Social Support and Loneliness of Chinese International Students in Thailand

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Using data from a recent survey on Chinese international students in Thai universities, the present study examines effects of different types of social support on alleviating international students' loneliness. Through robust estimation of logistic models, we found that romantic relationships reduce the odds of reporting loneliness when the romantic partners are both in the host country, and that Chinese students' co-national ties alleviate loneliness better when they perceive a strong cohesive feeling among the Chinese student body in their university. Lastly, having local Thai friends does not have a homogenous effect on all students; rather, this works to reduce the odds of reporting loneliness only for those who are interested in the host society. Our research suggests that social support and acculturating individuals' inner needs should be considered together for better prediction of cross-cultural adaptation results.

Key words: *social support, loneliness, international students*

1. Introduction

With globalization intensifying world-wide interconnectedness in the 21st century, studying abroad is becoming a possibility for more people. According to an estimation by the Organisation for Economic Co-operation and Development (OECD), in 2011, there were 4.3 million foreign students enrolled in universities outside their country of citizenship (OECD, 2013, p. 306). The largest destination country is the U.S., hosting about one-fifth of all international students (Andrade & Evans, 2009), while the largest sender of international students is China, which is also the largest developing country (Wang & Miao, 2013).

The flow of international students from developing countries to developed countries is unsurprising, since the skills, perspectives, and diploma gained there set a solid foundation for future personal development. Having said that, an increasing number of foreign students are studying at universities in developing countries. Apart from Western students attracted by Asian cultures, intensified integration of Asian economies also demand a labor force that can boost regional bilateral cooperation, and thus gives rise to increasing numbers of international students circulating within the region. Specifically, according to the Ministry of Education of China, in 2010 Thailand became the fourth biggest sender of international students to China, after Korea, the USA, and Japan; comparably, studying in Thailand is also gaining momentum among Chinese students in recent years. In 2007, there were 4,028 Chinese students registered

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in Thai universities, while in 2008, the number increased dramatically to 7,301 (Office of the Higher Education Commission, Thailand, 2013). Although there are fluctuations in number, according to the Chinese embassy in Thailand there were more than 12,000 Chinese students enrolled in Thai universities in 2013, accounting for half of all international students in Thailand (Zhang, 2014). It seems that the close location and lower cost of studying in Thailand can be very attractive to less affluent Chinese families, and indeed, most of the Chinese students are from Guangxi Zhuang Autonomous Region in southern China where the economy is underdeveloped. Higher education, instead of rice, seems to be a popular Thai product for Chinese.

Studying abroad is a brave decision. International students need to overcome psychological stress, learn local cultural knowledge and adapt to social norms to interact effectively with people in the host country; they may even need to reflex cognitively on the new culture they experience and/or to rebuild identities (Fritz, Chin & DeMarinis, 2008; Ward, Bochner & Furnham, 2001). In particular, the absence of social relationships can lead to loneliness for a person (De Jong-Gierveld, 1987; Weiss, 1973). Research shows that international students are especially vulnerable to loneliness (Kim, 2001; Simmons, Klopf & Park, 1991), and loneliness has been widely mentioned as a negative consequence of studying abroad (Pruitt, 1978; Sam & Eide, 1991; Zheng & Berry, 1991). Loneliness has been found to be related to various forms of psychological distress for international students, including emotional disturbance (Stone Feinstein & Ward, 1990; Ward & Searle, 1991), lower life satisfaction (Neto, 1995), and decreased satisfaction with one's coping ability (Chataway & Berry, 1989). It is not a long road from loneliness to anxiety, to depression, or even to mental illness for international students.

Our aim with this study is to understand how the various kinds of social support and acculturation attitudes come into play to help those international students who are troubled by loneliness. In particular, we hope to get a better understanding of the subtle ways different types of accessible social support in the host country work for international students who have different social and psychological needs: especially, are there interacting effects between social support and acculturation attitudes? Data collected in a recent survey among Chinese international students in Thailand were used for analysis and testing of hypotheses.

