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Foreword

Welcome to the third issue of 2007, yet another very busy year for AEJ leading up to our last issue in December – the *Asian EFL Journal Conference Proceedings*. In this issue we present a very wide variety of topics from a broad range of Asian sources. The first topic might appear rather unusual for an EFL journal. It has always been clear that foreign language learning can be a very stressful experience, but do some approaches require a health warning, especially where young children are concerned? In "Kindergarteners' temperament and cortisol response to Structured English Immersion (SEI) programs in Taiwan", Ishien, Chiou and, Shu-Ju examine levels of cortisol, a major stress hormone, in kindergarteners to discover its relationship with structured English immersion (SEI). Their findings raise the possibility that there is a link between cortisol increase and the instructional method.

Zhao Na looks at a related topic in "A Study of High School Students' English Learning Anxiety", pointing out that "anxiety has been found to be correlated with English-learning achievement among different groups of people in various contexts". Zhao explores high school students' English learning anxiety in Chinese EFL (English as a Foreign Language) classrooms, discovering that students experienced high anxiety in English learning and this is worse for male than for female students. It was also found that high anxiety plays a somewhat debilitating role in high school students' language learning.

Those of us who have accompanied students overseas are aware that living and studying overseas can also be a stressful experience for some students. I have heard it argued recently that overseas study is unnecessary in our Internet age. In "Preparation for Long-Term Overseas Study: Toward an Integrated Approach", Daniel McIntyre presents a model of instructional design that was developed for students in Japan who are preparing for long-term overseas study. His study has broader applications for other cultural groups and helps us understand why a carefully prepared overseas experience can be a valuable experience both linguistically and

culturally.

In "A Developmental Analysis of a Concept Map, Speech, and Gesture", John Unger explores the synthesis of gesture and speech with a concept map as a means of summarizing academic text by an adult non-native speaker of English. Unger's data illustrate how gesture can work effectively with concept maps to enhance communication. Unger applies his findings to the EFL classroom asking whether a kind of metacognition of gesture interpretation be created for language learners.

In his contribution, Wu Man-fat, reports on the result of a survey on the relationship between metacognitive language-learning strategies (MCLSSs) and language-learning motivation (LLM) in "the Relationships between the Use of Metacognitive Language-learning Strategies and Language-learning Motivation among Chinese-speaking ESL learners at a Vocational Education Institute in Hong Kong". His results suggest that integrative rather than instrumental motivation predicts the levels of strategy use.

In "Critical Thinking and Voice in EFL Writing", Dr Nuray Alagozlu explores ways of improving writing skills by developing critical thinking, "making reasoned judgments to assessing the validity of something" and individual voice, "authorial identity". The results suggest that EFL students need to be supported in terms of critical thinking skills, although they perceive themselves to be critical thinkers, to overcome the difficulties in writing and to cope with the requirements of the multicultural world.

English used as an international language is one of the regular themes in the *Asian EFL Journal*. Many of our students in Asia are more likely to hear English spoken by non-natives than by natives. In his contribution, Michiaki Omori investigates how nonnative speakers of English adapt to accented English in "The Effect of Short-Term Exposure on Familiarity with Accented English for Japanese EFL Learners". The results indicate that nonnative speakers can familiarize themselves with accented English. Omori concludes that exposure to varieties of English can expand the flexibility of speech perception for EFL learners.

Massoud Rahimpour & Massoud Yaghoubi-Notash in "Examining gender-based variability in task-prompted, monologic L2 oral performance", consider the monologic oral performance of male and female EFL learners. They find that fluency varied significantly due to gender and that teacher gender, participant gender, and topic significantly influenced the accuracy of participants' spoken performance.

In a more technical linguistic contribution, "The Relationship between Syntactic Clustering of Obligatory/Null Subject Parameters and Proficiency Levels in L2 Acquisition: New Evidence from a Grammaticality Judgment Test", Khalili and Youhanaee investigate Persian learners' clustering acquisition of overt obligatory subjects and PRO in infinitival clauses in English as a second language. Their main finding is that the "two phenomena covary in the Persian learners indicating that properties of overt obligatory subjects and PRO in infinitival clauses are acquired through parameter resetting, rather than separately."

Finally Karim Sadeghi, in a non-research piece, "The key for successful reader-writer interaction: Factors affecting reading comprehension in L2 revisited", provides a framework for considering reading comprehension based on four interrelated variables that affect "the process and the product of the act of reading: the reader, the text, the context, and the writer". The purpose of this paper is to attempt to provide both clarity and comprehensiveness to a very complex area of knowledge.

Roger Nunn
Senior Associate Editor
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Kindergarteners' Temperament and Cortisol Response to Structured English Immersion (SEI) Programs in Taiwan

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Abstract

This study examines whether the levels of cortisol, a major stress hormone, in kindergarteners are associated with structured English immersion (SEI) in relation to children's individual differences in temperament. Cortisol levels of 129 kindergarteners (68 boys and 61 girls; 47 in SEI and 82 in non-SEI; mean age=5.30 years) were studied, with salivary samples collected in mid-morning and mid-afternoon, to assess children's physiological stress responses. The study results show that children's temperament of externalization/internalization is related to their cortisol level. Results also indicate that, controlling statistically for children's temperament of externalization and internalization, children in the SEI environment have significantly higher cortisol levels in the mid-afternoon. However, the link between cortisol increase and SEI may reflect the instructional method. As the SEI programs are currently associated with developmentally inappropriate practices, whether children in a more developmentally appropriate SEI program would still have high stress responses needs further research.

Keywords: cortisol, structured English immersion, bilingual education, early childhood education

Introduction

As English education in early childhood programs has become popular in Taiwan, the phenomenon that most English teaching, especially the structured English immersion (SEI) program, does not follow the principle of Developmentally Appropriate Practice (DAP) for young children has caused concerns in the sectors of the government and early childhood education. Most kindergarten SEI programs in Taiwan use English as the primary language for communication and instruction, and the subjects taught include math, science, reading, writing, grammar, art, and physical education, etc. Children usually have two to three lessons every day, and teaching takes up almost all morning time. The SEI programs are mostly teacher-centered, widely employing such methods as learning by heart and reciting, simply following a pre-set curriculum. Time assigned for children's playing was considered as out-of-lesson time or a break between lessons.

The effectiveness of Taiwanese SEI programs in early childhood education has not been fully assessed; only sporadic research results exist in this area. A quantitative research shows that children in the SEI programs have higher pupil initiation ratio in teach-children interaction than non-SEI programs (Chiou, Hsieh, Hong, & Li, 2005). However, a qualitative research based on interviews with elementary school teachers suggests that children graduated from the SEI program tend to have adjustment difficulties in learning habits, learning attitudes, and social adaptation (Chen & Chang, 2006). Administrators also suspect that the SEI programs tend to mechanically drill slogans and songs into young children and crowd out basic learning activities essential during the early-childhood learning stage. The Ministry of Education prohibited early childhood programs to offer instruction solely in English since 2004, partly due to the above phenomena and because that most of the foreign teachers in the SEI programs seldom have background in education and early-childhood development (Chen, 2004).

Early childhood educators suggest that curriculum that is developmentally appropriate for young children should be child-centered and based on what is known from research about child development and how young children learn (Bredekamp & Copple, 1997). The DAP is child-centered and offers children classroom experiences relevant to their lives with hands-on activities, in-depth exploration, cooperative learning, and individualized instruction.

When one walks into a DAP classroom, the first thing one may notice is the activity of the children. Perhaps they are working on a project such as learning about the noodle shop. Children

are talking with each other and discussing and making decisions about their learning. Some may be planning a class trip to a noodle shop, while others are building a checkout stand for the shop they plan to develop in the classroom. Other children may be researching products and pricing for the classroom noodle shop. The teacher facilitates this active learning by assisting each of the groups, questioning the children, and guiding their ideas to help them come to fruition.

The role of the teacher is to set up an environment where children can learn. The DAP philosophy shifts away from teaching-centered toward a learning-centered one. The challenges for teachers to implement DAP are to incorporate teaching methods that allow children to actively engage in investigations, to observe children's behaviors and determine what children need and what is their zone of proximal development, and to provide suitable materials or directions to facilitate children's learning.

In contrast, the SEI classes in Taiwan are more structured and academically oriented, with more paper-and-pencil activities and less discussion among children and teachers. The flow of a typical class or instructional session of structured English immersion would be like this. Children gather around a native English-speaking teacher, usually a foreigner without an early childhood education background. The teacher first makes the presentation (e.g., drills the children in grammar or spelling), and then he/she would have the children practice. During the practice time, children work individually or in groups, and the teacher circulates, helping individual or groups of students. During the conclusion, children gather around the teacher again, and the teacher would review or ask questions to make sure the students have met the pre-set goals of the instruction before break or play time.

The trend of more and more kindergartens adopting the less developmentally appropriate practices in the SEI classes has caused great concern for many child development and early childhood education professional in Taiwan. Nationally, there has been an outcry calling for an end to the use of "inappropriate" objectives, activities, and instructional materials in the SEI classes and a shift to "appropriate" methods and materials. As almost all the SEI teachers are foreigners without early childhood education background, it's a big challenge for the SEI teachers to implement DAP teaching methods. Moreover, most SEI classes in Taiwan adopted a so-called "no Chinese-speaking" policy, hoping to construct an environment which helps children pick up a second language naturally and unconsciously (Cloud, Genesee & Hamayan, 2000; Genesee, 1994). The "no Chinese-speaking" policy and implementation has triggered

many concerns about the development of a whole child. A major concern is whether children are under stress when using a foreign language as their primary language for communication and instruction. In this study, we investigate children's major stress hormone, cortisol, to explore whether the language environment and the developmental appropriateness of the program are related to stress response of young children.

Literature Review

Different Structured English Immersion (SEI) Programs

The term “immersion” was first used to refer to the program used in Canada for French as a foreign/second language for English-speaking children. Canadian-type immersion is bilingual education—development of both languages. It satisfies the three requirements for bilingual education (Krashen, 1996): (1) comprehensible input in the second language; (2) literacy development in the first language; and (3) subject-matter learning in the first language. In addition, because the vast majority of the children in these programs are middle class, they do a considerable amount of reading outside of school (Eagon & Cashion, 1988). Much of the curriculum is in the first language (English), and the goal is bilingualism. The first French immersion program was begun in 1965 in the community of St. Lambert, which is near Montreal, Quebec. The St. Lambert immersion program was set to improve French for English-speaking children who live in Quebec. The immersion program was a joint effort of parent groups, educational authorities, and researchers (Doyle, 2005). However, structured English immersion (SEI) implemented in the US later is somewhat different from the Canadian immersion. SEI uses the first language only minimally and includes direct teaching of the second language grammar and pre-teaching vocabulary (Gersten & Woodward, 1985).

In Taiwan, English immersion programs for young children have existed for about 20 years. SEI students in Taiwan receive instruction through an English language acquisition process for young children in which nearly all classroom instruction is in English, with curriculum and presentation designed for children who are learning the language. More and more kindergartens in Taiwan have adopted the structured English immersion (SEI) program and become a popular choice for parents who want their children to have the English immersion experience and raise language acquisition efficiency early.

In these programs, English is the primary language used for communication and instruction.

In order to construct an environment in which children use English in multiple contexts, most kindergarten SEI programs in Taiwan also adopt a so-called "no Chinese-speaking" policy. That is, children are not allowed to speak their first language in the school unless they get permission. The rationale of the policy is based upon the belief that one learns a second language by actually communicating through it (Chen, 2006). English is required as the primary communication language among teachers, students, and staff in the school. Also, all subjects are taught mainly in English, for example, science, math, reading, writing, art, and physical education, etc. The integration of language instruction with content instruction is intended to help children pick up a second language naturally and unconsciously (Cloud, Genesee & Hamayan, 2000; Genesee, 1994).

Developmentally Appropriate vs. Inappropriate Practices in Kindergarten

Both the 1987 and 1997 versions of the American NAEYC guidelines include examples of Developmentally Appropriate Practice (DAP) and Developmentally Inappropriate Practice (DIP). DAP refers to a child-centered approach to instruction that views the child as the primary source of the curriculum and recognizes young children's unique characteristics (Bredekamp & Copple, 1997). Several terms are commonly associated with DAP, including hands-on activities, in-depth exploration, cooperative learning, individualized instruction, and project-based curriculum. Regardless of the chosen strategies, a developmentally appropriate curriculum for young children is child-centered, embraces children's individual differences, encourages active learning, and promotes deep understanding. The curriculum integrates the content areas and provides for active exploration and concrete, hands-on activities. Children are motivated to learn by their natural curiosity and their desire to make sense of the world.

In contrast, the curricula that emphasize teacher-centered direct instruction are considered less developmentally appropriate. Some research supports the view that the teaching practice of DAP and DIP range from one extreme to the other (Charlesworth, Hart, Burts, Mosley & Fleege, 1993; Stipek, Daniels, Galluzzo & Milburn, 1992). The DIP teacher, at another extreme, uses lectures, drill and practice, workbooks, and worksheet activities. DIP separates content areas (i.e., mathematics, science, social studies, reading/language arts, etc.) and has few hands-on, concrete experiences.

Educational Practice and Stress in Kindergarteners

Stress is defined as “the response of the body to any demand” (Selye, 1976) and “a nonspecific response of the body to any demand that exceeds the person’s ability to cope, as a person-environment relationship that threatens or taxes personal resources, and as a mental state in response to strains or daily hassles” (p. 15). In a study exploring educational practices and children’s stress behavior in classrooms, Burts, Hart, Charlesworth, and Kirk (1990) found that children in DIP classrooms exhibited significantly more stress behaviors than children in DAP classrooms. Higher frequency of stress behaviors was found during whole group and workbook/worksheet activities in the inappropriate classrooms. However, the variety of potential stress response and individual differences in expression of emotional intensity makes stress behavior difficult to observe and research (Honig, 1986).

Recently, concerns about childcare as a stressor for children have been bolstered by the finding that a substantial proportion of children in full-time childcare show atypical stress hormone activity while in care. Increases in cortisol levels throughout the childcare day have been reported in many children, whereas cortisol levels tend to follow a typical circadian decrease from morning to afternoon when measured in the same children at home on weekends (Dettling, Gunner, & Donzella, 1999; Tout, de Haan, Campbell, & Gunnar, 1998; Watamura, Sebanc, & Gunnar, 2002). Cortisol elevations throughout the day are of potential concern because chronic activation of the hypothalamic-pituitary-adrenocortical (HPA) system, which produces cortisol, has been found to have negative effects. The negative consequences include compromised immune system functioning (Boyce, Adams, Tschan, Cohen, Wara, Gunnar, 1995) and brain structures involved in memory and learning (Seeman & McEwen, 1996) and future vulnerability to anxiety and depressive disorders (Heim, Owen, Plotsky, & Nemeroff, 1997).

As the improved measurement techniques allow physiological assessment of neuroendocrine activity in children, the study of children’s physiological response to stress has been a renewed interest in the last decades. Linkages between the HPA system, personal disposition, and environmental influences on children have been of interest to developmental psychologists. Areas of ongoing exploration include stress reactivity in relationship to a variety of variables such as children’s temperament (Dettling, Gunner, & Donzella, 1999; Gunnar, Mangelsdorf, Larson, & Hertsgaard, 1989), behavioral development and adjustment (Blair, Granger, & Razza,

2005; Smider, Essex, Kalin, Buss, Klein, Davidson, & Goldsmith, 2002; Watamura, Donzella, Alwin, & Gunnar, 2003; Watamura, 2004), mother-child attachment (Gunnar, Mangelsdorf, Larson, & Hertsgaard, 1989), and length and quality of child care (Dettling, Gunnar, & Donzella, 1999; Gunnar & Donzella, 2002).

Crockenberg (2003) suggested that children's individual differences in stress responses to full-time, center-based childcare are associated with emotional tendencies that may precede their entry into early childhood programs and need to be considered. Children's temperaments, a factor that may influence differences in children's responses to childcare, should be studied (Crockenberg, 2003; Watamura, Donzella, Alwin, & Gunnar, 2003). Using infants and toddlers as subjects, Watamura, Donzella, Alwin, and Gunnar (2003) presented evidence that teacher-reported fearfulness is associated with larger cortisol increases during the day, and Dettling, Parker, Lane, Sebanc, and Gunnar (2000) reported that a daytime cortisol increase was greater for more emotionally negative children and for those with lower self-control.

Moreover, the finding that cortisol increased more over the day when the quality of care was low suggests that childcare quality or context may be a confounding variable in the study of childcare effect. Complex interplay may exist between the amount, type, and content of childcare that, in conjunction with children's temperamental characteristics, predict differences in physiological stress response among young children in full-day childcare (Crockenberg, 2003; Watamura, Donzella, Alwin, & Gunnar, 2003).

