connections (Peacock & Harrison, 2009; Volet & Ang, 2012). Individual characteristics, such as low language proficiency (Gareis, 2012; Ho et al., 2007; Montgomery, 2010; Peacock & Harrison, 2009; Volet & Ang, 2012; Ward & Masgoret, 2004), lack of common interests (Gareis, 2012; Ho et al., 2007; Montgomery, 2010; Peacock & Harrison, 2009; Volet & Ang, 2012), and a lack of effort to reach out to host nationals (Montgomery, 2010; Ward & Masgoret, 2004) have been argued to be barriers to HNC. Other personal factors that influence HNC include attachment styles (Brisset et al., 2010), levels of extroversion (Peacock & Harrison, 2009; Searle & Ward, 1990; Ying, 2002; Ying & Han, 2006), and acculturation styles (Ying & Han, 2006).

By focusing on individual attributes, these studies imply that the international student bears the sole burden for connecting and adjusting successfully. A failure to connect is frequently seen to stem from an individual fault, such as a lack of effort, being too introverted, or

having poor English skills. Hence, international students are left with the responsibility of combating adjustment issues on their own and institutional leaders ignore contextual factors that contribute to the positive adjustment of students (Lee & Rice, 2007).

As argued in general acculturation theories (Berry, 1997), contextual factors also influence the formation of connections with hosts. Accordingly, the role of contextual characteristics has received increasing recognition. Although examined less frequently than individual factors, perceived discrimination (Berry, Phinney, Sam, & Vedder, 2006a, 2006b; Bochner et al., 1977; Duru & Poyrazli, 2011; Klineberg & Hull, 1979 as cited in Furnham & Bochner, 1986; Pruitt, 1978), stereotypes (Volet & Ang, 2012), disinterest of the domestic students (Montgomery, 2010; Peacock & Harrison, 2009), percentage of international students among the student population (Ying, 2002; Ying & Han, 2008), and a lack of institutional facilitation (Gareis, 2012; Peacock & Harrison, 2009) have been studied as predictors of HNC.

The Current Study

Although research on international students indicates that they generally tend to thrive in their new cultural environment (Generosa, Molano, Stokes & Schulze, 2013), one consistent source of struggle, as noted, is their inability to connect with local people. Findings highlight the large disconnect between the number of domestic friends that international students have and the number of local friends they want. While theories and common beliefs may support the notion that international students prefer to stay in culturally similar groups, the students themselves indicate that they expect to make local friends, are dissatisfied when they do not, and desire to have more local connections. Therefore, determining the factors associated with the formation of connectedness is vital to minimize this gap. Additionally, it is important to understand the role that these connections play in the overall adjustment of international students.

Consequently, in order to better understand this phenomenon, this study assesses the antecedents and outcomes of HNC among international students in New Zealand. To adequately evaluate HNC, its definition and measurement must also be considered. Before discussing the specific variables relevant to this study, it is important to understand the state of international students in New Zealand.

New Zealand Context

New Zealand, like other English speaking nations, has a flourishing international education industry and is considered a 'new player' in the market (OECD, 2013b). Students have increasingly been choosing New Zealand as their destination country; its global market share of international students rose from 0.4% in 2000 to 1.7% in 2010 (International Division Ministry of Education, 2013; OECD, 2013a). In 2012, New Zealand's public tertiary education institutions hosted 18,300 international students (International Division Ministry of Education, 2013), defined as students who emigrated from their country of origin for the primary purpose of study (OECD, 2013a). In fact, 2011 statistics indicate that international students comprised 16% of all tertiary-level enrollments in New Zealand (OECD, 2013a). According to 2012 enrollment statistics, roughly 60% of the total tertiary international student population hails from China, the United States, Malaysia, Saudi Arabia, India, and South Korea (International Division Ministry of Education, 2012).

Within New Zealand, international education is a vital and competitive business sector. International students not only provide cultural diversity at institutions, but they also support the local economy. In 2007, international students contributed approximately 2.1 billion dollars to New Zealand's economy, of which tertiary international students comprised 32.1% of the overall

contribution (Infometrics, NRB, & Skinnerstrategic, 2008). Moreover, the industry supports more than 32,000 New Zealand jobs (Immigration New Zealand, 2012).

So as to contend in the national and international competition for international students, institutions provide them with support and services. To ensure international students' wellbeing, all institutions in New Zealand must adhere to the Code of Practice of Pastoral Care for International Students (New Zealand Qualifications Authority, 2013). This code requires that international students be provided with accurate information and advice, an orientation program, and support services, including help when facing adjustment difficulties. Hence, institutions spend money on programs and services that help the students practically (providing advice on health insurance and immigration issues), academically (offering English language support, tutoring, and advice on supervisor relationships), and socially (sponsoring buddy programs and international student programming). These services intend to supply international students with the tools they need to adjust to a new environment and thrive academically and psycho-socially.

Overall, international students in New Zealand thrive. A 2011 national survey measuring international students' satisfaction indicated that 88% of tertiary international students were satisfied or very satisfied with their experiences and 74% would recommend their institution to others (Generosa et al., 2013).

With regards to international students' HNC, the situation in New Zealand is no different from other host nations; despite the general satisfaction of international students and the diligent efforts of institutions to provide care, making connections with New Zealanders is a challenge for many international students. A 2011 national survey revealed that roughly 25% of international student participants had no New Zealander friends, while only about 30% had four or more New Zealander friends (Generosa et al., 2013). Ho et al. (2007) found that Chinese

international students in New Zealand overwhelmingly turned to co-nationals for social, emotional, and practical support when they were upset, lonely, needed someone to talk to, or were sick. Between 0 and 5% of these students received support from New Zealanders for emotional needs and only one in six received practical help from New Zealanders (Ho et al., 2007). Likewise, Ward and Masgoret (2004) examined the experiences of a nationwide sample of international students in New Zealand, finding that New Zealanders were available sources of informational and practical assistance for between 15 and 32% of international students. The authors were keen to note that these numbers represented the *perceived availability* of support, not the frequency of use. Hence, roughly two-thirds of international students did not even perceive New Zealanders as available for support in most situations. When reporting the actual frequency of friendships, only six percent of international students stated that they had many New Zealanders as friends, while 35% had none and 11% had one New Zealander friend (Ward & Masgoret, 2004).

As found in other host nations and contrary to popular belief, a divide exists between international students' yearnings for connections and the reality of their social circles in New Zealand. Ward and Masgoret (2004) found that 70% of international students desired to have more local friends. Moreover, those that expressed the most dissatisfaction with their friendships were more likely to be close friends with co- or multi-nationals (Generosa et al., 2013). Although international students were confident in their pre-arrival expectations about their ability to make friends with New Zealanders, these expectations were found to be incongruent with their actual ability to establish these relationships (Ho et al., 2007).

Predicting HNC

Given the limited contextually focused HNC research, the simultaneous examination of individual and environmental factors of HNC has seldom been investigated (Volet & Ang, 2012), resulting in general calls for the combination in acculturation research (Wilson et al., 2013). This study aims to bridge this gap in the literature by testing a model of the antecedents and outcomes of HNC for international students. It simultaneously examines both the contextual and individual factors as predictors of HNC, while investigating the mediating role of HNC on international students' psychological adjustment and socio-cultural adaptation. Consequently, a deeper discussion of the antecedent variables is necessary.

Individual antecedents.

English language proficiency. Language is a crucial part of successful communication and survival. Without the ability to communicate one's needs or desires, practical and social requirements cannot be met. Language proficiency has been shown to be an important predictor of connectedness, as it is associated with increased socialization and meaningful interactions with host nationals (Church, 1982; Gullahorn & Gullahorn, 1966; Masgoret & Gardner, 1999; Poyrazli, Arbona, Nora, McPherson, & Pisecco, 2002). These studies support the notion that language proficiency is vital for effective communication, intercultural interactions, and HNC.

With respect to the cultural learning framework, an inability to communicate with host nationals lessens the chances that one can learn the appropriate cultural rules and behaviors for the new context from an insider. Following this understanding, language proficiency has been found to predict socio-cultural adaptation (Blood & Nicholson, 1962; Masgoret, 2006) and general adjustment levels (Tanaka, Takai, Kohyama, & Fujihara, 1994) among international students and sojourners.

Within the stress and coping framework, the inability to communicate one's needs is a stress-inducing situation. Hence, international students' level of language proficiency has been argued to be a crucial component of adjustment (Chen, 1999; Mori, 2000). Numerous studies have linked language proficiency to psychological adjustment (Cetinkaya-Yildiz, Cakir, & Kondakci, 2011; Dao et al., 2007; Duru & Poyrazli, 2007; Poyrazli, Kavenaugh, Baker, & Al-Timimi, 2004). In particular, lower levels of English language proficiency have significantly predicted depression, anxiety, and acculturation stress among international students (Sumer et al., 2008; Yeh & Inose, 2003), while higher levels positively predicted adjustment (Poyrazli et al., 2002).

In light of this research, it is hypothesized that greater English language proficiency will positively predict HNC. Furthermore, the effects of English language proficiency on psychological adjustment and socio-cultural adaptation will be partially mediated by HNC.

Motivation. Current theoretical frameworks within the acculturation paradigm note that cross-cultural travelers have a degree of agency, through which they dynamically influence their acculturative outcomes (Gezentsvey & Ward, 2008). This agency, or motivation, within the adaptation and adjustment process and its influences on acculturative outcomes are strikingly absent from research in the area (Gezentsvey & Ward, 2008; Recker, 2012). However, limited evidence suggests that motivation is a key construct in predicting adaptive outcomes (Ward, 2008).

Despite this limited research on motivation in international students' acculturative process, common thought insinuates that students do not form connections with host nationals because they prefer to stay in ethnic enclaves (Bochner et al., 1984; Furnham & Alibhai, 1985; Furnham & Bochner, 1982). These notions assume a lack of motivation for connectedness

without empirically testing it. This study aims to investigate this gap. It is proposed that motivational factors are likely to exert a strong influence on the development of HNC, thereby two types of motivation are incorporated into the investigation of the antecedents to HNC, the motivation to belong (Leary, Kelly, Cottrell & Schreindorfer, 2013) and the motivation for cultural exploration (Recker, 2012); each requires further explanation.

The motivation to seek, develop and maintain relationships with others has been studied and theorized by numerous researchers (Baumeister & Leary, 1995; Bowlby, 1969; Leary & Cox, 2007; Maslow, 1968). Within Maslow's (1943) foundational theory of human motivation, the need for affection, belonging, and love is only preceded by physiological and safety needs, and spurs individuals to act in accordance with the fulfillment of this need. This fundamental need for everyday affiliations and social belonging acts as an impetus to rouse behaviors and has been argued to be an innate appetitive drive, which, like hunger, is responsive to deprivation and satiation (Baumeister & Leary, 1995; Gewirtz & Baer, 1958; O'Connor & Rosenblood, 1996). Moreover, the need to belong has been argued as a fundamental motivation, driving interpersonal interactions and relationship formation (Baumeister & Leary, 1995); those high in affiliation motivation have been found to have increased social contact and interactions with others (Leary et al., 2013; Wong & Csikszentmihalyi, 1991). Research also suggests that because belongingness is a fundamental need, its absence results in adverse psychological outcomes (Baumeister & Leary, 1995).

Based on these theoretical and empirical findings, the motivation to belong should drive international students to form connections with others, while the absence of such relationships should cause adverse psychological consequences. Given that international students' motivation to belong could drive them towards relationships with co- or multi-nationals in the host country,

an additional motivation is thought to be necessary to explain host-national connectedness: the motivation for cultural exploration (Recker, 2012).

The motivation for cultural exploration suggests that some individuals have a need for novelty, which aids in their adaptation to cultural change by allowing them to be open to broader experiences (Recker, 2012). Novelty, curiosity, and exploration have been argued to arise from an innate desire to resolve uncertainty, stimulation via complexity, and the arousal of the unknown (Berlyne, 1966). When faced with novel stimuli, individuals are motivated to behave in a way that makes the unfamiliar familiar, through actions such as asking questions, engaging with complex objects to gain understanding and resolve uncertainty, and exploration of stimulating objects and environments (Berlyne, 1966; Harlow, 1953; Smock & Holt, 1962). The motivational components of novelty and curiosity have been used to understand learning processes (Berlyne, 1966) and even tourism choices and behaviors (Bello & Etzel, 1985; Lee & Crompton, 1992). While novelty typically elicits positive approach behaviors, research indicates that individuals vary in the level to which novelty invokes motivated actions (Smock & Holt, 1962).

Based on these theoretical underpinnings, the motivation for cultural exploration posits that the novel, stimulating environment surrounding culture-crossers should motivate exploratory and positive-approach behaviors amongst international students. In other words, international students high in the motivation for cultural exploration will be more likely to engage with the New Zealand context and its people in order to satiate their curiosity, resolve uncertainty about their new environment, and make the foreign more common, which ultimately eases their adjustment process. Although Recker (2012) hypothesized that the motivation for cultural

exploration might help to facilitate a sense of belonging for individuals in a new culture, this motivation did not have a relationship with national peer connections in its initial testing.

Given that those high in the need to belong are expected to seek out and maintain personal connections and those high in the motivation for cultural exploration are expected to seek out novelty and be open to new experiences, only the interaction between both motivations is expected to predict HNC. It is hypothesized that the motivation for cultural exploration will enhance the positive effects of the motivation to belong on HNC.

Moreover, as HNC is a means by which international students can explore and learn the customs of the New Zealand context and an absence of belonging is linked to poor psychological adjustment, it is expected that HNC will be the mechanism through which the motivational interaction will lead to positive psychological outcomes. Therefore it is hypothesized that HNC will mediate the interaction effect between the motivation to belong and the motivation for cultural exploration on psychological adjustment and socio-cultural adaptation.

Contextual antecedents.

Cultural distance. Cultural distance measures the extent to which the international students' home culture is different from the culture in which he or she is studying, both physically and socially (Babiker et al., 1980). A high cultural distance implies that individuals from highly different cultures will have less in common with host nationals, resulting in fewer bonding opportunities and thereby limiting international students' ability to connect (Gareis, 2012; Ho et al., 2007; Montgomery, 2010; Peacock & Harrison, 2009; Volet & Ang, 2012). Research has consistently found that international students of a higher cultural distance report more difficulties forming and managing relationships with host nationals (Fritz et al., 2008; Furnham & Alibhai, 1985; Furnham & Bochner, 1982).

Within the cultural learning framework, greater cultural distance signifies that an individual must learn and demonstrate more skills and behaviors to function successfully (Furnham & Bochner, 1982). Research consistently indicates that socio-cultural adaptation is eased by cultural similarity (Furnham & Bochner, 1982; Galchenko & van de Vijver, 2007; Searle & Ward, 1990; Ward & Kennedy, 1999).

Within the stress and coping framework, Babiker and colleagues (1980) suggest that a greater cultural distance leads to more stress, as the individual must deal with a greater magnitude of changes. Within this framework, poor psychological adjustment has been related to high levels of cultural distance (Galchenko & van de Vijver, 2007), in that it negatively impacts anxiety levels (Babiker et al., 1980; Fritz et al., 2008) and positively predicts mood disturbances (Ward & Searle, 1991). Furthermore, low levels of cultural distance have been associated with greater satisfaction with life (Sam, 2001).

Overall, this research supports the notion that greater differences in cultures leave international students with fewer resources to manage daily interactions, resulting in lower socio-cultural adaptation and higher incidences of psychological maladjustment (Babiker et al., 1980; Furnham & Bochner, 1982). As a result, it is hypothesized that greater cultural distance will negatively predict HNC. Additionally, it is expected that the effects of cultural distance on psychological adjustment and socio-cultural adaptation will be partially mediated by HNC. For the purposes of this study, cultural distance has been categorized as a contextual variable since it is a measure of the similarity of the environment rather than an individual characteristic. It should be noted that a subjective measure of this contextual variable is utilized in this study.