2. Theoretical framework

2.1 Loneliness and sources of social support

Weiss (1973) distinguishes emotional (i.e. personal) loneliness and social loneliness. The former is caused by lacking intimate personal ties (e.g. spouse, romantic partner, family), and the latter by an absence of social ties and integration, namely, an engaging social network to share concerns and worldview with peers. International students are vulnerable to loneliness for lacking both kinds of ties: they are far away from family, and often feel homesick (Ying & Liese, 1994). Although going to a new environment opens up new opportunities, building a new social network needs effort, time and skill. Many studies find that making friends with host nationals can be very difficult for international students (Meier & Daniels, 2011; Williams & Johnson, 2011; Ying, 2002).

Additionally, Sawir, Marginson, Deumert, Nyland, and Ramia (2008) proposed another kind of loneliness—"cultural loneliness", attributing the unfamiliar cultural environment as the reason for some international students' loneliness. In their study, loneliness among international students in Australia is "mainly because of the absence of intimate persons and lack of cultural fit. A small number referred to difficulties in securing social networks" (Sawir et al., 2008, p. 14). International students troubled by loneliness need support and resources. Although student counseling services can be helpful, they are often underutilized by international students (Nilsson, Berkel, Flores & Lucas, 2004). Self adjustment, sometimes called "positive solitude" (Andre, 1991), is often adopted because cross-cultural individuals have no other choice. Turning to families through communication devices can alleviate the (emotional) loneliness, but it cannot be the long-term solution. Expanding one's social network, and participating in more social activities, is a more practical coping approach, as it addresses the loneliness issue directly and can provide support conveniently.

Previous studies have well established the importance of social support in maintaining good mental health and subjective well-being in general (Adelman, 1988; Shumaker & Brownell, 1984), and social support has been understood as a key resource for international students to handle and buffer stress to achieve adaptation (Arends-Toth & van de Vijver, 2006; Berry, 1997; Mallinckrodt & Leong, 1992; Safdar, Lay & Struthers, 2003; Ward, Bochner & Furnham, 2001). Specifically, Bochner and colleagues differentiate three sources of social support: monocultural/co-nationals, bicultural/locals, and multicultural/other internationals (Furnham & Bochner, 1986; Ward, Bochner & Furnham, 2001). We focus on the first two kinds of support.

The monocultural network is found to provide a setting for companionship, expressing values and engaging in practices of the culture of origin (Kashima & Loh, 2006). In the host country, greater co-national interaction can strengthen cultural identity. It has been indicated that social support from family, relatives, and other co-nationals contributes to immigrants' subjective well-being (Finch & Vega, 2003). That being said, social support from co-nationals seems to not be enough to ward off loneliness for international students, and research finds that ties with locals also play a critical role (Sawir et al., 2008; Ying, 2003). More generally, studies suggest that contact and friendships with local students can lead to emotional benefits such as sojourner satisfaction (Rohrlich & Martin, 1991) and lower levels of stress (Redmond & Bunyi, 1993); it also predicts better psychological adjustment (Searle & Ward, 1990). Limited social ties with host nationals are associated with symptoms of acculturative stress (Hayes & Lin, 1994; Yeh & Inose, 2003) and feelings of anxiety, depression, and alienation in international students (Chen, 1999; Hull, 1978; Schram & Lauver, 1988).

In terms of concrete mechanisms through which local ties work, some studies find that social support from host nationals has a direct effect on psychological adaptation (Berry & Sam, 1997), while others focus on exploring indirect mechanisms. For instance, host nationals may offer assistance for immigrants to learn a series of culturally relevant skills and adapt to the new cultural environment, thus helping with psychological well-being (Garcia, Ramirez & Jariego, 2002). Ng, Tsang, and Lian (2013) also show evidence that the effect of social support from locals on psychological adaptation operates through sociocultural adaptation. In addition, Lee, Koeske, and Sales (2004) find that social support does not directly affect mental health symptoms, but has an interactive effect with acculturative stress.

