Social Support: A Moderator between Cultural Intelligence and Cross-cultural Adaptation of International Students in Chinese Universities

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[Abstract] Cross-cultural adaptation is inevitable and critical when people come to a new cultural environment. In the present study, 127 international students in different Chinese universities completed the Acculturation Scale, Cultural Intelligence Scale, and Social Support Scale. The results indicated that the levels of cross-cultural adaptation and social support were not high. Cultural intelligence and social support had a significant positive correlation, and they were both positively correlated with cross-cultural adaptation. The interaction between cultural intelligence and social support was statistically significant, and social support affected as a moderator between cultural intelligence and cross-cultural adaptation.

[Keywords] cross-cultural adaptation; cultural intelligence; social support; international student

Introduction

Cross-cultural adaptation occurs when individuals switch to host cultures from their original cultures. Cross-cultural adaptation is defined as a tendentious and conscious choice and adjustment based on individuals' cognition and emotional dependence on those two cultures (Yang, 2004). The uni-dimension model of cross-cultural adaptation was first described by Parks and Miller, and later developed by Grodon (Flannery et al., 2001). Berry (1980) developed a double dimensional model that is most frequently used (Berry, 2002; Berry et al., 2003; Bourhis et al., 1997). Arends-Tóth and van de Vijver (2004) described the fusion model, a totally different model, to explain acculturation processes. Although these theoretical studies are inconsistent or even contradictory, they all focus on interactions between individuals and new cultures. To examine the process of cultural adaptation, Earley and Ang (2003) first definitely proposed the concept of cultural intelligence, and it is defined as an individual's ability to effectively contact with people from other cultures. Researches found the cultural intelligence to be one factor influencing cross-cultural adaptation. It is a new perspective for cross-cultural adjustment based on individual difference (Xiao & Zhang, 2012). Most prior research of cultural intelligence focuses on working place (e. g. Claudelévy, 2007; Tang et al., 2010; Templer et al., 2006). However, as an important factor in cross-cultural adaptation, little research explores the effect of cultural intelligence in the cross-cultural adaptation of international students in China.

With the economic development of China, increasingly international students study in Chinese universities. Recently researchers began to explore the cross-cultural adaptation of international students in China. Some factors were found to influence their cross-cultural adaptation. For example, Yang (2004) divided those factors into macro factors, micro factors, and cultural interactions. The macro factors include social support that offers emotional and moral support to international students. Unlike Yang, Chen (2006) investigated environmental adaptation, interpersonal adaptation, dealing model adaptation, privacy attitude adaptation, language adaptation, and social support adaptation. They all suggested social support as a key variable in cross-cultural adaptation. Social support helps individuals get closer to others by reducing their anxiety in new cultures, and, thus, leads to a better adaptation.

The present study explored the levels of cultural intelligence, social support, and cross-cultural adaptation of international students in Chinese universities and their relations. It was hypothesized that (a) cultural intelligence and social support are both correlated with cross-cultural adaptation, (b) social support is correlated with cultural intelligence, and (c) social support moderates the effect of cultural intelligence on cross-cultural adaptation.

Method

Participants

Participants (age: $M = 21.8$; $SD = 4.56$; 31.5% female) were 127 international students from several universities in central China. Participants came from different continents, including Europe, Asia, Africa, and South America.

Measures

The Demographical Questionnaire included questions about nationality, gender, age, education level, Chinese language proficiency, visiting history, and residence time. The Acculturation Scale was developed by Yang (2004) to test the cross-cultural adaptation in China. It was constituted by 5 dimensions: language adaptation, living adaptation, study adaptation, interpersonal relation adaptation, and mental adaptation. Participants indicated the extent to which they agreed to each statement on a 5-point-Likert scale. A high score means a good cross-cultural adaptation.

The Cultural Intelligence Scale was a widely used 20-item questionnaire that assessed 4 factors of cultural intelligence: metacognitive, cognitive, motivational, and behavioral (Van Dyne et al., 2008). Participants indicated the extent to which they agreed with each statement on a 5-point-Likert scale. A high score means high cultural intelligence. The Social Support Scale was a 10-item self-report questionnaire. Participants indicated the extent with which they agreed to each statement on a 5-point-Likert scale. A high score means good social support.