Perceived discrimination. The perception that one is treated differently or unfairly due to his or her ethnic or racial membership can lead to fear, anxiety, or uncertainty of potential

discrimination in future situations, which in turn can cause increased stress. Moreover, the feeling that there is nothing one can do to alter others' negative opinions can render even the most adept at coping strategies useless (Whitbeck, McMorris, Hoyt, Stubben, & LaFromboise, 2002) and does not encourage the individual to align themselves with the broader society (Berry et al., 2006a).

Consistently, perceived discrimination has been a key factor associated with HNC and acculturative outcomes (Berry & Sabatier, 2010; Lee & Rice, 2007; Major et al., 2002; Tanaka et al., 1994). Although perceived discrimination can have a broader definition, for the purposes of this study it is conceptualized as the belief that one has been treated with prejudice due to racial or ethnic membership (Major et al., 2002). While many international students report perceived discrimination (Lee & Rice, 2007), these perceptions vary between individuals within an ethnic group and between ethnic groups (Berry & Sabatier, 2010; Smith & Khawaja, 2011). Hence, despite perceived discrimination being classified a contextual factor, it is important to note that it is assessed via a subjective measure, dependent upon personal experiences.

The relationship between HNC and perceived discrimination has been the subject of extensive research (Berry et al., 2006a, 2006b; Duru & Poyrazli, 2011; Faircloth & Hamm, 2005; Pruitt, 1978; Tropp, Hawi, Van Laar, & Levin, 2012; Yoon, Hacker, Hewitt, Abrams, & Cleary, 2012). Perceived discrimination has been negatively associated with social connectedness (Duru & Poyrazli, 2011) and sense of belonging (Faircloth & Hamm, 2005), while positively associated with feelings of alienation from mainstream society (Pruitt, 1978). Furthermore, low levels of perceived discrimination have been associated with greater numbers of majority group friends (Tropp et al., 2012), while those perceiving high levels of discrimination are less likely to align themselves with the larger society (Berry et al., 2006a). Overall, these studies support the idea

that perceived discrimination has a negative impact on HNC and imply that perceptions of discrimination create a barrier to its formation.

Research indicates that perceptions of discrimination pose a barrier to learning and performing new cultural skills, linking perceived discrimination to socio-cultural maladjustment (Duru & Poyrazli, 2011; Sodowsky & Plake, 1992; Tanaka et al., 1994; Vega, Khoury, Zimmerman, Gil, & Warheit, 1995). Research has consistently found perceived discrimination to significantly predict poorer adaptation on socio-cultural indicators (Duru & Poyrazli, 2011; Sodowsky & Plake, 1992), while a meta-analysis of the predictors of socio-cultural adaptation found perceived discrimination to have the largest effect size of all variables examined (Wilson et al, 2013).

Likewise, the feelings of discrimination induce stress among some international students. Lacking the adequate coping resources to handle this discrimination, perceived discrimination can lead to poor psychological outcomes. Generally, perceived discrimination has been linked to numerous negative outcomes, including low self-esteem (Berry & Sabatier, 2010) and identity conflict (Leong & Ward, 2000). With respect to acculturative psychological adjustment, perceived discrimination has been found to be a significant predictor of maladjustment, including increased symptoms of depression in ethnic minorities and over time (Greene et al., 2006; Whitbeck et al., 2002) and low levels of wellbeing (Major et al., 2002). Furthermore, low levels of perceived discrimination predicted greater satisfaction with life among international students (Sam, 2001).

Previous research also suggests that HNC plays a pivotal role in successful outcomes in the face of discrimination. Yoon et al. (2012) examined the relationship between perceived discrimination, connectedness, and subjective wellbeing, finding that perceived discrimination

was negatively associated with connectedness to the mainstream society, which in turn resulted in lower levels of wellbeing.

As a result of the evidence provided by these studies, particularly the relationship between perceived discrimination, connectedness, and wellbeing found in Yoon and colleagues' (2012) study, greater perceived discrimination is hypothesized to negatively predict HNC. Additionally, it is hypothesized that HNC will partially mediate the negative effects of perceived discrimination on psychological adjustment and socio-cultural adaptation.

***Perceived cultural inclusion*.** International students from diverse backgrounds do not shed their unique cultural identities at the border. The extent to which these identities, including traditions, customs, foods, or ways of thinking, relating, and being are accepted have been argued to positively predict successful acculturative outcomes, as the broad acceptance of diversity allows individuals to feel secure and confident in their cultural identity (Celenk & van de Vijver, 2014).

Perceived cultural inclusion can be defined as the extent to which an individual subjectively interprets the environment to be inclusive of cultural diversity (Ward & Stuart, 2013). Also known as multiculturalism, culturally inclusive environments are settings in which there is the formal affirmation of cultural identities in, for example, policy, school curricula, laws, and funding (Ward, 2013). Multiculturalism encompasses three components: a demographic fact (the presence of cultural diversity), policy (government or institutional action that maintains and supports equitable participation among diverse groups), and psychology (the attitudes regarding cultural diversity) (Berry, Kalin, & Taylor, 1977, as cited in Berry & Ward, in press; Ward & Stuart, 2013).

The perceptions of cultural inclusion can be targeted both proximally and distally. Amongst international students, the perceptions of cultural inclusion at the proximal level include feelings that their instructors, peers, and institution respect and include cultural diversity in teaching methods, curricula, and daily interactions (Ward & Masgoret, 2004). More distally, perceived cultural inclusion can examine the extent to which international students feel that New Zealand society, as a whole, is tolerant and accepting of diversity in its demographics, policies, and general public attitude (Ward & Stewart, 2013). Whether examined proximally or distally, societies and institutions that are accepting of diversity limit the amount of stress felt by minorities and/or immigrants due to cultural differences, thereby leading to positive acculturative outcomes (Celenk & van de Vijver, 2014).

Inclusive institutional contexts and environments have been found to positively associate with connectedness factors. Research indicates that inclusive curricula lead to both a sense of belonging to the campus and increased cross-cultural social interactions (Glass & Westmont, 2014), while inclusive campus climates positively predict a sense of belonging on campus among immigrant students (Stebleton, Soria, Huesman, & Torres, 2014). Moreover, students who perceive their classroom to be inclusive of cultural diversity report more sources of social support (Ward & Masgoret, 2004).

More broadly, multicultural environments are associated with fewer perceptions of community discrimination (Brown & Chu, 2012), a greater tolerance of other groups, improved intergroup attitudes, and a greater willingness among ethnic minorities to interact with the majority group (Berry & Kalin, 1995; Lambert, Mermigis, & Taylor, 1986) Additionally, international students who believe that New Zealanders display positive attitudes towards international students have higher levels of social support (Ward & Masgoret, 2004).

The perception of cultural inclusion is associated with positive psychological outcomes. Higher levels of cultural inclusiveness in the classroom are associated with greater reports of life satisfaction among international students in New Zealand (Ward & Masgoret, 2004). Among immigrant youth, perceptions of a multicultural school environment predict ethno-cultural empathy, which in turn results in subjective happiness (Le, Lai, & Wallen, 2009).

Broader multicultural environments have been linked to higher self-esteem (Verkuyten, 2009) in immigrant and minority populations, which in turn has been linked to greater general life satisfaction (Verkuyten, 2010). Evidence indicates that the perceived cultural inclusion at the societal level, known as subjective multiculturalism, serves a protective function in situations that typically lead to negative outcomes (Stuart, 2012). Stuart found that higher levels of subjective multiculturalism among immigrant youth predicted better psychological adjustment, as measured by lower depression and higher wellbeing scores. Additionally, higher levels of subjective multiculturalism predicted lower levels of both discrimination stress and cultural transition stress, while buffering negative stress outcomes in actual situations of lower acceptance (Stuart, 2012). In combination, these studies support the notion that multicultural environments, both proximal and distal, reduce the transition stress felt by international students, helping them to cope in the new setting and facilitating self-esteem, well-being, and life satisfaction.

Although minimally examined, perceptions of cultural inclusion have also been found to positively impact socio-cultural adaptation such that an environment which is perceived as more accepting of diversity enables cultural outsiders to more easily adapt to new cultural norms and rules of behavior (Stuart, 2012). In an examination of socio-cultural adaptation and subjective

multiculturalism, Stuart (2012) found that immigrant youth who perceived a more multicultural environment exhibited fewer behavioral problems and better overall adjustment.

Although the study of perceptions of cultural inclusion, both in the classroom and in the broader society, is an emerging construct, findings indicate that acceptance of cultural diversity, at both the proximal and distal levels, has positive benefits for social support (Ward & Masgoret, 2004), feelings of belongingness (Glass & Westmont, 2014; Stebleton et al., 2014) and intergroup relations (Berry & Kalin, 1995; Lambert et al., 1986). It is therefore hypothesized that greater perceived cultural inclusion, via both subjective multiculturalism (the societal level) and cultural inclusiveness in the classroom (institutional level), will positively predict HNC. Moreover, it is predicted that HNC will be the mechanism through which perceptions of cultural inclusion will impact acculturative outcomes, such that HNC will partially mediate the effects of subjective multiculturalism and cultural inclusiveness in the classroom on psychological adjustment and socio-cultural adaptation.

Additionally, initial evidence indicates that the perceptions of cultural inclusion serve a protective function in situations of actual lower acceptance (Stuart, 2012), implying that these perceptions could buffer factors that typically inhibit the formation of HNC. Despite limited research, it is hypothesized that perceived cultural inclusion, both proximally and distally, will buffer the negative effects of perceived discrimination, high cultural distance, and low English language proficiency on HNC. Because this construct is still in the initial stages of investigation, no mediational predictions regarding the relationship between the proposed interactions and acculturative outcomes via HNC are hypothesized.

As explicated in Berry's (1997) acculturation framework, both individual and contextual factors are important in the adaptation process. Likewise, the interplay between individual and

contextual factors is important in determining the antecedents of HNC. However, contextual factors, particularly perceptions of cultural inclusion, have been largely overlooked to date. Provided that a dichotomy exists between international students' desires and the reality of their connections, contextual factors are seemingly important in the formation of HNC. Therefore, it is hypothesized that contextual factors will explain additional variance in HNC, above and beyond that accounted for by individual variables.

Review of Research Objective and Hypotheses

The overall objective of this study is to investigate the antecedents and outcomes of HNC for international students, using a predictive model of HNC and exploring its mediational role in the prediction of psychological adjustment and socio-cultural adaptation.

The Prediction of Host National Connectedness

A graphic representation of the predictive model is presented in Figure 1.2.

Hypothesized main effects.

1a. Greater perceived discrimination and cultural distance will negatively predict HNC.

1b. Greater perceived cultural inclusion (subjective multiculturalism and cultural inclusiveness in the classroom) and English language proficiency will positively predict HNC.

1c. The contextual variables will explain additional variance in HNC over and above that accounted for by individual variables.

Figure 1.2. Proposed Prediction of Host National Connectedness[2].
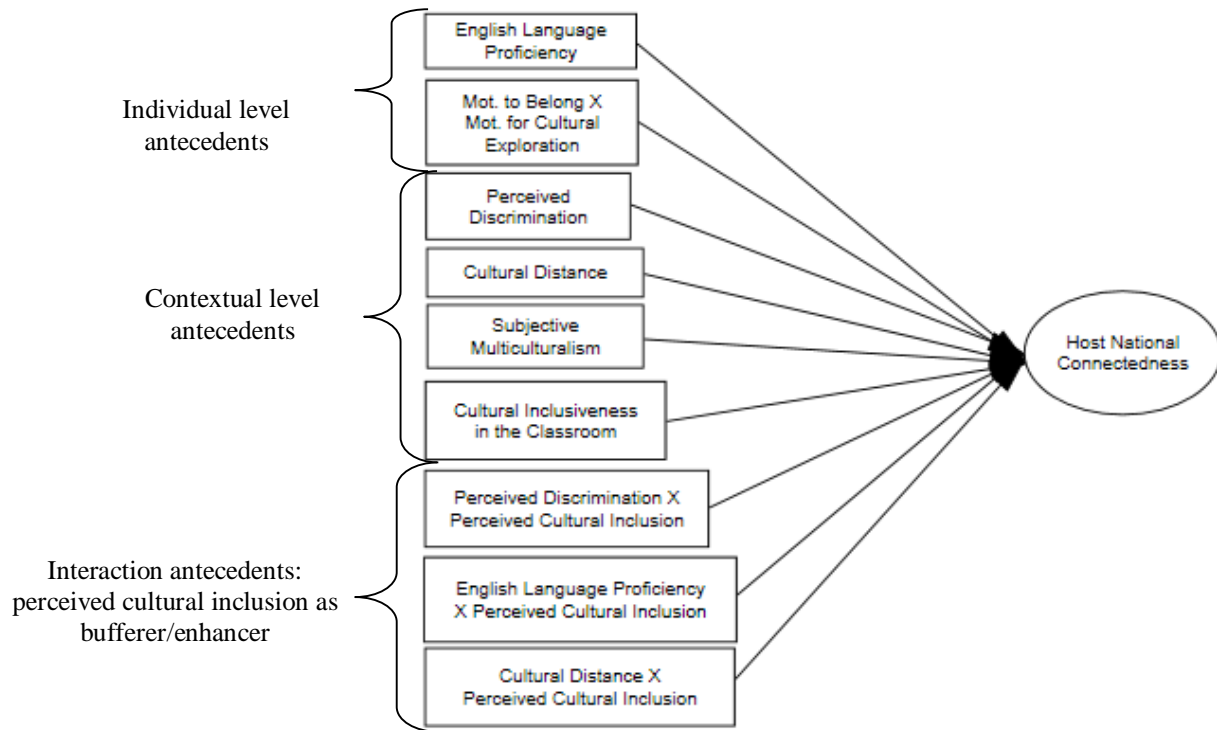
Figure 1.2. High levels of English language proficiency, subjective multiculturalism, and cultural inclusiveness in the classroom are expected to positively predict HNC, while high levels of perceived discrimination and cultural distance are expected to negatively predict HNC. High levels of the motivation to belong in conjunction with high levels of the motivation for cultural exploration are expected to positively predict HNC, while the perception of cultural inclusion[3] is anticipated to buffer the negative effects of perceived discrimination and cultural distance and enhance the positive effects of English language proficiency on HNC.

Hypothesized interaction effects.

2a. The 'motivation for cultural exploration' will amplify the positive effects of the

'motivation to belong' on HNC.

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[2] Figure 1.2 depicts the *conceptual* predicted model; because main effects of the motivational components are not predicted, they have not been included in the conceptual model. However, main effects for all variables included in the interaction terms will be included in the statistical analyses prior to examining the interaction effect.

[3] The interactions testing perceived cultural inclusion as a moderator will be tested with both an institutional variable, cultural inclusiveness in the classroom, and a societal variable, subjective multiculturalism, in the statistical analysis.

2b. Perceived cultural inclusion (via both cultural inclusiveness in the classroom and subjective multiculturalism) will buffer the negative effects of perceived discrimination, low English language proficiency on HNC, and high cultural distance.

The Prediction of Psychological and Socio-Cultural Adaptation: A Mediational Model

A graphic representation of the mediational role of HNC is presented in Figure 1.3. Predicted directional relationships are presented in Table 1.1. Only those main effects and interactions in which HNC is expected to mediate the relationship between the predictor and outcomes variables are included in the model.

Hypothesized mediations.

3a. HNC will partially mediate the effects of English language proficiency, perceived discrimination, cultural distance, subjective multiculturalism, and cultural inclusiveness in the classroom on psychological adjustment and socio-cultural adaptation.

3b. HNC will mediate the interaction effects between the motivation to belong and the motivation for cultural exploration on psychological adjustment and socio-cultural adaptation.[4]

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[4] These predictions are examples of mediated moderations, as discussed by Baron and Kenny (1986).