Social ties with both locals and co-nationals can further develop into romantic relationships. A secure relationship style in contrast to an insecure relationship style is linked with greater well-being and less loneliness (Hazan & Shaver, 1987). For the current study, we believed romantic relationships could function to alleviate emotional loneliness.

2.2 The moderating role of acculturation attitudes

Research has shown that social support can help with international students' psychological adaptation; local friends pay a key role here, directly or indirectly, through socio-cultural adaptation. Nevertheless, Sawir et al. (2008) find that social networks do not alleviate international students' loneliness. In their research, although being with family reduces reported loneliness for overseas students, those who reported loneliness had a higher incidence of networked relationships than those who did not, whether these relationships were through close friends, casual friendships with both other international or local students, or involvement in social organizations. The authors said: "…there is not a simple correlation between loneliness and isolation. Networks do not necessarily eliminate loneliness. The absence of networks does not necessarily lead to loneliness" (Sawir et al., 2008, p. 159).

It is possible that through "positive solitude" some international students may become accustomed to a certain degree of isolation and thus report having fewer friends and not being lonely at the same time. We believe another possible reason for the lack of correlation between social networks and reported loneliness can be that students have an extended network, but cannot find the kind of support they need, thus resulting in loneliness. For this reason, concrete mechanisms connecting social networks and loneliness need to be examined. We propose that friendships can only function as social support (and alleviate loneliness) when they can effectively address individuals' psychological and social needs, and individuals' inner needs can be very different and complicated in an acculturative situation. To begin with, local friends are more likely to alleviate the loneliness of international students who are more interested in the host society. In contrast, for those who do not think it is important to contact with locals and participate in the host society, whether they actually have local friends or not does not affect their loneliness. They may have quite a few local friends but feel lonely nevertheless, and vice versa.

This brings us to Berry's categorization of acculturation attitudes. Acculturation attitudes refers to the various ways that acculturating individuals prefer to live with the two cultures with which they are in contact (Berry & Sabatier, 2011, p. 658). Based on two independent factors, i.e., (1) the degree to which individuals wish to maintain (or change) their heritage cultural and identity, and (2) the degree to which individuals wish to have contact with and participate with people in the larger society, Berry proposed four kinds of acculturation attitudes. When individuals prefer not to maintain their heritage culture and wish to participate in the larger society, the assimilation orientation is defined; when individuals wish to maintain their heritage culture and have no interest in participating in the larger society, the separation orientation is defined; when individuals both wish to maintain their heritage culture and to participate in the larger society, the integration orientation is defined; and when there is neither a desire to maintain one's heritage culture nor to participate in the larger society, marginalization is defined (Berry, 1980; Berry, 1984). The integration orientation is found to be associated with

best psychological adaptation result (Kim, 2007; Sam & Berry, 1995; Zheng, Sang & Wang, 2003), because, by engaging in the two cultures, "individuals have dual competencies, and dual networks for social support during the challenges of acculturation" (Berry & Sabatier, 2011, p. 668).

However, just having the right attitude is not enough; acculturation attitudes' effects can be complicated. In fact, current studies mainly focus on the roles of social network/support or acculturation attitudes directly and/or separately, while not paying enough attention to the process or intricate ways that these work with other factors to address psychological adaptive issues, including alleviating loneliness. We found some notable exceptions: Yoon, Lee, and Goh (2008) find social connectedness with mainstream U.S. society partially mediates the association between adherence to U.S. culture and subjective well-being among Korean Americans, while Zhang and Goodson (2011) show that social connectedness completely mediates the effect of acculturation attitudes on psychological adaptation. Another interesting finding of Zhang et al. (2011) is that social interactions with locals have a moderating effect with acculturation attitudes on reducing depression, i.e., adherence to Chinese culture reduces depression only for those who have relatively low levels of social interaction with Americans.

In the same vein, we argue that local friends and acculturation attitudes of international students may have an interaction effect on loneliness. In other words, the effect of local friends on alleviating loneliness varies with acculturation attitudes: for those who are willing to participate in the host society and contact with host nationals, local friends can provide social support and alleviate loneliness, while for those who are not interested in the host society, the number of local friends is not associated with reporting loneliness.