So far, there has been little, if any, research conducted in classrooms with young children documenting the relationship between instructional practice and physiological stress response in relation to children's individual differences in temperament. As young children are not capable of describing their feelings/emotions about their learning experience and the observational method of stress behavior may be subjective and influenced by individual differences in expression of emotional intensity, it is important to use the improved measurement technique of neuroendocrine activity measurement in children to explore the influence of SEI and classroom DAP on children's physiological stress responses.

Methodology

Participants

The participants were 129 kindergarteners (mean age=5.30 years) attending 11 full-day

preschools/kindergartens in Taichung City, Taiwan. The 11 schools were randomly selected from a pool of 33 preschools/kindergartens. Two of the schools implemented the SEI programs. After attaining permission from the parents, the children participated in saliva sample collection and temperament assessment. To be included in the current analyses, criteria for exclusion were: children who were members of their current child care room for less than one month ($n=0$), were absent on any of the 2 consecutive school days ($n=2$), or had an illness or took medications likely to affect cortisol values during these days ($n=2$).

Measures and Procedures

Teachers' assessment of the children's internalizing disposition, measured by the approach subscale in TABC (Temperament Assessment Battery for Children) developed by Martin (1988), was used to represent a personality trait related to cortisol concentrations. Head teachers were asked to complete the teacher version of TABC, an extensive teacher report measure of temperament designed for three to eight year olds. Based on previous work by Martin (1989), the scales from the TABC were standardized and combined into six summary factors. The "approach" subscale that highly correlated with emotional tone was chosen for the focus of this study. The subscale consisted of items assessing shyness (reverse score) and interest in new things (low scores reflect withdrawal).

The Checklist for Rating Developmentally Appropriate Practice in Kindergarten Classrooms (Charlesworth, Hart, Burts, Mosley & Fleege, 1993) was used to assess the DAP score of the classrooms. The checklist was based on the NAEYC guidelines (NAEYC, 1986) and consisted of 28 items grouped into 8 areas: Curriculum Goals, Teaching Strategies, Integrated Curriculum, Guidance of Social Emotional Development, Motivation, Parent-Teacher Relation, Evaluation, and Transitions. Each item was rated using a 5-point scale, with the most appropriate practice descriptors listed as 5 and the least appropriate descriptors listed as 1. Observers marked 5 if the item they observed was close to 100% appropriate, 4 for more appropriate than inappropriate, 3 for about equally appropriate and inappropriate, 2 for more inappropriate than appropriate, and 1 for close to 100% inappropriate. Independent rating were made by 2 professionals specialized in early childhood education. The 2 independent ratings were then averaged to create the final DAP score for each classroom.

Cortisol levels were measured from saliva samples collected 2 times a day for 2 consecutive

school days. Samples were obtained in mid-morning (about 10:00) and mid-afternoon (about 16:00). Care was taken to collect samples from children at approximately the same time each day, and, whenever possible, a sample of at least 250 µl was collected. To collect the samples, the experimenters first demonstrated the sampling procedure for the participating children on a small group basis. The children were asked to pretend to chew a stick of gum to stimulate saliva flow and then to express the saliva into labeled test tubes through sterile straws. We also provided the children having problem with the straw method small paper cups (25c.c.) and encouraged them to spit into the cups, and the experimenters would drain the saliva into the vial. Each sample collection did not take longer than 2 min. Samples were immediately frozen until they were transferred on dry ice to our lab for cortisol analysis. The samples were stored in a -20°C deep freezer before the assay.

Salivary samples were assayed using the Salimetrics TM salivary cortisol enzyme immunoassay kit (designed to capture salivary cortisol levels from 0.003 to 3.0 µg/dl), according to the manufacturer's instructions. All samples from an individual child were assayed in the same batch whenever possible. Samples were assayed in duplicate, and the correlation between duplicate assays was $r = 0.99$, $p < 0.0001$.

Results

We first conducted preliminary analyses to examine the correlations between variables. We then use multiple regression analysis to test hypothesized relations of levels of salivary cortisol in the afternoon to the SEI, measures of classroom DAP, and children's characteristics of internalization/externalization (the "Approach" score). In the regression analysis, we also considered levels of salivary cortisol in the morning as an independent variable to control for biological individual differences.

Preliminary Analysis

We first examined relations between the dependent variable—afternoon cortisol level (CORP) and the independent variables—whether a classroom implemented SEI (0=no, 1=yes), the DAP level of the classroom (DAP), the "Approach" score of the children (APP), and children's morning cortisol level (CORA). Table 1 represents correlation coefficients between each of two of the above variables. As two of the independent variables—SEI and DAP are highly correlated

and may cause the co-linearity problem, we put them into two different regression models and analyzed their effects on CORP separately.

Table 1. Correlations among Variables Included in the Analysis

	DAP	APP	CORA	CORP
SEI	-0.60**	0.01	-0.05	0.20*
DAP		0.11	-0.04	-0.21*
APP			-0.23**	-0.67**
CORA				0.29**

Notes. SEI=Structured English Immersion; DAP=Developmentally Appropriate Practice; APP=Approach score; CORA=morning cortisol level; CORP=afternoon cortisol level.

*p<0.05; **p<0.01.

Regression Analysis of Cortisol and SEI

In this regression analysis, we examined the relation between the afternoon cortisol measure (CORP) to SEI, APP, and CORA. Results presented in Table 2 provide regression estimates and indicate the unique effect of each variable on the dependent variable. The regression indicates that the increase of CORP is associated with the implementation of SEI, a decrease in children's "Approach" score, and a decrease in children's CORM.

Table2. Regression Equation Predicting Afternoon Cortisol Level (n=129), R2=0.51 (p<0.001)

	B	SE	β	Sig.
SEI	0.063**	0.018	0.213	0.001
CORA	0.210*	0.092	0.153	0.019
APP	-0.149**	0.015	-0.636	0.000

Notes. SEI=Structured English Immersion; CORA= morning cortisol level; APP=Approach score.

*p<0.05; **p<0.01.

Regression Analysis of Cortisol and DAP

In this regression analysis, we examined the relationship between the afternoon cortisol measure

(CORP) to DAP, APP, and CORA. Results in Table 3 show that the increase of CORP is associated with a decrease of DAP, a decrease in children's "Approach" score, and a decrease in children's CORA.

Table3. Regression Equation Predicting Afternoon Cortisol Level (n=129), R²=0.49 (p<0.001)

	B	SE	β	Sig.
DAP	-0.004*	0.002	-0.132	0.043
CORA	0.202*	0.094	0.141	0.034
APP	-0.149**	0.016	-0.623	0.000

Note. SEI=Structured English Immersion; CORA= morning cortisol level; APP=Approach score.

*p<0.05; **p<0.01.

Discussion

The results of the present study suggest that both structured English immersion (SEI) and the developmental appropriateness of the classroom are associated with an afternoon increase of cortisol activity in kindergarteners. Holding children's biological and temperamental differences constant, children in the structured English immersion program tend to exhibit a rise of cortisol in the afternoon. Similarly, holding children's variables constant, the level of less developmental appropriateness of the classroom is associated with the rise of cortisol in the afternoon. Moreover, confidence in the findings is increased by our ability to rule out several competing explanations. Both children's temperament and morning cortisol level were not associated with the implementation of SEI or less DAP of the classrooms. Thus, the most parsimonious interpretation of our findings was that something about SEI or DAP resulted in an afternoon increase in cortisol levels.

However, as SEI and low DAP are highly correlated, we cannot rule out the possibility that the link between cortisol increase and SEI may reflect the effect of instructional method - the developmental inappropriateness of the instruction. As the SEI programs in Taiwan are currently developmentally inappropriate, whether children in a more developmentally appropriate SEI program would still have high stress response needs further research.

Similar to studies conducted with children in center-based childcare in the U.S. (Tout et al., 1998; Dettling et al., 1999), child temperament was associated with an afternoon increase in

cortisol. Kindergarteners who were more internalizing were more likely to exhibit the inverse pattern of normal cortisol production regardless of being in either SEI or regular programs. Therefore, it seems likely that the influence of temperament was universal and had an additive effect with SEI or DAP in producing inverse patterns of cortisol production in kindergarteners.

Based on the study results, our conclusions and suggestions are: 1) the Taiwanese structured English immersion classes are related to developmental inappropriateness and children's physiological stress response, but the mechanism accounting for the stress is not clear and needs to be studied in future research, 2) classroom DAP accounts for significant variation in children's stress behavior and thus could be considered as an important criterion in implementing young children's English education, and 3) children's individual differences in shyness and interest in new things are related to their stress response and need to be considered in curriculum designing and adult-child interactions.

Since the extent of curriculum DAP is related to young children's stress response, we recommend English teachers consider DAP principle as a reference for curriculum design and evaluation criterion of young children's English education. Curricula for young children need to be based on what is known from research about child development and how young children learn (Bredekamp & Copple, 1997). Organizations like National Association of Education for Young Children (NAEYC) in the U. S. have advocated and documented the benefits of DAP for many years. Early childhood English teachers need to refer to the DAP principles and offer young children engaging classroom experiences that are relevant to their lives, full of hands on activities and interactive experiences, and promoting active learning and deep understanding.

Moreover, a DAP curriculum for young children is child centered and embraces children's individual differences. This study suggests that individual differences in temperament characteristics of young children, especially the tendency of approach or withdrawal, influence stress response and need to be especially considered by English teachers in adult-child interaction and curriculum design. Temperament differs from other learning-related individual attributes such as intelligence or motivation; it refers to how but not how well children respond to the demands in the classroom. Nevertheless, temperament differences affect the nature of children's experiences in the classroom and contribute to the ways they approach learning tasks and their relationships with teachers and peers (Keogh, 2003).

Awareness of children's temperament help educators anticipate problems and intervene when

necessary. According to Keogh (2003), strategies for working with shy or children with withdraw responses include: (1) spend your time and attention equitably on these children compared with their classmates, (2) develop a daily schedule that provides consistency and familiarity to classroom activities, and alert students to upcoming changes in classroom daily routines (3) be available to help early in the assignment and signal students regarding how much time remains to complete assignments, (4) let students become involved at their own speed, especially in group activities, (5) choose student's work partners carefully; don't overwhelm a shy child with an active, intense, or quick-responding partner, and (6) encourage children; don't push.

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A Study of High School Students' English Learning Anxiety

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Abstract

Considered to be an important affective variable, anxiety has been found to be correlated with English-learning achievement among different groups of people in various contexts. In order to explore high school students' English learning anxiety in Chinese EFL (English as a Foreign Language) classrooms, this study surveyed and analyzed 115 students from a high school in Shandong Province, China. The results indicated that students indeed had comparatively high anxiety in English learning. Males have higher anxiety of English classes than females. And it was also found that high anxiety plays a somewhat debilitating role in high school students' language learning. Finally, the possible causes leading to such findings were discussed, and some suggestions for reducing students' anxiety in classrooms were proposed for teachers.

Key words: English learning anxiety, high school students, gender.

Introduction

It has been observed that some students in English classrooms experience anxiety that results in stuttering and fast heart-beating. These phenomena, all of which are attributed to a psychological state - anxiety - have been the research focus of many linguists and psychologists in recent years. Anxiety has been regarded as one of the most important affective factors that influence second language acquisition. Much research (e.g., Bailey, 1983; Horwitz, Horwitz & Cope, 1986; MacIntyre & Gardner, 1994; Young, 1991), especially in western countries, has been conducted to find the relationship between anxiety and achievement in the learning of different foreign languages. Most studies (e.g., Horwitz, 1986; MacIntyre & Gardner, 1994) arrived at a

conclusion that anxiety and achievement are negatively correlated. In China, similar research has also been conducted with different groups of people. Most of them, however, were college students. High school students, who are still at a comparatively low level of English proficiency and thus more easily experience a feeling of uneasy suspense (Rachman, 1998), are overlooked by most researchers. In this paper, the author endeavored to bridge this gap to find out the situation of this neglected group's English classroom anxiety through a study conducted in a key middle school of Shandong Province .

Literature Review

Anxiety, simply speaking, is a kind of troubled feeling in the mind. It is a subjective feeling of tension, apprehension, nervousness, and worry associated with an arousal of the automatic nervous system (Horwitz, 1986). Usually anxiety is classified into trait anxiety, state anxiety and situation-specific anxiety. Trait anxiety, as Scovel (1978) noted, refers to "a more permanent predisposition to be anxious" while state and situation-specific anxiety are usually experienced in relation to some particular event or situation (Brown, 2001). Language anxiety, the research target of this paper, belongs to the last category, which refers to the apprehension experienced when a situation requires the use of a second language with which the individual is not fully proficient (Gardner & MacIntyre, 1993).

With the shifting of research focus from teachers to learners in SLA (Second Language Acquisition), affective factors, such as attitudes and motivation, were thought to account a lot for language learning outcomes. Anxiety, as a very important affective factor, has been considered very important, and many studies have been undertaken to explore it since the 1970s.

The major concern of the earlier studies was the causes of language anxiety. As early as 1983, Bailey, through the analysis of the diaries of 11 learners, had found that competitiveness can lead to anxiety. Besides, he (1983) found that tests and learners' perceived relationship with their teachers also contributed to learners' anxiety. These three aspects that Bailey identified were supported in subsequent studies, especially in Young's study. According to Young (1991), there are six potential causes of language anxiety which include personal and interpersonal, learner beliefs about language learning, instructor beliefs about language teaching, instructor-learner interactions, classroom procedures and language tests. From this list we can see that Young, in fact, identified the causes from three aspects, that is, the aspects of learners, teachers and

instructional practice, to which Bailey's findings also complied. However, to date, findings by Horwitz, Horwitz and Cope (1986) have been the most influential. They identified three causes of language anxiety, that is, communication apprehension, test anxiety and fear of negative evaluation. Based on these three components they also designed a Foreign Language Classroom Anxiety Scale including thirty-three items. This scale was later widely used by researchers to measure foreign language learners' anxiety and examine the effect of anxiety on learning in different contexts.

When we explore the effect of anxiety on learning, an important insight to which we can refer is the distinction between debilitating and facilitative anxiety (Alpert and Haber, 1960). Up to now most studies have shown a negative relationship between anxiety and language achievement, that is to say, anxiety is a debilitator in language learning. Krashen (1985) once held in his affective filter hypothesis that high anxiety will prevent input that learners receive in the classroom from reaching the language acquisition device. Horwitz (1986) also asserted that language anxiety can cause students to postpone language study indefinitely or to change majors. MacIntyre and Gardner (1994), based on a study of 97 college students that learn French, concluded that compared with more relaxed learners, those with anxiety find it more difficult to express their own views and tend to underestimate their own abilities. They also found that in the three stages of language acquisition, that is, input, processing and output, anxiety and learning achievement are negatively correlated. Moreover, there have also been some studies conducted to find the negative correlation between anxiety and four aspects of language learning, especially speaking and listening. For example, MacIntyre and Gardner (1991) found that speaking is by far the main agent of anxiety-arousal, and that students with high anxiety perform worse than those with low anxiety. However, there have been some studies which found neutral and positive relationships between anxiety and second language achievement. Also, in Bailey's (1983) study of competitiveness and anxiety, it was found that facilitative anxiety was one of the keys to success, and closely related to competitiveness. In Zhang Baoyan's (1996) study of English learners in Taiwan, the results showed that there was no relationship between anxiety and learning achievement. So, from these studies it can be seen that the relationship between anxiety and achievement is probably not a simple linear one. It may be influenced by some other factors, such as culture and learners' proficiency.

In mainland China, there have also been some studies conducted in the Chinese context to

explore the relationship between anxiety and achievement (Lei, 2004; Tang, 2005; Wang, 2003; Xue, 2005). Most of them employed Horwitz's FLCAS (Foreign Language Classroom Anxiety Scale) and found a negative correlation. Going through these studies, it was found that the subjects participating in the studies were mostly college students. High school students who were at the critical stage of foreign language learning and may experience more anxiety in this process, however, were neglected. This study, therefore, was intended to examine the general situation of high school students' foreign language anxiety and the effects of anxiety on FL (Foreign Language) learning. As well, a comparison of male and female students' language anxiety was examined.

Methodology

Subjects

The subjects of the study were 115 second-year high school students (56 males and 59 females). They were from a science class and an arts class of a high school in Shandong Province.¹ Their average age was 16. They all had 5-8 years of experience of English learning.²

Instruments

Two instruments were used for this study. They were a questionnaire assessing students' anxiety level and an achievement test.