Figure 1.3. Proposed Path Model.
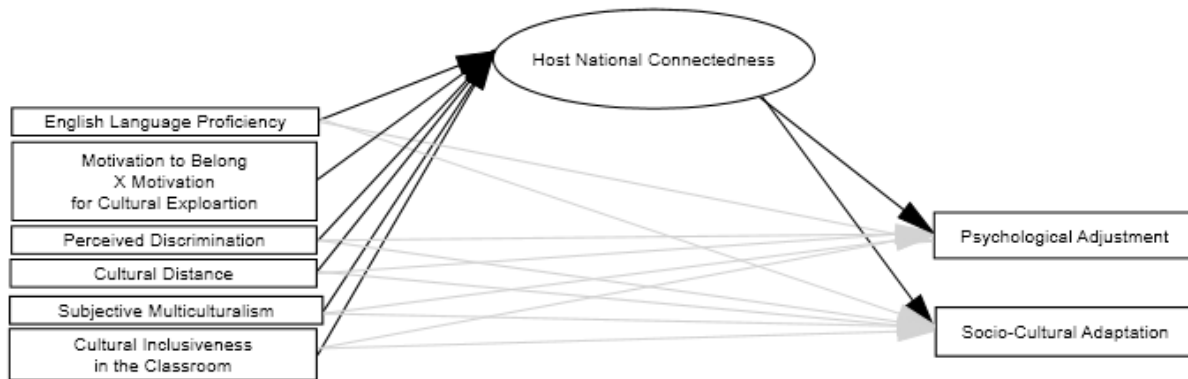
Figure 1.3. HNC is anticipated to mediate the relationships between the predictor variables and the acculturative outcome variables.

Note. Black lines indicate the proposed mediated path between the predictor variables and the outcome variables via host national connectedness. Gray lines indicate the direct paths, signifying partial mediation for these relationships.

Table 1.1. Predicted Directional Relationships of Mediation Model

Exogenous Variable	Predicted Relationship to High Host National Connectedness	Predicted Relationship to Psychological Adjustment	Predicted Relationship to Socio-cultural Adaptation
English Language Proficiency	Positive (+)	Positive (+)*	Positive (+)*
Motivation to Belong X Motivation for Cultural Exploration	Enhancer	No prediction**	No prediction**
Perceived Discrimination	Negative (-)	Negative (-)*	Negative (-)*
Cultural Distance	Negative (-)	Negative (-)*	Negative (-)*
Subjective Multiculturalism	Positive (+)	Positive (+)*	Positive (+)*
Cultural Inclusiveness in the Classroom	Positive (+)	Positive (+)*	Positive (+)*
Host National Connectedness	-------	Positive (+)	Positive (+)

*Host National Connectedness is predicted to *partially* mediate this relationship.
**Host National Connectedness is predicted to *fully* mediate this relationship.

Method

Procedures

Upon receiving ethics approval for the study by the Victoria University of Wellington Human Ethics Committee, international students studying in New Zealand were recruited in collaboration with the Settlement, Protection, and Attraction Branch, Immigration New Zealand (Ministry of Business, Innovation, and Employment). Via email, the government agency invited 23,305 international students studying at tertiary and private training institutions to participate in the online survey. The email included a brief explanation of the survey, informed potential participants that they could enter a lucky prize draw to win an Apple Ipad Mini upon completion of the survey, and provided a link to the online survey, which was hosted on the Qualtrics Online Survey platform website.

After clicking the link, participants were provided with an information sheet, the survey, and a debriefing sheet. After reading the debriefing information, participants were then able click on a link that directed them to a separate survey to collect their personal details for the prize draw. Participants' responses were anonymous and confidential, as the prize draw information could not be linked in any way to individuals' survey responses. In accordance with the debriefing sheet, further information about the results of the study were posted on the Centre for Applied Cross-Cultural Research's website.

Of the 23,205 international students invited to participate, 2,823 responded (a 12.17% response rate). Questions for this study followed a lengthy questionnaire from the collaborating government agency and large numbers of respondents dropped out during the agency's portion of the survey. Participants who indicated they were no longer studying and/or living in New Zealand, were from New Zealand, or who had not yet arrived in New Zealand were eliminated

from the data set. Of the remaining participants, those who had entirely missing data on at least one outcome variable scale of interest were eliminated from the analysis. For the remaining participants, mean scores were computed for those who had no more than 20% of the scale items incomplete (exact percentages varied per scale depending on the number of items). As a result of these measures, missing values were not an issue for further analyses. Due to the high participant attrition, particularly during the government agency's portion of the survey, only 1,527 participants remained for the initial analyses (an adjusted response rate of 6.58%).

Participants

Demographic statistics were analyzed for participants included in the initial analyses of this study ($N = 1527$). Although aligning with national trends of gender distribution among international students approved for study in New Zealand (Ministry of Business, Innovation, and Employment, 2013), males ($n = 866$, 56.7%) were slightly over-represented in the sample, while females ($n = 661$, 43.3%) were slightly under-represented.

Participants hailed from 78 countries, with India ($n = 415$, 27.2%), the Philippines ($n = 151$, 9.9%), and China ($n = 144$, 9.4%) serving as the largest national groups within the study. In comparison to national statistics, students from India and Southeast Asian countries ($n = 393$, 25.7%) were over-represented in the sample, while students from China were under-represented (International Division Ministry of Education, 2012).

Although the participants originated from a wide variety of countries, the majority of respondents were located around major tertiary institutions of education, primarily living in the largest metropolitan regions in New Zealand, Auckland ($n = 800$, 52.4%), Wellington ($n = 137$, 9.0%), Dunedin ($n = 125$, 8.2%), and Christchurch ($n = 124$, 8.1%).

The sample was diverse in age, ranging from 17 to 62 years old ($M = 26.68$, $SD = 6.01$). Those over the age of 30 years old were over-represented in the sample, most likely a result of the over-representation of post-graduate students in the sample. Similarly, the length of time the students had spent in New Zealand had a wide range, from 1 month to 144 months ($M = 15.93$, $SD = 9.63$). Roughly half of the participants (46.6%) had resided in New Zealand for 6 to 12 months, while an additional 33.3% had been in New Zealand from 12-24 months.

Measures

The online survey consisted of previously validated scales and items measures demographic information and included items to measure all of the exogenous and endogenous variables of interest. Items requested demographic information about participants' country of origin, gender, age, level of qualification sought, and length of time in New Zealand for control purposes. Additional items measured English language proficiency and motivational components as individual predictor variables of HNC. Contextual predictors were measured by scales that requested information about cultural distance, perceived discrimination, and perceived cultural inclusion at both the societal and institutional levels. HNC was measured by both subjective and objective measurements of connectedness. Acculturative outcomes were measured via positive and negative indicators of psychological adjustment and socio-cultural adaptation. See Appendix A for the complete survey. Table 3.1 (see page 54) provides descriptive statistics, in addition to reporting the internal reliability for each scale.

English language proficiency. Four items assessed participants overall English language proficiency. On a scale from *Very Poor* (1) to *Excellent* (6), with a rating of 7 for native speakers, participants were asked to self-rate their English proficiency in reading, writing, speaking, and comprehension. Higher average item scores signified higher levels of English

language proficiency. Such items have been conventionally used to assess language proficiency among international students (Zheng & Berry, 1991), and the results indicate that the scale is reliable ($\alpha = .94$).

Motivation. To assess motivation, two scales were used. The first, the Motivation for Cultural Exploration Scale (Recker, 2012), consisted of eight items that measured participants' motivation to explore and incorporate new cultural knowledge into one's sense of self. Participants were asked to respond on a 7-point Likert Scale, *Strongly Disagree* (1) to *Strongly Agree* (7), to items, such as '*It gives me pleasure to meet people from other cultures*.' Higher mean scores suggested a higher motivation for cultural exploration. The initial scale validation among an immigrant population in New Zealand indicated that the scale is reliable ($\alpha = .94$); this study finds the items to be highly reliable ($\alpha = .95$) with international students.

The second measure of motivation, the Need to Belong Scale, was a 10-item scale assessing one's desire for inclusion and acceptance (Leary et al., 2013). Measured on a 5-point Likert Scale, *Strongly Disagree* (1) to *Strongly Agree* (5), the scale asked for agreement with statements such as, '*I want other people to accept me*' and '*I have a strong need to belong*.' Higher mean scores suggested a stronger motivation to belong. Despite the fact that the scale had achieved acceptable inter-item reliability ($\alpha > .80$) (Leary, Herbst, & McCrary, 2002) and had been used successfully with diverse samples (Leary et al., 2013) previously, the scale failed to meet the conventional criterion for internal reliability in the present study ($\alpha = .69$).

Cultural distance. A ten-item scale adapted from Babiker et al. (1980) evaluated the perceived level of cultural distance between the participants' country of origin and New Zealand, in areas such as climate, food, and religion (Searle & Ward, 1990). Responses were measured on a four-point scale, *Not Different* (1) to *Very Different* (4), with high item averages indicating a

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higher level of cultural distance. The adapted scale's initial use was highly reliable (α = .85) among international students (Searle & Ward, 1990) and results from the current study replicated those findings (α = .85).

Perceived discrimination. Perceived discrimination was measured using the 10-item Everyday Discrimination Scale (Williams, Yu, Jackson, & Anderson, 1997). Williams et al.'s (1997) scale focused on the prevalence of discriminatory incidences. For example, respondents were asked to report how often in the last month they were '*treated with less courtesy*' or '*received poor service*' on a five-point, *Almost Never* (1) to *Very Often* (5), scale. Higher response scores indicated a higher frequency of perceived discrimination. Item scores were averaged to obtain an individual's mean score, with higher scores indicating greater perceptions of discrimination. As in the validation of the Everyday Discrimination Scale with a diverse sample (α > .74) (Krieger, Smith, Naishadham, Hartman, & Barbeau, 2005), the items reported adequate scale reliability (α = .91) in this study.

Perceived cultural inclusion. Two scales were used to measure perceived cultural inclusion, a 7-item Cultural Inclusiveness in the Classroom Scale (Ward & Masgoret, 2004) and the 16-item Subjective Multiculturalism Scale (Stuart, Ward, & Girling, 2012). The Cultural Inclusiveness in the Classroom scale asked international students' about their perceptions of multiculturalism within the institution, by asking their level of agreement with statements such as '*My teachers/lecturers encourage contact between international and local students.*' The Subjective Multiculturalism scale questioned international students on their perceptions of multiculturalism within New Zealand society by asking about the level of agreement with items pertaining to actual diversity, acceptance of diversity, and equitable participation by diverse groups in society, such as '*Most people work with people from different cultures*,' '*Most people*

pride themselves on being accepting of cultural diversity,' and '*Institutional practices are often adapted to the specific needs of ethnic minorities.*" Both scales were measured on a 5-point Likert Scale, *Strongly Disagree* (1) to *Strongly Agree* (5), and had been previously shown to be reliable when used with diverse sample populations (Stuart et al., 2012) and international students (Ward, Masgoret, Newton, & Crabbe, 2005). In initial validation tests, the subjective multiculturalism scale was found to correlate with criterion measures, such as awareness of disadvantage, xenophobia, and structural discrimination (Stuart et al., 2012). The score of individual items across both scales were averaged to obtain overall scale scores, with higher scores indicating more positive perceptions of multiculturalism. In alignment with its previous use (Ward et al., 2005), the Cultural Inclusiveness in the Classroom scale indicated acceptable reliability ($\alpha = .87$). Despite being a 16-item scale, Subjective Multiculturalism was slightly below the general acceptance level of internal reliability ($\alpha = .68$) and the deletion of any single item did not raise the alpha to above .70.

Host national connectedness. Given the complexity of the definition of connectedness, multiple measures were needed to capture the intricacy of HNC. Hence, measures tapping the quantity and frequency of host national connections, feelings of connectedness, and support provided by host nationals were used. To measure the number and frequency of host national friends and interactions, ten items (i.e. *Indicate how many close friends you have who are New Zealanders outside of your educational institution*; and *How often do you spend social time with non-student, New Zealand friends?*) were adapted from previous studies with international students in New Zealand (Ward & Masgoret, 2004; Ward et al., 2005). Responses were given on five-point scales: *None* (1) to *Many* (5) and *Never* (1) to *Very Often* (5). Mean scores were calculated for the number-of-friends items and the frequency-of-contact items. Higher average

scores signified a greater prevalence of contact with New Zealanders. Such items have conventionally been used with international students in the past. The frequency-of-contact items were reliable in the current study ($\alpha = .88$). The number of host national friends was only measured with two items; as a result of the limited indicators, the inter-item correlation was examined. The two indicators were significantly correlated ($r = .40$, $p < .001$).

Feelings of connectedness were measured with the General Belongingness Scale (Malone, Pillow, & Osman, 2012). Participants were instructed to think about their relationships with New Zealand friends when responding to the 12-item scale, asking questions such as '*When I am with other people, I feel included,*' on a 7-point Likert Scale, *Strongly Disagree* (1) to *Strongly Agree* (7). Scale development studies indicated high reliability ($\alpha > .92$) and strong measures of convergent validity (Malone et al., 2012). A scale score was created by averaging the individual's item scores. Higher overall scores suggested a greater sense of belonging. Although this scale was not known to have been used previously with immigrants, sojourners, or international student populations, the scale displayed acceptable reliability ($\alpha = .81$) among international students in this study.

Finally, the instructions for the 18-item Index of Sojourner Social Support Scale (Ong & Ward, 2005) were adapted to measure the support that host nationals provide to international students. For example, participants were asked to respond to statements such as, '*Think about your relationships with New Zealanders. Indicate how many New Zealanders you know who would listen and talk with you whenever you feel lonely or depressed.*' The items measured the number of New Zealanders available to the international students in a variety of situations on a five-point scale, *No One* (1) to *Many* (5). Item scores were averaged to obtain a mean score, with higher scores denoting higher levels of social support from New Zealanders. The scale has been

consistently used in studies of acculturation as a reliable indicator of social support (O'Reilly, Ryan, & Hickey, 2010; Tabor & Milfont, 2011; Ward & Masgoret, 2004). Within this study, the scale reported high internal reliability ($\alpha = .98$).

To the best of the author's knowledge, these scales have not been previously used together as an indicator of HNC. However, based on the theoretical constructs of the scales and their relation to the definition of connectedness, it is hypothesized that these indicators will both theoretically and empirically relate to one another. Given this hypothesized relationship, the indicators were linearly combined using the factor scores from a principal components analysis to create an overall HNC variable. A confirmatory factor analysis was conducted (see Results: Measuring Host National Connectedness) to confirm the relationship between the theoretical factors within the HNC construct.

Psychological adjustment. To measure psychological adjustment, both positive and negative indicators were used. Diener and colleagues' (1985) Satisfaction with Life Scale and a psychological symptoms scale (Berry et al., 2006b) were included in the survey. Both scales have been used conventionally to reliably assess psychological adjustment in sojourner and immigrant populations (Jasperse, Ward, & Jose, 2012; Recker, 2012; Stuart, 2012; Vedder & van de Vijver, 2006).

The Satisfaction with Life Scale measured the level to which participants *Strongly Agree* (7) or *Strongly Disagree* (1) with statements about life satisfaction ('*In most ways my life is close to my ideal'*) on a 7-point Likert Scale. Higher mean scores signified higher satisfaction with life (Diener et al., 1985). The scale displayed acceptable internal reliability within this study ($\alpha = .88$).

The 15-item psychological symptoms scale, from a multi-national study of immigrant youth by Berry et al. (2006b), asked participants to indicate how often in the last month they had experienced a list of symptoms, such as '*I feel tired*' and '*I worry a lot of the time*.' Responses were measured on a five-point scale, from *Never* (1) to *Most of the Time* (5). Higher average scores indicated greater frequency of psychological disturbances. The scale exhibited high internal reliability ($\alpha = .93$).