In sum, we argue that social support in the host country that can help international students cope with loneliness falls into three categories: (1) romantic relationships, (2) co-national ties, and (3) local ties. Their effects on loneliness are hypothesized in the following paragraphs. Although there are other sources of social support—such as family, colleagues, and community—we believe that these three categories are most relevant for international students; for instance, social support from the community or identifying with the local society is even more unlikely for the well-educated newcomers in the segregated ivory tower.

We hypothesize that having a romantic relationship in the host country is negatively associated with reporting loneliness (Hypothesis 1). It is worth mentioning here that, as "love knows no borders", we did not differentiate the partner's nationality. We believe that romantic relationships are intrinsically different from other human relationships; and work on personal emotional loneliness specifically in the current research.

For co-national ties in the host country, we hypothesize that the existing social network alleviates loneliness when it functions as social support, or when international students perceive their co-national social network positively (Hypothesis 2).

Finally, we hypothesize that local friends' effect on loneliness varies with international students' acculturation attitudes. Specifically, local friends can alleviate loneliness for those who wish to have contact with the host people or society, and/or for those who hold an" integration"

acculturation attitude, while not affecting the reported loneliness for those who are not interested in the host society (Hypothesis 3).

3. Methods

3.1 Sample and procedures

The survey was originally conducted for the second author's Ph.D. dissertation, which aimed to understand the cross-cultural experiences of Chinese students in Thai universities (Kingminghae, 2012). The research protocol included procedures to protect the rights of the survey respondents; specifically, respondents were informed clearly that the questionnaire was anonymous and that all personal information would be kept confidential. The current research is a re-analysis of the survey data which maintains respondents' confidentiality and anonymity. The sample was restricted to fourth year undergraduate students. This is mainly because this group can be assumed to have sufficient time for acculturation. Over the years in Thailand, they may have faced troubles, felt stress, adopted certain acculturation strategies, and established and mobilized some resources, so that each of them has his/her own adaptation result. Moreover, for the current study, one of the explanatory variables—ties with locals—can take some time to establish. For the dependent variable, loneliness, while it is natural for international students to feel lonely upon arrival, it is more problematic to still be bothered by loneliness after staying for several years.

We estimated the total number of fourth year undergraduate students at the time of the survey to be somewhere between 1,500 and 2,000. Based on information from Thai Ministry of Education, we included in the sample 14 universities with the greatest Chinese presence among the student body. In March of 2011, we contacted offices overseeing international student affairs in these universities, acquired the exact number of target students, and asked for their cooperation to distribute copies of the questionnaire. Questionnaires were typically distributed in classrooms by the person in charge (PIC) or instructor when the target students were having a class. An exception to this was two universities where the survey took place in the international affairs office and dormitories. We asked the PIC or the instructor to explain to the students that the purpose of the survey was only for academic research, that the questionnaires were anonymous and that no personal information would be disclosed. These measures generated a high overall response rate of around 80%.

We asked the PICs to put the completed questionnaires in sealed envelopes which were either to be collected by the study team or mailed. The data collection took about a month and the final sample included 607 participants.

3.2 Measures

3.2.1 Social support
Since a romantic partner in close range can be a convenient source of emotional support, addressing personal/emotional loneliness for both partners in the relationship, we asked participants to report their current dating status. If they were dating a Chinese in Thailand or a Thai citizen, we define them as having romantic partner living nearby.

For co-national social support, when contacting the universities for the survey we found that most of the students were in a cooperation program and had been together with their Chinese classmates for some years before they came to Thailand. Chinese students actually share the same co-national social network within each university. Thus for this study, the issue was not whether the co-national social network existed but whether or how much it could be seen as a source of social support for international students. Accordingly, instead of measuring the presence of a co-national network, we asked about the quality of the network: specifically, whether the respondent thinks that the Chinese international student body in their university is a cohesive one. We supposed that, if one saw this co-national classmate body as not cohesive, one was unlikely to seek support from it and more likely to feel lonely.