The questionnaire consisted of two parts. One was intended to collect personal information of the participants, such as their name, age, gender, etc. The other was the Chinese version of FLCAS that was designed by Horwitz (1986). This questionnaire consists of 33 statements, of which 8 items were for communication anxiety (1, 9, 14, 18, 24, 27, 29, 32), 9 items for fear of negative evaluation (3, 7, 13, 15, 20, 23, 25, 31, 33) and 5 items for test anxiety (2, 8, 10, 19, 21). As for the remaining 11 items, they were put in a group which was named anxiety of English classes. The respondents were asked to rate each item on a five-point Likert scale ranging from 1 ("strong disagreement") to 5 ("strong agreement").

The test used to assess students' English achievement was the final exam administered at the end of the semester. The test paper included five parts: multiple choice, cloze, reading comprehension, error correction and writing, which were intended to assess students' overall ability in language use. All testing items were drawn from a test bank, which ensured the

reliability of test paper.

Data Collection

The questionnaire was administered to 60 science students and 60 arts students. 119 copies were collected back and 115 replies were found statistically valid. Only the students from the science class supplied their English scores of the final exam.

Data Analysis

SPSS (Statistical Product and Service Solutions) 13.0 was employed to analyze the data. Firstly, descriptive analysis was performed to compute the means and standard deviations for each item and each kind of anxiety to see the general situation of high school students' anxiety in English classrooms. Secondly, t-tests (t distribution tests) were employed to see if there were any differences in language anxiety between male students and female students. Then correlational analysis and t-tests were conducted to find out the effects of anxiety on English achievement.

Results & Findings

The general situation of high school students' anxiety in English classrooms

The results of the descriptive analyses showed that there were 16 items whose means were above 3.00. And of all the statements the 9th one had the highest index of 3.6579. The mean of the anxiety indices of all the subjects in English classrooms, as Table 1 shows, was 2.9310 which indicated that the high school students indeed had the feeling of anxiety in their English classrooms. Moreover, through the computation of means and standard deviations of each kind of anxiety, it was found that students' fear of negative evaluation, the mean of which reached 3.1828, was especially serious. Among the 16 items whose mean values were higher than 3.00 there were 7 statements concerning it, especially item 3, the mean of which was as high as 3.6579.

Table 1 The Overall Situation of High School Students' Anxiety in the English Classroom

Anxiety Variables	Mean	Standard Deviation
Communication Apprehension	2.8865	.48557
Fear of Negative Evaluation	3.1828	.76055
Test Anxiety	2.7737	.71570
Anxiety of English Classes	2.7412	.66185
English Classroom Anxiety	2.9310	.60911

The comparison of males and females' English classroom anxiety

Table 2 shows that in terms of either the general English classroom anxiety or each specific kind of anxiety, males' means were always higher than females, which indicated that males may experience more anxiety than females in English classrooms. But the results of t-tests (Table 3) showed that there were no significant differences between males and females in most anxiety variables except that of English classes ($p=0.026 < 0.05$).

Table 2 Males and Females' English Classroom Anxiety

Anxiety Variables	Gender	Mean	Standard Deviation
Communication Apprehension	Male	3.1899	.61061
	Female	3.0386	.66748
Fear of Negative Evaluation	Male	3.2137	.83637
	Female	3.1535	.68776
Test Anxiety	Male	2.9055	.69587
	Female	2.6508	.71784
Anxiety of English Classes	Male	2.8838	.65992
	Female	2.6061	.64037
English Classroom Anxiety	Male	3.0119	.62022
	Female	2.8580	.59556

Table 3 The Comparison of Males and Females

Anxiety Variables	t-value	Significance of t-value ($p < 0.05$)
Communication Apprehension	1.221	0.225
Fear of Negative Evaluation	0.407	0.685
Test Anxiety	1.920	0.057
Anxiety of English Classes	2.251	0.026*
English Classroom Anxiety	1.246	0.216

The relationship between anxiety and English achievements

The results of the correlation analysis indicated that anxiety and English achievement were only correlated in terms of test anxiety. And they were negatively correlated (-.277, $p=0.039 < 0.05$). It was noted that the coefficient of anxiety for English classes was -0.232 which approached the significant level of -0.25. Therefore, the students from the science class were divided into two groups according to their English scores in the final exam. A t-test was then employed to see if there were any significant differences in the anxiety of English classes between these two groups. The results of the analysis supported the hypothesis that was proposed above. It was found that

anxiety of English classes indeed affects high school students' English achievement ($p=0.037<0.05$).

Table 4 The Correlation of Anxiety and English Achievement

Anxiety Variables	Correlation Coefficient	p-value (<0.05)
Communication Apprehension	-.102	0.458
Fear of Negative Evaluation	-.099	0.477
Test Anxiety	-.277*	0.039
Anxiety of English Classes	-.232	0.085
English Classroom Anxiety	-.226	0.104

Discussion

The existence of language anxiety in English classrooms

Similar to the findings of Tang's study (2005) among college students, this study indicated high school students indeed had the feeling of anxiety in their English classrooms. And they experienced more fear of negative evaluation. The reasons for such results can be explored from two aspects. One aspect is closely related with high school students themselves. The other mainly deals with some external factors. In the aspect of students themselves, the existence of anxiety should firstly be attributed to their English proficiency, which was not high enough to allow them to communicate with others freely, express themselves adequately in class and answer teachers' questions properly. So, in English classrooms where much communication is needed, high school students are more anxious than in other classes. Secondly, it is the cultural tradition that Chinese people care much about their faces, so they don't like to receive low evaluations or criticism about themselves. This is the reason why they experienced more fear of negative evaluation than any other kind of anxiety. Moreover, during high middle school, the stress of the national examination for college entrance and the serious competition among students also causes some students to pay more attention to others' strong points and their own weak points, which results in the arousal of anxiety.

As for the external factors, the reasons should first come from the large context of English learning in China. Research has indicated that contact with the people and culture of the target language could reduce anxiety (Tang, 2005). However, although China has become more and more open to the world, and many foreigners have come to China in the past thirty years, most English learners, especially high school students, seldom have opportunities to communicate with native speakers of English. Thus, high school students tend to experience more anxiety in

English classrooms. Moreover, most Chinese teachers in middle schools overwhelmingly emphasize reading and writing, while paying less attention to listening and speaking. The existence of anxiety in English classrooms can also be ascribed to classroom atmosphere (Wang, 2003). In most Chinese EFL classrooms, teachers play the role of controller or dominator. Students usually feel nervous or oppressed. Consequently, they lack a free, relaxed environment for English learning. Finally, another factor that cannot be overlooked is the high expectations of Chinese parents for their children. Such high expectations usually do not encourage students, but often result in more anxiety.

Males have more anxiety of English classes than females.

In general, females are thought to be more adept in language learning than males. Female students usually score higher than male students in English exams. Therefore, it is not hard to imagine that females are more confident in their abilities to learn a new language well. Once they gain faith in their capabilities, they will be more ready to “approach threatening situations” (Dörnyei, 2001) in English classrooms. On the contrary, males, who have higher frequency of language learning failure, are inclined to attribute their bad performance in English classes to their low ability. Consequently, they are more anxious about English classes.

However, as English is a compulsory testing subject of the college entrance exam in China, students all exert themselves to study it. Though males show less aptitude for English than females, great effort helps to make up a lot for it. Moreover, now in English classes teachers try to provide equal opportunities to students. More experience of English use will reduce their anxiety about it. Therefore, generally the gap between males and females is not very large now. In many English tests the highest scores were attained by some male students. That is the reason why no significant differences were found between them, though males’ means were a little higher than females.

Anxiety plays a debilitative role in language learning.

According to the results of the study, test anxiety and anxiety of English classes were significantly correlated with high school students’ English achievement. In terms of the other factors, although the relationship was insignificant, the coefficients were all negative. Thus, it can be said that anxiety plays somewhat a debilitative role in language learning.

Actually, the finding of the negative role of anxiety has been noted in many previous studies, e.g., Horwitz (1986), MacIntyre and Gardner (1994), Tang (2005). Usually, high anxiety can make learners get discouraged, lose faith in their abilities, escape from participating in classroom activities, and even give up the effort to learn a language well. Therefore, the learners with high anxiety often get low achievement. And low achievement makes them more anxious about learning.

Another notable finding of the study was the significant correlation between English achievement and test anxiety, anxiety of English classes. In China, high school students usually spend most of their time on English learning in classrooms. Each student usually has 6-8 English classes each week. Moreover, compared with college students, they usually take more English tests. A high school student usually takes a test every three units. And in each term they at least have two large-scale exams – a mid-term exam and a final. Therefore, some students with poor English achievement were anxious about, or even discouraged by English classes and tests.

Conclusion

This paper has presented some findings of high school students' anxiety in Chinese EFL classroom. It was found that most students experienced anxiety in classrooms, especially the fear of negative evaluation. Male students were found to have higher anxiety of English classes than females. Moreover, it was also found that anxiety is a debilitator in language learning, especially anxiety of tests and English classes.

Given the situation that anxiety is prevalent in Chinese high school English classrooms, teachers must pay more attention to it. Besides preparing properly for teaching, teachers should take the affective factors of students into consideration (Zhang & Chang, 2004). First of all, they can try to create a relaxed atmosphere for students, which can make them feel safe to speak or express their views. Secondly, teachers should avoid negative evaluation of students in classrooms and comment on students' behaviors with more encouragement. Thirdly, teachers, together with our schools, should take some measures to relax students' attention on exams, such as eliminating the ranking of students by their test scores. Finally, teachers can also explicitly tell students the inevitability of the existence of anxiety in English learning and let them know that anxiety can be reduced through the self-regulation of their thinking and study. Although teachers can make use of the above-mentioned means to help students to overcome their anxiety in

English classrooms, teachers should not try to help students get away from anxiety completely. Much research indicates that adequate anxiety plays a positive role and can motivate students to maintain their efforts on learning. Therefore, the teachers' real job is to help students keep adequate anxiety, neither too high nor too low.

As the study was only conducted in one school, more research is needed to support the findings and to find more about high school students' anxiety in English classrooms.

Notes

¹ In China, students have different tracks after they study one or two years in high middle school. Classes are divided into science classes and arts classes. Students in arts classes will have a humanities track while those in science classes will have a science track. Moreover, they will have different testing subjects in the college entrance exam, though Chinese, English and math are compulsory testing subjects for either group of students. After entering college, they are also required to major in either natural science or social science according to the track they follow in high school. In this study, quantitative methods were used to assess if the two groups of students were different in English learning anxiety. No significant results were obtained. Therefore, this part was not added to the article.

² In China, students from rural areas mostly begin to study English in the first year of junior middle school, and thus have studied English for 5 years; students from urban areas have begun English study from the third or fourth year of primary school, so most of them have had 7-8 years of contact with English. Most subjects of this study were from urban areas. Therefore, it is difficult to find out if there are some differences between the two groups in English learning anxiety, and further study is needed.

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Appendix:

English version of FLCAS (Foreign Language Classroom Anxiety Scale)

1. I never feel quite sure of myself when I am speaking in my foreign language class.
2. I don't worry about making mistakes in language class.
3. I tremble when I know that I'm going to be called on in language class.
4. It frightens me when I don't understand what the teacher is saying in the foreign language.
5. It wouldn't bother me at all to take more foreign language classes.
6. During language class, I find myself thinking about things that have nothing to do with the course.
7. I keep thinking that the other students are better at languages than I am.
8. I am usually at ease during tests in my language class.
9. I start to panic when I have to speak without preparation in language class.
10. I worry about the consequences of failing my foreign language class.
11. I don't understand why some people get so upset over foreign language classes.
12. In language class, I can get so nervous when I forget things I know.
13. It embarrasses me to volunteer answers in my language class.
14. It would not be nervous speaking in the foreign language with native speakers.
15. I get upset when I don't understand what the teacher is correcting.
16. Even if I am well prepared for language class, I feel anxious about it.
17. I often feel like not going to my language class.
18. I feel confident when I speak in foreign language class.
19. I am afraid that my language teacher is ready to correct every mistake I make.
20. I can feel my heart pounding when I'm going to be called on in language class.
21. The more I study for a language test, the more confused I get.
22. I don't feel pressure to prepare very well for language class.
23. I always feel that the other students speak the language better than I do.
24. I feel very self-conscious about speaking the foreign language in front of other students.
25. Language class move so quickly I worry about getting left behind.
26. I feel more tense and nervous in my language class than in my other classes.

27. I get nervous and confused when I am speaking in my language class.
28. When I'm on my way to language class, I feel very sure and relaxed.
29. I get nervous when I don't understand every word the language teacher says.
30. I feel overwhelmed by the number of rules you have to learn to speak a foreign language.
31. I am afraid that the other students will laugh at me when I speak the foreign language.
32. I would probably feel comfortable around native speakers of the foreign language.
33. I get nervous when the language teacher asks questions which I haven't prepared in advance.



Preparation for Long-Term Overseas Study: Toward an Integrated Approach

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Bio Data:

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Abstract

Student interest, institutional movement for internationalization, and competition by schools for a decreasing student population have provided impetus for the development of long-term overseas study programs for Japanese university students. This study aimed to determine an appropriate list of needs and goals and a practical comprehensive conceptual framework for preparation programs for long-term overseas study for Japanese university students. Qualitative methods were used, principally consisting of interviews with student participants, interviews with educator expert-practitioners, my participant-observations as a researcher/program coordinator/instructor, and the analysis of data from administrative records. A list of needs and goals and an overarching conceptual framework were determined. The conceptual framework indicated the usefulness of categorizing needs, goals, and entailed approaches into three overlapping, interacting domains: Cognitive/Academic, Linguistic, and Sociocultural. Some curricular and pedagogic implications are proposed.

Keywords: Preparation for long-term overseas study, curriculum design, needs analysis, conceptual model of instruction.

Introduction

The interview data of this study were collected during the first year of a three-year project at a Japanese university. The university had a history of international academic exchange. Selection of candidates, logistical arrangements, and administration of academic exchanges and overseas

study were managed by a center designated for that purpose. The university had formed an intention to execute a large-scale restructuring and capitalize on the institutional experience and the connections of the center for international exchange to foreign schools by establishing a new school within the university. The new school was to embody two principal concepts. It was to be the equivalent of a small North American style liberal arts college within the university. It was also to be international in three aspects: major courses in the new school were to be conducted in English; ideally, half the enrollment was to be non-Japanese international students; and the students of the new school were to be given the opportunity to study for one year at a foreign university. Despite participation in one year of overseas study, the students were to be allowed to graduate in the standard four years. Historically at Japanese universities, long-term overseas study under any auspices had resulted in the addition of at least a fifth year to a student's undergraduate career. For three years, I acted as coordinator of English language instruction and curriculum development for two preparatory programs for Japanese students to engage in overseas study.

The Across Borders Program (ABP) was the context within which this needs analysis was conducted. The spring preparatory term was 12 weeks in duration. The goal was to have about 30 students participate in each annual cycle. Three EFL instructors each conducted five 90-minute class sessions per week within this preparation phase of the program. The students also took one or both of two comparative culture courses in specialty areas, one in the social sciences and one in the humanities. Each of these courses was team-taught by one instructor from the home institution and one from the host institution in North America. After completion of the preparatory phase, the students went to the host institution in North America as a group, accompanied by one specialty area instructor from the home institution. They were to study at the host school for seven to eight months. They participated in ESL courses and had the opportunity to take regular courses in the other departments of the host school with local students. On acceptance to the ABP, most students had paper-based TOEFL scores of around 500 or below. Ordinarily, these scores would have made them ineligible for long-term overseas study because of institutional requirements. Subsequently, they were required to achieve minimum paper-based TOEFL scores of 530 by the end of the first term of overseas study to remain in the program at the host school in North America. Failure to do so was to result in their early return to Japan.

The success of the ABP, which was a somewhat supported program in which the sojourners were accompanied to the host institution by a professor from the home institution in Japan, was said to be instrumental for the purpose of attaining consensus and authorization to convert the center that managed international exchanges and overseas study into a new school of liberal arts within the university. The new school was projected to have an inaugural class of 800 students in the first year.

