Traditional and Online Support Networks in the Cross-Cultural Adaptation of Chinese International Students in the United States

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This study investigates the relationships between sociocultural and psychological aspects of cross-cultural adaptation of Chinese international students in the United States, and the support that they perceive they receive from traditional support networks and online ethnic social groups. An online survey was conducted among 135 Chinese students who attended universities in the United States. The results suggest that perceived support from interpersonal networks in the host country and from online ethnic social groups was negatively related to social difficulties, while perceived support from interpersonal networks and long-distance networks in the home country was negatively associated with mood disturbance. The study also found that, compared to those who had lived in the United States for a longer period of time, new arrivals reported higher perceived support from online ethnic social groups. In addition, the more students perceived receiving support from these groups, the more likely they were to be actively engaged in online group activities.

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Introduction

Cross-cultural adaptation has been seriously studied for decades (Kim, 2001). To adopt cultural patterns of the host environment, the sojourner needs to overcome many uncertainties. While mastery of the new environment is the key to successful adjustment, the emotional well-being of sojourners during the adjustment process should also be of concern (Ying & Liese, 1991). As a result, intercultural scholars stress that studies need to examine both sociocultural and psychological aspects of cross-cultural adaptation (Ward & Kennedy, 1994; Ward & Rana-Deuba, 1999; Ying & Liese, 1990, 1991). Sociocultural adjustment refers to the extent to which an individual can fit in different aspects of a new culture. It is often measured in relation to the amount of difficulties or concerns experienced in the performance of daily tasks (Ward & Rana-Deuba, 1999). Psychological adjustment is defined in terms of
psychological and emotional well-being. It is closely associated with the stress an individual experiences during adaptation and the ways in which he or she copes with the stress (Ward, 1996).

During the process of cross-cultural adaptation an individual needs to resort to different sources in order to cope with life difficulties and psychological stress. Social support is an important coping resource (Adelman, 1988). Previous studies of cross-cultural adaptation have looked at positive functions of new social networks that sojourners established in the host country (e.g., Berry, 1997; Kim, 1988; Yum, 1982) and their long-distance social networks in the home country (e.g., Fontaine, 1986; Ying & Liese, 1991). One new source of social support that deserves research attention is online ethnic social groups. With the increasing access to the Internet, many online ethnic social groups have been established for sojourners and immigrants to communicate with one another about their common concerns of living in a new culture (Ye, 2006). These online groups are an important part of their social networks. Despite the well-documented literature on the impact of traditional networks on cross-cultural adaptation, little attention has been placed on the support provided by online social networks.

Drawing upon social network theory, the present study aims to evaluate the role played by new relationships established in the host country, long-distance long-standing relationships in the home country, and online ethnic social groups in cross-cultural transition. Specifically, the study examines the relationships between the sociocultural and psychological aspects of cross-cultural adaptation of Chinese international students in the United States and their perceived support from traditional support networks and online ethnic social groups. Through incorporating different types of social support networks, the current study provides a more comprehensive understanding of the cross-cultural adaptation pattern of international students.

**Social Network Theory**

Social network theory is concerned with the properties of social support networks and social support and resource exchanges among network members. From a social network perspective, a social network involves a set of actors and the relations that connect them. Actors, either individual people or aggregated units such as organizations or families, exchange resources. These resources may include data, information, goods and services, social support, and financial support (Marsden & Campbell, 1984).

According to social network theory, an individual’s social networks comprise strong ties and weak ties (Marsden & Campbell, 1984). A tie simply refers to the relationship between a certain individual and a particular network member. Strong ties are more intimate and involve more self-disclosure and various forms of resource exchange. People who are strongly tied tend to show similarities in attitudes, background, and experience. While strong ties can provide informational
support and validation, the close relationships among strong ties may play an effective role, which can satisfy an individual’s emotional needs.

Weak ties, on the other hand, involve fewer intimate exchanges and less frequent maintenance. Weak-tie relationships exist independent of the pressures and dynamics of close social relationships (Adelman, Parks, & Albrecht, 1987). Weak-tie relationships have their unique advantages: For instance, they offer anonymity and objectivity that are not available in close relationships (e.g., Adelman et al., 1987; Walther & Boyd, 2002). Furthermore, weak ties may be especially valuable in the flow of new information (Granovetter, 1982). Those who are loosely acquainted are likely to have access to different information since their social networks involve different members. Therefore, a weak tie can bring an individual resources that are unobtainable from close associates (Granovetter, 1973). Overall, weak-tie relationships allow people to diversify their networks or connections, thus providing a helpful alternative for social support.