For social support from host nationals, we asked participants to report how many Thai people they would call friends. This measure of the size of the host national social network suffices as an indicator of young people's social support; for instance, Green, Richardson, and Schatten-Jones (2001) find that the number of friends is more important for younger adults while closer relationships do more to alleviate loneliness for older adults, and this is in agreement with Stokes' (1985) findings among college students.

3.2.2 Acculturation attitudes
Based on the original conceptualization of Berry, we asked students how they preferred to spend their spare time: (1) hanging out with other Chinese students; (2) hanging out with Thai friends or (if no Thai friends) contact with Thai people in general to know Thai society better, or (3) resting at the dormitory or focusing on personal matters. We made the assumption that Chinese international students indiscriminately attach importance to Chinese culture and identity. We believe so because, first, China is a big country with a long history, rich culture, and rapidly growing economy. When studying in smaller developing countries like Thailand, Chinese students become even more proud of their cultural origin and mother country. This assumption was supported in our qualitative studies before the social survey where patriotism was found to be a common sentiment among Chinese students. Consequently, we retained the two remaining acculturation attitudes from Berry's categorization: if students chose (1), they had an attitude similar to "separation", and if they chose (2), they had an attitude similar to"integration". For the last option (3), we did not assume that this indicated "marginalization", since loneliness is closely related to personal psychological characteristics. For this reason, we added this option as a control variable in our analysis models.

3.2.3 Other control variables
Demographic and social factors in predicting loneliness were also taken into consideration. Regarding the role of gender, some studies suggest that women are more prone to loneliness

since they may suffer from lower self esteem (Hojat, 1982). However, Russell, Peplau, and Cutrona (1980) find no gender differences in loneliness, and other research (Ari & Hamarta, 2000; Deniz, 2005) finds a higher level of loneliness among male students, presumably because women may have better social skills.

We also controlled for international students' skill in the host country language, since the host language is an important resource and a necessary tool to adapt to the host society. It may both affect friendships with locals and loneliness. In our questionnaire, we asked the Thai language skill level in three categories: (1) worse than other Chinese students; (2) intermediate level; or (3) advanced level or better than other Chinese students. We treated this variable as a categorical one. Like gender, we did not hypothesize about the role of host language skill, but nevertheless controlled for it in our models.

We did not measure and control other factors that may also be relevant to the reporting of loneliness, such as type of accommodation, ecological conditions of the campus, uncertainty about the future, etc. We assume that the stark foreign environment is overwhelming for most Chinese students and that the moderating effect of these variables is trivial. We also tried to remedy this shortcoming through methodological measures as explained below.

3.2.4 Loneliness (dependent variable)

Loneliness was measured by asking participants whether they experienced difficulties or pains in their lives in Thailand. Multiple choice options for this question included "hot weather", "traffic jam", "food", "Thai language barrier", "academic difficulty" and "loneliness". As long as a respondent chose "loneliness" as one difficulty, he or she was operationalized as having reported loneliness.

3.3 Data analysis

Since the dependent variable of this study—troubled by loneliness—is dichotomous, we used logistical regression to analyze and test the effect of various kinds of social ties and support. Logistic models belong to the generalized linear model (Nelder & Wedderburn, 1972), or limited dependent variable model (Wooldridge, 2009). The results show the effect of independent variables on the odds of a bivariate dependent variable (Long & Freese, 2006).

As mentioned above, we used cluster sampling to collect the data. Cluster sampling is a trade-off between costs and precision; it requires both homogeneity between clusters and variability within clusters (Groves et al., 2004). We assumed that the differences between Thai universities are trivial when compared to the foreign social-educational environment that all Chinese international students experience. Moreover, the opposite is also applicable: in the eyes of locals, Chinese students are quite similar to each other. Having said that, robust standard errors taking into consideration unobserved heterogeneity among universities are reported in our analysis models. An example of when this might be important is when the neighboring community is comprised mainly of ethnic Chinese, meaning that it would be easier for Chinese students to make local friends and to be less bothered by social loneliness and cultural loneliness.