Toward an Integrated Approach to Overseas Study

Previous research has looked at a variety of variables and correlations in regard to overseas study for linguistically and culturally native Japanese sojourners. Researchers have sought to measure and evaluate linguistic gains (Yamamoto, 1993; Asai, 1997; Geis & Fukushima, 1997). Researchers have also sought to analyze a possible correlation between linguistic proficiency and reported cross-cultural adjustment (Nishida, 1985; Diggs & Murphy, 1991; Gudykunst, 1991; Yashima & Viswat, 1991, 1993; Yashima & Tanaka, 1996). Yashima (1999) investigated a possible correlation between a personality trait, extroversion, and cross-cultural adjustment. Possible correlations between personality traits and cross-cultural adjustment were previously proposed by researchers in a general overseas study context not specific to Japanese (Hammer, Gudykunst, & Wiseman, 1978; Ruben & Kealey, 1979). Some researchers have propounded an academic approach that emphasizes English for Academic Purposes (EAP) instruction in academic skills as a form of English for Specific Purposes (ESP) for overseas study preparation programs for Japanese over instruction in general English as a Foreign Language (EFL) (Drake, 1997; Geis & Fukushima, 1997; Shooltz & Yuricich, 2000). A principally linguistic approach to be implemented in tandem with social skills instruction has also been advocated (Yashima & Tanaka, 1996; Yashima, 1999). Several researchers have chosen to investigate the overseas study experiences of Japanese high school students, rather than university students (Churchill, 2003; Shooltz & Yuricich, 2000; Yashima, 1999; Yashima & Viswat, 1991; Yashima & Viswat, 1993). Some have chosen to study the short-term, one semester or less in duration, overseas study experiences of Japanese (Yamamoto, 1993; Drake, 1997; Geis & Fukushima, 1997; Isbell, 1997; Churchill, 2003;). Some have concentrated on the experiences of Japanese engaged in long-term overseas study, which is defined as seven months or longer in duration for the purposes of this paper (Jones, 1997; Rosen, 1997; Yashima, 1999; Shooltz & Yuricich, 2000). Within the context

of long-term overseas study for Japanese, some researchers have concentrated on a predominately anthropological approach to cross-cultural adaptation (Jones, 1997; Rosen, 1997; Stapleton, 1997).

Coleman (1997) presented a landmark meta-analysis of academic literature relevant to the overall overseas study experience: preparatory, overseas, and return phases. He took a socio-psychological perspective in the tradition of Gardner and Lambert (1972) and discussed a range of individual variables that had been presented in the previous literature. These variables were categorized as affective, cognitive, biographical, linguistic, and circumstantial. Affective variables included motivation, attitudes, anxiety, personality, and acculturation and culture shock. Cognitive variables included aptitude, learning style, and learning strategies. The variable that was termed biographical was sex. The two linguistic variables under discussion were initial proficiency level and degree of interaction. Circumstantial variables consisted of type/role and others. The type/role variable referred to the institutional characteristics and status of the placement, for example foreign student, teaching assistant, or intern. Other circumstantial variables included the availability of an L1 social group, urban/rural environment, and type of accommodation (i.e., university residence, private dwelling with a family, school apartment, flat shared with other learners of the target language). The type of accommodation is often outside the control of the sojourner.

In this taxonomic scheme, issues of personal, social, and cultural adjustment are subsumed under the categories of affective variables and circumstantial variables. Despite this dispersion, the author does take sociocultural issues into account in his conclusion about the preparation phase, especially in the third element that he listed:

The preparation needs to comprise, in addition to practical advice and direct language tuition, four components. Firstly, students need to recognise the role of trait variables: motivation, aptitude, and, especially, learning style/personality. Secondly, students need to develop self-awareness, to recognise their own learning style, including elements such as ego boundaries and risk-taking, and their preferred strategies. Thirdly, students need to be sensitised to less stable variables, especially attitudes, and to be helped to develop, through deep understanding of cultural relativity and acculturation, intercultural competence, accompanied by the observational techniques necessary to fulfill the role of participant observer. Fourthly, in order to develop the essential learner autonomy, students must acquire three types of learning strategy: cognitive strategies relating to language learning; affective strategies to manage anxiety and to reduce language and culture shock; and above all metacognitive strategies to enable them to select appropriate strategies and

behaviours in the light of knowledge of their own objectives and their own cognitive and affective make-up. (p. 15)

Rosen (1997) described a course designed for Japanese students who were studying at a Japanese college in the UK, some of whom were preparing for entering graduate school at British universities. In his introduction to this course, the author presented the following summation of approaches to cross-cultural communication, a summation that also holds true for the field of long-term overseas study as a whole:

Generally speaking, research in the field of cross-cultural communication seems to have taken one of three approaches: 1) linguistic, 2) anthropological, or 3) psychological. A linguistic approach naturally looks at communication as a rule governed process of signification. An anthropological approach would focus less on language structures and more on cultural meanings; viewing communication as the expression of cultural ideologies, cosmologies, or world views. The psychological perspective, which usually adopts a cognitivist orientation, is concerned with showing how perceptual schemata frame our experience of the world and our transactions with it, and how this relates to particular emotional needs and personality orientations. (p. 25)

To successfully conduct the ABP, the situation dictated providing a theoretically sound conceptual framework for the curriculum, as well as guidelines explicating some crucial practical applications of it for actual instruction. For designing a comprehensive, practical framework for instituting and maintaining a large-scale preparation program, to adopt only one approach, which has often been the norm in the previous research literature, is inadequate. Each approach, and each of the studies mentioned above, has merits that should be synthesized and utilized in the development and delivery of preparation programs. From the outset it was evident that these approaches would need to be used in conjunction with one another in an integrated way to enable achievement of the objectives of the programs.

Though the previous linguistically, anthropologically, and psychologically based research studies mentioned above consider a range of variables and contexts, the foci of this project were specific. The focus was on the preparation phase, not the arrangement and execution of the overseas experience itself. The focus was on university students, not high school students. The focus was on long-term study, not short-term. The focus was on learner needs, as well as institutional needs. The majority of the sojourners would lodge in dormitories, and not with host families. Of course, the repercussions of the sojourners being native speakers of Japanese and

members of Japanese culture would also need to be taken into account.

Research Questions

The following research questions guided this project:

1. What would be appropriate program and learner needs and goals for a long-term overseas study preparation program for Japanese university students that would effectively mediate role expectations, result in academic success and linguistic gains, and promote cross-cultural adaptation?
2. What is a theoretical and practical conceptual framework consistent with the needs and goals that could be used for organizing long-term overseas study programs for Japanese university students? What does this framework entail?

These issues hold implications for Japanese university educators and administrators who design and participate in long-term overseas study programs, non-Japanese educators and administrators who design and participate in such programs, and Japanese university students who aspire to take part in long-term overseas study, especially in Anglophonic cultures.

Research Methods and Analyses

This investigation employed qualitative methods to ascertain the needs of the learners from the *emic* perspectives of the significant participants of the community of practice of one overseas study program. It is based primarily on participant observations and expert-practitioner intuitions, as well as the participant-observations of the researcher. The interview data were collected by recorded, relatively unstructured, semi-directed interviews. Credibility, dependability, and confirmability were achieved by triangulation of sources modeled on the description of Long (2000).

There was an additional inspiration and touchstone for this study. *The Harvard Guide to Happiness* (Zernika, 2001) has attained great currency on the World Wide Web. Originally published in a newspaper as a book review, it is now used by several prestigious North American universities in their freshman orientation programs. Many institutions have posted the text on their websites. This book review is a synopsis of a book entitled *Making the Most of College: Students Speak Their Minds* (Light, 2001). This book reports the on 10 years of interviews with 1600 Harvard students. Though the crucial issues facing long-term international students,

including Japanese, are even more complex than those of the general student population, the investigation done at Harvard delineates many core issues that Japanese university students studying in North America must address, and it provided a useful groundwork for this study.

Design

Participants

The largest group of participants in the interviews of this investigation consisted of five Japanese undergraduate university students, two females and three males, of a cycle of the ABP. They had completed one 12-week semester of preparation at their university in Japan. Subsequently, they studied for approximately seven months at a state university in North America. They took ESL courses, specialty area courses in the humanities and social sciences team-taught by Japanese and non-Japanese professors under the auspices of the overseas study program, and various courses (e.g., Mandarin, African-American History, Gender Issues, and Marketing) in assorted departments of the North American university that were conducted by non-Japanese professors. The Japanese international students were integrated with the native students in their elective non-ESL courses. Before the preparatory course, their TOEFL scores were below 530 according to the paper-based scoring system. Upon completion of the preparatory course, all their scores were above 530 in the paper-based scoring system. TOEFL improvements on the scale for the Paper-Based Test were as follows: 493-547, 480-533; 520-530; 527-577; 507-550. The first scores were current before April 1, the date the 12-week one semester preparatory phase began. The second scores were from the results of retests that were recorded before June 30, when classes for the preparatory phase in Japan concluded. The students subsequently departed for the host institution in North America and returned to Japan after approximately seven months. The interviews took place after their return to Japan. In the preparatory phase, they had also completed a full-length (10-page minimum) research paper on a sociopolitical topic of their own choice in the style of the *Publication Manual of the American Psychological Association* (2001). They had completed all ESL and non-ESL courses in Japan and in North America successfully. They participated in the interviews after they had returned to Japan and resumed their regular studies at the university. By self-report, these individuals successfully resolved all significant problems in cultural adjustment they experienced. They all evaluated their overall overseas study experience as positive.

In addition to the students, two professors were interviewed, one Japanese and one non-Japanese. The Japanese professor had more than 30 years experience in the design, administration, and instruction of overseas study programs. He also had the experience of being an international student himself who completed a graduate degree in North America, and subsequently in his career he conducted courses in ESL, EFL, JFL, JSL, phonology and morphology, and was an internationally renowned teacher-trainer and speaker. The non-Japanese is a North American specialist in Latin-American history who, through experience as a university vice-provost, administrator, and educator, had accumulated more than 10 years of direct involvement in designing, implementing, and conducting programs for international students, including Japanese. He also participated in a summer overseas study program in a Latin American country as an undergraduate. His participation in the ABP as an instructor had brought him to Japan. These professors provided invaluable information and were the most experienced and authoritative expert-practitioners accessible to the researcher.

The Interview Procedures

The interviews were recorded using a Sony MZ-R900 Portable Mini Disc Recorder, and were transcribed to be in accord with *Jefferson's Transcript Notation* as explicated in Atkinson and Heritage (1991). The participants were encouraged to talk freely and allowed to speak as long as they desired. To allow for free expression of opinions, the interviews were initiated, conducted, and concluded in a relatively open, semi-directed way. The informants were first prompted in a general way to talk about their international experiences. They were then asked to discuss their own specific, personal experiences in the context of particular overseas study programs. The interviewer then elicited information on what factors, knowledge, and abilities the informants deemed crucial to successful overseas study. The informants were then asked what factors were crucial for successful overseas study in North America for Japanese university students. Finally, the informants were asked for any comments they thought would be pertinent to the investigation, or useful for current and future international students and other participants in such programs. The collected data then underwent iterative qualitative analysis by the researcher.

Discussion

Needs and Goals

In this section I provide a list of curricular needs and goals. For the purpose of discussion, I categorize the needs and goals into three overlapping, interacting domains: cognitive/academic, linguistic, and sociocultural. These categories were derived from analyses of mandates handed down by administrators to the researcher in the capacity of the coordinator of language instruction for the preparatory program, requirements set by the home and host institutions, informal discussions with colleagues and students, and the recorded and transcribed interviews with participants and veterans of long-term overseas study programs.

Several evident needs were projected from analyses of the interviews and the other sources. Within the context of the internationalization of higher education in Japan and Japanese society in general, and the overall progression of globalization, students will be required to successfully study overseas and increase their understanding of international and cultural affairs, with the ultimate purpose of fulfilling global roles and responsibilities in the modern world. Preparatory programs for long-term overseas study should not only provide students with opportunities and logistical support for study and travel, but also with the intellectual skills, linguistic abilities, and cultural competencies requisite to survive, participate, and succeed on the international level, regardless of what field of academic specialization they may choose.

The following also takes into account that, except perhaps on the most elementary level, the teaching of language mandates the mediation of informational content. Conversely, the teaching of informational content entails the mediation of language. These two factors are interdependent and mutually supportive. The attributes of the needs of the learners pursuing overseas study, and their more remote goals, are the same in language courses, specialty area courses within overseas study programs, and in non-ESL and ESL courses at the host schools.

In the context of the movement for the internationalization of education in Japan, institutions are charged with providing a practical, holistic, interdisciplinary, international education to students. It is necessary that the process of curriculum development be conducted in accord with the aims of this mission. Both language courses and specialty area courses in the humanities and social sciences conducted in preparatory programs for non-native English speakers to study in Anglophonic areas should be designed and implemented with common curricular goals and

course characteristics in mind, and should be assessed by consistent, integrated criteria in regard to the presentation of language, task, and content.

Program goals should be pervasive throughout the curriculum, both in language courses and courses in other disciplines, and predicated on the immediate, imminent, and eventual needs of the students. A list of the most apparent and important goals indicated by an analysis of the collected perspectives of the participants, the needs evoked by the target tasks, the intended, the ultimate objectives of such programs, and the observations of the researcher follows:

- Cognitive/Academic Needs
 - Knowledge of contemporary social and political issues of international concern (This knowledge is not only necessary for academic work in many of the social sciences and what is often termed *global citizenship*, but also serves as a medium to engage in social interactions and exercise and refine Basic Interpersonal Communication Skills.)
 - Familiarity with the concept of a multidisciplinary approach to analysis and resolution of social and political problems
 - Familiarity with organizations that participate in international activities and related texts and agreements
 - Knowledge of rhetorical organization and devices, argumentation, and the use of evidence
 - Development of logical reasoning skills (applied practice of techniques of analysis from various disciplines and value systems from various schools of thought to specific issues)
 - Ability to recognize classic logical fallacies
 - Awareness of individual learning style preferences and meta-cognitive language learning and use strategies
 - Skills and strategies for succeeding on standardized tests
 - Achievement of Information and Communications Technology literacy (useful for both academic and personal purposes)
- Linguistic Needs
 - Proficiency with the generic academic lexis of English
 - Ability to take accurate notes of English spoken at an authentic speed

- Capacity in formal written composition in English (timed and untimed)
- Competence in the conventions and techniques of public speaking and formal discussion native to the formal academic context of the host culture
- Capacity to perform extensive reading (both skimming for gist and scanning for detail as appropriate to the task at hand)
- Competence in functional and conversational English language skills (Basic Interpersonal Communication Skills) (This includes competence in pronunciation, grammar, and language in social context (pragmatics), and supports everyday coping, communication with and understanding of members of the host culture, and academic activities.)
- Sociocultural Needs
 - An understanding of ethnographic techniques of data collection and analysis for the purpose of understanding social meaning and practice and ultimately transcultural adaptation enabled by knowledge of the values, attitudes, and beliefs of the host culture (This usually calls for learner research projects. Projects typically entail journal, field notes, interviews and surveys of members of the other cultural group, and cultivation of key informants. Projects can often be integrated into other formal academic studies, including foreign language studies.)
 - Knowledge of some of the dichotomous scales commonly used in ethnologic (contrastive) cultural analysis (e.g., individualist-collectivist, universalist-particularist, direct-indirect communication style, low-high power distance, achieved-ascribed status).

Combinations of these needs and goals may be addressed in individual courses, and if the availability of resources permits, particular courses may be dedicated to individual goals. Brinton, Snow, and Wesche (1989) have described three types of content-based second language courses: theme-based instruction, sheltered content instruction, and adjunct instruction. Curricular goals of these three domains could be embedded in theme-based language courses conducted by individual EFL instructors. They could also be embedded in sheltered content courses team-taught in the same classroom by combinations of specialty area and EFL instructors for mixed groups of international students and regular students of the host institution. Adjunct

courses are also an option. They are linked in language and content to specialty area courses conducted in the target language, but they are separate courses conducted by EFL professionals for non-native speakers. In the initial stages, developing sheltered and adjunct courses in teams with specialty area experts is probably necessary. Examples of such courses in a preparatory phase for Japanese students might include English Debate of Issues in Contemporary Japanese History, English Oral Presentations on Human Rights Issues, Practical English for Cultural Studies, Writing up Cultural Research in English, English for Area Studies, Writing up WWW-Based Research of English Commentaries on Contemporary Japanese Politics, and Literature as a Window to Culture. It would be useful for teachers to compile portfolios of such courses that include an explanation of the conceptual framework of the course, a description of the finished product of the course, a description of the materials to be used, and a time line for achieving the finished product. Brown and Wolfe-Quintaro (1997) describe the compilation and utility of portfolios with the teachers themselves as the subjects. A logical extension of this idea is for teachers to assemble portfolios of the courses they teach. Though the possibilities of potential courses are numerous, the availability of sufficient temporal and material resources and numbers of qualified, able teachers would be vital.

Pedagogical Implications

These needs and goals hold several implications for specialty area and language course design, implementation, and assessment, and are enumerated below: These implications are consistent with the concepts of the sociocultural theory of cognitive development and task-based learning. They are also supported by analyses of the participant/expert-practitioner interview transcripts.