Socio-cultural adaptation. The Revised Sociocultural Adaptation Scale (Wilson, 2013), a 21-item scale, measured the level at which acculturating individuals function on five factors, interpersonal communication ('*Building and maintaining relationships*'), academic or work performance ('*Managing my academic / work responsibilities*'), personal interests and community involvement ('*Maintaining my hobbies and interests*'), ecological adaptation ('*Adapting to the noise level in my neighbourhood*'), and language proficiency ('*Understanding and speaking English*'). Participants responded using a five-point scale, *Not at all Competent* (1) to *Extremely Competent* (5). Scores were calculated by averaging the individual item scores. Higher scores denoted greater competency in the new cultural environment. The overall scale was highly reliable ($\alpha = .95$), supporting previous research using the scale with immigrant populations (Wilson, 2013; Recker, 2012).

Results

The results are presented in four parts: (1) the descriptive statistics, including scale descriptions and bivariate correlations between measures; (2) a confirmatory factor analysis of the construction of the HNC variable; (3) a hierarchical regression analysis of the antecedents of HNC; and (4) a mediational path model of the antecedents and outcomes of HNC.

Descriptive Statistics

Table 3.1 provides the scale reliabilities, number of items, response range, mean scores, and standard deviations for all scales used in the analyses. In general, participants reported higher than midpoint levels of language proficiency ($M = 5.15$, $SD = 1.02$) and moderate to high levels of perceived cultural inclusion on both the cultural inclusiveness in the classroom measure ($M = 3.78$, $SD = 0.73$) and the subjective multiculturalism scale ($M = 3.54$, $SD = 0.38$). Additionally, the average international student participant found New Zealand to be moderately different from his or her culture of origin ($M = 2.62$, $SD = .64$) and reported low levels of perceived discrimination ($M = 1.78$, $SD = 0.75$). These results indicate that despite perceiving cultural differences, international students in New Zealand perceive the environment to be culturally inclusive and minimally discriminatory. Furthermore, the international students report a moderate level of the motivation to belong ($M = 3.34$, $SD = 0.50$) and a strong motivation to explore their new environment ($M = 6.13$, $SD = 0.89$).

Also displayed in Table 3.1, participants reported means below the midpoint for both the number of New Zealander friends ($M = 2.91$, $SD = 1.12$) and the frequency of contact with host nationals ($M = 2.80$, $SD = 0.88$). Additionally, participants reported mean levels of social support slightly below the midpoint ($M = 2.75$, $SD = 0.99$). While the mean scale scores indicate that international students are moderately connected and supported by New Zealanders, 28% ($n =$

428) state that they have no close friends who are New Zealanders at their educational

institution, while only 10.5% ($n = 161$) report having many. Furthermore, 21.2% of international

students report that they have no close friends who are New Zealanders from outside the

educational institutions, while only 17.2% ($n = 263$) report having many. Despite these low

levels, participants reported relatively high belongingness levels ($M = 4.73$, $SD = 0.80$). Overall,

these results indicate that connectedness to host nationals may be a struggle for a large portion of

international students.

Table 3.1. Scale Reliabilities and Descriptive Statistics

Item / Scale	α	No. of Items	Response Range	M^1	SD
English Language Proficiency	.94	4	1-6, 7 Native	5.15	1.02
Motivation to Belong	.69	10	1-5	3.34	0.50
Motivation for Cultural Exploration	.95	8	1-7	6.13	0.89
Perceived Discrimination	.91	10	1-5	1.78	0.75
Cultural Distance	.85	10	1-4	2.62	0.64
Subjective Multiculturalism	.68	16	1-5	3.54	0.38
Cultural Inclusiveness in the Classroom	.87	7	1-5	3.78	0.73
General Belongingness	.81	12	1-7	4.73	0.80
Social Support	.98	18	1-5	2.75	0.99
Number of Friends	.40[2]	2	1-5	2.91	1.12
Frequency of Contact	.88	8	1-5	2.80	0.88
Psychological Symptoms	.93	15	1-5	1.94	0.72
Satisfaction with Life	.88	5	1-7	4.60	1.28
Sociocultural Adaptation	.95	21	1-5	3.63	0.70

Note. $N = 1483$.
[1]Means are mean item scores for participants who left no more than 20% of the individual scale items incomplete
[2]Inter-item correlation, $p < .001$.

With respect to acculturative outcomes, international students report levels of life

satisfaction ($M = 4.60$, $SD = 1.28$) slightly higher than the midpoint. Additionally, respondents

generally reported low levels of psychological symptoms ($M = 1.94$, $SD = 0.72$) and levels of

socio-cultural adaptation ($M = 3.63$, $SD = 0.70$) slightly higher than the midpoint. Hence, these

results indicate that, in general, international students adjust well psychologically and feel

moderately competent socio-culturally in the New Zealand setting.

Table 3.2 depicts the Pearson correlations matrix for all variables used in the analyses. In general, most correlations are significant ($p < 0.01$), with small to medium magnitudes. The measures proposed to be constructed into the HNC variable, general belongingness, social support, number of host national friends, and frequency of contact with host nationals, are all positively correlated with each other, giving initial evidence of their ability to be combined into a single variable. Moreover, these variables all positively correlate to the positive indicators of psycho-social adjustment, satisfaction with life and socio-cultural adaptation, and negatively correlate to psychological symptoms. From these relationships, HNC initially appears to be related to positive acculturative outcomes.

Of the individual antecedents, English language proficiency and the motivation for cultural exploration are positively correlated with all four indicators of HNC and the positive indicators of psycho-social adjustment. Each measure is negatively correlated to psychological symptoms. The motivation to belong is surprisingly negatively correlated with three indicators of HNC, including general belongingness, and satisfaction with life; it positively correlates with psychological symptoms.

Within the contextual antecedents of HNC and psycho-social adjustment, perceived discrimination and cultural distance are typically negatively correlated with HNC and the positive measures of acculturative outcomes and positively correlated with the negative measure of psychological adjustment. Contrarily, the positive contextual measures, cultural inclusiveness in the classroom and subjective multiculturalism, correlate to HNC, satisfaction with life, socio-cultural adaptation and psychological symptoms in the expected direction. These preliminary results suggest that a culturally inclusive environment aids in acculturative outcomes, while a highly different or discriminatory environment is detrimental to adjustment.

With respect to the variables measuring acculturative outcomes, satisfaction with life and socio-cultural adaptation positively correlate, while each negatively correlates to psychological symptoms.

Table 3.2. Correlations among All Variables Used in Analyses

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. Gender	1																
2. Age	-.07**	1															
3. Time in NZ[1]	.04	.01	1														
4. ELP	.04	.07**	-.06*	1													
5. M.Bel.	.08**	-.09**	-.04	-.06*	1												
6. M.CE	.12**	.09**	-.04	.27**	.14**	1											
7. PD	-.03	-.02	.09**	-.17**	.06*	-.23**	1										
8. CD	-.12**	-.005	.11**	-.28**	.08**	-.08**	.23**	1									
9. SMC	.06*	.02	-.07**	.10**	.12**	.32**	-.27**	.01	1								
10. CIC	.02	.06*	-.08**	.05	.04	.34**	-.26**	-.08**	.40**	1							
11. GenBel	.09**	.02	-.06*	.22**	-.10**	.36**	-.40	-.21**	.35**	.43**	1						
12. SS	.01	-.05	-.08**	.20**	-.10**	.14**	-.16**	-.24**	.16**	.32**	.50**	1					
13. Friends	-.13**	-.03	.02	.16**	-.07**	.12**	-.02	-.12**	.09**	.23**	.36**	.54**	1				
14. Freq.	-.10**	-.08**	.01	.08**	-.02	.08**	-.008	-.08**	.10**	.26**	.36**	.50**	.55**	1			
15. Psych Symp	.08**	-.10**	.07**	-.11**	.16**	-.18**	.34**	.19**	-.13**	-.22**	-.36**	-.17**	-.17**	-.14**	1		
16. SWL	.07**	-.06*	-.07**	.17**	-.06*	.28**	-.25**	-.19**	.22**	.33**	.43**	.34**	.21**	.21**	-.41**	1	
17. SCA	.12**	.12**	.002	.41**	-.03	.35**	-.16**	-.18**	.21**	.27**	.37**	.34**	.20**	.18**	-.19**	.35**	1

Note. N = 1483. ELP = English Language Proficiency; M.Bel. = Motivation to Belong; M.CE = Motivation for Cultural Exploration; PD = Perceived Discrimination; CD = Cultural Distance; SMC = Subjective Multiculturalism; CIC = Cultural Inclusiveness in the Classroom; GenBel = General Belongingness; SS = Social Support; Friends = Number of host national friends; Freq. = Frequency of contact with host nationals; Psych Symp = Psychological Symptoms; SWL = Satisfaction with Life; SCA = Socio-cultural Adaptation
[1] N = 1481.
*p < 0.05. **p < 0.01.

Measuring Host National Connectedness

In order to confirm if the variable, host national connectedness (HNC), could empirically be constructed of the four observed indicators - number of host national friends, frequency of contact with host nationals, feelings of general belongingness, and feelings of social support, among international students - a confirmatory factor analysis (CFA) was conducted using IBM SPSS AMOS 20. Because the formation of the HNC variable is grounded in theoretical definitions (Brown, 2006), this method has been chosen to confirm "the details of an assumed factor structure" rather than to discover a factor structure (Raykov & Marcoulides, 2006, p. 117). A depiction of the CFA model is presented in Figure 3.1. Only the theoretical model is tested, no competing models can be theoretically justified for analysis.

Mean scores are created for each participant ($N = 1527$) on the four scales of interest to parcel the 40 items into 4 indicators: frequency of contact, number of friends, social support, and general belongingness. There are no missing data due to the measures previously taken. Maximum likelihood is used to estimate the means and intercepts.

Figure 3.1. Confirmatory Factor Analysis of the HNC structure with standardized loadings.

Figure 3.1. $N = 1527$. All standardized regression weights, $p < .001$.[5]
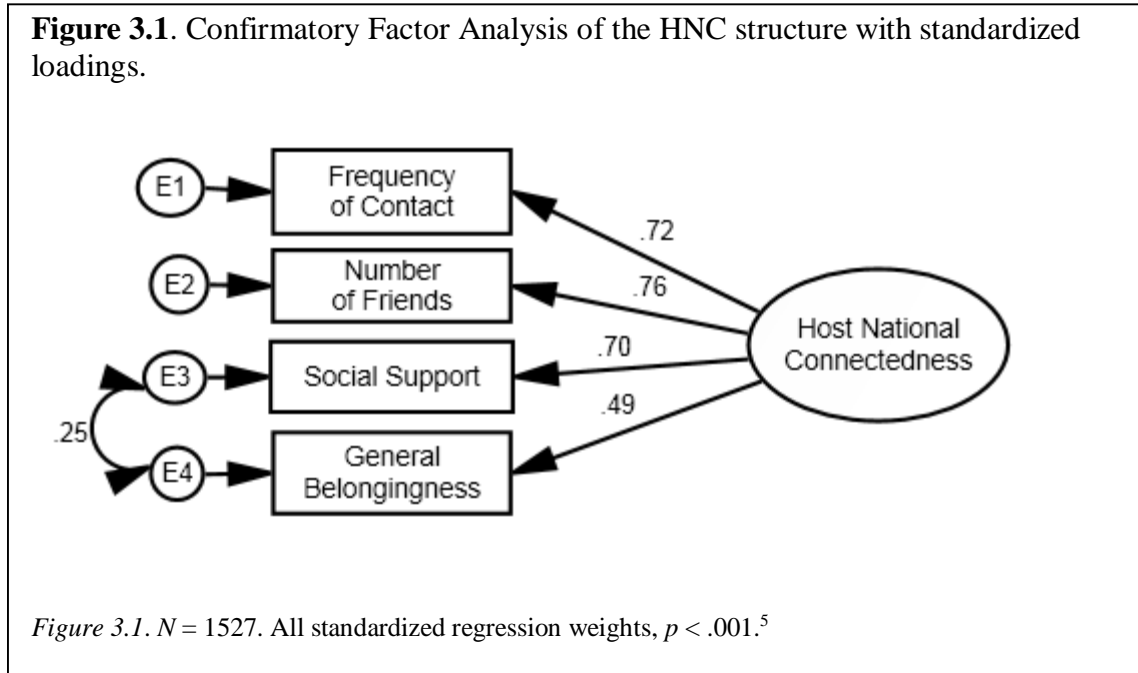
An evaluation of the CFA model indicates that the variable, HNC, can be measured by the theoretically proposed four-indicator structure. Table 3.3 provides the unstandardized and standardized loadings for the single-factor, four indicator confirmatory model of host national connectedness. The observed variables' loadings are moderately strong and the host national connectedness variable explains between 24% (general belongingness) to 57% (number of friends) of the variance in the indicators.

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[5] Within this data set, modification indices suggest the correlation between the error terms of social support and general belongingness be added. While not originally proposed, this correlation is theoretically justifiable as both indicators are subjective measures of HNC, measuring the affective nature of connectedness rather than the quantitative, objective measures of friendships and contact.

The Antecedents and Outcomes of Host National Connectedness

Table 3.3. Unstandardized Loadings (Standard Errors) and
Standardized Loadings for 4-Indicator Confirmatory Model of Host
National Connectedness

Observed Variable	Unstandardized	Standardized
Frequency of Contact	1.00 (--)	.72
Number of Friends	1.32 (.06)	.76
Social Support	1.08 (.05)	.70
General Belongingness	0.61 (.04)	.49

$N = 1527$. All standardized regression weights, $p < .001$.

Goodness-of-fit indicators are provided in Table 3.4. An examination of the fit indices indicates that the model is a good fit (Pedhazur, 1997). The Bentler-Bonett (Normed Fit Index) (NFI) and the Tucker-Lewis Index (TLI) are above .95, suggesting a good fitting model (Bentler & Bonett, 1980; Hu & Bentler, 1999). The Standardized Root Mean Square Residual (SRMR) and Comparative Fit Index (CFI) imply a good-fitting model, as according to Hu and Bentler (1999) values of less than .08 and greater than .95, respectively, are considered good fits. The Root-mean-square Error of Approximation (RMSEA) is below the recommended cut-off of .06 (Hu & Bentler, 1999). Hence, the theoretical justification for host national connectedness as a unitary observed variable can be empirically measured using the four previously distinct observed variables.

Table 3.4. Goodness-of-fit Indicators of Confirmatory Factor Analysis of Host National Connectedness

Model	χ^2	*Df*	NFI	RFI	TLI	CFI	RMSEA	SRMR
Four Factor	1.34*	1	.999	.995	.999	1.000	.015	.005

$N = 1527$.
* $p > 0.05$.

Hence, the observed HNC variable is created by conducting principal components analysis (PCA) using IBM SPSS Statistics 20. Using the mean scores for each of the four indicators of HNC, a PCA ($N = 1527$), using the regression method, is run, saving the factor score as a new variable. Table 3.5 provides the Pearson bivariate correlations between HNC and all other exogenous and endogenous variables used in subsequent analyses. Similar to the general

results, most correlations were significant ($p < 0.01$), with small to moderate magnitudes. The findings indicate that English language proficiency, the motivation for cultural exploration, subjective multiculturalism, and cultural inclusiveness in the classroom are positively related to HNC, signifying that these factors may positively predict connectedness among international students.

Contrarily, perceived discrimination, cultural distance, and the motivation to belong are negatively correlated with HNC, indicating that these factors may negatively predict HNC in subsequent analyses. With respect to the relationship between HNC and psycho-social outcomes, HNC is negatively correlated to psychological symptoms and positively correlated to satisfaction with life and socio-cultural adaptation, signifying that HNC is related to positive acculturative adjustment.

Table 3.5. Correlations with Host National Connectedness

	Gender	Age	Time in NZ[1]	ELP	M.Bel.	M.CE	PD	CD	SMC	CIC	Psych Symp	SWL	SCA
HNC	-.05	-.05	-.04	.21**	-.09**	.22**	-.18**	-.21**	.22**	.39**	-.26**	.38**	.35**

Note. $N = 1483$. ELP = English Language Proficiency; M.Bel. = Motivation to Belong; M.CE = Motivation for Cultural Exploration; PD = Perceived Discrimination; CD = Cultural Distance; SMC = Subjective Multiculturalism; CIC = Cultural Inclusiveness in the Classroom; HNC = Host National Connectedness; Psych Symp = Psychological Symptoms; SWL = Satisfaction with Life; SCA = Socio-cultural Adaptation
[1]$N = 1481$.
**$p < 0.01$.

