Determinants of international students’ adaptation: examining effects of integrative motivation, instrumental motivation and second language proficiency

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This study examined the influence of integrative motivation, instrumental motivation and second language (L2) proficiency on socio-cultural/academic adaptation in a sample of two groups of international students studying Chinese in China. Results revealed that the non-Asian student group reported higher levels of integrative motivation, socio-cultural adaptation and Chinese language proficiency than the Asian student group, who reported a higher level of instrumental motivation. No significant difference was found in academic adaptation between the two groups. Moreover, the relationships between study variables are the same across Asian and non-Asian student groups. Further evidence from this research indicated that socio-cultural adaptation was influenced more by integrative motivation and less by L2 proficiency. Integrative motivation was found to be the only significant predictor of academic adaptation. Implications for future research are discussed.

Keywords: integrative motivation; instrumental motivation; L2 proficiency; socio-cultural adaptation; academic adaptation; international students

1. Introduction

Studies relating to the acculturation of migrants (including sojourners, refugees and immigrants) and students have been the subject of a significant body of research in the West (Berry et al. 2006; Doná and Berry 1994; Masgoret 2006), especially North America, Australia, and to a lesser extent, Europe (Berry 1997). However, in recent years there has been a significant influx of international students into China (Institute of International Education 2007). As a matter of fact, China now ranks as the fifth largest recipient of overseas higher education students behind the USA, UK, France and Germany, and it hosted 7% of the total international students in the higher education market based on 2009 data from the Organization for Economic Co-operation & Development (OECD) (2010). In 2007, China attracted 195,503 students from 188 different countries, making it one of the major destinations for international students (Institute of International Education 2007). These students are involved in different types of study programme, with Chinese language being the most popular subject. Recognition of China as a world power and the desire to acquire knowledge and skills in respect of language and culture in order to open up possibilities of cooperation in business and trade with their home countries, are seen as key factors that motivate students to study in China (Hanban 2007).

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Despite these developments, this particular group of students remains one of the most under studied international student populations. In particular, no previous research has been conducted into the relationship(s) between language-related variables such as language motivation and second language (L2) proficiency, to socio-cultural/academic adaptation. In addition, little has been written about the potential cultural influences on adaptation. Therefore, this study is a first attempt to examine the influence of motivation in second language acquisition (SLA), L2 proficiency and cultural grouping on the process of socio-cultural and academic adaptation in the context of China.

2. Literature review

2.1. Two important facets of the adaptation of international students

Recent studies show that international students who come into contact with a new culture in their host countries often encounter problems pertaining to socio-cultural adaptation, such as adjustment to new social customs and norms (Schwarzer, Hahn, and Schröder 1994), and psychological adaptation, such as a feeling of depression, anxiety or loneliness due to the loss of social support networks (Sandhu and Asrabori 1994; Yang and Clum 1995), as well as problems with academic adaptation, such as concerns about L2 proficiency and academic performance (Hayes and Lin 1994; Kagan and Cohen 1990; Ying and Liese 1994). Zhou and Todman (2008) suggested that psychological and socio-cultural adaptation issues are related to academic adaptation for international students.

The primary goal of most international students is to obtain good academic results in their chosen overseas institutions. Academic issues are at the forefront of both student and institutional concerns. It is well-documented that academic adaptation is a basic requirement in the process of the student experience of adapting to an overseas environment (e.g. Qing and Schweisfurth 2006; Wisker 2000), and academic success has significant impact on student socio-cultural adaptation and psychological well-being and vice versa (Li and Kaye 1998). Consequently, it is reasonable to assume that the relationship between socio-cultural adaptation and academic adaptation is significantly positively associated, and may be reciprocally causally related. This paper examined two key indices of the adaptation of international students, namely socio-cultural and academic adaptation. The former index borrows the conceptualisation of socio-cultural adaptation from Ward and Rana-Deuba’s (1999), which refers to an individual’s ability to fit in or negotiate interactive aspects of the new cultural environment; the latter index is based on Tinto’s (1993) academic adaptation in the interactionist model, which refers to an individual’s ability to be involved in positive educational outcomes.