- Courses should be interactive. Within a range appropriate to the purposes of the course, learners should be given the option of selecting the kinds of texts, the level of difficulty of language, and what kinds of topics they will use for their study. Student input should affect the way the course of instruction proceeds. Learner autonomy should be actively promoted.

It has been shown that there is substantial evidence from cognitive motivational studies that learning success and enhanced motivation is conditional on learners taking responsibility for their own learning, being able to control their own learning and perceiving that their learning successes and failures are to be

attributed to their own efforts and strategies rather than to factors outside their control. (Dickinson, 1995, p. 173)

- Courses should be task- or project-based. Richards, Platt, and Platt (1992) proposed task-based learning is more effective than a syllabus organized around items of grammar and vocabulary because it provides the learner with a reason for using the language. The conceptual framework, purpose, and goal (finished product) of a task should be clearly defined. Time frames should be explicitly articulated. Procedures to accomplish the task should be explained in detail and liberally modeled. Examples of the completed task should be exhibited to the students, if possible. By maximizing individual choice of topic and content within an appropriate range of relevance to course goals, tasks should encourage personal investment and creativity by the learners, and ensure that sustained active engagement with the language and content of the course is required. It is also desirable that tasks be designed to require analysis and integration of language and information obtained individually or collectively outside the classroom.
- Courses should not impose an arbitrary, artificial distinction and separation of language and content. All instructors should mediate both to facilitate learning.
- It would be useful to compile portfolios for all language and specialty area courses. The portfolios would include artifacts (course descriptions, handouts, narrative descriptions of activities, samples of students' work, etc.) that would indicate the course's conceptual framework, informational content, physical products, tasks, research projects, activities, and language. The purpose of collecting such materials would be for coordination and development of curricula in the long term.

The movement for internationalization and the expansion of overseas study programs poses challenges as well as opportunities. Coordinators and curriculum developers must have access to sufficient time and resources. Moreover, each and every participating educator should function as a coordinator and curriculum developer. Promoting stability, coping with flux, personal investment, institutional investment, time appropriate and equitable faculty and staff workloads, planning, facilities, and personnel are all factors critical to success.

Discrepancies and Resolutions

The interviews confirmed that Japanese university students in general, and specifically those

who have participated in long-term overseas study, highly value being taken care of and attended to by their non-Japanese teachers. They also placed a high premium on academic literacy, for example, writing, reading, and presentation and discussion skills. They also stressed the importance of the social ability to make friends with members of the host culture, especially their peers.

The North American educator/administrator emphasized the importance of international students having logical reasoning skills, being self-motivated, and actively questioning the ideas and concepts presented by their teachers. He also accentuated the significance of everyday, practical coping skills. The Japanese educator/administrator focused on English language skills in a skill-oriented way (e.g., pronunciation, grammar, and vocabulary for the purpose of actual communication, both for social interaction and academic work). Despite the participants' sometimes disparate beliefs, values, and perceptions, as is also the case in the quest for knowledge and in the learning process itself, the needs, tasks, and goals they mandate for the overseas study curriculum fall along a spectrum of three domains, with the poles being cognitive and social, and with linguistic issues being pervasive throughout the scale.

Successful long-term overseas study can be addressed by proposing the analogy of the student as researcher. The students can be encouraged to see themselves as apprentice researchers, with a successful transcultural, academic experience, in all its cognitive and social complexity, being the research object. Such a vast and complex research object implies triangulation of sources of data collection, methods of data collection and analysis, and research approaches. Lincoln and Guba (1985) posited that researchers who operate in a qualitative, naturalistic mode could not access a quantitative approach and its entailed methods and designs, because design in qualitative naturalistic inquiry is emergent and not pre-specified. The possibility of the existence of a researcher with such a pristine mental state is doubtful. That aside, however, I am not advocating that researchers and apprentice researchers try to maintain both respective states of mind and employ the methods and designs of both quantitative and qualitative modes of inquiry simultaneously. I am promoting that the use of both modes inquiry in tandem is implied to pursue an object of inquiry in direct proportion to the magnitude and complexity of that object. Every research issue, *in situ*, requires its own unique combination of research approaches, methods, and sources that would be most effective. In a Hegelian sense, to resolve the internal and external contradictions of these approaches, thusly, researchers, and

apprentice researchers, including students who are preparing for or engaging in long-term overseas study, should be able to access a synthesis of the quantitative and qualitative traditions to good effect (see Figure 1).

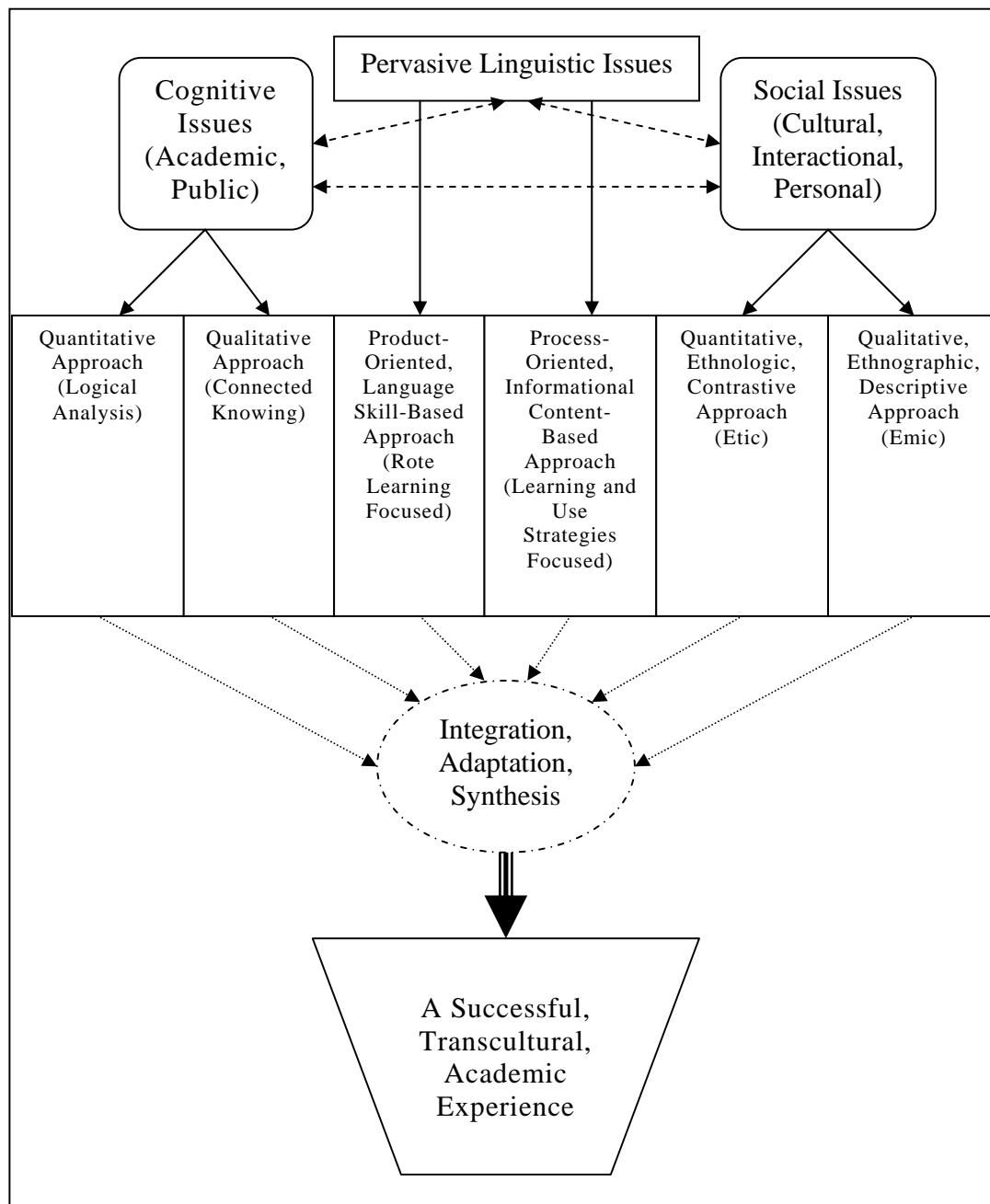


Figure 1. The Spectrum-Tree of Approaches for Successful Long-Term Overseas Study.

Taylor (1975) explicates a Hegelian perspective on this kind of situation:

For in Hegel's most important ontological dialectic, the *Logic*, we shall see that the contradictory conceptions whose dialectic we follow really apply. They correspond to contradictory realities, which as such show their dependence on a larger whole which the categories describe. In other words the contradictions in our conception of reality will not be overcome by *resolving* them into a vision free of contradiction, but rather by seeing that they reflect contradictions in reality which are reconciled in a larger synthesis. (pp. 131-132)

In regard to the particular situation under consideration here, in the Cognitive/Academic Domain, the quantitative approach of *logical analysis* common to formal academic contexts in Anglophonic cultures sits in complement to the qualitative approach of *connected knowing*, which is said to be more natural to members of a Japanese culture that is often described as collectivistic in orientation and high-context and indirect in communication style (Storti, 1999). In the Linguistic Domain, the *product-oriented, language skill-based* approach traditionally implemented in junior and senior high school in the formal educational system of Japan sits as a counterpart to the *process-oriented, content-based* approach that has subsequently gained much currency in the community of educational practitioners. Ballard (1996) spoke to the connection between the Cognitive/Academic Domain and the Linguistic Domain in problems overseas student commonly experience:

Overseas students cling tenaciously to the learning strategies that have worked so well for them in the past. They assume that hard work correlates with success, and so if they do poorly in an early test in a course they are prepared to work even longer hours to improve their grade—the problem is that they are working in a reproductive rather than analytical style...[therefore]...their difficulties lie in the disjunction of expectations about the styles of learning that are required and the excuse of poor language competence merely glosses over these more basic problems. (p. 155)

In the Sociocultural Domain, the anthropological *ethnologic, contrastive* approach has given rise to a resultant *ethnographic, descriptive* approach. In the context of long-term overseas study by Japanese university students, it is not salient for the participants to try to resolve the internal contradictions within each of these approaches or the external contradictions among these approaches. It is necessary for the participants to have a metacognitive awareness of these domains and approaches in relation to the complex objective of a successful transcultural, academic experience, and to select, and synthesize if necessary, elements from these approaches

that may be effective at a particular time to accomplish specific tasks essential to the objective. Thus, this *larger synthesis* can make the objective of successful long-term overseas study in all its complexity attainable. In addition to presentation to the students for the purpose of consciousness-raising, the integrated comprehensive conceptual framework of the Cognitive/Academic, Linguistic, and Sociocultural domains of the preparation for overseas study educational enterprise that is presented in Figure 1 is a framework that can also be used to guide research, curriculum design, instruction, allotment of resources, and staffing of personnel.

Approaches to Social and Cultural Issues

Interculturalists have produced many useful readers, guides, workbooks and other instructional materials to prepare individuals to engage in intercultural communication and cultural adaptation. Some focus on particular demographic groups, such as students, wives, businesspersons, government employees, military personnel, or missionaries. Others focus on specific geographical areas or cultural groups. They usually start from the premise that:

Culture is the shared assumptions, values, and beliefs of a group of people which result in characteristic behaviours. This definition captures two essential points about culture: that it has an invisible dimension (assumptions, values, and beliefs) and a visible dimensions (behaviour) and that these two dimensions relate to each other as cause and effect, respectively. (Storti, 1999, p. 5)

It is possible that, for the purpose of practicality, this definition discounts a cyclical, recursive part of a process in which behavior and social practice affects assumptions, beliefs and values. Be that as it may, many such books introduce basic concepts of the intercultural field, including individualism and collectivism; monochronic and polychronic concepts of time; direct and indirect communication styles; and high and low power distance. Though the presentation of such concepts is profitable and probably necessary, it is problematic if they are presented in a fixed and excessively dichotomous way, which will promote overgeneralization and stereotyping. Workbooks usually employ self-reflective questionnaires, discussion of scenarios, quizzes, and role-plays as activities.

Granted the utility of the quantitative, ethnologic approach, it is also indispensable for Japanese international students to have a rudimentary knowledge of and practice in qualitative, ethnographic data collection and interpretation techniques. This can compensate for the somewhat static, impersonal flavor imparted by the tendency of the ethnologic approach to

assign fixed positions to particular cultures along dichotomous scales of constructs, and serve to highlight the dynamic, situational, co-constructed, personal nature of culture. Apprentice researchers and future transculturals should be familiar with journal writing, cultivation of key informants, participant-observation, field notes, interviews, surveys, and concepts like thick description, triangulation, and social practice. In addition to the possible benefits in the understanding of culture, ethnographic activities can afford opportunities for target language practice. Many university students in Japan have access to international students or other communities of Anglophonic cultures. Those who do not can reap the benefits of this knowledge after arrival in the host culture.

Approaches to Cognitive/Academic Issues

The student interviewees stressed the important role academic skills, such as writing, reading, presentation, and discussion skills had played in their overseas study experiences. They also focused on the rhetorical organization of written and spoken classroom discourse. The American educator/administrator interviewee talked about the importance of what were referred to as *critical thinking* skills. This educator also put emphasis on students being self-motivated, actively engaged, and on their questioning of the ideas of others.

It is very advantageous for Japanese university students preparing to study overseas to receive explicit instruction in and liberal modeling of tasks that include the use of concepts of logical reasoning such as inductive reasoning, deductive reasoning, syllogisms, and fallacies. They should also have a chance to examine and practice rhetorical organization common to the host culture. A conventional rhetorical organization of Japanese culture, *ki-shou-ten-ketsu*, is somewhat similar to the Anglophonic structure of introduction (thesis), body (support), and conclusion (summary) in some aspects, but the differences are crucial and it is necessary to demonstrate them.

As pointed out by Atkinson (1997), a pedagogical approach of *cognitive apprenticeship* through modeling and coaching holds much promise:

Cognitive apprenticeship is based on the notion that all significant human activity is highly situated in real-world contexts—and that complex cognitive skills are learned in high context, inherently motivating situations in which the skills themselves are organically bound up with the activity being learned and its community of expert users. (p. 87)

He related guidelines for instruction in accord with cognitive apprenticeship based on previous writings in the field. The guidelines trace three stages of learning: demonstration and modeling of goal-centered activities in context; assisted, coached, and scaffolded practice in a nonjudgmental environment; and gradual removal of scaffolding and expert guidance to achieve learner independence. This implies that rote learning of inventories of language learning and use strategies, critical thinking skills, and intercultural differences will be neither efficient nor effective for preparing Japanese university students for long-term overseas study. The pedagogical implications are that a traditional product-oriented pedagogy should be supplemented by a process orientation; conventional language skill-based instruction should be complemented by informational content-based instruction; and that practice of rote learning should be augmented by focus on the active management of learning strategies, in other words, metacognition.

Generally, though they are subject to uncertainties, insecurities, and instabilities, Japanese university students who study long-term in Anglophonic cultures are not what one usually thinks of as an oppressed minority. Also, they are self-nominated. Nevertheless, it is necessary to be sensitive to issues of cultural imperialism and domination. Kubota (1999) offered profound advice in this regard:

The dominant linguistic and cultural codes, however, should not be taught based on colonialist or assimilationist discourse or purposeless exercises of copying, filling out worksheets, and memorizing. Such practices, observed in ESL classes in U.S. schools by MacKay and Wong (1996) and Valdes (1998), prevent learners from investing in their learning and from developing a critical understanding that no particular culture or language (or variety of a language) is superior to others, that learning the dominant cultural and linguistic codes does not have to mean sacrificing one's cultural and linguistic heritage, and that the learner can appropriate the dominant linguistic and cultural codes in order to advocate cultural and linguistic equality in the wider society. (p. 29)

The goal of explicit explanation, extensive modeling, and guided practice of the host culture's style of logical analysis and rhetorical structure and techniques should not be to convert the student to an alternate form of thinking or discourse. The purpose of such pedagogy should be to impart metaknowledge. Gee (1992) explained, "Metaknowledge is power, because it leads to the ability to manipulate, to analyze, to resist while advancing. Such metaknowledge can make "maladapted" students smarter than "adapted" ones" (p. 117). In other words, conscious

awareness and management of logic, rhetoric and one's own individual learning preferences can empower those participating in long-term overseas study to overcome the unique cognitive, linguistic, and cultural challenges they face in contrast to peers who are members of the local culture.

