LANGUAGE LEARNING STRATEGIES AND LANGUAGE ACHIEVEMENT ACROSS CULTURAL STUDY

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Abstract
This study explored the relationship between LLS and LA in two different cultural contexts. The findings revealed that the differences between Australian and Chinese university students tend to lie more in their language proficiency levels than in cultural factors. This study also compares learners' strategy use and its relationship to LA in two different educational systems. It is evident that the difference in teaching methods, learning tasks and achievement assessments would have an impact upon learners' strategy use and its relationship to LA.

Key words
learning strategies, language achievement, cross-cultural study

Background
The studies of second language L2 learning can be generally classified into two categories. One is the study of the "systematicity" across L2 learners in the learning process, the other is the study of "individual" L2 learner differences. In other words, the former intends to discover regularities or rules which govern and control the L2 learning process in the route along which learners pass in L2 learning, while the latter tries to account for L2 learner differences which influence the rate and success of L2 learning. However, the two kinds of study initiated and carried out from different perspectives are complementary rather than contradictory.

In studies of individual learner differences social psychological studies, Gardner 1985, Gardner Lambert 1959, Gardner Macintyre 1993, and cognitive studies, Bialystok 1985, O'Flyalley Chamot 1990, Oxford 1990, are recognized as the most influential theories in L2 research. Brown 1994, Towell, Hawkins 1994. Cognitive theory views language comprehension as an active and constructive process through the utilisation of the interpreted meaning. Language production involves the organizational processes required to express meaning. These processes identify the role of cognition in L2 learning but the degree of cognitive involvement is set by the interaction between the requirements of the task and the knowledge and mental processes used by the learner. O'Flyalley Chamot 1990, Cognitive variables involve different aspects of cognition among which learning strategies are identified as important and complex skills. O'Flyalley Chamot 1990. Learning strategies are claimed to be the principal influence in the on the rate and level of L2 acquisition. Ellis 1994, Oxford 1990, 1996. The importance of language learning strategies LLS in the L2 learning process has led language practitioners and researchers to investigate not only the nature of LLS but also learners' variability in their strategy use.

O’Malley and Chamot (1990) define LLS as “the special thoughts or behaviours that individuals use to help them comprehend, learn or retain new information.” O’Malley and Chamot adopted the cognitive theory of language learning and applied it to learning strategy research. They categorized learning strategies into metacognitive and social/affective strategies and they made a distinction between cognitive and metacognitive strategies. Metacognitive strategies involve thinking about the learning process, planning for learning, monitoring of comprehension or production while it is taking place, and self-evaluation of learning after the language activity is completed. Cognitive strategies are more directly related to individual learning tasks and entail direct manipulation or transformation of learning materials. O’Malley et al. (1985)

Oxford (1990) described LLS as “specific actions taken by the learner to make learning easier, faster, more enjoyable, more self-directed, more effective and more transferable to new situations.” Moreover, Oxford classified LLS into six categories, namely: memory, cognitive, compensation, metacognitive, affective, and social strategies, among which memory, cognitive and compensation strategies are identified as direct strategies and metacognitive, affective, and social strategies are identified as indirect strategies. Direct strategies involve more production of concrete details of the target language such as practice of language form and the reworking of the learning materials. Indirect strategies entail a great deal of relevant knowledge, reflecting metacognitively on what is to be done and using the target language in various ways and situations. Oxford’s taxonomy of learning strategies is considered as “the most comprehensive” (Ellis, 1994: 39) so far. She not only provided a detailed list of strategies in each subcategory but also pointed out the supportive connection of the categories with one another. Furthermore, in order to assess strategy use, she developed the Strategy Inventory for Language Learning (SILL), which has become a standardized instrument for measuring language learning strategies and makes her theoretical framework applicable in practical research.