2.2. Relationship between L2 proficiency and the two adaptation indices

Masgoret and Ward (2006) established an interactive model of the relationships between target language proficiency, communication competence, effective intercultural interaction and socio-cultural adaptation. Basically, the core components of an international student’s socio-cultural adaptation are language proficiency and communication competence, supplemented by effective intercultural interaction, which in turn constitute part of the broader construct of socio-cultural adaptation (Ibid). Good proficiency in the target language is the basis of successful communication
amongst members of different ethno-linguistic communities (Dörnyei and Csizér 2005). In a study abroad context, better language fluency is seen to be directly related to more interaction with members of the host culture, and leads to fewer socio-cultural adjustment problems (Ward and Kennedy 1993). Other studies suggest that greater interaction with the host community contributes to better competence in the host language (Clément, Noels, and Deneault 2001). Ward (2004) concluded that target language skills help establish social support and interpersonal relationships and these facilitate socio-cultural adaptation.

Previous research has identified target country language proficiency as the core issue for both academic adaptation and socio-cultural adaptation (e.g. Cheng, Myles, and Curtis 2004; Jaboc and Greggo 2001; Senyshyn, Warford, and Zhan 2000). In a recent review of empirical studies relating to international students’ adjustment to their academic achievements in English-speaking universities, Andrade (2006) suggested that difficulty with English language and culture is the primary factor affecting academic and socio-cultural adjustment. Therefore, it is plausible to propose that L2 proficiency is a good predictor of socio-cultural/academic adaptation.

2.3. Integrative motivation, instrumental motivation and the two indices of adaptation

Educators, teachers and parents in both Asian and non-Asian countries have long considered that motivation, in particular integrative motivation, is an essential factor for successful SLA. Dörnyei (2001) and Oxford and Ehrman (1992) proposed that learners’ attitudes and motivation were important for increased language competence and L2 proficiency. Research into motivation in L2 learning has been widely influenced by the work of social psychologists Robert Gardner, Richard Clément and their colleagues in Canada where French and English are the two official languages. These researchers have intensively studied the role of L2 learning motivation and generally adopted a social psychological approach, regarding motivation in SLA as socially grounded (Clément, Gardner, and Smythe 1977; Gardner 1985; Gardner and Lambert 1959). It is argued in a classic work by Gardner and Lambert (1972) that diverse motives seem to fall under two headings, instrumental and integrative. Integrative motivation is a complex of attitudinal, goal-directed and motivational attributes. It concerns a positive affective disposition towards the L2 community and the desire to achieve language proficiency in order to participate in and develop a sense of belonging to the L2 community. Instrumental motivation arises from the desire to learn the language as a means of achieving practical goals such as improving one’s economic status or getting social recognition (Gardner and Lambert 1972; Lightbown and Spada 1999). However, learners who are integratively motivated are probably more successful at an advanced language level than those who are not, probably due to the fact that psychological integration is more likely to sustain interest and fuel the desire to learn the language for longer periods of time (Dörnyei 1990; Gardner 1985).

Language-related variables such as integrativeness and motivation play very important roles in both the cultural learning process and socio-cultural adaptation (Masgoret and Ward 2006). The underlying dynamics are attributed to the fact that higher levels of integrativeness contribute to higher levels of motivation (Masgoret and Gardner 2003), and both are associated with high levels of intercultural contact (Masgoret and Gardner 1999). Moreover, increased intercultural contact, and more
satisfaction with that contact, have been found to be linked with fewer socio-cultural difficulties (Ward and Kennedy 1993; Ward and Searle 1991). Therefore, it is reasonable to hypothesise that integrative motivation is positively correlated with socio-cultural adaptation. Similarly, a positive relationship is also predicted between integrative motivation and academic adaptation.