Connected knowing is an empathic, holistic, contextually sensitive approach to gaining understanding. Clinchy (1994) explained, "the voice of connected knowing is narration" (p. 39). She then used a quotation from Bertrand Russell to elaborate:

Two things are to be remembered: that a man whose opinions are worthy of studying may be presumed to have had some intelligence, but that no man is likely to have arrived at a complete or final truth on any subject whatever. When an intelligent man expresses a view that seems to us obviously absurd, we should not attempt to prove that it is somehow true, but we should try to understand how it ever came to seem true. (p. 40)

Academic literature suggests that Japanese may be at a comparative advantage relative to connected knowing due to the indirect, high context communication style of their native culture as contrasted with other cultures. This is an asset that should not be discarded by long-term overseas study participants for the purpose of assimilation to the host culture. Rather, it should be valued as a source of knowledge and a resource that can support cultural adaptation, with the proviso that it is unlikely that members of other cultures will construct perceptions of phenomena in the same way, or at least to the same degree.

Conclusion

The requisite cognitive, social, and language skills and competencies for successful long-term overseas study for Japanese university students in Anglophonic cultures are multifarious. Metaknowledge of the spectrum of accessible approaches and methods for gaining understanding of the cognitive/academic, linguistic, and sociocultural domains, the principal approaches to them, and the competencies they entail is truly critical, in the word's sense of meaning as crucial, for ameliorating the essential tasks and achieving desired goals.

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A Developmental Analysis of a Concept Map, Speech, and Gesture

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Abstract

This study explores the synthesis of gesture, speech, and a concept map as these are used for summarizing academic text by an adult non-native speaker of English who was an MATEFL (Master of Arts Teaching English as a Foreign Language) student at a university in northern Thailand. Specifically investigated is the spontaneous development of gestural signs that acquire symbolic meaning over short periods of time (i.e., microgenesis), and how these gestural signs are related to the concept map, speech, and cognition. Results demonstrate the effectiveness of using a developmental approach to the data and the linguistic categories of figure, ground, path, and manner to infer features of cognition. Findings have implications for using gesture for assessing language proficiency and isolating specific types of difficulties non-native speakers may have with the English language (e.g., lexical, grammatical). Data illustrate how gesture works with other mediational means (i.e., concept maps) to support communication.

Key Words: gesture; microgenesis; graphic organizers; Vygotsky; private speech; thinking for speaking

Introduction

Since the late seventies, graphic organizers, also known as key visuals in some of the research (Mohan, 1986), have been used to integrate language learning and content knowledge in mainstream, English-dominant curriculum. Following success in mainstream curriculum, graphic

organizers became a part of ESL and EFL curriculum (English as a Second Language; English as a Foreign Language) (Peregoy & Boyle, 2001; Robinson, 1998). Common examples of graphic organizers include concept maps, Venn diagrams, matrices, tree diagrams, information flow-charts, and KWL charts (Merkley & Jeffries, 2000). For this study, a concept map was the most prominent graphic organizer (see Figure 1). A concept map prompts learners to write words and phrases in circles, ovals, or other shapes. These shapes are then connected with linking words and lines, thus reflecting a meaningful, visual/semantic arrangement of vocabulary and concepts (Novak & Gowin, 1984).

The focus of this paper is on the interrelated, supportive features of a concept map, gesture, and speech (in English) of Chou, a native speaker of Chinese and teacher of English from southern Yunnan, People's Republic of China. Data were part of a larger study that took place in a Master of English as a Foreign Language (MATEFL) program at a university in northern Thailand. The most salient features of data were the semiotic contrasts provided by the gestures, oral English language, and the concept map.

Purposes/Objectives of the Study

By using a developmental approach to the data; that is, by focusing on the unfolding synthesis of three representational systems (i.e., gesture, speech, and the concept map) as these are displayed by video and audiotapes, the genesis of human activity with objects, language, and other interlocutors can be investigated "right before one's eyes" (Vygotsky, 1978, p. 61; see also Werner, 1978). The data of Chou for this paper also illustrate how a developmental approach to language interactions can be used for identifying specific areas of learner tensions with the target language (i.e., tension between the learner and mediational means such as language and the use of visual displays) (Wertsch, 1998). Moreover, this study demonstrates how students and teachers of language can more clearly identify and understand how they and other interlocutors transform gestures, words, and other media from the immediate surroundings into semiotic resources (Van Leeuwen, 2005)



Figure 1: A concept map created and used by Chou as the only reference for an oral summary of an academic text about human senses (see Appendix One for the full transcript). Chou held this concept map in one or both hands as she summarized the article.

A variety of issues about gesture, language, and cognition addressed in prior research (e.g., Kita, 2000; McNeill, 1992; McNeill & Duncan, 2000; McCafferty, 2004; Stam 2002) were encountered during the present study. These issues include how gesture provides a window into cognition (McNeill, 1992), how gesture is used as a type of thinking for speaking (McNeill & Duncan, 2000), and how gesture can be used to identify specific moments of linguistic tensions and transformations in the speaker's use of English during a presentation using a concept map.

From these broad issues, the following research questions guided the study:

Question One: How did gesture exemplify figure, ground, path, and manner (i.e., motion events), and using the motion event as a unit of analysis, was there any gestural evidence in a shift in thinking for speaking in the data?

Question Two: How did gesture and the concept map support and/or constrain Chou's English language and overall content during this oral presentation?

Theoretical Framework

Many of the key points of Vygotsky's theories are well known. Those most relevant for the present study include mediation, signification; a related term that takes a wider and more semiotic approach to the communicative context: semiotic resources (Van Leeuwen, 2005), and a number of terms related to understanding transformations in thinking for speaking (McNeill, 2000): inner speech, private speech, the psychological predicate, and the notion of Growth Points.

Mediation is generally understood as the use of concrete objects and abstract signs, including gesture, to monitor and/or regulate mental activity (Wertsch, 1998; Wells, 1999). From this perspective, signs and symbol-systems (e.g., mathematical formulas, video games, and language) are crucial to human learning and development (Vygotsky, 1978; 1986; see also Gee, 2003). Foundational to understanding mediation is the process of signification, which is also a central concept in the field of semiotics (Chandler, 2002).

Vygotsky (1978) presented signification as the process of assigning meaning to an object; thus, creating a sign, such as tying a string around one's finger to remember something. The string is now transformed into a sign that connects the abstract mental world with the world of objects; that is, the string is now a semiotic resource for mediating mental activity, in this example, the activity of remembering.

Semiotic resources can be generally understood as those "actions" and "objects" that gain meaning during social communication (Van Leeuwen, 2005, p. 4). These actions and objects have a "theoretical semiotic potential" and an "actual semiotic potential" (*ibid*). Theoretical semiotic potential is "constituted by all their [the actions and objects] past uses and all their potential uses" (*ibid*). The actual semiotic potential is construed by users of the resource and "by such potential uses as might be uncovered by the users on the basis of their specific needs and interests" (*ibid*) This process of signification; that is, creating semiotic resources, occurs on two dynamically linked planes of development, the interpsychological plane (between people) and the intrapsychological (within a person) (Vygotsky, 1981; Wertsch, 1991, 1998).

Foregrounding Chou's gesture as it co-occurred with the English language and the concept map provided an interesting glimpse into this signification process, specifically, moments of gesture as private speech; that is, speech for oneself (McCafferty, 1994; Wertsch, 1979), which became an important semiotic resource to complete goal-directed activity. Chou's goal was to

complete a specific literacy activity: the summarization of academic text.

Gesture, Private Speech, Inner Speech

This study drew heavily on gesture research from McNeill (1992), McNeill and Duncan (2000), and McCafferty (1998; 2000; 2004). The term gesture is used in a slightly different way for this study than by McNeill (1992) who cited Kendon's (1988) parameters on gesture as a continuum. On this continuum, gesticulation occupies the left extreme and sign language occupies the right extreme. McNeill (1992) described gesticulations as "spontaneous and idiosyncratic gestures that occur while one speaks" (p. 36). Gesticulations are in contrast to emblems (e.g., making a culturally specific obscene gesture with the hand) or sign language, which is to the right of gesticulation and emblems on Kendon's continuum (Kendon, 1988; McNeill, 1992).

Overall, the gestures presented in this paper are slightly different from the gesticulations presented by McNeill (1992), McNeill and Duncan (2000), and McCafferty (1998; 2000; 2004). Chou's gestures are less spontaneous because they were generated in the context of a pre-planned oral presentation in which a concept map was positioned as a semiotic resource to support communication in the English language. In addition, the majority of the data from McNeill's and McCafferty's work were generated by narrative recall, pictures prompting narratives, or conversation. Most important for the present study, the concept map provided a unique influential contrast to oral language and gesture. This contrast highlighted moments of private speech and inner speech.

The term private speech (Wertsch, 1979) is used to distinguish Vygotsky's (1986) ideas about egocentric speech from those of Piaget. Egocentric speech is the well-known phenomenon of children talking to themselves while they are playing or involved in other problem-solving activity. For Piaget, egocentric speech disappeared as children developed; for Vygotsky, egocentric speech developed into private speech, or speech for oneself, which is important for mediating cognition. In other words, talking to oneself during problem-solving activity becomes important in the context of goal-oriented activity. Closely related to private speech is inner speech.

The three main semantic characteristics of inner speech are "agglutination, the preponderance of sense over meaning, and the influx of sense" (Wertsch, 1979, p.79). A fourth syntactic feature of inner speech is known as the psychological predicate (Wertsch, 1985; 1991). A frequently

cited example of the psychological predicate is the occasion of people waiting for a bus to approach. They will not bother to say an entire sentence such as "The bus for which we are waiting is coming" (Vygotsky, 1986, p. 236). They will say "coming" or something similar (Vygotsky, 1986, p. 236); this expresses the changing nature of context and thought (McNeill, 1992).

McNeill (1992) and others (e.g., McCafferty, 1998; McNeill and Duncan, 2000) have used gesture to infer private speech and the psychological predicate. In previous research on gesture, Vygotsky's notion of inner speech has been linked to private speech and gesture in native and non-native speakers of English, including students of English as a Second Language (Lantolf, 2003; McCafferty 1998, 2002, 2004; McCafferty & Ahmed, 2000).

Relevant Literature

There are many books and journal articles investigating gesture and language from a variety of perspectives. The most relevant articles for this study are those that investigated language and gesture with theoretical frameworks related to the work of Vygotsky. This includes the notion of a growth point, and that gesture is a type of thinking for speaking (McNeill & Duncan, 2002). Though not directly related to Vygotsky's work, Kita's (2000) Image Packaging Hypothesis is also reviewed.

Growth Points, Motion Events, and the Relationships between L1s and Gestures

McNeill and Duncan (2000) identified a specific point in the utterance called a growth point (GP) (see also McNeill, 1992). Growth points are comparable to Vygotsky's psychological predicate described earlier (Wertsch, 1985; 1991). They can be found by focusing on "speech-gesture synchrony and co-expressivity" (McNeill & Duncan, 2000, p. 144). Growth points, as these are expressed through gesture, mark "a significant departure in the immediate context" and "implies this context as a background" (p. 145). McNeill and Duncan (2000) used GPs to infer a type of thinking for speaking, which "refers to how speakers organize their thinking to meet the demands of linguistic encoding on-line during acts of speaking—what Saussure (1959) termed *parole* rather than *langue*" (p. 141).

In order to illustrate the relationship of a speaker's L1 and gesture, McNeill and Duncan (2000) presented examples of the GP in Georgian, English, Spanish, and Chinese through a

specific semantic domain, called the motion event (Talmy, 1985; 1991). The motion event is an important concept for the present study and other studies reviewed (e.g., Negueruela, Lantolf, Jordan, Gelabert, 2004; McCafferty, 2004).

Citing Talmy (1985; 1991), and using an example of a cartoon character (Tweety bird) stuffing a bowling ball down and inside a drain pipe in which another cartoon character (Sylvester) is climbing up (also inside), McNeil and Duncan (2000) describe the major components of a motion event: figure, ground, path, and manner. A moving object, called the ‘figure’ as in, “drops it down,” where the “it” indexes the bowling ball, the object in motion; A reference object, called the ‘ground’, as in “drops it down the drain-pipe,” where the downward trajectory occurs in relation to a non-moving object, the drainpipe; A trajectory, or ‘path’, as in “drops it down,” where the bowling ball moves on a downward trajectory; A ‘manner’, as it “it rolls down,” where the motion is performed in a certain way. (McNeil and Duncan, 2000, pp. 148-149).

Another important feature of classifying figure, ground, path, and manner is how different languages present motion events (McNeill & Duncan, 2000). For understanding this feature of language, McNeill and Duncan used Talmy’s notion of verb-framed languages and satellite-framed languages (Talmy, 1985; 1991, as cited in McNeil and Duncan, 2000).

Slobin (2003), provided the following examples in distinguishing French, a verb-framed language, with English, a satellite framed language:

- a. The dog went into the house
- b. Le chien est entré dans la maison en courant.

"The dog entered the house." (Slobin, 2003, p. 162)

Slobin (2003) argued that “English frames path by means of a satellite (in); French “frames” path by means of a verb (entrer) (emphasis in original, Slobin, 2003, p. 162). The other example that Slobin (2003) provides is how manner of motion is coded in English as compared to French:

- a. The dog ran into the house
- b. Le chien est entré dans la maison en courant.

"The dog entered the house by running." (Slobin, 2003, p. 162)

In comparing the codibility of path and manner (i.e., motion events) between English and French, Slobin (2003) described path as highly codable for both English and French. He also described manner as highly codable for English and other satellite-framed languages, such as

Mandarin Chinese, which is relevant for the present study. However, for verb-framed languages, such as French and Japanese, Slobin (2003) described manner as “an adjunct—an optional addition to a clause that is already complete” (Slobin, 2003, p. 162).

McNeill and Duncan (2000) found gestures for the Chinese speaker to be different than gestures used by English and Spanish speakers. For Chinese, there was a noticeable delay between where the gesture falls and the motion verb to which it refers. McNeill and Duncan (2000) proposed a specific type of thinking for speaking for Chinese because speakers of Chinese frame topics, in contrast to English, which is “founded on subject-predicate relations” (McNeill and Duncan, 2000, p. 153). McNeill and Duncan (2000) borrowed two terms from Li and Thompson (1976, 1981, as cited in McNeill and Duncan, 2000): “topic prominent” for Chinese, and “subject prominent” for English (McNeill and Duncan, 2000, p. 153). “The hallmark for this Chinese pattern is a gesture that occurs earlier in the temporal sequence of speech than the timing facts of English and Spanish would lead us to expect” (*ibid*, p. 152).

Overall, for a Chinese speaker as contrasted with an English speaker, the following five differences can be expected (four of these differences were gleaned from McNeill and Duncan, 2000; the fifth difference is from McNeill, 1992): 1) gesture does not necessarily co-occur with the verb; 2) a delay between the verb and gesture, sometimes a several-word delay; 3) the gesture of those with English as the L1 coincide more with the grammatical predicate than those with Chinese as the L1; 4) because Chinese has a large number of manner verbs, like English, it is expected that Chinese will also emphasize manner; and, 5) metaphoric gestures known as container metaphors (McNeill, 1992) are uncommon for Chinese speakers. The container metaphor is described as a metaphoric gesture with an idea presented as if in a container, and this container is then given or offered to the listener (McNeill, 1992; McNeill & Duncan, 2000).

Another important finding for the present study from McNeill and Duncan’s (2000) research is the notion of Growth Points as “points of departure from the preceding discourse what Vygotsky called psychological predicates (as opposed to grammatical predicates)” (McNeill and Duncan, 2000, p. 145) (see also McNeill, 1992). Equally important was the way McNeill and Duncan (2000) demonstrated the effectiveness of using the categories figure, ground, path, and manner, to analyze thinking for speaking patterns (see also Negueruela, Lantolf, Jordan, & Gelabert, 2004).

Before proceeding to other studies investigating the GP and related features of speech and

gesture, it is necessary to review categories of gesture from McNeill (1992). These categories were adopted for the present study and are relevant to other studies reviewed.

Categories of Gesture

The major categories for the gestures in the present study were iconic, metaphoric, beats, and deictic gestures. Categories were derived from semiotics, specifically the work of C.S. Peirce (Peirce, 1931, cited in McNeill, 1992), one of the founders of semiotics and American pragmatics (Dillon, O'Brien & Heilman, 2000). In addition, the broader category of illustrator (Argyle, 1998) was useful to describe the overall representational role of gestures (see also McCafferty, 2002).

Iconic gestures are very similar to the semantic content of speech. An example would be to describe a church steeple by bringing the hands and fingertips together to form a steeple while saying "steeple" (McNeill, 1992).