To sum up, many studies investigating cultural differences in LLS generally described the different frequencies of using learning strategies from learners in different cultures. There is no doubt that there are differences among learners from different cultural backgrounds in using LLS, but what is worth exploring is how and why they are different. In order to find out the answer, the
following research questions were addressed in this study:

1. What are the differences in language learning strategy use between Australian and Chinese university students?

2. What are the differences between Australian and Chinese students in terms of relationships between LLsAnd LA?

3. What are the implications for the differences found in question one and two?

Research methodology

Participants

In this study, participants were chosen from tertiary institutions in both Australia and China — the Australian participants were students learning Chinese as a foreign language. More than 300 questionnaires were delivered to the learners of Chinese in two universities with 151 responses. Among the participants, 40 percent were first year students, 29 percent second year students, and 30 percent were third year students. About 30 percent of the participants had learned the target language for more than six years in secondary schools and 41 percent started learning the language as beginners. There were 56 male and 95 female students whose age groups were 85 percent under the age of 25 and 15 percent above the age of 25.

Participants from China were learners of EFL. Three hundred and forty-four participants were randomly chosen from universities in China and all of them responded to the questionnaire. Thirty-seven percent of the participants were first year university students, 50 percent were second year students, and 13 percent were third year students. All of the participants had been studying EFL for at least six years before they entered universities. Among the participants, 221 were males and 123 were females. Their ages ranged from 17 to 30 years with 99 percent under the age of 25.

Instruments

Questionnaire survey. The questionnaire consists of three parts. Part one is about the personal background of the participants collecting information such as gender, age, year level and so on. Part two is made up of the statements of learning strategies using the SILL designed by Oxford, 1990. Part three contains statements with self-estimated proficiency of the target language in the four basic skills of listening, speaking, reading and writing.

Language learning strategy measure. There are two versions of the SILL. One is designed for English speakers learning a new language version 1.1 and the SILL. One is designed for speakers learning a new language version 1.1. The other is especially designed for speakers of other languages learning English version 1.0. ESL EFL Version 1.1 has eighty items and version 1.0 has fifty items. For the sake of consistency with participants in both Australian and Chinese contexts, version 1.1 was used in this study. Each statement has five choices ranging from "NT always or almost never true of me", "GT usually not true of me", "ST somewhat true of me", "GT usually true of me" to "AT always or almost always true of me". The participants were instructed to respond to the questionnaire by ticking or circling one of the five choices which was most appropriate to them. They were also reminded that there were no right or wrong answers in the SILL and were asked to give an honest response.

Language Proficiency measure. Language proficiency levels of the participants in both Australian and Chinese universities were measured in two ways: the actual achievement and the perceived achievement. The actual achievement was measured by means of the participants' semester results. The perceived achievement was measured by the participants self-stated proficiency levels including listening, speaking, reading and writing. The participants were asked to rate their four basic language skill levels and the overall level of the target language proficiency via a 5-point scale. The self-rating scale was especially developed for L2 students by Clark, 1981 and has been widely used since. The scale is most appropriate in this research for measuring the proficiency of different language learners from different cultural contexts. There are five options for the participants to choose. The five alternatives for the perceived achievement are respectively: 1 "VP very poor", 2 "P poor", 3 "AV average", 4 "G good" and 5 "VG very good". 2 "VD very difficult", 3 "D difficult", 4 "N neutral", 5 "E easy" and 6 "VE very easy".

Data Analysis Procedure. Data analysis was conducted by using SPSS version 11.0 with such procedures as data screening, descriptive analysis, correlation analysis, regression analysis. Data screening was undertaken to ensure that each of
the variables used in the analysis met the assumptions of the statistical measures to be employed. The accuracy of data entries was examined and data screening involved examination of descriptive statistics and graphic representation of the variables. Errors in the data file were corrected so that all the values for the continuous variables were within range and the means and standard deviations were plausible. There were few missing values in both Australian and Chinese data.

The total number of questionnaires available for the analyses was 495, with 151 from Australian data and 344 from Chinese data. No participants were identified as univariate outliers or multivariate outliers. Normal distribution of variables was evaluated which showed that all the variables were normally distributed in both sets of data. Descriptive statistics provided the means and standard deviations of the use of LLS. Multiple regression analysis was employed to determine which types of LLS had predictive power for LA.

With discriminant function analysis, the difference among learners within the same culture was compared with respect to the mean scores of LLS use.