Social network theory is applicable to describe human relationships developed in a face-to-face context or through electronic means (Birnie & Horvath, 2002). It is particularly relevant to the examination of how the Internet helps maintain old ties and establish new ties. Similar to other interactive media (e.g., telephone), the Internet supports existing social networks by expanding the means and opportunities for interaction, allowing connection across time and space. In addition, it extends individuals’ social networks by allowing them to be involved in various online communities and to communicate with others about their shared interests and concerns.

Unlike traditional communities, virtual communities do not depend on physical closeness. These communities are “gathering points for people with common interests, beliefs, and ideas and are supported by a variety of CMC genres” (Barnes, 2003, p. 227). Some characteristics of online communities, such as anonymity and selective self-presentation, make these social groups a welcome alternative to traditional support networks within the face-to-face environment (Turner, Grube, & Meyers, 2001; Walther & Boyd, 2002). Studies on online social groups have consistently found that these online communities tend to be interpersonally supportive (Baym, 2001). For instance, Bakardjieva (2003) found that people received various types of support from online group members, and some subjects in his study reported that through participating in online groups they had found means to deal with life problems.

According to Turner and her colleagues (2001), online communities can provide “weak tie” support. Online communication fosters the development of weak ties because discussions often focus on the topic most salient to the user. In addition, compared to strong-tie groups of close personal relations, members of such groups tend to have a greater variety of backgrounds and experiences and thus “more expertise may be brought to bear on the problem” (p. 235). Empirical evidence has lent support for the benefits of online weak ties (e.g., Sharf, 1997; Sullivan, 1997; Turner et al., 2001).
Social Support Networks in Cross-Cultural Adaptation of International Students

Social network theory, particularly its contentions about strong ties and weak ties, is applicable to the examination of social support networks for international students. International students are a group in transition who live in a foreign country to pursue their educational goals. These students need to seek support and help from different sources and personal networks in order to cope with the feelings of inadequacy and frustration in their changed environment. Prior studies have looked at two types of strong ties in cross-cultural adaptation: new relationships established in the host country, and distant long-standing relationships in the home countries.

When sojourners enter a new cultural environment it is very important for them to build close ties with friends and “compatible others” in the host culture (Adelman, 1988). According to Kim (1988), new sets of relationships can help facilitate newcomers’ adaptation to the new cultural environment. The adaptive functions of relational networks, such as informational and emotional support, provide newcomers a sense of security and well-being as well as various types of knowledge about the host culture. Studies have consistently found that interactions with new close ties, especially interactions with members of the host culture, are positively linked to successful adaptation.

Some researchers also emphasized the necessity for sojourners to maintain old ties in their home country (Fontaine, 1986; Ying & Liese, 1991). Although these old ties may not be an adequate source of support to overcome social difficulties, they tend to offer comfort and stability in cross-cultural transition. With the rapid development of communication technologies, people have more means to interact with their long-distance, long-standing social networks. The Internet, mainly through email, has further facilitated communication and thus close ties between family and friends, especially those too far away to visit in person on a regular basis (Bargh & McKenna, 2004).

Just recently, computer-mediated ethnic social groups have become another important source of social support for international students (Ye, 2006). Online ethnic social groups are defined as online groups developed for people who have the same national origin and are currently living in a foreign country. The majority of the users of these groups are international students or immigrants. International students may learn about these online groups from their local international student associations or ethnic organizations. Similar to other online groups, online ethnic social groups usually have moderators whose main task is to maintain healthy, ongoing interaction among group members. The moderators have the responsibility to encourage members to contribute to the group and the right to delete hurtful or irrelevant messages.

Compared to the two traditional social networks in cross-cultural adaptation, these online ethnic social groups tend to provide weak-tie support. Members of these groups are not required to disclose their real identities and their interaction is often limited to online communication. However, they share the similar experience of living and studying in a new cultural environment and the same concern of dealing
with various difficulties arising from sociocultural and psychological adjustment. Therefore, they are willing to exchange ideas about different aspects of life in the host country and provide help and support to each other. Communication in online ethnic social groups covers a variety of topics, ranging from opening a bank account to dealing with homesickness. Since group members are only loosely related to one another, they can maintain their privacy and feel more comfortable revealing their concerns or problems.

In her study of acculturative stress and use of online ethnic social groups among Chinese students in the United States, Ye (2006) found that among the students who had used online ethnic social groups, those who experienced less acculturative stress reported receiving higher amounts of both emotional and informational support from these online groups. She suggested that online social groups may play a protective role that is similar to face-to-face social support in terms of stress reduction. However, her study did not consider the support that participants may have received from their families or friends in their home country. Furthermore, it looked at the psychological aspects of acculturation but neglected sociocultural adjustment. To more thoroughly investigate the role of both traditional support networks and online support networks in cross-cultural adaptation, the following research question is posited:

RQ1: How is perceived social support from traditional social networks and online ethnic social groups related to sociocultural adjustment and psychological adjustment?