Metaphoric gestures create a kind of contained space, as if the speaker were holding or containing something. For example, a speaker might tell you about two sides of an argument for a multi-story parking garage. The speaker would spread her hands slightly above her waist. She would do this on the left side of her body for the pro side of the argument; then move her hands in this gesture space (between the chin and waist) to the right side of her body while she presented con sides of the argument. This is called, splitting the gesture space (McNeill, 1992; see also McCafferty & Ahmed, 2000).

Another type of gesture is beats: "Beats are so named because they look like beating musical time" (McNeill, 1992, p. 15). McNeill (1992) explained that beats are noticeable for their two movements of "in/out, up/down, etc" (*ibid*, p. 15). Beats have a distinctive pragmatic function such as when the discourse shifts and/or when the speaker wants to emphasize a particular word or phrase (McNeill, 1992). For example, a speaker might say "However, that sentence is convoluted for good reason". You might see the speaker make a short up and down movement with one or both of her hands on "however", "sentence", and "convoluted".

Deictic gestures point somewhere. McNeill (1992) provided the example of an abstract deictic gesture of a man sitting down and saying, "Where did you come from before?" (*ibid*, p. 114). The man points to a space between himself and the interlocutor. For the present study, a distinction between abstract and concrete deictic gestures is made. If the gesture refers to the immediate context or closely refers to an object, such as a speaker pointing to her nose when she

says “I can’t smell”; this is a concrete deictic gesture. This is not to be confused with a gesture designating a specific area within metaphoric space (Kita, 2000; McCafferty, 2004), which is labeled an abstract deictic.

A final category for the present study was illustrator. “Illustrators add considerably to the amount of information conveyed by speech, especially about shapes, physical objects, and spatial relations” (Argyle, 1998, p. 195). McCafferty (2002) described an illustrator he called a “splash” gesture, which was “used by the speaker to provide an imagistic realization of the accompanying verbalization” (McCafferty, 2002, p. 197).

An Actional View of Gesture

Kita (2000) used some of these categories to describe and propose types of thinking that underlie representational gestures. Kita’s (2000) proposal is called the Information Packaging Hypothesis. To generate this theory Kita analyzed the way manner was coded by eleven Japanese Speakers and eleven English speakers when they recounted the interactions of cartoon figures. Again, this was Sylvester the cat trying to catch Tweety Bird.

Kita’s (2000) main argument is that there are two types of thinking underlying representational gestures: analytic thinking and spatio-motoric thinking (for Kita, 2000, representational gestures are iconic gestures and abstract deictic gestures). Kita (2000) describes analytic thinking as linguistic and non-linguistic, including scripts. Most important, analytic thinking does not necessarily involve any information from the senses. “Analytic thinking organizes information by hierarchically structuring decontextualized conceptual templates (henceforth analytic templates)” (Kita, 2000, p. 164).

Spatio-motoric thinking is a way of organizing “information with action schemas and their modulation according to the features of the environment” (Kita, 2000, p. 164). People move through the environment deciding direction, noticing and following objects with their eyes, picking up a tool perhaps and letting their hands run over the different features, opening and closing the tool, testing the pressure necessary for a controlling grip (*ibid*). Kita (2000) proposed that, “spatio-motoric thinking can be applied to the virtual environment that is internally created as imagery. Representational gestures are actions in the virtual environment” (*ibid*, p.165). In other words, humans have sensing bodies that move through the world, and this is foundational to the images humans create. Images involving spatial relationships and physical sensations are

important for thinking.

This notion of language as embodied and the links between the physical environment and human cognitive systems is a part of the grand debate over the separation of the mind and body; that is, Cartesian dualism (Varela, Thompson, & Rosch, 1991; McCafferty, 2002, 2004). It is beyond the scope of this paper to cover all the facets of this argument; however, by recognizing language and gesture as tools for regulating human cognition (Wertsch, 1985; Kozulin, 1998), the perceived border between the external world of the body and the internal world of the mind collapses (Kozulin, 1998; John-Steiner & Meehan, 2000). The data with Chou in the present paper supports this notion of language as embodied, as well as some of the positions Kita (2000) takes with the Information Packaging Hypothesis. These findings will be presented and discussed later in the paper.

Gesture, the L1, and the L2

Two studies investigating the relationship of gesture and thinking for speaking in a first language (L1) and second language (L2) are McCafferty (2004) and Negueruela, Lantolf, Jordan, and Gelabert (2004). First, McCafferty's (2004) study is presented. This study provides support for Kita's (2000) notion of language and gesture as embodied, particularly in the way gesture reveals speakers physically positioning themselves in a virtual world as they speak and gesture. Following McCafferty (2004), Negueruela et al (2004) is reviewed. Although there are differences in these studies, both took similar Vygotskian approaches to the data and both focus on situations in which motion is important. Finally, Vygotskian studies that look at relationships between gesture and L2 learning are presented.

McCafferty (2004) investigated the relationship of gesture and language with a Taiwanese student and an American graduate assistant who was a native-speaker of English (the same participants as McCafferty, 2002). McCafferty's (2004) focus was on the intrapersonal use of gesture, specifically, "the use of gesture and space as a self-organizing form of mediation for L2 learning" (McCafferty, 2004, p. 149). Clearly evident in McCafferty's (2004) study is the way spatio-motoric thinking played a strong facilitative role for cognition and communication.

The data were collected while participants (J, the native English speaker, and B, the Taiwanese international student) discussed a variety of topics in front of a video camera in a classroom. Using examples of J and B establishing location in a metaphoric space, McCafferty's

(2004) data show how thinking unfolds through gesture.

While J was talking about speaking language from “different countries”, he “moves right hand out in front of him at chest level, palm down, hand sweeping laterally, designating countries with beats” (McCafferty, 2004, p. 157). In a similar way, B, represented Korea, Japan, and China in the gestural space around him when saying, “it’s from China transport to Japan and Korea” (“it” refers to Kanji, a written language that generally can be read and understood by Koreans, Chinese, and Japanese). McCafferty’s (2004) transcription of B’s gesture follows.

For the transcription, the gesture phrase (generally regarded as from one resting point to another across time) (McNeill, 1992; McCafferty, 2002) is transcribed below the oral speech that co-occurred with the stroke. B’s Oral speech that co-occurred with gesture is in brackets. A similar transcription protocol is used for Segment Two for the present study.

B1....

b) [it’s from]

left hand comes off the arm of the chair, up in front of him at chest level with two beats (one for each word)

c) [China]

left hand moves beyond his body, palm up in a beat

d) [transport to]

left hand retraces same path as in c, with palm down, fingers splayed

e) [Japan and Korea]

same palm down, fingers-splayed hand position, moves left hand right with beat for Japan, then back just a little with second beat for Korea (McCafferty, 2004, p. 158)

Several words later, B returns to the same gestural space in front of him where he previously indicated China, and he performs a beat on the word “China” (*ibid*, p. 158). He also refers to Korea and Japan while producing another beat and performs beats on Korea and China.

As can be seen in this data, B is using the gestural space around him to create a virtual map that illustrates the locations of Korea, Japan, and China, and then he uses an arc to signify the movement of writing, and later in this same segment he refers to culture. According to McCafferty (2004), this can be linked to Kita’s (2000) ideas on spatio-motoric thinking and analytic thinking:

[B]ecause of B's difficulties expressing himself in English, he resorted to the spatio-motoric channel for thinking. That is, because he did not have control over the language, and thus, analytic thinking, he mapped out an organizing principle of the discourse—the historical relationship of two of the satellite countries of China—in virtual space, and referred back to this virtual map through gestures. (McCafferty, 2004, p. 161)

McCafferty (2004) concludes that his study “provides evidence that representational gestures carry communicative functions” (McCafferty, 2004, p. 162). In addition, McCafferty (2004) relates his findings back to the notion that language is embodied and representational gestures are actional and closely linked to cognition. Moreover, even though McCafferty (2004) did not explicitly relate his findings to McNeill and Duncan’s (2000) notion of thinking for speaking, McCafferty (2004) points out that “B was enacting patterns of the language and its use through gesture in an embodied experience of the L2 with regard to emphasis and syllable structure, although this is clearly an area in need of further research” (*ibid*, p. 162). In this way, McCafferty (2004) extends the findings of McCafferty (1998), which supported the notion of beats having “a self-regulatory function” (*ibid*, p.162). Most interesting is how spatio-motoric thinking, expressed through gesture, served a self-regulatory function.

Another study that investigated thinking for speaking in an L2 was Negueruela, Lantolf, Jordan, and Gelabert (2004). To investigate McNeill and Duncan’s (2000) notion of thinking for speaking, Negueruela et al. (2004) used path and manner as these were expressed in the motion verbs of English and Spanish.

Recall that English is a satellite-framed language and Spanish is a verb-framed language (Slobin, 2003). Also recall that thinking for speaking “refers to how speakers organize their thinking to meet the demands of linguistic decoding online during acts of speaking” (McNeill and Duncan, 2000, p. 141). In addition, satellite-framed languages and verb-framed languages code manner and path differently through gesture (*ibid*). Negueruela et al. (2004) wanted to know if advanced L2 speakers shifted to an L2 pattern of thinking for speaking (TFS). As in the McNeill and Duncan (2000) study, Negueruela et al (2004) focused on how gesture expresses manner and path during motion-event situations and how gesture contrasts with speech in these moments.

For their study, Negueruela et al. used twelve participants: three L2 Spanish speakers with English as their L1, three L2 English speakers with Spanish as their L1, and three monolingual

English and three monolingual Spanish speakers as controls. Participants were video taped and asked to create narratives from transparencies presented on an overhead projector (only pictures, no text). They were arranged in a variety of language and interview configurations, including responding alone with an interviewer or co-constructing the narrative with another participant, but unable to see each other's gestures.

The contrasting nature of participant arrangements regarding their L1s and L2s allowed several features of language and gesture co-occurrence to be explored, in particular, path-event constructions and manner-event constructions in English and in Spanish. These comparisons of manner- and path-event constructions were extensions of the following question: "Do advanced L2 speakers shift toward an L2 TFS pattern or do they rely on their L1 pattern as evidenced in the gesture/speech interface?" (Negueruela et al., 2004, p. 124)

Negueruela et al. (2004) found that L2 speakers did not shift to an L2 way of thinking for speaking. Participants indicated a preference for their L1 patterns while using the L2 by producing path and manner gestures consistent with L1 patterns. Negueruela et al. (2004) emphasized that this does not mean that L1 speakers will never shift into L2 patterns of thinking for speaking. In addition, the authors questioned if there is a direct relationship between verbal proficiency and TFS patterns that a specific language promotes.

McCafferty (1998, 2002) and McCafferty and Ahmed (2000) are three relevant studies of non-verbal speech in which the majority of participants were non-native speakers of English. Each study had different configurations of participants: these included participants who were non-native speakers of English paired with non-native speakers from different first language foundations (i.e., learned English in a naturalistic or instructional-only context; mainly monolingual or bilingual)

In the McCafferty and Ahmed (2000) study, the focus was on the appropriation of metaphoric gestures. The purpose of the study was to investigate the appropriation of abstract gestures (i.e., different types of metaphoric gestures) and look for any relationships between several combinations of learning contexts and foundational L1 and English proficiency levels. In terms of the context and instruments, participants were paired up and asked to consider a list of seven discussion-types of questions about marriage. During the data analysis, the frequency of metaphoric gestures and other types of gestures were coded (e.g., nodding of the head; shrugging of the shoulders).

According to McCafferty and Ahmed (2002), their findings support the idea that those living in another culture appropriate some of the metaphoric gestures common in that particular culture. With regards to inner speech going through transformation, the authors suggested that it would be unlikely, considering the close connection between gesture, private speech, and inner speech, that participants' inner speech would not be transformed by the appropriation of a gesture from a different culture than their own. Of course, the authors mention limitations to these conclusions and suggest that further research in non-verbal speech explore the relationship of gesture and language learning.

In a related study McCafferty (1998) investigated eight adult ESL learners' use of gesture in a narrative recall of a video and picture narration task that involved six sequential drawings. These participants were enrolled in an Intensive English Program at a university in the US. Four of these participants were from Venezuela and four from Japan.

In terms of the relationship of gesture and the psychological predicate, McCafferty (1998) found that participants "did indeed use gestures that were very much tied to what it was they were struggling with" (McCafferty, 1998, p. 82). McCafferty (1998) also found that beats were quite frequent in the data, and these beats occurred in examples where the participants seemed to have difficulty with a particular utterance. Other results included differences in the types of gestures the Japanese and Venezuelans used.

McCafferty's (1998) findings support the notion that language is embodied. Moreover, with regards to the relationship of gesture, thought, and speech "the three (thought, gesture, and speech) are intertwined" (McCafferty, 1998, p. 93). McCafferty (1998) also mentioned the need for much more research with non-verbal forms of expression and second language learners.

McCafferty (2002) was concerned with the role of gesture in supporting a zone of proximal development (ZPD) (Vygotsky, 1978), the difference between what learners can do alone and what they can do with the assistance of a more capable other (Vygotsky, 1978). The participants in this study, a native English speaker who was a graduate assistant and a college-aged gentleman from Taiwan (J and B from McCafferty, 2004), used gesture to create zones of proximal development.

McCafferty (2002) emphasized the ZPD as a situated and co-constructed activity. Gestures were crucial to the participants working within each other's ever-changing ZPD. The participants' ability to imitate (see Tomasello, 1999; Lantolf, 2003) each other's gestures was

also a prominent feature of their interactions and contributed to the establishment of the ZPD.

Overall, the research on gesture emphasizes the central role of gesture in human communication. Prior research also points to some fundamental differences in gesture as people move to different cultural and language-use situations. In addition, gesture has been found to be rich in examples of the psychological predicate and/or Growth Points (McNeill, 1992). Most important, gesture provides a window into human cognition (McNeill & Duncan, 2000). With regards to the present study on the relationship of gesture, language, and a concept map, there does not appear to be any prior research on the relationships of concept maps and gestures used in a formal presentation by a teacher of English as a Foreign Language, who is also a learner of English.

Method

Participants

Recall that the data for this paper was taken from a larger study, with Chou selected as a telling case. A telling case is one "in which the particular circumstances surrounding a case serve to make previously obscure theoretical relationships suddenly apparent" (Mitchell, 1984, p. 239). The interesting circumstances with Chou were her natural and schooled literacy with the symbolic Chinese writing system, and, at the beginning of the MATEFL course, she demonstrated the least explicit knowledge and experience with graphic organizers as learning or teaching tools for content in English. When compared with the other nine participants in the study during this first of two presentations students completed using graphic organizers, Chou's gestures were distinctly more noticeable. Specifically, Chou's gestures were more noticeable in the way they co-occurred and contrasted with spoken English and the concept map she alternately held in each hand as she spoke.

As mentioned earlier, Chou was a native speaker of Chinese and teacher of English from southern Yunnan, People's Republic of China. Although not addressed in this paper, it is worth noting that Chou's first language was Hani, a language of the Hani people who are one of the minority nationalities of southern Yunnan (Lewis & Bibo, 1996). At the time of the study, Chou was 44 years old, had been teaching English for 22 years, and had begun studying English at the age of 20. In a series of interviews conducted as part of the larger study, she acknowledged that she primarily used Chinese as a vehicle to teach English. With regards to the class presentation

she made from which the data for the present paper was selected; this was the first major presentation she had given in the English language outside of China to an audience.

It is beyond the scope of this paper to address results from all participants; however, results from the wider study and the selected participants' interactions over the length of the entire study naturally influenced interpretations of data presented in this paper. The participants included a native speaker of English, a native speaker of Dutch who completed his BA in English at Berkley in the U.S.A, a native speaker of Turkish, and five native speakers of Thai. Data from the other participants in the study provided reference points for triangulation to contrast and verify the data from Chou (Huberman & Miles, 1998).

Primary Researcher's Role in the Study

The primary researcher, a white, American male, was 46 during the data collection period. He had taught for several years at Northern University and other venues in Northern City during the first half of the nineties through the fall of 1996. He was also married to a Thai from Northern City and had an extensive relationship with the surrounding community during this period. When he returned to collect data for this study, he was no longer married and had been away from Northern City for almost 6 years.

The primary researcher was a full participant observer in the study (Spradley, 1980) as teacher/researcher. Participants were fully aware that the primary researcher was collecting data for research, specifically that he was interested in graphic organizers, and they graciously allowed him to place two tape recorders in the room and have a research assistant operate a video camera from the back of the classroom. With the exception of the first class, the video camera and tape recorders were present the entire sixteen-week semester.