The Antecedents of Host National Connectedness

To test the antecedents of host national connectedness, a hierarchical multiple regression analysis is conducted using IBM SPSS Statistics 20. This method is chosen because it provides an analysis that indicates how well the linear combination of the antecedent variables predicts HNC (Howell, 2008). Since previous studies involving the predictor variables have reported medium effect sizes in the prediction of HNC variables (Faircloth & Hamm, 2005; Dao et al., 2007; Poyrazli et al., 2002), each is expected to significantly predict HNC. Five steps are

constructed to test the hypothesized relationships between the predictor variables and host national connectedness. Step one includes the control variables age, gender, and length of time in New Zealand. Step two tests the individual antecedents: English language proficiency, the motivation to belong, and the motivation for cultural exploration. The third step adds the interaction between the motivation to belong and the motivation for cultural exploration. The contextual antecedents are added in step four and include cultural distance, perceived discrimination, subjective multiculturalism, and cultural inclusiveness in the classroom. The final step examines the moderating role of perceived cultural inclusion by adding six interaction terms between subjective multiculturalism (3) and cultural inclusiveness in the classroom (3) and the following: perceived discrimination, cultural distance, and English language proficiency.

It is acknowledged that statistical convention suggests that an analysis of all possible two-way interactions within the regression analysis be conducted. However, using Cohen's (1992) guidelines for a power analysis, the model is too large, despite the large sample size of this study, to adequately measure all interactions; the sample does not have enough power to accommodate the sheer number of potential two-way interactions present in the model. Therefore, given the practical and theoretical, rather than statistical, aims of this analysis, only the hypothesized variables and interactions have been included in the model[6].

The hierarchical multiple regression analysis results are presented in Table 3.6. In total, the variables included in the regression explain 24.1% of the variance in HNC. Each of the first four steps significantly account for additional variance in HNC. Step one explains 0.6% of the variance in HNC ($p < .05$); however, none of the demographic factors significantly predict HNC in this step.

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[6] It should be noted that a complete factorial design including all two-way interactions has been conducted. As anticipated, no variables significantly predict HNC due to power constraint.

Step two explains 9.7% of variance in HNC, indicating that the individual level variables account for an additional 9.1% of the explained variance. Specifically, age (β = -.094, p < .001), gender (β = -.149, p < .01), English language proficiency (β = .158, p < .001), the motivation to belong (β = -.115, p < .001), and the motivation for cultural inclusion (β = .205, p < .001) predict connectedness.

The interaction between the motivational components examined in step three significantly explains additional variance in HNC (ΔR^2 = .002, p < .05) and significantly predicts connectedness (β = .505, p < .05). Only age (β = -.093, p < .001), gender (β = -.073, p < .01), English language proficiency (β = .154, p < .001) and the motivation to belong (β = -.469, p < .01) remain significant predictors of HNC when this interaction is entered in the model.

Step four analyzes the role of contextual level variables in the prediction of HNC. Results indicate that the predictor variables included in step four cumulatively explain 23.8% of the variance in HNC. Age (β = -.101, p < .001), gender (β = -.073, p < .001), English language proficiency (β = .134, p < .001), the motivation to belong (β = -.404, p < .05), cultural distance (β = -.135, p < .001), and both the institutional (β = .066, p < .05) and societal (β = .335, p < .001) measures of perceived cultural inclusion significantly predict HNC.

Step five examines the impact of perceived cultural inclusion on known predictors of HNC. The interactions entered in this step do not significantly predict HNC, nor does the final step significantly account for additional variance in HNC. As a result, the findings from the previous step are examined in further detail.

With respect to the demographic variables explored, age (β = -.101, p < .001) and gender (β = -.073, p < .001) are significant negative predictors of HNC, such that older international students and females have lower levels of connectedness.

Among the individual variables, English language proficiency is a positive predictor of HNC (β = .134, p < .001). International students with higher levels of language proficiency are more likely to form connections with New Zealanders. Moreover, the motivation to belong is a negative predictor of HNC (β = -.404, p < .05), in that international students with higher motivation are less likely to be connected.

Table 3.6. Hierarchical Multiple Regression Analysis Predicting Host National Connectedness

Predictor	Step 1			Step 2			Step 3			Step 4			Step 5		
	ΔR^2	B	β	ΔR^2	B	β	ΔR^2	B	β	ΔR^2	B	β	ΔR^2	B	β
Step 1	.006*														
Constant		.427**			-.778**			1.435			.313			2.100	
Age		-.008	-.051		-.016	-.094***		-.015	-.093***		-.017	-.101***		-.017	-.102***
Gender		-.095	-.047		-.149	-.074**		-.147	-.073**		-.148	-.073**		-.145	-.072**
Time in NZ		-.004	-.040		-.003	-.026		-.003	-.026		.002	.016		.002	.015
Step 2				.091***											
ELP					.155	.158***		.151	.154***		.131	.134***		-.124	-.126
M.Bel					-.229	-.115***		-.936	-.469**		-.805	-.404*		-.820	-.411*
M.CE					.230	.205***		-.120	-.107		-.226	-.201		-.230	-.205
Step 3							.002*								
M.Bel X M.CE								.112	.505*		.095	.428		.098	.440
Step 4										.138***					
PD											-.020	-.015		.312	.235
CD											-.212	-.135***		-.616	-.393
SMC											.172	.066*		-.346	-.133
CIC											.461	.335***		.470	.342***
Step 5													.003		
PD X SMC														-.097	-.245
PD X CIC														-.015	-.018
ELP X SMC														.073	.314
ELP X CIC														.000	.000
CD X SMC														.116	.290
CD X CIC														-.002	-.003
Total R^2		.006			.097			.100			.238			.241	

Note. N = 1523. ELP = English Language Proficiency; M.Bel = Motivation to Belong; M. CE = Motivation for Cultural Exploration; CD = Cultural Distance; PD = Perceived Discrimination; SMC = Subjective Multiculturalism; CIC = Cultural Inclusiveness in the Classroom.
* p < .05. ** p < .01. *** p < .001.

The contextual factors entered in step four have incremental validity in predicting HNC beyond the individual variables known to predict connectedness (ΔR^2 = .138, p < .001). Therefore, the contextual variables have explanatory power, over and above the individual characteristics with respect to HNC. Specifically, cultural distance (β = -.135, p < .001) is a significant negative predictor of HNC, while subjective multiculturalism (β = .066, p < .05) and cultural inclusiveness in the classroom (β = .335, p < .001) are significant positive predictors of

HNC. High levels of cultural distance amongst international students predict the students' ability to connect. Contrarily, perceptions of cultural inclusion, at both the institutional and societal levels, predict higher levels of connectedness.

Length of time in New Zealand, the motivation for cultural exploration, perceived discrimination, and none of the interactions tested predict HNC in this model.

The Role of Host National Connectedness in Acculturative Outcomes

After developing a thorough theoretical understanding of the relationships between the variables (Mueller & Hancock, 2008), a mediational path model was constructed to test the hypothesized role of HNC in overall acculturative outcomes (Figure 1.3; see page 43). This method is chosen because it "is an approach to modeling explanatory relationships between observed variables" (Raykov & Marcoulides, 2006, p. 77). Based on empirical considerations, specifically the results of the hierarchical multiple regression analysis, a trimmed version of the proposed mediational model has been constructed (Figure 3.2) and tested using IBM SPSS AMOS 20. As the antecedents and outcomes of *host national connectedness* are the primary focus of this investigation, only the relationships including HNC as a mediator are tested in the model; variables that are not found to be significant predictors of HNC within the regression analysis are eliminated from the path model in the trimmed version.

Statistically, a fully saturated version of the path model presented in Figure 3.2 is tested. After trimming extraneous insignificant paths and correlated errors, the path model presented in Figure 3.3 remains.

Figure 3.2. Trimmed Path Model.
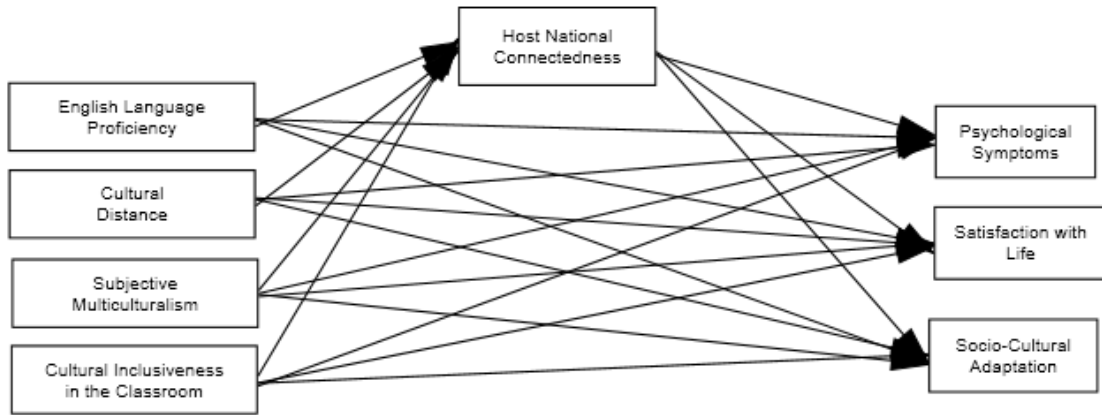
Figure 3.2. Hypothesized main effects and interactions that are not shown to predict host national connectedness in the hierarchical regression analysis are removed from the proposed path model (Figure 1.3).

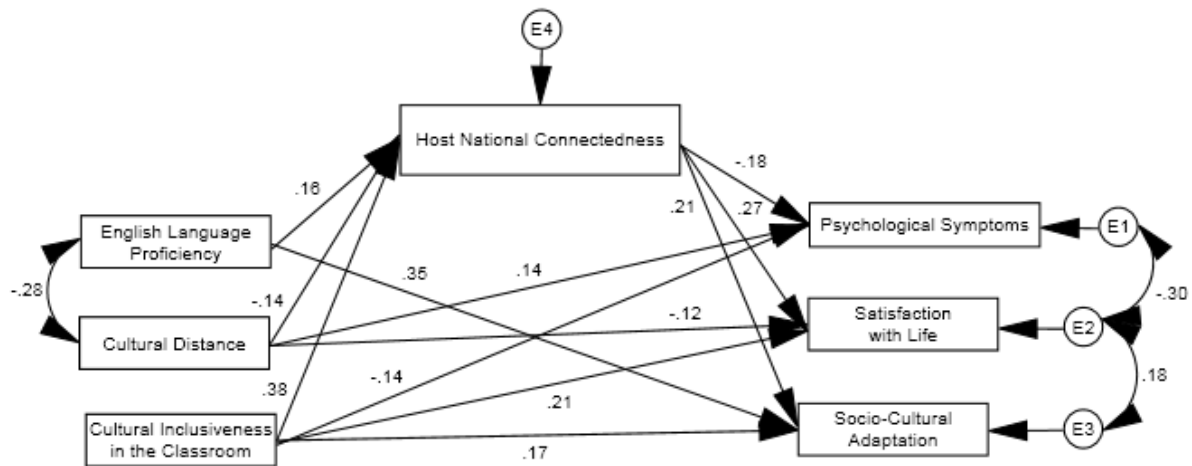**Figure 3.3.** Final Path Model with Standardized Estimates

Figure 3.3. Standardized estimates of mediational role of host national connectedness on acculturative outcomes. $N = 1483$. All standardized regression weights, $p < .001$.

Overall, the goodness-of-fit indices for the final path model, displayed in Table 3.7, denote a good-fitting model. Because the chi-squared test "is sensitive to the number of parameters in the model and to sample size," it is not surprising that the indicator is significant (Marsh, Scalas, & Nagengast, 2010, p. 373). Therefore, descriptive fit indices should be taken into consideration. As both the TLI and RFI are at or above .95, the indicators suggest that the model fits the data excellently, while an RMSEA value of less than .06 reflects a reasonable fit (Marsh et al., 2010). The Bentler-Bonett (Normed Fit Index) is above .95, suggesting a good fitting model (Bentler & Bonett, 1980; Hu & Bentler, 1999). The SRMR and CFI indicate a good-fitting model, as according to Hu and Bentler (1999) values of less than .08 and greater than .95, respectively, are considered good fits. In sum, the examination of the fit indices indicates that the model fits the data well (Pedhazur, 1997).

Table 3.7. Goodness-of-fit Indicators for Mediational Path Model

Model	χ^2	*Df*	NFI	RFI	TLI	CFI	RMSEA	SRMR
Trimmed Path Model (fully saturated)	5.92*	1	.997	.915	.928	.997	.058	.009
Removing Insignificant Covariances	18.57**	4	.990	.933	.947	.992	.050	.020
Removing SMC	15.88**	3	.990	.932	.944	.992	.054	.024
Removing Direct Path ELP-Psych	17.15**	4	.990	.945	.957	.992	.047	.026
Removing Direct Path CD-SCA	18.69**	5	.989	.952	.964	.992	.043	.027
Final Model (Removing Direct Path ELP-SWL)	29.10***	6	.982	.938	.950	.986	.051	.033

N = 1483. SMC = Subjective Multiculturalism; ELP = English language proficiency; Psych = Psychological symptoms; CD = Cultural Distance; SCA = Socio-cultural Adaptation; SWL = Satisfaction with Life
* *p* < .05. ** *p* < .01. ***p* < .001.

Results of the model indicate that cultural distance negatively predicts HNC, while English language proficiency and cultural inclusiveness in the classroom positively predict HNC. HNC, in turn, negatively predicts psychological symptoms and positively predicts satisfaction with life and socio-cultural adaptation.

Bootstrapping is used to examine the significance of the mediated indirect effects. Results presented in Table 3.8 are calculated using bootstrapping in IBM SPSS Amos 20. Based

on Baron and Kenny's (1986) definition of mediation, HNC mediates the relationship between the predictor variables and the outcome variables, as the primary relationship is reduced when HNC is added to the equation. The sizes of the indirect effects for the relationships between English language proficiency and psychological symptoms (β = -.020, SE = .007, 95% CI = -.028 to -.013) and English language proficiency and satisfaction with life (β= .053, SE = .009, with 95% CI = .037 to .073), along with the lack of significant direct path, indicates that HNC fully mediates these relationships. Since the confidence interval does not include zero and the direct path is not significant, the conclusion that HNC is a significant full mediator of the relationship can be drawn (Baron & Kenny, 1986). Likewise, HNC fully mediates the relationship between cultural distance and socio-cultural adaptation (β = -.031, SE = .006, with 95% (CI) = -.045 to -.021). An examination of the remaining indirect effects in the model, presented in Table 3.8, provide similar findings, with confidence intervals that do not include zero. Given that these relationships also have direct paths to the outcome variables, it can be concluded that HNC partially mediates the remaining relationships in the model.

Table 3.8. Standardized Indirect Effects

	English Language Proficiency				Cultural Distance				Cultural Inclusiveness in the Classroom			
			95% CI				95% CI				95% CI	
	B	SE	Lower Bound	Upper Bound	B	SE	Lower Bound	Upper Bound	B	SE	Lower Bound	Upper Bound
HNC	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
Psych Symp	-.020*	.007	-.028	-.013	.028*	.006	.018	.042	-.067**	.012	-.089	-.050
SWL	.053**	.009	.037	.073	-.075**	.008	-.108	-.056	.178**	.013	.142	.219
SCA	.022**	.007	.015	.031	-.031**	.006	-.045	-.021	.074**	.010	.057	.093

Note. HNC=Host National Connectedness; Psych Symp=Psychological Symptoms; SWL=Satisfaction with Life; SCA=Socio-Cultural Adaptation
*p < .05. ** p < .01.