**Findings**

According to Oxford (1990), division of LLS use, the level of high use is from 4.5 to 5.0, the medium level is from 4.0 to 4.4, and the low level is from 4.0 to 4.3. Both Australian and Chinese university students used LLS at a medium level, with means ranging from 4.0 to 4.5 for Australian students and from 4.2 to 4.7 for Chinese students. The overall means of LLS use are 4.11 and 4.12 respectively. The detailed results of the six categories of LLS are shown in Table 1. Australian and Chinese university students generally used all six categories of LLS. Memory, cognitive, compensation, metacognitive, affective, and social strategies.

Among the six categories of LLS, social strategies (X = 44.60) were used most frequently and affective strategies (X = 45.37) least frequently by the Australian students, while the Chinese students used metacognitive strategies most frequently and affective strategies least frequently.

**Table 1** Descriptive statistics of language learning strategies

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<thead>
<tr>
<th>Variables</th>
<th>Means</th>
<th>SD</th>
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<tr>
<td></td>
<td>Australia</td>
<td>Chinese</td>
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<tr>
<td>Mem</td>
<td>4.06</td>
<td>4.23</td>
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<tr>
<td>Cog</td>
<td>4.11</td>
<td>4.11</td>
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<tr>
<td>Com</td>
<td>4.09</td>
<td>4.20</td>
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<tr>
<td>Meta</td>
<td>4.37</td>
<td>4.37</td>
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<tr>
<td>Aff</td>
<td>4.60</td>
<td>4.92</td>
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<tr>
<td>Soc</td>
<td>4.45</td>
<td>4.94</td>
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In addition, the results indicate that all six categories of LLS were significantly correlated with LA for Chinese students with only affective strategies at the significant level of 0.01. All other types of learning strategies were significant at the 0.001 level. Whereas with Australian data, memory, cognitive, compensation and metacognitive strategies were significantly correlated with LA with memory strategies at the significant level of 0.05 and other three categories at the significant level of 0.001. Affective and social strategies did not show correlation with LA at a significant level, see Table 2.

**Table 2** Standard multiple regression of dependent variable (DV) and independent variables (IV)

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<td>DV</td>
<td></td>
<td></td>
<td>LA</td>
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<tr>
<td>IV</td>
<td>Australia</td>
<td>Chinese</td>
<td>Australia</td>
<td>Chinese</td>
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<tr>
<td>Mem</td>
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<td>0.25</td>
<td>0.06</td>
<td>0.37</td>
<td>0.04</td>
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<tr>
<td>Cog</td>
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<td>0.38</td>
<td>0.40</td>
<td>0.07</td>
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<tr>
<td>Com</td>
<td>0.32</td>
<td>0.22</td>
<td>0.24</td>
<td>0.99</td>
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<tr>
<td>Meta</td>
<td>0.27</td>
<td>0.39</td>
<td>0.24</td>
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Multiple regression analysis indicates that the predicative power for LA in Australian students is appreciable. The multiple R of \( r = 0.42 \) and 17 percent of the variance accounted for by LLSin LA suggests that there was a significant relationship between the two strategies and LA. With Chinese students, three strategies—metacognitive, cognitive, and social—contributed to the prediction for LA. The multiple R is \( r = 0.45 \) and the overall variance explained by LLSin LA is 20 percent, which is not high in both groups and which indicates that there are other factors influencing the relationship between LLSand LA.

Discriminant function analysis distinguished between the Chinese third year and the first and second year students in strategy use. Among the discriminating variables, the general difference between the two groups was that the third year students preferred social, cognitive, and metacognitive strategies while the first year and second year students used more memory, compensation, and affective strategies. In particular, social strategies and compensation strategies were best distinguished between the two groups. Social strategies were more preferred in the first year and second year students, whereas metacognitive strategies were preferred in the third year. The results were significant, indicating that the centroid of the group with the highest means on the variable selected was to move the centroid of the group with the highest means on the variable to the left. In other words, the third year students preferred social strategies. In contrast to compensation strategies, the results were significant, indicating that the centroid of the group with the highest means on the variable moved to the right. This shows that the first and second year students used more compensation strategies.