2.4. Cultural correlates of adaptation

Cultural distance refers to “how similar the two cultures are in language, religion, etc.” (Berry 2006, 50). Research involving sojourners and immigrants (Ward and Kennedy 1993) and indigenous people (Berry 1976) suggested that greater cultural distance led to poorer adaptation. Ward and Kennedy (2001) proposed a “culture fit” hypothesis, which suggests that sojourners who perceive more similarities between the host culture and their own, experience higher levels of adaptation, and consistent support for this view is found in a number of studies (e.g. Ward, Bohner, and Furnham 2001; Ward and Kennedy 2001). For the purpose of this paper, the authors identified two cultural groups, namely non-Asian and Asian student groups. The grouping rationale is further justified as follows.

The differences between the non-Asian and Asian student groups have been widely attributed, if not without controversy, to the dimension of individualism and collectivism in cross-cultural psychology (Hofstede 1980; Kim et al. 1994; Oyserman, Coon, and Kemmelmeier 2002). According to Oyserman, Coon, and Kemmelmeier (2002), individualism stresses individual independence, personal autonomy and self-fulfilment, as well as rights over duties; while collectivism emphasises human interdependence rather than individual importance, prioritising rights of communal societies over individual rights. Individualism is a cultural pattern found in most northern and western regions of Europe and in North America. Collectivism is common in Asia, Africa, South America, and the Pacific (Triandis, Brislin, and Hui 1988), where cultures typically place more emphasis on the group rather than the individual good. Hofstede’s study (1984) found that European and North American countries (and countries with cultures derived from similar heritage) emerged as high on individualism, whereas Asian (and Latin American) countries tended towards the collectivist end of the continuum.

The Asian student group includes a majority of international students in this study who are from East Asian countries such as South Korea and Japan. According to Ho (1991), students from some East and Southeast Asian countries share Confucian-Heritage Cultures (CHC), namely China, Hong Kong, Taiwan, Singapore, Korea and Japan. Believing in authority, teacher-centred classroom teaching, and passive learning are three major characteristics in the education experience of those Asian countries in CHC (Watkins and Biggs 1996). The non-Asian student group refers to those students from non-CHC, who are also coming from countries, with more individualistic cultural traditions.

2.5. Research into motivation, cultural correlates and L2 proficiency

In studying the predicting roles of motivation and cultural distance on L2 proficiency, Svanes (1987) concluded the following interesting findings: first, European and American students were more integratively motivated, less instrumentally motivated than Middle Eastern, African and Asian students in the acquisition of
Norwegian. European students also obtained the best Norwegian proficiency whilst Asian students showed the poorest grades. Moreover, he found that cultural distance was the best predictor of L2 proficiency in groups of students with various cultural and language backgrounds whereas motivational variables explained very little in the variation of Norwegian language proficiency. In a more recent study, Yu and Watkins (2008) found that motivational variables cooperated with cultural correlates in explaining L2 proficiency.

The above literature review presents a clearer picture of the interrelationship of study variables by bringing relevant theories and research from three major fields together: motivation in SLA, socio-cultural adaptation in cross-cultural psychology, academic adaptation in higher education. Meanwhile, cultural influences on SLA and adaptation are also reviewed. Therefore, this research study sets out: (1) To examine whether there are differences in language motivation, L2 proficiency and adaptation between the non-Asian (Western) and Asian student groups. (2) To test to what extent cultural group, L2 motivations and Chinese language proficiency contribute to the prediction of socio-cultural adaptation, and to examine whether being Asian or Western interacts differentially with language motivation and Chinese language proficiency to predict socio-cultural adaptation. (3) To test the extent to which cultural group, motivational variables and Chinese language proficiency contribute to the prediction of academic adaptation, and to examine whether being Asian or Western interacts differentially with language motivation and Chinese language proficiency to predict academic adaptation.

Based on the previous research literature, the guiding hypotheses of this study are established as follows:

**Hypothesis 1**
The non-Asian (Western) group will report higher levels of integrative motivation but lower levels of instrumental motivation than the Asian group.

**Hypothesis 2**
The non-Asian (Western) group will obtain lower levels of Chinese language proficiency than the Asian group.