In the same vein, although the data were collected in universities where Chinese students were relatively more concentrated, we assumed that similar effects existed in other universities not represented in our sample. Especially, social ties with locals would have an equal, if not stronger, effect on loneliness when co-national ties are lacking. Thus, in the following analysis, we assume that the sample is representative of Chinese students in Thailand.

Additionally, in our analysis, we applied listwise deletion when there were missing values of any observation, which led to varying observations among different models (see Table 2.). Since the deleted cases were not large in number (fewer than 5%), here we follow Allison (2001)'s suggestion to tolerate this loss of information.

4. Results

Before the discussion of results, we present descriptive statistics of the sample in Table 1.

Table 1: Descriptive statistics of the sample

Variables		Percent
Control Variables		
Gender (N=607)		
	Male	32.9
	Female	67.1
	Total	100.0
Thai language level (N=603)		
	Low	10.6
	Intermediate	54.6
	Advanced	34.8
	Total	100.0
Independent Variables		
Dating status (N=597)		
	Dating Chinese in Thailand	13.7
	Dating Thai citizen	6.4
	Dating Chinese in China	22.6
	Not currently dating anybody	57.3
	Total	100.0
Cohesive feeling toward Chinese classmates (N=601)		
	Not cohesive at all	5.8
	Relatively low	12.7
	Moderate	42.3
	Relatively cohesive	28.5
	Very cohesive	10.8
	Total	100.0
Number of Thai friends (N=604)		
	0	23.2
	1	14.2
	2 or 3	38.7
	4 or more	23.8
	Total	100.0

Variables		Percent
Spare time activity preference (N=577)		
	Hang out with fellow Chinese	39.7
	Participate in Thai society	23.1
	Stay alone	37.3
	Total	100.0
Dependent Variable		
Reported loneliness (N=593)		
	Yes	11.0
	No	89.0
	Total	100.0

4.1 Dating status and loneliness (Hypothesis 1)

As mentioned in Hypothesis 1, we assumed the effect of a romantic relationship transcends the partner's nationality. This was supported in our preliminary analysis: compared to the loneliness rate of 11.1% in the sample as a whole, only 5.3% of those who were dating Thai citizens reported loneliness as a difficulty, while for those who were dating a compatriot in Thailand, the figure was similar (6.2%). We further found that combining of the two categories did not lead to a significant likelihood ratio change (p = 0.843). Since the effect of a romantic relationship on loneliness was country indifferent in the analysis sample, we combined the two categories into one and named it "romantic partner living nearby", which applied to 20.1% of the sample (also see Table 1). In other words, one-fifth of the participants in the sample could meet their partners on a regular basis.

The multivariate analyses are summarized in Table 2, showing five models predicting reported loneliness. If the coefficient is positive and significant, the variable has effect of increasing the odds of loneliness-reporting. As outlined above, we expect social support to have a negative and significant effect on reported loneliness. In these models, we generally accept a p<0.05 significance level; however, for the interaction term, 0.1 level is considered acceptable given that the number of observations defined by interaction term were reduced.

As shown in Model 1 of Table 2, when controlling for gender and Thai language skill level, the effect of "romantic partner living nearby" was significant at p<.01. The odds of reporting loneliness of those with romantic partners was less than half ($e^{-0.884}=0.413$) that of others. Thus, Hypothesis 1 was supported. In addition, males were significantly lonelier than females, and students with better Thai language skills felt significantly lonelier than those without. While it is counterintuitive that those with better language skills were also more likely to report loneliness, the reason could be that those with poor Thai language skills tend to socialize only with co-nationals. Also, as discussed further below, social support from co-nationals has a strong effect on alleviating loneliness. In contrast, those who are serious about improving their Thai language skills and/or maintaining ties with locals may not get enough social support from co-nationals. Since Thai language skills were measured in comparison to other Chinese students, "better Thai language skill" may still not be sufficient to establish satisfying social ties with locals.