Discussion

One finding in this study is that there was little difference in overall strategy use between Australian and Chinese students. However, there was a significant discrepancy in use of different strategy categories. Australian students used social strategies most frequently while Chinese students used metacognitive strategies most frequently. This is consistent with the findings in some studies. Grainger et al. (Park 1997; Sheorey 1999) reported that students from Asian background did not prefer communicative strategies. In addition, both Park (1997) and Sheorey (1999) found that their Korean and Indian university students used metacognitive strategies most frequently. In contrast, this finding is not consistent with the results in other studies. McGroarty et al. (1987) and O’Malley and Chamot (1990) discovered that Asian students tended to use memorization strategies.

However, considering the participants involved in those studies and the different explanation for learners strategy choice apart from the cultural influence perspective can be revealed. O’Malley and Chamot (1990) investigated high school students who were mainly at the beginning level in their language studies. McGroarty (1987) used university students who were learners of elementary language course as participants. In the studies of Park (1997) and universities were investigated. At the time of Park’s study, the students were able to attend the Test of English as a Foreign Language (TOEFL). Those studies suggested that the difference in strategy choice...
among the participants was likely to be affected by their different proficiency levels.

In analyzing the stages of L2 learning, O’Malley and Chamot (1990) argue that “different strategies may be used depending on the student’s level of proficiency” (148). Furthermore, they claim that more proficient learners tend to use metacognitive strategies while less proficient learners use more cognitive strategies; however, their studies did not use correlational data to establish the relationship between individual strategies and measures of L2 learning. The present study not only explores the relationship between language proficiency and strategy choice but further discovered the relationship between individual strategies and LA.

In the current study, although both samples were university students, their L2 learning situation and experiences were quite different. L2 learning situation in the two contexts can be briefly generalized as follows in Australia. Languages Other than English (LOTE) are compulsory subjects in most secondary schools and several languages are offered at the tertiary level. LOTE is generally a selective subject in liberal studies and students can choose whatever language is offered. As a result, many students are only beginning learners of the target language. In contrast to China, FL especially EFL is not only a compulsory subject but a selection criterion throughout secondary and tertiary education. At universities, most students continue learning the same language they were learning in high school. Consequently, at the time of this investigation, about 40 percent of Australian university students had little experience of learning Chinese, but some 83 percent of Chinese university students had studied English for more than six years. Australian and Chinese university students can be categorized as learners of different proficiency levels due to their prior experience of L2 learning. Therefore, it could be inferred that the relationship between LLS and LA is influenced by learners’ proficiency levels in the target languages.

The correlation results showed in general that more direct strategies, which are basic learning strategies, were related to and had predictive power for LA in Australian students and more indirect strategies, which are higher order executive skills, O’Malley and Chamot (1990) had significantly predictive power for LA in Chinese students. In particular, cognitive strategies were most correlated with LA in Australian students and metacognitive strategies were most correlated with LA in Chinese students. In other words, this finding displays the fact that cognitive strategies are more effective for Australian students and metacognitive strategies are more effective for Chinese students. At the same time, it confirms O’Malley and Chamot (1990)’s conclusion that metacognitive and cognitive strategies are more important than other strategies.

Another difference in contribution to LA by LLS between the two groups of learners was the predictive power of compensation and social strategies. Compensation strategies showed prediction for LA in Australian students whereas social strategies were predictive of LA in Chinese students. According to the definition and classification of LLS, Oxford (1990) some basic features of compensation strategies are using mother tongue, asking someone for help by hesitation that the person or teacher may provide the missing expression in the target language, using gestures or avoiding communication partially or totally when difficulties are anticipated. Apparently these behaviors are quite common for less proficient learners who need these compensatory strategies even more because they run into knowledge roadblocks more often than learners who are more proficient in the target language. Oxford (1990)

On the other hand, social strategies are classified as higher order strategies which show significant effects not in use of cooperative learning, asking questions, but also in use of higher level cognitive strategies, more language practice opportunities and greater use of different language functions. Oxford (1990) Therefore, social strategies could be identified in a way as a kind of learning style for example, interacting and cooperating with peer learners and asking a teacher to repeat and explain the target language forms and in another way as a kind of demonstration of higher proficiency by users such as using the target language in various ways and on a number of occasions. In this way, some social strategies tend to be used by learners who are competent enough in the target language.