**Hypothesis 3**
The non-Asian (Western) group will report lower levels of socio-cultural/academic adaptation than the Asian group.

**Hypothesis 4**
Integrative motivation, Chinese language proficiency and cultural group will influence socio-cultural adaptation.

**Hypothesis 5**
The relationships between socio-cultural adaptation and motivational variables, and L2 proficiency are the same across Asian and non-Asian (Western) student groups.
Hypothesis 6
Integrative motivation and Chinese language proficiency contribute to predicting academic adaptation.

Hypothesis 7
The relationships between academic adaptation and motivational variables, and L2 proficiency are the same across Asian and non-Asian (Western) student groups.

3. Method

3.1. Participants
The participants in this study were international students from two universities in Nanjing, Jiangsu province of the Peoples’ Republic of China (PRC). Of the 127 international students sampled, 118 completed and returned the survey questionnaires. Responses from three students not fitting into either non-Asian (Western) or Asian student groups were discarded from the sample.

The non-Asian (Western) student group consisted of 35 students from English-speaking or European countries, and the Asian student group included 80 students, mainly from East Asian countries. It should be noted that the Asian student group comprised about 70% of the whole sample. That percentage is consistent with the statistics released by the Ministry of Education of the PRC in the same year: Asian students account for 76% in the international student population (Xinhua Net 2006).

Since the data were collected in the second academic semester, the students sampled had been studying Chinese for at least six months. The majority of the participants were female (72.2%), aged between 20 and 30 (69.6%). Four students did not indicate their ages. In rating the differences between the students’ home country culture and Chinese culture, a small number ranked “similar” or “very similar” (18%), and a relatively larger number responded “different” or “very different” (42%).

3.2. Instruments
Six variables were measured in this study. The first two variables, integrative motivation and instrumental motivation, were assessed by the Attitudes/Motivation Test Battery (AMTB) (Gardner, Tremblay, and Masgoret 1997) designed for university students. A 5-point Likert scale from 1 (strongly disagree) to 5 (strongly agree) was used. High scores on this scale represented high degrees of either integrative motivation or instrumental motivation. All the measures in AMTB were modified to be applicable to individuals who were currently studying Chinese in China. The third variable was cultural group, largely based on the familiarity with/exposure to Chinese culture and language. The grouping “cultural group” is coded so that 0 (Asian group) and 1 (non-Asian [Western] group). The fourth variable was measured by a revised Socio-cultural Adaptation Scale (Ward and Kennedy 1999), which was to test cultural competence or behavioural adaptability of sojourners. High scores reflected little social difficulty. The fifth variable, academic adaptation was assessed by the measure of Persistence/Voluntary Dropout Decision (Pascarella and Terenzini 1980) on a 5-point Likert scale from 1 (strongly disagree) to 5 (strongly agree). High scores indicated good academic integration into the faculty. The sixth variable was Chinese language proficiency. Since the objective examination scores of
students were confidential in the universities where data were collected, the researcher had to distribute language evaluation sheets to the students sampled. A 30-min training exercise in evaluating their own language proficiency was given to the students. The students were asked to evaluate their current listening, speaking, reading, writing and overall proficiency on a 4-point Likert scale from 1 (poor) to 4 (excellent), based on the students’ objective examination scores. In order to be consistent with the marking system in China, specific marks were assigned to the above 4-point scale: 1 = poor (below 60), 2 = moderate (between 60 and 75 or equal to 60 or 75), 3 = good (between 75 and 85 or equal to 85) and 4 = excellent (above 85).

Due to the variation in the students’ language proficiency in Chinese, the English version of the questionnaire was attached with the Chinese version so that students would be able to understand the questionnaire. The validity of the scales used in this study was tested by expert-judge validity. The whole questionnaire was reviewed and checked by two specialists in the field of psychology and two experts in the field of language. Culturally inappropriate wording and ambiguous statements were modified before use. Moreover, two experienced Chinese teachers of English back-translated the items to ensure equivalence of the Chinese and English versions.