Previous studies have indicated that the length of time in a host country can influence an individual’s use of sources of social support for acculturation (Kim, 2001). During the initial stage of adaptation, the intensity inherent in many face-to-face communication situations, especially interpersonal communication with members of the host country, is too stressful for sojourners. As a result, they are more likely to rely on ethnic groups for informational and emotional support (Hurh & Kim, 1990). The Internet makes it easier for these newcomers to obtain support from their long-distance ethnic social networks in the home country and online ethnic social groups. Thus, the following hypotheses are advanced:

H1a: Shorter residence time in the United States will be associated with higher perceived support from long-distance ethnic networks and online ethnic social groups.

H1b: Longer residence time in the United States will be associated with higher perceived support from interpersonal social networks in the United States.

Online Group Activities
Members of an online group may engage in a variety of activities. They can share personal stories, information, and support with other members (Turner et al., 2001). In addition to posting messages on public boards, most newsgroups or bulletin boards also allow individuals to send private messages to a certain member.

Many factors may affect an individual’s social activities online, including demographic characteristics (Whitty, 2002) and psychological characteristics.
A factor that is particularly relevant to level of activity in online social groups is the perceived support from these groups. In his study of computer-mediated support groups, Wright (1999) reported that participant satisfaction with the support received in an online support group network was positively related to online communication time in these support groups. Thus, the following hypothesis is proposed:

H2: Higher perceived support from online ethnic social groups will be associated with higher level of activity in these groups.

Some studies have also attempted to establish the link between support obtained from traditional interpersonal networks and the use of online support groups. Salem, Bogat, and Reid (1997) suggested that online mutual help provides a unique form of support for people who are less likely to find help from traditional sources. Consistent with this claim, Turner et al. (2001) found that respondents were more likely to participate in an online community only when they perceived that the depth and support received from the online community was high, and when the depth and support received from the specific individuals in their life was low. The researchers stressed the complementary nature of face-to-face and computer-mediated social support. Therefore, the following hypothesis is posited:

H3: Lower perceived support from interpersonal networks in the U. S. or long-distance social networks in China will be associated with a higher level of activity in online ethnic social groups.

Method

Participants
A total of 135 Chinese international students (62 males, 73 females) recruited from 15 Chinese international student and scholar newsgroups completed questionnaires about their feelings about life in the United States, their social support networks, and their use of the Internet. They were from 23 different cities in the United States and reported over 30 different majors. The participants ranged from 20 to 41 years old, with an average age of 27.8 years. Of the participants, 75 (55.6%) were married, 60 (44.4%) were single. The participants had lived in the United States for an average of 2.9 years (range: 1 month to 9 years).

Procedures
Through the Yahoo! search engine, over 200 newsgroups established for Chinese international students and scholars were found. A majority of these newsgroups were developed for Chinese students in a local area or at a particular university in the United States. The researcher eliminated those that focused on only one issue of interest (e.g., soccer, coursework). The sample newsgroups were further restricted to those that had at least 100 members. This left a final population of 52 newsgroups.
A set of 15 Usenet newsgroups was randomly selected from these remaining newsgroups for this study. A recruiting message was posted on these newsgroups. If an individual was interested in the study, he or she could click the link provided in the recruiting message and go to a page with a consent form. Those who agreed to participate in the study needed only to click “I accept,” and they were then directed to an online survey. The data collection period lasted for three weeks.

Measures

Sociocultural Adjustment
Students were asked to report the degree of concern they had during their stay in the United States in 11 areas associated with performance of daily life, such as language, housing, and using local transportation. A similar measure was used in Rohrlich and Martin’s (1991) study to measure cross-cultural adjustment. The measure used a 5-point Likert scale ranging from 1 (no concern) to 5 (extreme concern). Higher scores reflected adjustment problems, lower scores indicated better adjustment. The reliability coefficient for this instrument was .86.

Psychological Adjustment
Students rated the extent to which they experienced several negative feelings in the United States using a 5-point Likert scale ranging from 1 (not at all) to 5 (a great deal). Higher scores indicated more difficulties in psychological adjustment, lower scores suggested better psychological adjustment. Some sample items included lonely, stressful, and bored. The reliability coefficient for this instrument was .89.