Accordingly, Australian students preferred cooperating with peer learners and asking teachers to explain the target language forms to functionally practise and communicate in the target language simply because they were not at the learning stage.
and thus did not have the proficiency to use the target language functionally. This can be seen from the particular mean scores of the following items in social strategies. The item “If I do not understand something in Chinese I ask the other person to slow down or say it again” had the highest mean score (76) while the item “I ask questions using Chinese” had the lowest(12) in the category of social strategies. This may also explain for the high use of social strategies but low contribution to the prediction for LA.

Another finding in this study is that some correlation between LLS and LA shows that highly used strategies did not show correlation with LA and therefore did not have the predictive power for LA. See Table 2. Table 2 shows that social strategies were at a highest level by Australian students but was not correlated with LA and had a negative predictive power for LA. The finding in the Chinese data suggests that the infrequently used strategies have had correlation with LA and hence showed powerful prediction for LA.

This result is similar to some other findings of LLS and English achievement. Park 1997, Wen Johnson 1997, Park 1997 reported that cognitive and social strategies were used second to the least frequently in Wen and Johnsons 1997 study. It was reported that tolerating ambiguity strategies were the most highly used but the test score was negatively affected by tolerating ambiguity strategies. Metacognitive showed more predictive power for LA in that population. In sum, what the data have shown here is that frequency or rather quantity of strategy use does not always count in L2 achievement which is contradictory to the conclusion drawn in other studies. Green Oxford 1993, Park 1997 and Sheorey 1999 What it does count is the appropriate use at the appropriate time. In other words different learning strategies have different effects on learners of different proficiency levels. O’Malley Chamot Oxford Nyikos 1989, Pote 1988, Vann Abraham 1990 and culture specific strategies are not necessarily effective strategies for learners of different proficiency levels, even within the same culture.

The results of discriminant function analysis that among the Chinese students the third year students used more social and metacognitive strategies, while the first and second year students used more compensation and memory strategies. One would assume that the third year students are more proficient in general than the first and second year students. Therefore the difference again suggests that language learning strategy use is affected by language proficiency. More proficient learners tend to use higher order strategies and less proficient learners lower order strategies.

In conclusion learning strategy use is a rather complicated phenomenon in L2/FL learning in general and an even more complicated phenomenon in a comparative study of different cultural contexts like this. Nevertheless this study did show some evidence that LLS are related to language proficiency. O’Malley and Chamot 1990, Oxford Nyikos 1989. However there are many other influencing factors that affect learner choice in LLS as well as the relationship between LLS and LA which is beyond the scope of this study but worthwhile exploring.

Implications

This study explored the relationship between LLS and LA in two different cultural contexts. The findings revealed that the differences between Australian and Chinese university students tend to lie more in their language proficiency levels than in cultural factors. But that does not mean that we can make generalizations based on this data only. There are many other issues that deserve additional investigation. First of all considering the fact that the target languages are so different that certain learning strategies may not be inventoried in the L2LLS Oxford 1990 indicates the probability of differences in patterns of strategy use according to the orthography of different languages. It is likely that learners of Chinese would use different strategies from learners of alphabetic language. There is a need to enrich the inventory for script based languages such as Chinese and Japanese. Graigner 1997.

Secondly this study compares learners’ strategy use and its relationship to LA in two different educational systems. It is evident that the difference in teaching methods, learning tasks and achievement assessments would have an impact upon learners’ strategy use and its relationship to LA. Even though a self-rating proficiency measure was employed in the dependent variable LA in this study, take social strategy use for instance the high use of this category by Australian students might be influenced by the popular cooperative learning teaching method in Western countries.
whereas the low use of social strategies by Chinese students might be resulted from the more traditional teaching method practiced in China. In addition, in this comparative study, sample size might be a factor influencing the data results with the Chinese sample being twice the size of the Australian sample.

Finally, the role of learning strategies played in L2 acquisition in both groups of learners suggests that there might be different latent structures in the SILL such as high order and low order structures. The six-factor classification in the SILL was not totally sufficient. Bedell [1996] Therefore, factor analysis could be used to explore the latent structures in the SILL in future research which will help to understand language learning strategy use from a different perspective both theoretically and practically.

References


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