Procedure

Participants signed a consent form and completed four questionnaires. The whole procedure lasted about 45 minutes.

Data Analysis

Psychometric properties of the questionnaire were analyzed by SPSS 19.0. Means, standard deviations, and reliability coefficients were calculated. Also, the correlation analyses were conducted to investigate the relationship among the variables.

Results

Psychometric Properties

In our test, the Cronbach's α reliability coefficients were .68 for the Acculturation Scale ($M = 3.54$, $SD = .53$, $N = 127$), .72 for the Cultural Intelligence Scale ($M = 3.48$, $SD = .66$), and .58 for the Social Support Scale ($M = 3.20$, $SD = .59$). The item analysis confirmed internal consistency for these 3 scales. Demographical differences on cross-cultural adaptation were tested. Different levels in Chinese proficiency have statistically significant differences in the score of the Acculturation Scale, $t(127) = 6.97$, $p < .01$. No significant difference was found in means of other demographical factors.

Correlations

Results are displayed in Table 1. As expected, cultural intelligence and cross-cultural adaptation were positively related, $r(127) = .80$, $p < .01$. Cultural intelligence was significantly correlated with all the 5 dimensions of cross-cultural adaptation. The correlation coefficient ranged from .40 to .80. Except for the cognitive factor, the other 4 factors of cultural intelligence were highly correlated with cross-cultural adaptation.

Social support also had a positive correlation with cross-cultural adaptation, $r(127) = .52$, $p < .01$. Social support and cultural intelligence were correlated, too: $r(127) = .61$, $p < .01$. Furthermore, except for the cognitive factor again, social support was significantly correlated with the other factors of cultural intelligence. We examined the moderate effect of social support on cultural intelligence. The result suggested that the interaction between cultural intelligence and social support was statistically significant, and the social support moderated the effect of cultural intelligence on cross-cultural adaptation, $F(3,124) = 13.64$, $p < .05$.

Table 1

Relations of Three Scales and Their Dimensions

Scales	Acculturation Scale	Cultural Intelligence Scale	Social Support Scale
Acculturation Scale			
Language adaptation		.68**	
Living adaptation		.80**	
Study adaptation		.40*	
Interpersonal relation adaptation		.74**	
Mental adaptation		.49**	
Cultural intelligence Scale	.80**		.61**
Metacognitive	.80**		.45*
Cognitive	.40		.35
Motivational	.80**		.59**
Behavioral	.65**		.59**
Social Support Scale	.52**		

Note: *$p < .05$, **$p < .01$.

Discussion

Participants in this study displayed a medium-level adaptation to Chinese culture. However, differences in gender, age, education level, visit history, or residence time did not lead to different cross-cultural adaptation levels. This means that the cross-cultural adaptation is not influenced by these factors. The scores of the Acculturation Scale suggested that participants performed best in language adaptation. Perhaps this is because the major of most participants is Chinese, and so they had less difficulty in speaking Chinese. The cross-cultural adaptation is influenced by proficiency in Chinese. That is, participants who were better at Chinese had a better cross-cultural adaptation. One explanation for this might be that those who are good at Chinese can communicate and interact more with locals, and, therefore, they perceive more social support. However, the general adaptation level of participants was not high. It means language is important but not enough for a good cross-cultural adaptation. Moreover, the participants also had better performance in living adaptation, compared to study, interpersonal relation, and mental adaptation. This may imply that living adaptation is easier than adaptations that relate to psychological factors (i.e., study, interpersonal relation, mental adjustment). All these results may suggest that international students need more psychological directions and help.