Discussion

International students, like all culture-crossers, must face the challenge of adapting to a new culture and environment, while simultaneously dealing with the stress of cultural transition. This study examines one common source of struggle for international students, their inability to connect to New Zealanders. Although the importance of connections, particularly connections with hosts, is now well established, understanding the factors that influence HNC and the direct role in which HNC plays in facilitating positive acculturative outcomes is less well-known. Hence, this study aims to examine the antecedents of HNC as well as investigate its role in acculturative outcomes.

Connectedness appears to be a struggle for a large portion of the international student participants. A striking number of participants indicate that they have few connections to host nationals within (28%) or outside (21%) their institution. Furthermore, subjective measurements for HNC also indicate low levels of social support by New Zealanders among international students. These results are congruent with previous findings regarding international students in New Zealand (Generosa et al., 2013; Ho et al., 2007; Ward & Masgoret, 2004) and suggest that the situation has not changed in the last decade with respect to international students' ability to form connections with New Zealanders.

Antecedents of Host National Connectedness

Findings were anticipated to show that greater perceived discrimination and cultural distance negatively predict HNC. The results partially support the hypothesis. International students from countries that are similar to New Zealand (low cultural distance) have more in common with New Zealanders and are better able to form connections with host nationals. In line with the hypothesis and previous research on the impact of cultural distance on HNC (Ho et

al., 2007; Volet & Ang, 2012), high cultural distance negatively predicts HNC. These results provide evidence for the theory that those with less in common with host nationals (high cultural distance) have fewer bonding opportunities and chances to interact with host nationals, thereby having fewer connections.

Contrary to previous research (Duru & Poyrazli, 2011; Pruitt, 1978; Yoon et al., 2012), the results do not support the hypothesis that greater perceived discrimination negatively predicts HNC. Although perceived discrimination significantly correlates to HNC in the hypothesized direction, its strength as an independent predictor of HNC appears to be reduced as a result of the shared variance between it and the other contextual variables, cultural distance and perceived cultural inclusion. Hence, findings suggest that, given this model, the perception that the environment is accepting of diversity, both at the institutional and societal levels, is a more closely associated with HNC than the perceptions of discriminatory behavior within New Zealand.

It was hypothesized that greater perceived cultural inclusion (subjective multiculturalism and cultural inclusiveness in the classroom) and English language proficiency positively predict HNC. Findings support the hypotheses; English language proficiency and perceived cultural inclusion positively predict connections among international students.

In line with previous research illustrating the impact of language proficiency on intergroup contact (Church, 1982; Gullahorn & Gullahorn, 1966; Masgoret & Gardner, 1999), those who have difficulties communicating with host nationals also face challenges in connecting with them. Language ability is a fundamental component to relationship formation. High levels of English language proficiency aid international students in socializing with host nationals in a meaningful way, increasing their ability to form connections.

Berry's (1984) multiculturalism hypothesis suggests that individuals who are allowed to be secure in their sense of identity due to multicultural environments will have more positive attitudes towards other ethnic groups. Findings from this study extend this notion in that those who perceive their environment to be inclusive of cultural diversity, at both the institutional and societal level, are more likely to have actual connections with host nationals, not just positive attitudes. Environments that are inclusive of cultural diversity appear to facilitate international students' abilities to connect with host nationals, as cultural inclusiveness in the classroom and subjective multiculturalism are found to significantly predict host national connectedness. In alignment with the hypothesis, this finding supports previous research regarding the impact of multicultural environments on the formation of HNC (Lambert et al., 1986; Glass & Westmont, 2014).

Promoting interpersonal interactions and relationship formation, the need to belong is seen as a fundamental motivation (Baumeister & Leary, 1995); the novel, stimulating environment surrounding international students should motivate exploratory and positive-approach behaviors toward host nationals, according to the motivation for cultural exploration (Recker, 2012). It was expected that the 'motivation for cultural exploration' would amplify the positive effects of the 'motivation to belong' on HNC. Contrary to this hypothesis, the results illustrate that the interaction between the two motivation variables does not significantly predict HNC once contextual factors are entered into the model. Therefore, it appears that contextual factors are more closely associated to international students' abilities to connect than their motivation to do so.

Moreover, although the motivation to belong was not anticipated to significantly predict HNC, findings indicate that this affiliation motivation is a negative predictor of HNC. Contrary

to Baumeister and Leary's (1995) theory, which claims that the motivation to belong is a fundamental drive that leads individuals to connect with others, results indicate that a higher motivation to belong predicts lower levels of connectedness. Results could stem from the low scale reliability or validity issues, as the motivation to belong negatively correlates with general belongingness. An alternative explanation could stem from the fact that affiliation motivations have been found to arise from deprivation (O'Connor & Rosenblood, 1996). Therefore, international students who are highly connected are satiated in their social life and have little motivation to belong. As this study relies on cross-sectional data, directionality of the relationship cannot be explored further, requiring future examination utilizing longitudinal methods.

In addition to the hypothesized individual and contextual antecedents of HNC, demographic factors, specifically age and gender, were found to significantly predict connectedness. Findings indicate that older international students have lower levels of HNC than younger students. Age has broadly been argued in acculturation literature to impact acculturative outcomes. Typically, older adolescents have been found to have more adjustment difficulties than younger adolescents, while older adults have more trouble adapting than younger adults (Beiser et al., 1988). As international students age, their ability to connect with New Zealanders appears to diminish. Perhaps this is due to a stronger motivation to accomplish academic goals, focusing on educational qualifications rather than the social aspect of the sojourn. Alternatively, the results could simply be due to the fact that more years spent being enculturated by their home cultures makes the adjustment process more difficult. Either way, increases in age negatively predict connectedness.

Female international students have lower levels of HNC than male students. This finding is in line with previous research with international students in New Zealand (Ward & Masgoret, 2004). Although females generally have a stronger desire for affiliation and spend more time with friends than males, social expectations of genders have been argued to interpret these differences (Wong & Csikszentmihalyi, 1991). Within a new cultural environment, it is often easier for males, when alone, to safely engage with hosts in public environments than it is for females. For example, it is quite acceptable for a male to enter a bar, solo, and make new friends, where a similar action for a female may be perceived as unsafe or ill-advised. Therefore, sheer opportunities for connecting with host nationals may be more limited for females. Likewise, the definition of friendship or connections may vary between males and females, as has been found to be true between international students and host nationals more broadly (Hazan & Alberts, 2006). In comparison to males, females may require a deeper level of intimacy with new acquaintances to feel fully supported or report high levels of belongingness. Therefore, these gender differences in the sense of connection could account for the gender variation in levels of HNC.

The impact of perceived cultural inclusion, both proximally and distally, was anticipated to buffer the negative effects of perceived discrimination, high cultural distance, and low English language proficiency on HNC. Contrary to predictions, perceived cultural inclusion is not the overarching buffer against negative outcomes, as none of the interactions examined were found to be significant antecedents of HNC. Although previous research indicates that the perception of acceptance of cultural diversity in the surrounding environment serves a protective function in buffering negative stress outcomes in situations of low acceptance (Stuart, 2012), the results of this study do not support these findings. Given the relative novelty of these constructs, further

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explorations into the role of perceived cultural inclusion is warranted. Despite the lack of protective nature, perceived cultural inclusion was still found to be a stronger predictor of connectedness than perceptions of discrimination.

Previous literature has examined both individual and contextual variables that predict HNC. Although general rhetoric poses that the lack of HNC typically stems from individual factors, in particular a lack of desire or motivation to connect, few studies have examined both simultaneously. This study hypothesized that the contextual variables would have incremental validity, explaining additional variance in HNC beyond the demographic and individual variables. Although the results should be interpreted with caution based on the reliability of the subjective multiculturalism scale, they support the hypothesis, indicating that the receiving environment plays a large role in fostering the formation of HNC among international students and that the onus for its formation does not lie solely on the international students. In support of the hypothesis, findings show that contextual variables explain additional variance in HNC above and beyond that which is explained by individual factors. Consequently, while the individual variables discussed play an important role in international students' ability to connect, the context, in particular one that is either culturally similar or gives students the perception of cultural inclusion, significantly assists students in connecting with host nationals.

The Role of Host National Connectedness in the Acculturative Process

Connections to host nationals have been argued, in both the cultural learning (Argyle, 1969) and the stress and coping (Berry, 1997; Lazarus & Folkman, 1984) frameworks, to be instrumental in fostering positive acculturative outcomes (Furnham & Bochner, 1986, Ward & Rana-Deuba, 2000). According to these theories, host national connections serve as an instrumental coping resource, which ease the stress of cultural transition and aid international

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students during the adjustment process. Furthermore, HNC provides international students with learning opportunities for the culturally appropriate behaviors and social rules in New Zealand. Current findings support these theories, showing that higher levels of HNC are associated with fewer psychological symptoms, higher satisfaction with life, and better socio-cultural adaptation. These results are in line with findings from previous literature (Cheung & Yue, 2013; Furnham & Bochner, 1986; Ward & Kennedy 1993, 1994).

As hypothesized, HNC serves as an important mediator between known predictors and psycho-social adjustment outcomes. It was expected that HNC would partially mediate the effects of perceived discrimination, cultural distance, English language proficiency, subjective multiculturalism, and cultural inclusiveness in the classroom on psychological adjustment and socio-cultural adaptation. Within this sample, perceived discrimination was not a significant predictor of HNC, therefore this variable was eliminated from further analysis[7]. With the exception of subjective multiculturalism, the findings suggest that connectedness to New Zealanders is an important link between the hypothesized predictors of positive acculturative outcomes and the outcomes themselves among international students. Connections appear to be an instrumental resource through which international students cope with the stress of their new environment and learn the rules and appropriate behaviors for their new context.

Given that language proficiency gives international students the fundamental capacity to form connections, HNC in turn aids them in coping with the stressful life transition of acculturation and learning the appropriate rules and behaviors for the New Zealand context. Previous research highlights the importance of both language abilities and intergroup contact in

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[7] It should be noted that this hypothesis is supported when a simpler model is tested. HNC mediates the relationship between perceived discrimination and psychological adjustment and socio-cultural adaptation when no other antecedent variables are included in the model.

predicting acculturative outcomes (Masgoret, 2006). In accordance with previous findings (Blood & Nicholson, 1962; Poyrazli et al., 2002, 2004) and the hypothesis, the current study indicates that higher levels of language proficiency predict increased socialization with host nationals, thereby resulting in fewer psychological symptoms, higher satisfaction with life, and better socio-cultural adjustment. Results from this study highlight that HNC is a link between language proficiency and acculturative outcomes, such that HNC fully mediates the relationship between English language proficiency and psychological symptoms and satisfaction with life, while partially mediating the relationship between English language proficiency and socio-cultural adaptation.

HNC provides a critical link between cultural distance and adjustment outcomes. The formation of HNC provides a support system that assists international students in coping with the stress of any cultural differences they may encounter, easing adjustment. Moreover, these connections help them learn the rules and behaviors for the New Zealand context, thereby limiting the impact of a vast distance between their culture of origin and New Zealand. Congruent to the hypothesis, findings support previous research on cultural distance's prediction of connectedness (Furnham & Alibhai, 1985; Furnham & Bochner, 1982), psychological adjustment (Babiker et al., 1980; Sam, 2001), and socio-cultural adaptation (Furnham & Bochner, 1982; Searle & Ward, 1990), such that lower distance levels predict higher connectedness, fewer psychological symptoms, higher satisfaction with life, and more positive socio-cultural adaptation. This study adds to this understanding by positing HNC as a link between cultural distance and acculturative outcomes. Results show that HNC fully mediates the relationship between cultural distance and socio-cultural adaptation, while partially mediating the relationship between cultural distance and psychological adjustment outcomes.

The Antecedents and Outcomes of Host National Connectedness

When educational institutions foster a campus environment that is inclusive of cultural diversity, international students are more likely to form connections with host nationals, which, in turn predict better psycho-social adjustment outcomes. Those students who can feel confident in their cultural identity are better able to make friends with New Zealanders and thereby successfully adjust to their new environment. Results support previous findings that perceptions of cultural inclusion and inclusive curricula/environments are associated with more connections with hosts (Berry & Kalin, 1995; Lambert et al., 1986; Glass & Westmont, 2014; Stebleton et al., 2014) and more positive adaptation outcomes (Stuart, 2012). As predicted, results indicate that HNC is an important link between these perceptions and the acculturative outcomes, such that it partially mediates the relationship between cultural inclusiveness in the classroom and all of the adjustment outcomes. Hence, this study furthers previous results, as HNC provides a link between the institutional environment and overall positive adjustment outcomes for international students.

Despite the role of HNC in facilitating positive acculturative outcomes in environments that are culturally inclusive at the proximal level, the same findings were not found with respect to more distal measures of perceived cultural inclusion. Contrary to the hypothesis, and the findings within this study of the antecedents of HNC, no relationship was found between subjective multiculturalism, HNC, and acculturative outcomes. International students spend the majority of their time within the context of their educational institution. Therefore, the students' impressions and opinions about New Zealand and their connections with New Zealanders may primarily arise from interactions at the institution. The impact of the proximal indicator of perceived cultural inclusion, cultural inclusiveness in the classroom, captures perceptions of students' daily environment. This indicator appears to have an important impact on acculturative

outcomes, including the formation of HNC. The lack of findings among the more distal measure of perceived cultural inclusion, subjective multiculturalism, does not imply that societal levels of inclusion are irrelevant, but rather, when taken in conjunction with proximal measures, daily experiences are more closely associated with acculturative outcomes.

It was predicted that HNC would mediate the interaction effect between the motivation to belong and the motivation for cultural exploration on psychological adjustment and socio-cultural adaptation. As this interaction did not significantly predict HNC, this hypothesis is not supported and was not included in the final analyses.

Limitations

Despite the important findings of this research, the limitations of the study must be acknowledged. Although the length of time in New Zealand was used as a control in the prediction of HNC, the study uses cross-sectional data. Therefore, while findings have been discussed in terms of predictive power, causality cannot be inferred. Despite the theoretical rationale for the predicted relationships, it must be acknowledged that the direction of the relationship could be reversed. Longitudinal data are needed to determine the direction of the relationships. Likewise, longitudinal data are needed to assess how the change in host national connections impacts overall psycho-social outcomes across time, particularly given the results of both qualitative (Hotta & Ting-Toomey, 2013) and quantitative data (Geeraert, Demoulin, & Demes, 2014). These studies indicate that time is an important factor in the formation of connections, impacting both the type and quality of the connections as well as overall adjustment outcomes (Hotta & Ting-Toomey, 2013; Geeraert et al., 2014).

Limitations also arise from the sample itself. Despite the large sample size, the sample is not representative of the international student population in New Zealand. Males, Indians,

Southeast Asian, and those over the age of 30 are all over-represented, while females, Chinese, and undergraduate students are under-represented. Furthermore, the sample size does not possess enough power to test all two-way interactions within the regression analysis. Because the analysis relies on self-report surveys in a culturally diverse sample, the findings are subject to known problems in this line of research, such as social desirability responding, avoidance of the extremes, or acquiescence biases (Johnson, Shavitt, & Holbrook, 2011).

Some aspects of the survey design serve as limitations. For example, the survey was only distributed in English. The monolingual survey may have discouraged some international students with lower levels of reading comprehension from participating in the study. This limitation could partially explain the low response percentage and the unrepresentativeness of the sample. Furthermore, while this study examined both individual and contextual factors, all variables are subject to the perceptions of the international students. Moreover, the study does not enquire about students' satisfaction with their connections with New Zealanders. Although previous research continuously highlights high levels of dissatisfaction in this area among international students (Generosa et al., 2013; Ho et al., 2007; Ward & Masgoret, 2004), lack of HNC as a source of struggle is assumed in the current research. Additionally, the study does not ask about the students' desire for connection. Although previous research shows that the incongruence between desired contact and actual contact is related to adaptation (Zheng & Berry, 1991), this study, unfortunately, assumes this desire, limiting the conclusions that can be drawn.