Perceived Social Support From the Three Social Networks
Under each type of social network, namely interpersonal social networks in the host country, long-distance social networks in China, and online ethnic social groups, there were several statements about receiving social support for adaptation. Interpersonal social networks were defined as friends and/or relatives who were living in the United States. Long-distance social networks in China were identified as families and/or friends who were living in China. Online ethnic social groups were defined as online social groups developed specifically for Chinese students or immigrants in the United States.

For the purpose of comparison across different networks, the same statements were used for each type of social networks. Students rated the extent to which they agreed with these statements using a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Some sample items were “I receive comfort and encouragement from them” and “I get useful advice about important things in life in the United States.” Principal components analysis with varimax rotation showed that only one factor existed. The reliability coefficients for the instrument were .89, .88, and .86 for interpersonal social networks, long-distance social networks, and online social groups, respectively.
Online Ethnic Social Group Activities
The measures of online group activities were adapted from an instrument used in Ye’s (2006) study. Participants were asked to think of the following Internet ethnic social groups: (1) a newsgroup or other form of online group developed for Chinese students and their university; (2) bulletin boards or newsgroups developed for Chinese students who are studying in the United States; (3) any other similar online social groups developed for Chinese people in the United States. The level of group activity was assessed with three items (“posting messages to the public board,” “sending messages to individual users,” and “viewing messages posted by others”), using a 5-point Likert scale ranging from 1 (never) to 5 (very often). The three items were then averaged to form a measure of the level of online group activity (alpha = .74).

Demographics
This section of the questionnaire included items measuring the participants’ gender, age, marital status, and length of residence in the United States.

Results
Sociocultural and Psychological Adjustment and Social Support Networks
The first research question dealt with the relationships between perceived social support from the three types of social networks and sociocultural and psychological adjustment. Separate hierarchical regression analyses were conducted for each aspect of cross-cultural adaptation with gender, age, and length of residence in the United States entered into the first step, and perceived support from interpersonal social networks, perceived support from long-distance networks, and perceived support from online groups in the second step. The results of regression analyses are reported in Table 1.

The analyses showed that age and length of residence in the United States were significant predictors of sociocultural adjustment. Specifically, older students and those who had lived in the United States for a longer period of time tended to experience a lower level of social difficulties. Both perceived interpersonal network support and perceived online group support were negatively linked to social difficulties. No significant relationship was found between sociocultural adjustment and perceived support from long-distance social networks in China.

Significant predictors of psychological adjustment included perceived interpersonal support and perceived support from long-distance social networks. Specifically, mood disturbance was associated with lower perceived support from these two networks.

Length of Residence in the Host Country and Perceived Support From the Three Networks
Hypothesis 1a predicted that shorter length of residence in the United States was related to higher perceived support from long-distance social networks in China and online ethnic social groups. Hypothesis 1b predicted that longer length of residence
in the United States was related to lower perceived support from interpersonal social networks. Correlations were computed between residence time in the United States and perceived support from the three types of social networks, with age and sex as control variables. Partial correlation revealed a negative relationship between residence time in the United States and perceived support from online ethnic social groups, $r = -0.27, p < .05$. Residence time was not associated with perceived support from other two social networks. Thus, hypothesis 1a was partially supported and hypothesis 1b was rejected.

The Level of Online Group Activity

Regarding hypotheses 2 and 3, a hierarchical regression analysis was conducted for the level of online group activity with gender, age, and length of residence in the United States entered into the first step, and perceived interpersonal support, perceived support from long-distance networks, and perceived support from online ethnic social groups in the second step. The results of regression analysis are reported in Table 2.

Both age and perceived support from online ethnic social groups were significant predictors of the level of online group activity. Compared to older students, younger students were more active in these groups. As predicted, students who reported higher perceived online support tended to be more engaged in online group activities. Therefore, hypothesis 2 was supported. However, no relationship was found
between the level of online group activity and perceived support from the two traditional social networks. Therefore, hypothesis 3 was rejected.

**Discussion**

The current study investigated the role of interpersonal social networks in the host country, long-distance social networks in the home country, and online ethnic social communities in cross-cultural transition. The findings of the study have some important implications for social support and computer-mediated group research.

Some relationships between perceived social support and cross-cultural adaptation were established. Perceived support from interpersonal networks in the host country and from online ethnic social groups was negatively related to social difficulties. As Ward and Kennedy (1994) suggested, sociocultural adjustment is more linked to factors underpinning culture learning and social skills. We may assume that these two types of social networks can provide crucial information and knowledge about life in the host culture, thus facilitating the management of everyday social situations. The findings about online ethnic social groups also supported the claim of social network theory that weak ties can function as important sources of new information. Most members of online groups are only loosely connected, but with a variety of experience and exposure they can provide each other with access to more distant, unknown resources that can help sojourners adjust to daily life in a new culture.