3.3. Procedure

The questionnaires were distributed to the student participants by their Chinese course teachers during regular classes. Students were asked to give their immediate reactions to the questions, and to be as truthful as possible. Confidentiality was assured by using the students’ university enrolment numbers.

4. Results

As shown in Table 1, except for the scale of instrumental motivation (α=0.53), the Cronbach alpha internal consistency coefficients of the rest of the four scales were all above 0.80 ranging from 0.82 (academic adaptation) to 0.90 (socio-cultural adaptation) for the present study. Alpha coefficients above 0.70 are regarded as sufficient and above 0.50 as acceptable for exploratory research for research purposes at group level (Nunnally 1978). It should be noted that there were only four items in the scale measuring instrumental motivation.

4.1. Differences between the Western student group and Asian student group

Table 2 presented the comparison of study variables between two cultural groups with the help of analysis of variance (with the significance level set for p<0.05 due to sample size).

<table>
<thead>
<tr>
<th>Measures</th>
<th>Cronbach’s alpha coefficients</th>
<th>Mean</th>
<th>SD</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integrative motivation</td>
<td>0.83</td>
<td>78.14</td>
<td>9.88</td>
<td>51–99</td>
</tr>
<tr>
<td>Instrumental motivation</td>
<td>0.53</td>
<td>14.55</td>
<td>2.62</td>
<td>4–20</td>
</tr>
<tr>
<td>Socio-cultural adaptation</td>
<td>0.90</td>
<td>98.43</td>
<td>16.15</td>
<td>58–137</td>
</tr>
<tr>
<td>Academic adaptation</td>
<td>0.82</td>
<td>37.90</td>
<td>6.98</td>
<td>18–58</td>
</tr>
<tr>
<td>Chinese language proficiency</td>
<td>0.85</td>
<td>11.19</td>
<td>2.67</td>
<td>5–16</td>
</tr>
</tbody>
</table>
Significant differences were found between the two groups in nine study variables except for academic adaptation. Consistent with our hypothesis 1, the non-Asian (Western) group reported a higher level of integrative motivation and a lower level of instrumental motivation. Contrary to hypotheses 2 and 3, the non-Asian (Western) group reported a higher level of Chinese language proficiency in terms of listening, speaking, reading, writing and overall proficiency than their Asian counterparts. Meanwhile, the non-Asian (Western) groups were found to report a higher level of socio-cultural adaptation than their Asian counterparts, which contradicted with Ward’s “cultural fit” hypothesis (Ward and Kennedy 2001).

In summary, hypothesis 1 was supported while hypotheses 2 and 3 were rejected. The contradictory findings may result from the context of language study, which changed from a developed country (Norway) to a developing country (China). Detailed discussion on the discrepancies will be elaborated in the discussion.

### 4.2. Which is a better predictor of socio-cultural adaptation: cultural group, motivational scales or L2 proficiency

Hierarchical regression analysis was performed to determine whether socio-cultural adaptation had an association with cultural group, motivational scales and L2 proficiency, respectively. Data demonstrated that $R$ was significantly different from zero at the end of each step.

Four models were tested by using socio-cultural adaptation as dependent variable, with cultural group centred in step 1 (dummy coded such that Asian group = 0), centred integrative motivation and instrumental motivation in step 2, centred Chinese language proficiency in step 3, and the interaction terms in step 4. The interaction terms are the product of centred cultural group with centred integrative motivation, product of centred cultural group with centred instrumental motivation and product of centred cultural group with centred Chinese language proficiency. Results were summarised in Table 3.