An additional limitation is posed by the motivation to belong. Results indicate that the scale has questionable internal reliability and validity when used with this population, as it did not meet conventional reliability standards and was not related to other constructs, such as general belongingness, in an expected way. However, it could be that the motivation to belong

and HNC relate in a conceptually different way. Affiliation motivations have been found to be like the appetitive drive (Gewirtz & Baer, 1958; O'Connor & Rosenblood, 1996). Similar to hunger satiation, international students with high levels of connectedness may no longer be motivated to seek out belongingness. As this study uses cross-sectional data, longitudinal studies are needed to determine directional relationships between these constructs. However, incorporating this motivational construct is important for understanding HNC, as motivational components are relatively new in acculturation literature. Further deconstruction of the motivational elements that underlie acculturation processes is necessary.

Finally, this study focused solely on the international students. Yet, relationships are an inherently reciprocal process (Ujitani & Volet, 2008). Although contextual factors were taken into consideration, the role of host nationals in the process of connection formation was not examined. Previous research indicates that international students perceive a barrier in forming connections due to a lack of interest among host nationals (Selby & Woods, 1966). Moreover, research in New Zealand indicates that domestic students, on average, rarely interact voluntarily with international students (Ward, Masgoret, & Gezentsvey, 2009). Ultimately, irrespective of international students' motivation or the facilitation of a culturally inclusive environment at the institutional or societal level, if host nationals have no desire to form connections with international students – all efforts will be in vain. This investigation, therefore, only tells half of the story with regards to international students' HNC.

Contributions to the Literature

Within both the stress and coping and cultural learning frameworks of acculturation research, HNC is already know to be an important factor in positive outcomes for international students. This study has added to this body of literature.

As indicated in the results of the preliminary analysis, host national connectedness is a multi-faceted construct that can and should be measured by both objective and subjective measures to fully capture its complexity.

The predictive model of HNC incorporated novel variables, primarily the motivational factors and the perceptions of cultural inclusion, to better understand the contributing factors to the formation of HNC. Although the results were not always as hypothesized, both sets of variables provided predictive power in the explanation of HNC. Hence, future studies examining the connectedness and acculturative outcomes of international students should take these factors into consideration.

In particular, when examining the facilitation of positive acculturative outcomes, research needs to incorporate the perceptions of a culturally inclusive environment among sojourners and migrants. This study broadens the understanding of the perceptions of cultural inclusion, a relatively novel concept within the stress and coping and cultural learning frameworks, through the inclusion of two measures. Results indicate that this construct, both at the institutional and societal levels, plays an important role in the prediction of HNC and in broader psycho-social adjustment outcomes. Hence, research on acculturative outcomes should develop a deeper understanding of this construct.

This study examined both individual and contextual factors of HNC simultaneously to clarify the incongruence noted in the literature between the apparent desire for HNC and its actual formation among international students (Ho et al., 2007; Ward & Masgoret, 2004). Results indicated that the contextual variables explained additional variance above and beyond the individual components. Hence, despite reporting motivation for connections, students struggle to obtain them because the responsibility for HNC does not lie solely with the student. It is not

enough to only examine the individual student's role in their formation of connections; research must examine the contributions of contextual factors as well.

Most importantly, connections with host nationals serve as a functional mechanism through which international students ease their transition stress and cope with cultural differences. HNC provides an avenue through which international students can learn culturally appropriate behaviors and the rules of their new cultural context, thereby aiding their socio-cultural adjustment. Results from this study highlight the mediational role of HNC in facilitating positive acculturative adjustment outcomes. For international students in New Zealand, HNC links high English language proficiency, low cultural distance, and high levels of perceptions cultural inclusiveness in the classroom to low levels of psychological symptoms, high satisfaction with life levels, and more positive socio-cultural adaptation. This study empirically supports notions regarding the role of host nationals that have been theoretically argued in the literature (Furnham & Bochner, 1986).

Applications

Undoubtedly, the formation of HNC is an ecological challenge, with international students, educators, institutional administrators, and society as a whole playing a role in the facilitation of international students' connections. Key stakeholders interested in the recruitment, adjustment, and retention of international students in tertiary education can glean numerous practical applications from this study. Applications for international students, multicultural classrooms, institutions, and the wider society will be discussed.

Students themselves should be made aware of the significant role that HNC plays in facilitating positive adjustment. In particular, international students should be trained in the particular antecedents beneficial to the formation of HNC, such as improved language abilities

and an understanding of cultural differences. Language education and cultural training programs, such as the excellence in cultural experiential learning and leadership (ExcelL^{TM}), can help to improve international students' knowledge and skills. To aid in the formation of HNC, international students should proactively attend training programs, like ExcelL^{TM}, shown to increase the amount of time spent with cross-ethnic friends (Mak & Buckingham, 2007).

Universities have the responsibility of ensuring that international students thrive, both educationally and psycho-socially. Given the role of HNC in the psycho-social adjustment, both curricular and extracurricular practices should be implemented.

Perceived cultural inclusion at the classroom and institutional level appears to be vital for the formation of HNC among international students. Yet, the mere presence of international students in the classroom is not enough to successfully facilitate positive interactions between domestic and international students (Rienties & Nolan, 2014). Lecturers and tutors must structure course material and assessments to foster positive intercultural contact (Smart, Volet, & Ang, 2000). Stronger social cohesion among diverse student bodies has been found to be the result of intentional grouping of students in course tasks. Educators who intervene to pair international students with domestic students for group work aid the students in building diverse relationships, increasing their social connections (Reinties, Johan, & Jindal-Snape, 2014) and forming strong cross-cultural friendships (Rienties & Nolan, 2014). The positive benefits of these diverse groups have been found to have broader learning outcomes beyond the educational aims of the group (Rienties, Alcott, & Jindal-Snape, 2014).

Within the classroom, a broader internationalization of curricula, altering the content of courses to include and reflect ideologies, examples, and issues that reflect a globalized society, helps international students to participate and provide their perspective (Smart et al., 2000).

Additionally, classrooms led by lecturers who acknowledge and accommodate a variety of learning styles and promote cultural diversity through research-based teaching methods have been found to promote social interactions among culturally diverse students (Deakins, 2009).

With respect to the facilitation of extracurricular opportunities for international students, institutions should sponsor and promote trainings, such as ExcelL^{TM}, that successfully help students to form connections with hosts (Mak & Buckingham, 2007). Moreover, peer pairing programs, mentoring systems, conversation groups, and cross-cultural lunches have been found to promote positive relations between international and domestic students (Leask, 2009; Smart et al., 2000). Such programs have the potential to facilitate HNC amongst international students, but require institutional support and evaluation.

With regard to the broader institutional environment, a respect for diversity should be apparent in the university mission statement and leadership, outlining explicit policies for internationalization (Smart et al., 2000). These policies should be supported with visible signals of the acceptance of cultural diversity, like prayer rooms, funding for cultural-based student groups, and displays of cultural celebrations (Leask, 2009). Furthermore, the policies should promote tangible practices, such as staff development opportunities that emphasize the skills needed for teaching diverse students or working with the international student population (Smart et al., 2000). Educators need training and development opportunities to acquire the cross-cultural competencies necessary to create a classroom environment that promotes positive intercultural interactions (McAllister & Irvine, 2000).

From the beginning, institutions can aid international students in the formation of HNC. Hosting orientation programs that help international students adjust to their new academic and

cultural environment, but also provide opportunities for socialization and orientation with their domestic peers, can foster connections among host nationals (Smart et al., 2000).

Institutional policies regarding housing and accommodation can also play a role in the facilitation of HNC. Interventionist strategies and policies can promote social interaction and long-term cross-cultural friendships (Smart et al., 2000). Cross-cultural initiatives in residence halls have been found to promote the desire for intercultural friendships among domestic students participating in the initiative, as well as within the institution more broadly (Nesdale & Todd, 2000; Todd & Nesdale, 1997).

Institutional support services for international students, such as advisors and counselors, should be readily available, offering advice on academic and social needs. In particular, these practitioners can encourage international students struggling with adjustment issues to seek out clubs, organizations and buddy programs or facilitate a homestay opportunity, as such programs have been shown to be effective in helping international students to create connections in previous research (Woods et al., 2013).

With respect to the wider community, programs such as Operation Friendship International serve to connect international students to the local community. Within the New Zealand branch, international students are hosted by a family and meet for various social activities (Ward et al., 2009). Moreover, homestays could serve as a positive source of connection for international students. However, the literature is indecisive as to the overall effectiveness of homestay programs in promoting positive, supportive relationships between international students and hosts; more training of host families and program evaluations need to occur prior to implementing such programs (Ward, 2006).

National policies also play an important role in the formation of host national connectedness. Among immigrant youth, a 13-nation study indicates that those who reside in nations with stronger policies in support of multiculturalism are more likely to integrate into the society (Berry et al., 2006b). Such findings are likely to extend to international students. Therefore, multicultural policies are needed to promote broader social cohesion.

Likewise, inclusion in the broader society and perceptions of multiculturalism have been linked to future immigration intentions, even among international students who originally intended to return to their home country upon the completion of their qualification (Alberts & Hazen, 2005). Contrarily, feelings of alienation and differences in the conception of friendship have been reported to be incentives to return home (Hazen & Alberts, 2006). Hence, policy makers intending to retain international students as more permanent immigrants supporting the labor market need to fund and support both political and institutional initiatives that facilitate broader connections amongst students.

Future Research

The findings, limitations, and applications of this study provide ample avenues for future research. This study provides insights into the antecedents and outcomes of HNC among international students. Future research should explore these relationships, looking at additional motivational components, contextual factors, and different acculturative outcomes, such as intergroup relations/perceptions, acculturation styles, or identity components.

In order to improve upon this study's limitations, future studies should attempt replications using longitudinal methods, obtaining larger, more representative samples, providing the survey in multiple languages, and incorporating explicit questions about international students' desire for or satisfaction with HNC. Furthermore, while this study relied on

quantitative data, future research should focus on measuring these concepts via qualitative and quasi-experimental methods to triangulate the findings and provide a more accurate and well-rounded understanding of the antecedents and outcomes of host national connections.

With respect to methodology, future research should include a multi-level analysis. By utilizing a multi-level analysis with international students, such as that conducted by Geeraert et al. (2014), a more comprehensive understanding of the function of both individual and contextual factors can be understood. Future studies could include objective measures of discrimination and perceived cultural inclusion at the institutional and societal, specifically the national, level. This research needs to be expanded to incorporate numerous cultural contexts, because New Zealand, in particular, is typically known for being a psychologically multicultural society (Sibley & Ward, 2013; Ward & Masgoret, 2008). These broader socio-political and cultural aspects could prevent this research from being applicable in other contexts (Leong, 2014).

As stated, relationship formation is an inherently reciprocal process. Therefore, a multi-level analysis could expand this study to incorporate the role and perspective of the host nationals in the overall HNC of international students. Although studies have been conducted that examine the host perspective (Dunne, 2013; Ujitani & Volet, 2008), these perspectives need to be incorporated into the study of acculturative outcomes for international students.

While the incorporation of motivational components provides important insights, further exploration of these factors is needed. When qualitatively examining the motivations of host country university students' desire to connect with international students, Dunne (2013) found that students' motivations centered around four themes: perceived utility, shared future, concern for others, and interest/curiosity. Hence, while the motivations selected and measured in this

study are theoretically and logically justifiable, further empirical testing of international students'

motivations to connect need to be explored and the motivational contribution to HNC requires

further investigation.

Finally, further enquiries should be made into the practical applications that promote

HNC. Rigorous evaluation of training courses, institutional internationalization agendas,

extracurricular activities, and homestay programs, for example, should be conducted to collect

empirical data on the effectiveness of these measures to improve international students' HNC.

Summary and Conclusion

International students from across New Zealand ($N = 1527$) are surveyed to examine the

antecedents and outcomes of HNC. Findings from this study support the general body of

literature on international students, indicating that students studying in New Zealand, in general,

thrive. Overall, they report low levels of psychological symptoms, high levels of satisfaction

with life, and positive socio-cultural adaptation. Yet, international students' ability to connect

with host nationals continues to be one source of struggle. This study finds that roughly one-

fourth of respondents had no close, local friends. Hence, this study aims to understand why this

incongruence exists, as well as the impact that HNC has on overall adjustment.

Results indicate that both individual level (age, gender, English language proficiency and

the motivation to belong) and contextual factors (cultural distance and perceptions of cultural

inclusion at the societal and institutional levels) predict HNC. Furthermore, contextual variables

explain additional variance in HNC above and beyond that explained by the individual factors.

The onus for connectedness does not lie solely on the international students. Rather, the

receiving society and the host institution have a responsibility to foster a culturally inclusive

environment that is conducive to the formation of HNC.

HNC is also an important factor in the overall psychological adjustment and socio-cultural adaptation of international students, predicting positive acculturative outcomes. In line with the stress and coping framework, it appears that HNC provides a source of social support for international students, easing the stress of cultural transition and aiding in psychological adaptation. Moreover, consistent with the cultural learning framework, HNC is a tool through which international students learn the cultural code for New Zealand to effectively survive in their new environment. Therefore, while the lack of HNC among international students is a troubling statistic in isolation, paired with its importance for overall adjustment, a lack of HNC among international students causes even more concern.

Furthermore, results show that HNC is an important mediating variable, linking English language proficiency, cultural distance, and perceptions of cultural inclusion at the institutional level to both positive and negative indicators of psychological adjustment and socio-cultural outcomes. International students with high levels of language proficiency are more able to connect with locals, which in turn results in more positive adjustment outcomes. Similarly, international students who are from a culture similar to New Zealand have more in common with the locals, enabling them to form higher HNC, thereby experiencing more positive adjustment. Finally, a culturally inclusive environment at the institutional level fosters the formation of connections with locals among international students, which in turn results in better adjustment outcomes.

Despite the limitations of this study, the findings add to the body of literature on host national connectedness among international students within the stress and coping and cultural learning frameworks of the acculturation paradigm. In particular, the empirical measurement of HNC, the incorporation of motivational and contextual factors in the prediction of HNC, and the

examination of the mediational role of HNC offer novel perspectives worthy of future examination. Moreover, results of this study are directly applicable to educators, international education administrators, and policy makers.

Students are thriving. Yet, this study has highlighted antecedents and outcomes of one source of struggle – the ability to connect with locals. While more research is needed, it appears that by fostering an institutional environment that is culturally inclusive, encouraging language proficiency, and minimizing cultural differences, international students can better form connections with host nationals and have more positive psycho-social adjustment outcomes.

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Appendix A
Living and Studying in New Zealand

About You
Instructions: Please complete the following questions about yourself.