4.2 Support from co-nationals (Hypothesis 2)

As mentioned above, we used the perception of cohesiveness among the Chinese student body as a measurement of actual social support one gets from co-nationals. In the questionnaire, cohesive feeling was measured in an ordered scale. In initial analyses, the scale was treated as a continuous variable and subsequently as a categorical variable. We found that although the continuous variable showed a significant effect on reducing reported loneliness, the main difference was found to be between those who perceive the Chinese student body as a very cohesive one and others. This supports the idea that the social network, even a co-national one, is only a factor when people can get support from it. We created a dummy variable contrasting students with the strongest cohesive feeling and all others in Model 2 and the following models. Model 2 shows that the odds of feeling lonely in this group were less than one fourth of others ($e^{-1.485}$=0.226), consistent with our Hypothesis 2.

Table 2: Results from logistic models predicting reported loneliness (reference group in parentheses)

Variables	Model 1	Model 2	Model 3	Model 4	Model 5
Gender (Female)					
Male	0.413*	0.411*	0.419*	0.477*	0.463*
	(0.223)	(0.23)	(0.231)	(0.245)	(0.252)
Thai language level (Low)					
Intermediate	1.088**	1.114***	1.151***	1.139***	1.184***
	(0.429)	(0.42)	(0.425)	(0.4)	(0.39)
Advanced	1.121*	1.139*	1.182**	1.270**	1.382**
	(0.602)	(0.599)	(0.603)	(0.606)	(0.566)
Dating status					
Romantic partner living nearby	-0.884***	-0.931***	-0.914***	-1.040***	-1.055***
	(0.325)	(0.315)	(0.309)	(0.322)	(0.321)
Cohesive feeling toward Chinese classmates (Less than very strong)					
Very strong		-1.485**	-1.489**	-1.373**	-1.393**
		(0.669)	(0.664)	(0.69)	(0.688)
Number of Thai friends			-0.0801	-0.136**	-0.0287
			(0.0625)	(0.0592)	(0.0846)
Spare time activity preference (Hang out with compatriots)					
Participate in Thai society				0.272	1.368**
				(0.339)	(0.692)
Stay alone				0.730**	0.716**
				(0.348)	(0.356)
Interaction: Number of Thai friends X prefer to participate in Thai society					-0.535*
					(0.294)

Variables	Model 1	Model 2	Model 3	Model 4	Model 5
Constant	-3.091***	-2.999***	-2.878***	-3.204***	-3.446***
	(0.512)	(0.518)	(0.509)	(0.544)	(0.524)
Pseudo-R2	0.025	0.041	0.043	0.065	0.078
Observations	581	578	577	553	553

Notes: Robust standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1

4.3 Support from friendships with host nationals (Hypothesis 3)

Model 3 showed no correlation between the number of Thai friends and reported loneliness, when controlling for gender, Thai language skill level, dating status and cohesive feeling toward co-nationals. When we further controlled for acculturation attitudes in Model 4, friendships with locals became significant. This suggests that within sub-groups defined by acculturation attitudes, friendships with locals had a general effect of alleviating Chinese students' loneliness. When it comes to acculturative attitudes, although those who preferred to stay alone in their spare time were lonelier in general, no difference was found between those who preferred to hang out with compatriots and those preferred to participate in the host society.

While acculturation attitudes alone did not explain international students' loneliness, we hypothesized that when taken in combination with the social network they can better predict loneliness in our sample. This was confirmed when we examined the interaction effect between "number of Thai friends" and "prefer to hang out with Thais or know Thai society better". ("prefer to participate in Thai society" in Table 2) As shown in Model 5, "number of Thai friends" was not significant (coefficient is -0.0287), meaning that for those who were not interested in participating in the host society, having more local Thai friends did not help with their loneliness. By contrast, in the statistically equivalent model (not shown here) when we interacted "Thai friends" with students who did not prefer to participate in Thai society, "number of Thai friends" became significant at the p<.05 level, with a coefficient of -0.564. This means that for those who preferred to interact with Thai friends or are interested to know more about Thai society, the more local friends they had, the less lonely they felt. The varying effects of local friends on alleviating loneliness among students holding different acculturation attitudes support Hypothesis 3.