The first model containing cultural group was responsible for 8% variance in socio-cultural adaptation, $F(1, 113) = 13.17, p < 0.001$. The beta weight of cultural group was 0.32 ($p < 0.001$). It should be noted that adding two motivational variables as predictors in step 2 led to an additional 10% ($\Delta R^2 = 0.10, p < 0.01$) increase in explained variance, $F(3, 111) = 9.59, p < 0.001$, suggesting that two motivational variables accounted for significant variance in socio-cultural adaptation, above and below

<table>
<thead>
<tr>
<th>Variables</th>
<th>Asian group</th>
<th>Western group</th>
<th>Significant level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
</tr>
<tr>
<td>Integrative motivation</td>
<td>3.74</td>
<td>0.41</td>
<td>4.28</td>
</tr>
<tr>
<td>Instrumental motivation</td>
<td>3.72</td>
<td>0.53</td>
<td>3.44</td>
</tr>
<tr>
<td>Socio-cultural adaptation</td>
<td>3.28</td>
<td>0.51</td>
<td>3.67</td>
</tr>
<tr>
<td>Academic adaptation</td>
<td>3.18</td>
<td>0.54</td>
<td>3.11</td>
</tr>
<tr>
<td>Listening proficiency</td>
<td>2.28</td>
<td>0.84</td>
<td>2.71</td>
</tr>
<tr>
<td>Speaking proficiency</td>
<td>1.98</td>
<td>0.60</td>
<td>2.49</td>
</tr>
<tr>
<td>Reading proficiency</td>
<td>2.24</td>
<td>0.66</td>
<td>2.63</td>
</tr>
<tr>
<td>Writing proficiency</td>
<td>1.95</td>
<td>0.63</td>
<td>2.43</td>
</tr>
<tr>
<td>Overall proficiency</td>
<td>2.04</td>
<td>0.51</td>
<td>2.57</td>
</tr>
</tbody>
</table>
beyond that accounted for by cultural group. The beta weights of integrative motivation and instrumental motivation were 0.35 ($p < 0.001$) and $0.12$ ($p > 0.05$) respectively. Adding Chinese language proficiency led to another additional 4% ($\Delta R^2 = 0.04, p < 0.05$) increase in change in $R^2$ in step 3, $F(4, 110) = 8.80, p < 0.001$, suggesting that Chinese language proficiency accounted for significant additional portions of the variance in socio-cultural adaptation.

From the beta weights in the fourth model, it could be seen that the strongest predictor of socio-cultural adaptation was integrative motivation ($\beta = 0.35$, $p < 0.001$), and Chinese language proficiency was found to be less strong predictor of socio-cultural adaptation ($\beta = 0.21, p < 0.05$). Cultural group turned out to have no bearing in predicting socio-cultural adaptation. As shown by the non-significant $\Delta R^2$ from steps 3 to 4 ($\Delta R^2 = 0.003, p > 0.05$) and the interaction terms were all statistically non-significant, the relationships between those three predictors (integrative motivation, instrumental motivation and Chinese language proficiency) and socio-cultural adaptation were the same across the Asian and Western student groups. Hypothesis 4 was partially supported and hypothesis 5 was supported.

### 4.3. What accounts for academic adaptation: cultural group, motivational scales or L2 proficiency

Since little research has been conducted into the associations between academic adaptation and cultural group, motivational variables and L2 proficiency, there is no sound theory on the best predictor of academic adaptation. To test hypotheses 6 and 7, another series of hierarchical regression analyses were performed, using centred scores of all predictors and academic adaptation as dependent variable. In step 1,
cultural group (dummy coded such that Asian group = 0), centred integrative motivation and instrumental motivation, centred Chinese language proficiency were entered. In step 2, interaction terms were entered. The interaction terms are the product of centred cultural group with centred integrative motivation, product of centred cultural group with centred instrumental motivation, and product of centred cultural group with centred Chinese language proficiency. Results were shown in Table 4.

In Table 4, the first model containing cultural group, two motivations and Chinese language proficiency was responsible for 7% variance in academic adaptation, $F(4,110)=3.69$, $p<0.05$. Integrative motivation was shown as the only one significant predictor with a beta weight of 0.28 ($p<0.01$). Neither cultural group nor Chinese language proficiency was found significant as the predictor of academic adaptation. It should be noted that adding interaction terms lead to a non-significant $\Delta R^2$ from step 1 to 2 ($\Delta R^2 = 0.04$, $p > 0.05$), $F(7,107)=2.64$, $p < 0.05$, and the coefficients of interaction terms were not statistically significant either, which suggested that the relations between the three predictors (integrative motivation, instrumental motivation and Chinese language proficiency) and academic adaptation were the same across the Asian and non-Asian (Western) student groups. Therefore, hypothesis 6 was partially supported and hypothesis 7 was supported.