1. What is your country of origin?	_ DROP DOWN LIST OF COUNTRIES__
2. What is your gender?	Male _____ Female ____
3. What is your age (in years)?	_____

4. What type of qualification are you studying toward?

Certificate or Diploma
Bachelor's degree
Graduate Certificate or Graduate Diploma
Postgraduate Certificate or Postgraduate Diploma
Master's degree
PhD degree
Other (please specify) _____

5. How long have you studied in New Zealand (please indicate in number of years and months)?

Years _____   Months _____

6. In what region of New Zealand are you studying?

DROP DOWN LIST OF REGIONS

7. What type of accommodation are you living in while studying in New Zealand?

In a student hostel/hall of residence

In rental accommodation (e.g. flat)

In your own home

In a homestay (living with a family in New Zealand)

In a relative's home

Other (please specify)_____

Before travelling to New Zealand

Instructions: How difficult was it for you to find information about the following areas before arriving in New Zealand (NZ) to study? (If you did not try to find information on an area, please click "not Applicable")

	Not at all difficult	Slightly (a little) difficult	Moderately difficult	Very Difficult	Extremely Difficult	Not Applicable
1. Where to live / information about regions in NZ	1	2	3	4	5	6
2. Finding accommodation	1	2	3	4	5	6
3. Cost of living	1	2	3	4	5	6

	1	2	3	4	5	6
4. Climate (e.g. weather)	1	2	3	4	5	6
5. Immigration/Visa information	1	2	3	4	5	6
6. Opportunity to work while studying	1	2	3	4	5	6
7. Work rights in NZ	1	2	3	4	5	6
8. Options for working after study	1	2	3	4	5	6
9. How well are NZ qualifications recognised internationally	1	2	3	4	5	6
10. Getting a tax (IRD) number	1	2	3	4	5	6
11. Banking (e.g. opening a bank account)	1	2	3	4	5	6
12. Driving in NZ (e.g. getting a driver license, traffic rules)	1	2	3	4	5	6
13. Shipping and relocating possessions	1	2	3	4	5	6
14. Medical care/ Health services in NZ	1	2	3	4	5	6
15. Language and communication	1	2	3	4	5	6
16. NZ culture	1	2	3	4	5	6
17. Sports, recreation and leisure activities	1	2	3	4	5	6
18. Religious and other community groups	1	2	3	4	5	6
19. Food in New Zealand	1	2	3	4	5	6
20. Public transport	1	2	3	4	5	6
21. Shopping	1	2	3	4	5	6
22. Support services for international students	1	2	3	4	5	6

Instructions: Was there any other information that you found difficult to find (please

specify)?_____

Instructions: Based on your experience as an international student in New Zealand, how useful

would it have been to receive information about the following areas while deciding to study in

New Zealand?

(If the information on an area is not relevant to you, please click "Not Applicable"):

	Not at all useful	Slightly (a little) useful	Moderately useful	Very Useful	Extremely Useful	Not Applicable
1. Where to live / information about regions in NZ	1	2	3	4	5	6
2. Finding accommodation	1	2	3	4	5	6
3. Cost of living	1	2	3	4	5	6
4. Climate (e.g. weather)	1	2	3	4	5	6
5. Immigration/Visa information	1	2	3	4	5	6
6. Opportunity to work while studying	1	2	3	4	5	6
7. Work rights in NZ	1	2	3	4	5	6
8. Options for working after study	1	2	3	4	5	6
9. How well are NZ qualifications recognised internationally	1	2	3	4	5	6
10. Getting a tax (IRD) number	1	2	3	4	5	6
11. Banking (e.g. opening a bank account)	1	2	3	4	5	6
12. Driving in NZ (e.g. getting a driver license, traffic rules)	1	2	3	4	5	6
13. Shipping and relocating possessions	1	2	3	4	5	6
14. Medical care/ Health services in NZ	1	2	3	4	5	6
15. Language and communication	1	2	3	4	5	6
16. NZ culture	1	2	3	4	5	6
17. Sports, recreation and leisure activities	1	2	3	4	5	6
18. Religious and other community groups	1	2	3	4	5	6
19. Food in New Zealand	1	2	3	4	5	6
20. Public transport	1	2	3	4	5	6
21. Shopping	1	2	3	4	5	6
22. Support services for international students	1	2	3	4	5	6

Instructions: Was there any other information that you would have found useful while deciding

to study in New Zealand (please specify)?_____

The Antecedents and Outcomes of Host National Connectedness

Instructions: Immediately after you complete your current programme of study, what is the next thing you are most likely to do?

Enrol in further studies in your home country _____

Enrol in further studies at the same educational institution in New Zealand _____

Enrol in further studies at another educational institution in New Zealand _____

Enrol in further studies in another country overseas _____

Find a job in your home country _____

Find a job in New Zealand _____

Find a job in another country _____

No plans for the future yet _____

Other (please specify)

_____

In New Zealand

Instructions: Please rate your level of English language proficiency in the following areas.

	Poor	Fair	Good	Very Good	Excellent	Native Speaker
1. Reading Ability	1	2	3	4	5	6
2. Writing Ability	1	2	3	4	5	6
3. Speaking Ability	1	2	3	4	5	6
4. Comprehension Ability	1	2	3	4	5	6

Instructions: Please rate how much, if at all, your own background differs from that of New Zealand in the following areas.

	Not Different	Slightly Different	Different	Very Different
1. Climate	1	2	3	4
2. Clothes	1	2	3	4
3. Language	1	2	3	4
4. Educational Level	1	2	3	4
5. Food	1	2	3	4
6. Religion	1	2	3	4
7. Material Comfort	1	2	3	4
8. Leisure	1	2	3	4

	Strongly Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree
9. Family Structure and Family Life	1	2	3	4
10. Courtship and Marriage	1	2	3	4

Instructions: Please indicate your agreement with the following statements in reference to New Zealand.

In New Zealand . . .	Strongly Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Strongly Agree
1. Ethnic minorities are under-represented in government.	1	2	3	4	5
2. Most people think that it is a bad thing that there are so many people of different ethnic backgrounds living the country.	1	2	3	4	5
3. Interacting with people from different cultures is unavoidable.	1	2	3	4	5
4. All ethnic groups work together to solve the country's problems.	1	2	3	4	5
5. Most people think it would be better if everyone living in the country had the same customs and traditions.	1	2	3	4	5
6. It is likely that you will interact with people from many different cultures on any given day.	1	2	3	4	5
7. Most people believe that the country's unity is weakened by people from different cultural backgrounds sticking to their old ways.	1	2	3	4	5
8. Most people work with people from different cultures.	1	2	3	4	5
9. Most people think it is important for people from different ethnic backgrounds to get along with each other.	1	2	3	4	5
10. Most people pride themselves on being accepting of cultural diversity.	1	2	3	4	5
11. There are very few ethnic minorities in leadership positions.	1	2	3	4	5
12. Most people recognize that the country consists of many groups with different cultural backgrounds.	1	2	3	4	5
13. Institutional practices are often adapted to the specific needs of ethnic minorities.	1	2	3	4	5
14. Ethnic minorities are under-represented in the police force.	1	2	3	4	5
15. Most children go to school with other children from different cultures.	1	2	3	4	5
16. Schools don't do enough to educate our children about people from different cultural backgrounds.	1	2	3	4	5

Instructions: Below are a series of statements with which you may agree or disagree. Please indicate that best represents your views, using the scale provided. There are no right or wrong answers, and your first responses are usually the most accurate.

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

1. My teachers/lecturers encourage contact between international and local students.	1	2	3	4	5
2. My teachers/ lecturers make special efforts to help international students.	1	2	3	4	5
3. Cultural differences are respected in my institution.	1	2	3	4	5
4. My teachers / lecturers understand the problems of international students.	1	2	3	4	5
5. In my classes there is the opportunity for students to learn about different cultures.	1	2	3	4	5
6. My classmates are accepting of cultural differences.	1	2	3	4	5
7. Students from different cultural groups work well with each other in my classes.	1	2	3	4	5

Instructions: Please indicate how often in the last month, you have experienced the following because of your ethnic, cultural, or national background:

	Almost Never	Seldom	Sometimes	Often	Very Often
1. Treated with less courtesy.	1	2	3	4	5
2. Treated with less respect.	1	2	3	4	5
3. Received poor service.	1	2	3	4	5
4. People acted as if you were not smart.	1	2	3	4	5
5. People acted as if they're afraid of you.	1	2	3	4	5
6. People acted as if you were dishonest.	1	2	3	4	5
7. People acted as if they were better than you.	1	2	3	4	5
8. You were called names.	1	2	3	4	5
9. You were threatened.	1	2	3	4	5
10. You were followed around in stores.	1	2	3	4	5

Instructions: Please think about your preferences and indicate how strongly you agree or disagree with the following statements.

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
1. It is exciting for me to explore new cultures.	1	2	3	4	5	6	7
2. I enjoy contact with people from other cultures because it broadens my horizons.	1	2	3	4	5	6	7
3. It is important to me to understand the views of people from different cultural backgrounds.	1	2	3	4	5	6	7
4. Living in a country with a different culture gives me the opportunity to learn new ways of doing things.	1	2	3	4	5	6	7
5. It is exciting to go to places with a different cultural heritage, even though I don't know what might happen.	1	2	3	4	5	6	7
6. Sometimes it is important for me to put my own culture into	1	2	3	4	5	6	7

perspective and acknowledge different views.

7. It gives me pleasure to meet people from other cultures.	1	2	3	4	5	6	7
8. It gives me pleasure to go to places where people from other countries display their culture (e.g. markets, arts, festivals, concerts).	1	2	3	4	5	6	7

Instructions: For each of the statements below, indicate the degree to which you agree or disagree with the statement by choosing the appropriate number corresponding to the scale below:

	Strongly Disagree	Moderately Disagree	Neither Agree nor Disagree	Moderately Agree	Strongly Agree
1. If other people don't seem to accept me, I don't let it bother me.	1	2	3	4	5
2. I try hard not to do things that will make other people avoid or reject me.	1	2	3	4	5
3. I seldom worry about whether other people care about me.	1	2	3	4	5
4. I need to feel that there are people I can turn to in times of need.	1	2	3	4	5
5. I want other people to accept me.	1	2	3	4	5
6. I do not like being alone.	1	2	3	4	5
7. Being apart from my friends for long periods of time does not bother me.	1	2	3	4	5
8. I have a strong need to belong.	1	2	3	4	5
9. It bothers me a great deal when I am not included in other people's plans.	1	2	3	4	5
10. My feelings are easily hurt when I feel that others do not accept me.	1	2	3	4	5

Instructions: Think about your friends in New Zealand and indicate the frequency of the following:

Indicate how many CLOSE friends you have from the following groups:

	None	One	A Few	Some	Many
1. New Zealanders who are students at your educational institution	1	2	3	4	5
2. New Zealanders outside of your educational institution	1	2	3	4	5

	Never	Seldom	Some times	Often	Very Often
How often do you take part in the following activities with students from New Zealand?					
1. Spending time together during the holidays.	1	2	3	4	5
2. Interacting during free time outside of class.	1	2	3	4	5
3. Doing group assignments.	1	2	3	4	5
4. Working in a study group.	1	2	3	4	5
5. Doing exam revision.	1	2	3	4	5
6. Sharing class notes.	1	2	3	4	5
7. Social events.	1	2	3	4	5
How often do you spend social time with non-student, New Zealand friends?	1	2	3	4	5

Instructions: Think about your relationships with New Zealand friends and rate your agreement or disagreement with the following statements.

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
1. When I am with other people, I feel included.	1	2	3	4	5	6	7
2. I have close bonds with friends.	1	2	3	4	5	6	7
3. I feel like an outsider.	1	2	3	4	5	6	7
4. I feel as if people do not care about me.	1	2	3	4	5	6	7
5. I feel accepted by others.	1	2	3	4	5	6	7
6. Because I do not belong, I feel distant during the holiday season.	1	2	3	4	5	6	7
7. I feel isolated from the rest of the world.	1	2	3	4	5	6	7
8. I have a sense of belonging.	1	2	3	4	5	6	7
9. When I am with other people, I feel like a stranger.	1	2	3	4	5	6	7
10. I have a place among others.	1	2	3	4	5	6	7
11. I feel connected with others.	1	2	3	4	5	6	7
12. Friends do not involve me in their plans.	1	2	3	4	5	6	7

Instructions: Think about your relationships with New Zealanders. Indicate how many New Zealanders you know who would . . .

	No one	Someone	A Few	Several	Many
1. Listen and talk with you whenever you feel lonely or depressed.	1	2	3	4	5
2. Give you tangible assistance in dealing with any communication or language problems that you might face.	1	2	3	4	5
3. Explain things to make your situation clearer and easier to understand.	1	2	3	4	5
4. Spend some quiet time with you whenever you do not feel like going out.	1	2	3	4	5
5. Explain and help you understand the local culture and language.	1	2	3	4	5
6. Accompany you somewhere even if he/she doesn't have to.	1	2	3	4	5
7. Share your good times and bad times.	1	2	3	4	5
8. Help you deal with some local institutions' official rules and regulations.	1	2	3	4	5
9. Accompany you to do things whenever you need someone for company.	1	2	3	4	5
10. Provide necessary information to help orient you to your new surroundings.	1	2	3	4	5
11. Comfort you whenever you feel homesick.	1	2	3	4	5
12. Help you interpret things that you don't really understand.	1	2	3	4	5

13. Tell you what can and cannot be done in New Zealand.	1	2	3	4	5
14. Visit you to see how you are doing.	1	2	3	4	5
15. Tell you about available choices and options.	1	2	3	4	5
16. Spend time chatting with you whenever you are bored.	1	2	3	4	5
17. Reassure you that you are loved, supported and cared for.	1	2	3	4	5
18. Show you how to do something that you didn't know how to do.	1	2	3	4	5

Instructions: Living in a different culture often involves learning new skills and behaviors. Thinking about life in New Zealand, please rate your competence at each of the following behaviours on a scale from 1 to 5:

	Not at all Competent				Extremely Competent
1. Building and maintaining relationships.	1	2	3	4	5
2. Managing my academic / work responsibilities.	1	2	3	4	5
3. Interacting at social events.	1	2	3	4	5
4. Maintaining my hobbies and interests.	1	2	3	4	5
5. Adapting to the noise level in my neighbourhood.	1	2	3	4	5
6. Accurately interpreting and responding to other people's gestures and facial expressions.	1	2	3	4	5
7. Working effectively with other students.	1	2	3	4	5
8. Obtaining community services I require.	1	2	3	4	5
9. Adapting to the population density.	1	2	3	4	5
10. Understanding and speaking English.	1	2	3	4	5
11. Varying the rate of my speaking in a culturally appropriate manner.	1	2	3	4	5
12. Gaining feedback from other students to help improve my performance.	1	2	3	4	5
13. Accurately interpreting and responding to other people's emotions.	1	2	3	4	5
14. Attending and participating in community activities.	1	2	3	4	5
15. Finding my way around.	1	2	3	4	5
16. Interacting with members of the opposite sex.	1	2	3	4	5
17. Expressing my ideas to other students in a culturally appropriate manner.	1	2	3	4	5
18. Dealing with bureaucracy.	1	2	3	4	5
19. Adapting to the pace of life.	1	2	3	4	5
20. Reading and writing English.	1	2	3	4	5

21. Changing my behaviour to suit social norms, rule, attitudes, beliefs and customs.   1   2   3   4   5

Instructions: Please indicate how often you have felt the following in the last month:

	Never	A little of the time	Some of the time	A lot of the time	Most of the time
1. I feel tired.	1	2	3	4	5
2. I feel sick in the stomach.	1	2	3	4	5
3. I feel dizzy and faint.	1	2	3	4	5
4. I feel short of breath even when not exerting myself.	1	2	3	4	5
5. I feel weak all over.	1	2	3	4	5
6. I feel tense or keyed up.	1	2	3	4	5
7. I feel nervous and shaky inside.	1	2	3	4	5
8. I feel restless.	1	2	3	4	5
9. I feel annoyed or irritated.	1	2	3	4	5
10. I am worried about something bad happening to me.	1	2	3	4	5
11. I feel unhappy and sad.	1	2	3	4	5
12. My thoughts seem to be mixed up.	1	2	3	4	5
13. I worry a lot of the time.	1	2	3	4	5
14. I feel lonely even with other people.	1	2	3	4	5
15. I lose interest and pleasure in things which I usually enjoy.	1	2	3	4	5

Instructions: Please indicate the extent to which you agree or disagree with the following:

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
1. In most ways my life is close to my ideal.	1	2	3	4	5	6	7
2. The conditions of my life are excellent.	1	2	3	4	5	6	7
3. I am satisfied with my life.	1	2	3	4	5	6	7
4. So far, I have gotten the important things I want in life.	1	2	3	4	5	6	7
5. If I could live my life over, I would change almost nothing.	1	2	3	4	5	6	7

Prize draw information
As a token of our appreciation, we are running a prize draw for international students responding to this survey. The prize is an iPad Mini.

If you would like to be entered in this draw, please provide your contact details below:

Name..
Postal Address...
Phone number...
Email address...