Our participants displayed a high-level cultural intelligence, especially the metacognitive and motivational factors. However, the scores of cognitive and behavioral factors were low. The motivational factor is the motivation and interesting points when a person adapts to a different culture. The metacognitive factor is the awareness and perception when a person interacts with people from other cultures. The cognitive factor is the degree of familiarity with specific regulations, practices, and customs in different contexts. The behavioral factor is the appropriateness of verbal and nonverbal behaviors when a person interacts with people from other cultures (Ang et al., 2007). So, as to our findings, maybe the reason is cognition and behaviors tend to stick with the original culture, while, in contrast, metacognition and motivation are more flexible as culture changes. For international students who choose to study in China, they must have a high motivation to come here.

The result indicated that cultural intelligence was correlated with social support, but the participants only received a medium level of social support. They had trouble fully agreeing with Chinese social culture and environment and blending with their surroundings. Some international students even reported keeping away from local students because they thought the public morality in Chinese society was poor. This might be one reason why international students didn't report enough social support.

This study predicted a positive correlation between cultural intelligence and cross-cultural adaptation.

The correlation analysis provided strong support to this hypothesis. In consistence with other researches (Li et al., 2012; Tan, 2013), our result also suggested a positive correlation between cultural intelligence and cross-cultural adaptation, indicating that higher cultural intelligence means better adaptation. Specifically, the metacognitive and motivational intelligence had strong correlations with cross-cultural adaptation. This is consistent with the results of Templer et al. (2006) and Ang et al. (2006), who reported that individuals with high motivational intelligence had good adaptations in working and interpersonal relations.

A positive correlation between social support and cross-cultural adaptation was also supported by the study result. As an important factor influencing cross-cultural adaptation, social support provides international students emotional support from others and helps them to decrease mental stress reaction and tension in cross-cultural adaptation.

It was expected that the relationship between cultural intelligence and cross-cultural adaptation was moderated by social support. The present study yielded that more social support gave rise to stronger relations between cultural intelligence and cross-cultural adaptation. As other kinds of intelligence, the function of cultural intelligence is affected by environment. During their adaptation to Chinese culture, on one side, the international students inevitably experience some negative emotions, such as anxiety, tension, confusion, frustration, and uncertainty. On the other side, they face some realistic living difficulties. The social support can both provide them the emotional help and living guidance that moderate and promote the function of cultural intelligence on cultural adaptation. Ward & Rana-Deuba (2000) proposed that the cultures of host country and original country both are effective resources of social support, but the former has a greater effect on the cognition and emotion of the international students. However, our study showed that the international students didn't communicate so much with local Chinese. They tended to get social support from their countrymen, which was not good for a better adaptation.

A further investigation might compare the cultural adaptation of internationals students from eastern and western cultures. The eastern cultures are always regarded as interdependent, while the western cultures are independent (Marquez & Ellwanger, 2014). Since Chinese culture is a typical collectivist culture, an international student from another eastern culture is reasonably presumed to adapt better than an international student from a western culture. It is an interesting comparison of cross-cultural adaptation in eastern and western cultures, which also devoted to examining whether the differences between the original culture and the new culture influence the adaptation.

In addition, research can also focus on how to improve cross-cultural adaptation. Individuals with high cultural intelligence adapt to new cultures faster and more efficiently. Earley and Mosakowski (2004) suggest that cultural intelligence can be strengthened by cultivation. Tomas (2006) proposes five stages of cultural intelligence cultivation. Additionally, Triandis (2006) suggests some aspects when people cultivate cultural intelligence in new cultures. This research provides important insights on improving individuals' cultural intelligence. Further research can focus on how to increase the cultural intelligence of international students in specific Chinese cultures. Other predictive resources of cultural intelligence also need to be further explored, such as the effect of trait-like and state-like characters in the development and cultivation of cultural intelligence.

As suggested in this study, the social support plays an important role in cross-cultural adaptation, indicating that the social factors could also influence the cross-cultural adaptation, such as how the social media and personal habit of using them influence the cross-cultural adaptation. These are important issues nowadays in a world, which is full of different social media. Besides, there are also many other social factors that need to be focused upon.