5. Discussion

The first purpose of this study was to investigate differences between the two cultural groups of students. There were a few interesting findings in relation to this from this study. Consistent with the findings in Svanes’ study (1987), the non-Asian (Western) group scored higher in integrative motivation and lower in instrumental motivation than the Asian group. Such a finding is consistent with previous findings, which further support the notion that types of motivation are closely related to the cultural backgrounds of students (Svanes 1987). Amongst Asian international students, Korean and Japanese students ranked as the top two cohorts (Xinhua Net

<table>
<thead>
<tr>
<th>Table 4. Summary of hierarchical regression analysis for variables predicting academic adaptation.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable</td>
</tr>
<tr>
<td>Step 1</td>
</tr>
<tr>
<td>Cultural group</td>
</tr>
<tr>
<td>Integrative motivation</td>
</tr>
<tr>
<td>Instrumental motivation</td>
</tr>
<tr>
<td>Chinese language proficiency</td>
</tr>
<tr>
<td>Step 2</td>
</tr>
<tr>
<td>Integrative motivation × cultural group</td>
</tr>
<tr>
<td>Instrumental motivation × cultural group</td>
</tr>
<tr>
<td>Chinese language proficiency × cultural group</td>
</tr>
</tbody>
</table>

*p<0.05, **p<0.01.
As we know, China is a big economic market that has attracted both Japan and Korea to closely cooperate in international trade and finance. “Which level of Chinese language proficiency have you achieved?” is a very common question in an interview for a job hunter in Korea. Thus there is a reason to believe that motivation for most Asian students to study Chinese is not for interest in the culture and language itself, but more for practical reasons such as getting a good job. In contrast, the non-Asian (Western) group mainly consisting of Americans, French and Germans can afford integrative motivation. They are mainly learning Chinese for their interest in Chinese culture and not necessarily for specific instrumental reasons.

Contrary to hypothesis 2, the non-Asian (Western) student group reported better Chinese language proficiency than the Asian student group. Such findings are reasonable if motivation theory (Gardner 2000; Gardner and Lambert 1959) is to be used to explain the group differences in Chinese language proficiency rather than “cultural distance” research hypotheses (Svanes 1987). The researcher would however argue against Svanes’ (1987) stance that the more similar the two cultures are, the easier the process of language acquisition is, and propose that motivational variables accounted for L2 proficiency. When drawing such a conclusion in a non-Asian (Western) country, researchers might overlook the possibility that it might not be suitable for a non-Western context, China. Due to the fact that types of motivation are closely related to the backgrounds of students (Svanes 1987), cultural groupings had already indicated what kind of motivation the learners might have. Therefore, the researcher would propose that motivational variables were still important in process of SLA and they impacted directly on the level Chinese language proficiency. As expected, non-Asian (Western) students showed higher degrees of integrative motivation, which might lead to a higher level of Chinese language proficiency (Gardner and Lambert 1959). In a similar way, the discrepancy with hypothesis 3 might be explained by non-Asian (Western) students’ higher levels of integrative motivation, which by definition means more interest in the culture of the host country (Gardner and Lambert 1959), leading to more interaction with members of the host culture, and consequently better socio-cultural adaptation (Ward and Kennedy 1993). That is, the “cultural fit hypothesis” (Ward, Bochner, and Furnham 2001) applies to the context of developed countries but may not be applicable to the context of China.