In Model 5, all other variables remained significant, and "prefer to participate in Thai society" becomes significant ($e^{1.368} = 3.93$). This is only natural, since when they had no local friends and nonetheless wanted to know more about Thai society, they were likely to feel much lonelier than those who were not interested in the host society. On the other hand, the most salient factor in reducing loneliness is having very cohesive feeling toward Chinese classmates ($e^{-1.39} = 0.25$), suggesting that co-nationals are still a major possible source of support for international students.

5. Discussion

With the backdrop of globalization, increasing attention is being paid to international students' experiences (Andrade & Evans, 2009; Montgomery, 2010). In a sense, while loneliness is intrinsic to the overseas experience for international students, failing to overcome it may go hand in hand with maladaptations. By analyzing data collected from a recent survey on Chinese international students in Thai universities, the present study examined the roles played by different types of social support on alleviating international students' loneliness. We found that romantic relationships reduced the odds of reported loneliness for Chinese international students in Thai universities when the romantic partners lived near each other (both in the host country). Chinese students' co-national ties were found to alleviate loneliness significantly when students perceived a strong cohesive feeling among the Chinese student body in their universities. Lastly, we found that having local Thai friends itself did not have a homogenous effect on all students; rather, it only worked to reduce the odds of reported loneliness for those Chinese students who were interested in the host society and people.

Findings of the present study are in general agreement with existing literature emphasizing the effect of social support on acculturation. That being said, our major conclusion is that just having a social network or knowing people is not enough. For the social network to function as social support and address cross-cultural adaptation issues, it must answer to inner needs, and the inner needs of the acculturating individual (including international students) can be very intricate. For instance, Sawir et al. (2008) did not find a correlation between the social network (compatriots and host nationals alike) and reported loneliness in their study. Results in the present study also showed that the number of local friends did not affect odds of reporting loneliness. We suggest that concrete mechanisms through which social networks are turned into social support must be carefully explored. In the present study, we found that given the same co-national network, those who perceived cohesive feelings among their compatriot classmates were nevertheless less lonely. We also identified an interacting effect between the number of local friends and acculturation attitudes.

Moreover, we found the highest positive coefficient (1.368, or an odds ratio of 3.93) among those who had no Thai friends but were interested in Thai people and society nonetheless. Current studies have been paying more attention to the discrepancies between desired and actual contact. For instance, in their Relative Acculturation Extended Model (RAEM), Navas et al. (2005, p. 206) specify that "the RAEM makes a distinction between acculturation attitudes preferred . . . and the strategies finally adopted, that is to say, the step from an ideal situation to a real one in the acculturation process." Our research shows that when actual social ties meet inner needs (including acculturation attitudes), together they can better predict adaptation results.

Studies on international students are mostly carried out in developed countries, and less is known about the experience of international students studying in developing countries. One contribution of the present study is that we focused on Chinese students studying in another developing country. In line with Berry's recommendation to pay attention to the nature of the host society when discussing the role of acculturation attitudes (Berry, Kim, Minde & Mok, 1987), we believe that international students between developing countries offer new

opportunities to test existing theories and to explore new mechanisms for the area of cross-cultural relations, since the acculturation context can be dramatically different than in the western environment. This study has its share of limitations. First, although we took into consideration the cluster effect of universities and adjusted standard errors accordingly, our research could be improved by using a longitudinal design. Since loneliness is a very subtle human sentiment, there are too many idiosyncratic factors at work. A panel study would control for time invariant unobserved factors and the effect of social ties would be clearer and more convincing. Second, the analysis sample was not a random one and our conclusions were reached under the condition that the same mechanisms exist in the population not represented in our sample. Therefore, the results of the present study should be interpreted with caution. Third, variable measurement was based on self-reporting, rather than using some multi item measures. Nevertheless, with the finding that social support and acculturating individuals' inner needs should be considered together for better prediction of cross-cultural adaptation results, the current research shows again the complexity of cross-cultural situations/experiences. Not only should scholars focus more on the interplaying of different factors, relevant parties including host universities and students themselves can also adjust accordingly for better adaptation.

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