References

Ang, S., Dyne, V. L., Koh, C., Ng, K-Y, Templer, K. J., Tay, C. et al. (2007). Cultural intelligence: Its measurement and effects on cultural judgment and decision-making, cultual adaptation and task performance. *Management & Organization Review, 3*(3), 335-371.

Arends-Tóth, J., & van de Vijver, F. J. (2004). Domains and dimensions in acculturation: Implicit theories of Turkish–Dutch. *International Journal of Intercultural Relations, 28*(1), 19-35.

Berry, J. W. (2002). *Cross-cultural psychology: Research and applications.* Cambridge: Cambridge University Press.

Berry, J. W., Chun, K. M., Organista, P. B., & Marin, G. (2003). *Acculturation: Advances in theory, measurement, and applied research.* Washington, DC: American Psychological Association.

Bourhis, R. Y., Moise, L. C., Perreault, S., & Senecal, S. (1997). Towards an interactive acculturation model: A social psychological approach. *International Journal of Psychology, 32*(6), 369-386.

Chen, H., Zhu, M., & Che, H. S. (2006). Research on adaptation factors of international students in Beijing Universities. *Researches on Youth*, *4*, 27-36.

Claude, L. L. (2007). CQ: Developing cultural intelligence at work. *Personnel Psychology, 60*(1), 242-245.

Earley, P. C., & Ang, S. (2003). *Cultural intelligence: Individual interaction*. Stanford, CA: Stanford University Press.

Earley, P. C., & Mosakowski, E. (2004). Cultural intelligence. *Harvard Business Review, 82*(10), 139-146.

Flannery, W. P., Reise, S. P., & Yu, J. (2001). An empirical comparison of acculturation models. *Personality and Social Psychology Bulletin, 27*(8), 1035-1045.

Gao, Z. H., & Li, C. P. (2009). Research on cultural intelligence: Review and prospect. *Advances in Psychological Science, 17*(1), 180-188.

Li, X. Y., Zhou, E. H., & Yao, S. H. (2012). The influence of cultural intellegence on cross-cultural adaption of overseas students in China. *Chinese Journal of Mangement, 9*(12), 1779-1785.

Marquez, R. C., & Ellwanger, J. (2014). Independent and interdependent self-construals do not predict analytic or holistic reasoning. *Psychological Reports, 115*(1), 326-338.

Ng, K-Y., & Earley, P. C. (2006). Cultural intelligence: Old constructs, new frontiers. *Group & Organization Management, 31*(1), 4-19.

Tan, I., B. (2013). *Cross-cultrual adaptation of southeast Asian students in China*. Shanghai: Shanghai Jiao Tong University.

Tang, N. Y., Deng, X. S., Zhang, J. S., & Fu, J. (2010). Cultural intelligence: Its construct and criterion-related validity. *Psychological Science, 33*(2), 485-489.

Templer, K. J., Tay, C., & Chandrasekar, N. A. (2006). Motivational cultural intelligence, realistic job preview, realistic living conditions preview, and cross-cultural adjustment. *Group & Organization Management, 31*(1), 154-173.

Tomas, D. C. (2006). Domain and development of cultural intelligence: The importance of mindfulness. *Group & Organization Management, 31*(1), 78-99.

Triandis, H. C. (2006). Cultural intelligence in organizations. *Group & Organization Management, 31*(1), 20-26.

Ward, C., & Kennedy, A. (1996). *Crossing cultures: The relationship between psychological and sociocultural dimensions of cross-cultural adjustment.* New Delhi: Sage.

Ward, C., & Rana-Deuba, A. (2000). Home and host culture influences on sojourner adjustment. *International Journal of Intercultural Relations, 24*(3), 291-306.

Xiao, F., & Zhang, J. M. (2012). Cultural intelligence: A new perspective for cross-cultural adjustment based on individual difference. *Zhongnan University of Economics and Law, 193*(4), 16-22.

Xiao, S. Y. (1999). *Handbook of mental health evaluation*. Beijing: Chinese mental health magazine press.

Yang, J. H. (2004). *Cross-cultural adaptation in international students in China*. Shanghai: Huadong Shifan University Press.