<table>
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<tr>
<th>Table 2</th>
<th>Regression analyses predicting the level of activity in online ethnic social groups</th>
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<tr>
<td><strong>Level of Online Ethnic Group Activity</strong></td>
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<td><strong>Step 1 Personal Characteristics</strong></td>
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<tr>
<td>Gender</td>
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<tr>
<td>Age</td>
<td>-.22**</td>
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<tr>
<td>Length of Residence in the United States</td>
<td>-.06</td>
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<td><strong>Step 2 Perceived Support</strong></td>
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<tr>
<td>Perceived Support from Interpersonal Social Networks</td>
<td>-.07</td>
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<tr>
<td>Perceived Support from Long-distance Social Networks</td>
<td>.13</td>
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<tr>
<td>Perceived Support from Online Ethnic Social Groups</td>
<td>.50*</td>
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<td><strong>Adjusted R^2 = .35</strong>***</td>
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<td>F(6,126) = 13.03, p &lt; .001</td>
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Note: Gender was coded: male = 0, female = 1. Length of residence in the United States was measured in years.
* p < .05, ** p < .01, *** p < .001.
Even though no links were detected between perceived support from long-distance social networks in the home country and sociocultural adjustment, an association between perceived support from these networks and psychological adjustment was revealed. The result confirmed previous findings that maintaining these old ties may help enhance positive emotion, but does not foster mastery of the challenges of the new environment (Ying & Liese, 1991).

The examination of length of residence in the United States and perceived support from three types of social networks suggests that, compared to those who had lived in the United States for a longer period of time, students who had lived in the United States for a shorter period tend to perceive higher support from online ethnic social groups. It is likely that new arrivals in a culture rely more on these online groups for support on adjustment. Students may feel less pressure to express their concerns to other members of online groups. Moreover, these weak ties provide students with varying information on acculturation which they may not obtain from their strong-tie relationships. As an international student lives longer in a host country, he or she can gain a larger interpersonal social network in the host country and therefore receive more support from face-to-face relational circles.

The study also investigated factors linked to online group activities. The results showed that younger students were more active in online ethnic social groups. Furthermore, the more an individual perceived that he or she was receiving support from these groups, the more likely he or she was to engage in online group participation. Contrary to Turner et al.’s (2001) finding that people who had less face-to-face support were more active in online communities, the current study did not establish a negative relationship between perceived support from two other networks and level of online social group activities. One possible explanation for this inconsistency is that all three types of social networks play different roles in an individual’s cross-cultural adjustment. An individual may resort to different sources of support according to his or her specific needs.

Conclusion

The perception of support from social networks reportedly influences how people adjust to stressful situations (Albrecht, Burleson, & Goldsmith, 1994; Rudd, 1990). From a social network perspective, the present study provides some insights into the links between cross-cultural adaptation and social support. The study also contributes to the growing body of computer-mediated communication literature. Previous studies have looked at Internet uses and gratifications among international students (e.g., Yang, Wu, Zhu, & Southwell, 2004; Ye, 2005). However, as noted before, little research emphasis has been put on support gained from the Internet during cross-cultural adaptation, particularly from online social groups. The current study represents an initial exploration of the important issue of the role of online social support in cross-cultural adaptation. Future study should further investigate the relationships among the reasons why international students use online ethnic social...
groups and the perceived benefits of participating in these groups. In addition, the findings of this study would be particularly informative and valuable for academic institutions. The Internet can be an excellent tool for orienting international students to meet the expectation of academic life in a host country (Murphy, Hawkes, & Law, 2002). Institutions may draw upon the Web and online communities to provide international students with ongoing orientation and social support. Students who feel embarrassed to ask questions in face-to-face contexts may find that the relative anonymity of online services gives them the freedom to discuss their concerns more openly.

Despite the value of these findings, the limitations of using online surveys for data collection must be recognized. While Internet-based surveys provide the researcher with many benefits, such as low cost and access to unique populations, they also have a number of disadvantages (Wright, 2005). For example, the participants were self-selected and thus may be more active in online social groups, which could limit the generalizability of the current findings.

This study is preliminary and raises many avenues for future research. Because studies on online ethnic social support so far have focused on Chinese international students, there is a need to examine whether such online experience can be applied to international students or immigrants from other ethnic origins. Additional research would also benefit by employing a variety of methodological approaches to examine the role of online social support in cross-cultural adjustment. For example, longitudinal studies that examine a specific group of students, introduce them to online communities, and then follow their experience would provide greater evidence of how online ethnic social groups may facilitate long-term adaptation.

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References


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