The second concern is to what extent cultural group, motivational variables, and Chinese language proficiency can predict two indices of adaptation and whether cultural group is a moderator. It was found in this study that cultural group was not a moderator in predicting either socio-cultural or academic adaptation. Though there is literature exploring the differences between cultural groups in terms of language proficiency, motivation (e.g. Gardner and Lambert 1959; Svanes 1987) and socio-cultural adaptation (Ward, Bochner, and Furnham 2001), the findings from these studies findings do not necessarily indicate that cultural distance or group was the moderator. Nonetheless, this study attempted for the first time to shed some light on the extent to which cultural variables could explain the variance of adaptation together with motivational variables and L2 proficiency. It was found that motivational variables, especially integrative motivation, played a more important role in predicting socio-cultural adaptation than cultural variables. As reported in the literature (e.g. Dörnyei 1990; Gardner 1985), learners who are integratively motivated, however, are probably also more successful at an advanced language level than
those who are not. This is mainly due to the fact that psychological integration might sustain the interest and desire to learn the language longer. Likewise, integratively motivated learners might sustain a longer desire and interest in identifying with the people of the host country, which is likely to contribute to better socio-cultural adaptation in the long run.

Another interesting finding of this study was that integrative motivation was the only significant predictor of academic adaptation, which is a newly added aspect of adaptation from this study. According to Dörnyei (2003), the core aspect of integrative disposition lay in identification with the L2 community psychologically and emotionally. For the international students in this study, the L2 community consisted mainly of the faculty staff and their classmates. They could be a bridge between integrative motivation and academic adaptation because interaction with faculty members can enhance academic adaptation (Tinto 1993). We might conclude that integrative motivation and academic adaptation were intimately related in SLA contexts such as those in this research.

There has long been a debate over the superiority of integrative motivation over instrumental motivation (see Au (1988) for discussion) in SLA. Participants of this study reporting higher integrative motivation and lower instrumental motivation also reported better Chinese language proficiency and better socio-cultural adaptation. Such findings confirmed the superiority of integrative motivation over instrumental motivation in learning L2. More importantly, it implies that integrative motivation was also a better predictor of adaptation than instrumental motivation.

The interactive model proposed by Masgoret and Ward (2006) highlights that L2 proficiency is a significant predictor of socio-cultural adaptation. This study re-confirmed the positive role of L2 proficiency on socio-cultural adaptation. However, no significant relationship was found between L2 proficiency and academic adaptation, which might imply that academic adaptation could be explained by other variables besides integrative motivation. Future research can focus on the predictors of academic adaptation, which has been well-documented as one crucial requirement in the process of international students’ transplanting into a foreign country (e.g. Qing and Schweisfurth 2006; Wisker 2000).

6. Conclusions and implications

This study is one of few studies trying to relate cultural variables and language-related variables to adaptation. The outstanding predictive role of integrative motivation on the two indices of adaptation suggests that a positive affective disposition towards the Chinese community, and the desire to achieve Chinese language proficiency in order to participate in and develop a sense of belonging to Chinese community, can bring about good adaptation amongst foreign students regardless of their ethnicity when studying Chinese in Mainland China. Moreover, academic adaptation has too often been ignored in the literature of both cross-cultural psychology and SLA. From a new perspective, this study provides empirical evidence to suggest that integrative motivation in learning L2 was playing a primary role in academic adaptation. It is strongly suggested that academic adaptation should be regarded as an important facet of the adaptation of international students that is worth further empirical research.

In summary, this study provides meaningful insights into the complex processes of adaptation and SLA for international students in China. The results suggest that
it is important that researchers in cross-cultural psychology consider language-related variables, especially integrative motivation, in studying language learners’ adjustment. Furthermore, researchers in both SLA and psychology might usefully take academic adaptation into consideration when studying the language learning and adaptation of international students at a tertiary level. In addition, the design of this study can only test the consequence of causal assumptions rather than causal relationships. Future research should be directed to a longitudinal design, which is appropriate to test the causal relationships between motivation, L2 proficiency and adaptation, and observe and examine the long-term effects of integrative motivation on socio-cultural/academic adaptation. This study highlights the need for longitudinal studies on motivation effects on socio-cultural/academic adaptation with international students from different cultural backgrounds. Further research might consider sojourners’ country of origin to further examine whether students from different countries perform differently in SLA or adaptation.

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