The Site

The major portion of the research took place with students in an advanced reading course that was a part of the MATEFL (Master of Arts in Teaching English as a Foreign Language) program at a university in Northern Thailand, which is called Northern University for the study. Northern University is located in a large city, which is called Northern City (also a pseudonym). Northern City is strategically located south of an area of northern Thailand called the Golden Triangle, which encompasses the border-areas of Laos, Burma, (Myanmar) and Thailand. In the past

several years, the term Quadrangle Economic Zone has been used in the local and international press. This term includes the three countries already mentioned as part of the Golden Triangle, and China, which is commonly known to be prompting tremendous economic growth throughout the region.

Data Collection

Data for the larger study consisted of audio from two Panasonic tape recorders, video from a Sony analog camera, document data, follow-up interview data, and reflective fieldnotes typed within 24 hours of class meetings. As mentioned, data for the present study was video and audio data, and the concept map, with additional data from the larger study used for triangulation (Huberman & Miles, 1998). The research assistant, located at the back corner of the small classroom, had no specific instructions with regards to where or how long to zoom in or out on Chou for the data presented for this paper. As mentioned earlier, there was never any initial intention to focus on gesture until late in the data collection period.

Data Analysis

For the current paper, there are two segments of data presented in the Results/ Discussion with detailed gesture transcription: Segment One, a one-minute and twenty-five second segment that takes place at the beginning of Chou's presentation, and Segment Two, an eighteen-second segment at the end of her presentation. Additionally, an Oral transcription (i.e. no gesture transcription) for Chou's entire presentation before questions from the audience is in the Appendix. The entire presentation (excluding question/answer period) lasted approximately three-minutes and forty-seven seconds. This was the shortest of the nine oral presentations given six weeks into the semester.

Both Segment One and Segment Two are episodes of microgenesis. This notion of a genesis of sign creation and use, expressed here by the term microgenesis, is essential to understanding the overall approach to the data. Briefly defined, microgenesis is the creation and use of signs for mediating human activity (e.g., semiosis; see van Lier, 2004 p. 62; see also Robbins, 2003, p.123), which occurs in front of "one's eyes" (Vygotsky, 1978, p. 61) over short periods of time; as short as seconds or minutes, or over longer, successive periods of learning (Wertsch, 1985; 1991; Wells, 1999; see also Werner, 1978; Vygotsky, 1978, 1986; Cole, 1996).

Coding the Gestures

For determining the types of gestures created (i.e., iconic, metaphoric, beats, illustrators), a general analytic-inductive approach to the data was taken (Huberman & Miles, 1998). As mentioned earlier, categories were borrowed from McNeill (1992) and others (i.e., McCafferty, 1998, 2000, 2004), and coding was accomplished by moving back and forth between the transcriptions of gesture, video, audio, the gesture categories; then re-questioning parameters of the categories and adapting the categories slightly to effectively delineate the types of gestures found in the data. However, it needs to be emphasized that gestures were often a combination of one or more categories, for example, a gesture can easily be an iconic gesture that incorporates beats.

Transcription protocol

There are differences in transcription protocol for each segment, with Segment Two providing more detail; that is, a more precise description concerning on which part of the word(s) the gesture co-occurred. Transcription protocol is adapted from McNeill (1992), McCafferty (2004), and Wells (1999).

Descriptions of gesture in Segment One and Two are written in italics. Oral language is in regular text. Words on which gesture co-occurred or related in some other way worth noting are underlined. In Segment Two, brackets indicate in which part of the utterance the gesture mainly co-occurred with speech. This is similar to what is known as the gesture phrase, which is bounded by beginning and ending points; that is, the arms and hands at rest, the gesture occurs, and then the arms/hand at rest again (McCafferty, 2004; McNeill. 1992). Even though other parts of the body (i.e., eyes, face, eyebrows) are involved in the gesture, the emphasis in these transcriptions is on the hands and arms. Numbers presented in the transcriptions of gesture do not have any intended relationship with the line numbers in the full oral transcription presented in the Appendix.

Results/Discussion

So that the Discussion of gestures is clearly related to the transcription, the Results and Discussion are presented together in the context of the research questions. To support a clear

presentation of the data and interpretation, Segment One and Two are parsed into smaller segments with discussion points immediately prior and following transcript examples. As mentioned earlier, the Appendix, which is referred to often in the Results/Discussion, displays the entire 3 minute and 47 second presentation.

Recall that the research questions were as follows:

Question One: How did gesture exemplify figure, ground, path, and manner (i.e., motion events), and using the motion event as a unit of analysis, was there any gestural evidence in a shift in thinking for speaking in the data?

Question Two: How did gesture and the concept map support and/or constrain Chou's English language and overall content during this oral presentation?

Segment One

Container metaphors and thinking for speaking.

As mentioned earlier, Segment One is one-minute and twenty-five seconds long and occurs at the very beginning of Chou's presentation. Of course, there are some huge differences between McNeill's (1992) and McNeill and Duncan's (2000) data and the data from Chou. Chou is not producing a narrative from viewing a cartoon and using Chinese as her L1; she is in a formal presentation context using a concept map to mediate her talk using English, her L2. She is operating at the nexus of the formal rule system of language, langue, and using language for concrete human activity; parole (Chandler, 2002). Indeed, there is an interesting synthesis of a variety of semiotic resources unfolding in the data. Her less formal L2 oral speech is guided by formal L2 writing represented by the Concept Map and the article Chou read prior to the oral summary, in addition to gesture. Take a moment to compare the Appendix and the concept map in Figure 1. Note how closely the concept map guided her speech.

With regards to evidence of a shift in thinking for speaking from Chinese to English, there is not strong enough evidence to clearly support that a shift in thinking for speaking occurred; that is, in this data, a strong example of a shift in thinking for speaking would be indicated by Chou producing a container metaphor, which is not common for speakers of Chinese, but is common for speakers of English (McNeill & Duncan, 2000). Recall that a container metaphor occurs when a bounded space is created by a speaker and offered as a container to the audience (McNeill, 1992).

In McNeill's (1992) example of a Chinese speaker he said two things about metaphoric gestures for Chinese speakers and Turkana speakers of northeastern Kenya (Turkana speakers also do not produce containers) that have relevance for interpreting Chou's metaphoric gestures. In discussing metaphors that Chinese speakers and Turkana speakers do make, McNeill said that "...narratives contain metaphoric gestures of other kinds, but not gestures in which abstract ideas are presented as bounded and supported containers" (McNeill, 1992, p. 151). McNeill (1992) also presented data from a Chinese speaker where she "...created a boundless substance [in her lap] that she then patted down (this is a metaphoric gesture also used by English narrators, but it is not the conduit). The gesture creates an image of a substance without form. The metaphor is that an abstract idea is a mass of some kind, a concrete substance, but it is not supported in the speaker's hand" (*ibid*, p. 152).

In Chou's gestures in Segment One, she creates a space in front of her next to the concept map. It can be argued that this space has substance and form. It can also be argued that rather than patting a formless space down, she returns to this space, specifically, when she noticeably pauses, as if searching for the word "information", and she seems to find the word as she recreates the same gesture that she used on two other words which together represented the topic of "information" (i.e., "talk about" and "our ah organ")

With regards to the possibility of a container metaphor, in several moments in the data, Chou's right hand appears to hold something about the size of a grapefruit in her hand; her fingers slightly curled, bounding the round space in her hand, her palm angled toward the audience. In the transcript this is described as a "styrofoam grapefruit" (see below, line 3, Segment One). It appears as if Chou might be bounding an idea (the "information" about "organs" to be talked about) in her hand (palm down) and holding it out for the audience in three different instances: on talk about (line 3, Segment One), on our ah organ (line 5, Segment One), and on information (line 5, Segment One). She clearly signifies this space by moving her hand in a slow circle on talk about, our ah organs, and information, even adding a beat on organs. Immediately following information at the end of line 5, she closes her hand and simultaneously moves her hand toward her chest on receive on line 6. It's interesting to note the inward movement toward her body on receive, which she also indicated with a quick flip of her hand, which she performed on line 5 on receive from before organs.

Although not clearly a container gesture, in Segment One there is an example of Chou

bounding a space off to the side of her concept map and appearing to hold this space out to the audience over several words, returning to this same space with the same gesture, except the palm is angled slightly down toward the audience and her fingers are slightly curled. An English speaker would create a container with the palm facing up (McNeill, 1992). In addition, there are other differences in Chou's gesture that match more of what would be expected from native English speakers. These will be presented shortly.

Transcript: Segment One, Lines 1-6

- 1: Mine ah is ah is concept map and the ah the article is from uh mapping
Chou is holding the concept map in both hands as she begins her talk
- 2: ah human's mind and comprehension—ah human's mind and understanding
- 3: So I choose this article because—ahh this article is talk about sense—sensing information
The first very noticeable gesture appears on choose. Chou's right hand opens on choose, fingers spread and close, spread again, and her hand moves in a small circle on talk about. While moving in a circle, her hand is angled toward the audience; it's as if she were palming something about the size of a grapefruit and as light as balsa or styrofoam. Her hand stops, momentarily hovering in the air after sense and returns to holding the concept map on information.
- 4: So—ah there are ah five senses—ah there, there are ah five ah information
- 5: ah we receive from our ah organs—so ah the first infor—ah-information
Her left hand spreads open on five senses, then returns to holding the concept map, then her right hand immediately leaves the concept map to hover next to it on there are. Her right hand gently flips, palm up, on receive, then flips, palm down, on from. On our ah organs, she holds her hand palm out, fingers spread, her hand angled to the floor from the audience, and she moves her hand in a slow circle. The movement stops with a beat on organs, and her hand quickly flexes open again after organ. On first, the index finger of her right hand is held up momentarily. Her hand drops on the false start, infor (line 5); then rises and fingers spread again on information, the palm outward and angled more toward the audience than before. Again, her right hand could be holding the styrofoam grapefruit.
- 6: we receive—sensory information we receive—uh visual information—ah we receive from
On the first receive at the beginning of line six, her fingers close from the styrofoam grapefruit metaphor. and move slightly toward her chest

Microgenesis, sign creation, and supported oral speech

In the next example from Segment One below, the most noticeable gesture that supported Chou's speech was the co-occurrence of a concrete deictic gesture when Chou refers to the organs of the eyes in line 7. Recall that a concrete deictic gesture for this study is when the participant points toward an object in the immediate environment, which in this moment, is her eyes. This general pointing, with variation, is repeated later in Segment One to refer to her ears and her nose (see description under line 10).

Chou again repeats a very similar gesture to refer to her eyes during the question period following her three minute and forty-seven second talk. What is particularly unique about the first concrete deictic, which is the repeated variation occurring later in her talk, is the closing of her hand while pointing toward the eyes. This closing of her hand and pointing toward her eyes, which is described in the following segment of transcription as a puppet/parrot-like movement, represents the genesis of a sign into a repeatedly used symbol that supports speech and content; that is, microgenesis. Indeed, a clear transformation of her gesture into a semiotic resource is unfolding, semiosis, a movement from gesticulation to symbol.

This second transcript from Segment One begins with the introduction of the puppet-like movement of her hand with her fingertips pointing toward her face the first time the word "eye" occurs on line 7. The second time this gesture occurs is on the second time the word "eye" occurs on line 7. When the word "organ" and "ear" occur on line 10, the parrot/puppet-like movement of her left hand with the fingertips pointing inward is repeated. Following the first 1 minute and 18 seconds (see Appendix for the entire oral transcript of Chou's talk), this parrot/puppet-like movement of the hand, with the fingertips inward, and with slight variations, is repeated on the words "nose" on line 13 (see Appendix), and then on the word "our" in the phrase "our organ" on line 16 (see Appendix).

During a question and answer period following her presentation, the parrot/puppet-like gesture occurred three out of the four times the word "eyes" occurred. Most noticeable in all occurrences of this gesture was her hand movement away from the head, similar to a pulling-away action of a trombone slide, with the fingers pointing toward her face; a combination of a deictic gesture and a beat, which is functioning to mediate Chou's oral speech and overall presentation.

Transcript: Segment One, Lines 6-10

6: we receive—sensory information we receive—uh visual information—ah we receive from

7: the organs of the eyes—ah organs of the eyes—so umm—we use the eye –

On the first receive at the beginning of line six, her fingers close from the styrofoam grapefruit metaphor. and move slightly toward her chest. On ah we receive, at the end of line six, Chou begins to point at the concept map with her left hand and performs soft beats with her finger over the left section of the concept map. Her finger is moving over the concept map as if following a line of print on a page. On umm we use the eye, Chou's hand moves from pointing at the concept map to a position closer to and pointing toward her face on the word eye. Her hand opens and closes once as it moves away from her face, clearly signifying her eye; the hand opening and closing, parrot-like, simultaneously pointing at and imitating the eye, like a hand-puppet. This movement becomes smoother, and less marked on the second we use the eye, which appears at the beginning of line 8 below.

8: ah we use the eye ahh and integrate—integrate movement ah shape, color, etceteras

On the first integrate, on line 8, which is not phonetically clear, Chou's right hand moves from pointing to the map to the fingers coming together with her hand flicking in a quick beat a few inches to the left of the concept map, as if flicking an insect away. This beat is repeated immediately following movement, although this beat seems awkward and rushed this time; the flick of her hand seems added as an afterthought to the word. On etceteras, ending this sentence, she flicks her hand with a slightly more marked movement than before.

9: The second ahh sensory information we can receive from auditory information

10: We use the organ—ears—so integrate noise, sounds, and speech. And ah so ah

The camera zooms out. On organs, and on ears, with a pause in between, Chou's performs the parrot/puppet-like movement with her left hand as she performed on line 7 with we use the eye. On organs, her hand is closer to her eye, however, when she says ear, her hand is positioned slightly more toward her ear, noticeably closer to the ear than the eye. Her hand spreads slightly, and performs beats on integrate, noise, and speech, the marked nature of the beats soft on integrate, the hand spread wider and the beat more marked on noise; this series of gestures ending with a soft beat on speech. Her left hand then returns to holding the concept map after speech.

Segment Two

As mentioned previously, Segment Two is the last eighteen seconds of Chou's presentation and this is transcribed with more of an emphasis on precision than breadth (see Kendon, 2005; McCafferty, 2002; McNeill, 1992). The difference in protocol more precisely illustrates speech and gesture synchronicity; brackets indicate in which part of the utterance the gesture mainly co-occurred with speech. This bracketed area marks what is known as the gesture phrase, which is bounded by beginning and ending points; that is, the arms and hands at rest, the gesture occurs, and then the arms/hand at rest again (McCafferty, 2004; McNeill, 1992). Again, as in the previous protocol, the underlining signifies that the word co-occurred with the described gestures. Also, as in the presentation of Segment One, Segment Two is parsed into smaller units with discussion points breaking the transcript so the relationship between Discussion and Results is clearer. Refer to the Appendix (end of line 19 to the end of line 21) for the unbroken eighteen second segment at the end of Chou's speech.

Manner gestures and the support of meaning

In Segment Two, the content of Chou's oral speech and her eye gaze indicate that she is looking at the bottom section of the concept map marked "Kinesthetic Sense" (see Figure 1). The most striking example of manner was exhibited in Segment Two. This segment opens with Chou trying to describe the kinesthetic feeling of "ground-ride". She bounces her hand up and down lightly on "sense" and "ground-ride" (see lines a and b). Take note of what seems to be the only manner-verb appropriate here, but not orally stated: bounce. Chou is making a bouncing motion that co-occurs with the words "sense" and "ground ride". This phrase, ground ride, does not appear anywhere on the concept map, and it may be that "sense" and "ground ride" are the only lexical items Chou can think of at this moment to describe the bounce humans feel in cars and planes. In this example, she substitutes a gesture to describe manner because she does not know or cannot remember the manner verb bounce. With regards to the support of meaning, Chou supports the meaning for "sense" and "ground ride" with the bouncing movement of her hand.

a). so this is ah ah kine[sthetic sense]

opens hand and bobs it up and down twice on sense

b) and sometimes we feel ah [the ground ride]

looks up from concept map and her hand beats once on ground and twice on ride

Figure, ground, and path expressing Kita's spatio-motoric thinking

In the next transcript example from Segment Two, Chou positions herself on the ground by explicitly positioning a plane overhead with her body and hands: she spins her hand, moving higher above her head, in small circles that become beats as she says, "uh in the plane ah on the plane so" (see transcript c below). The co-occurrence of the beats with the switching of the prepositions suggests they are connected. Recall that beats have been found to be associated with difficulties in speech and become self-regulating tools (McCafferty, 1998, 2004). Beats also add emphasis to what is being said (McNeill, 1992). Additionally, this gesture acts as an illustrator (Argyle, 1998; McCafferty, 2002) by locating the plane above her head.

This location of the plane above Chou's head in this segment is also important in expressing Kita's (2000) notion of a spatio-motoric type of thinking. This is when Chou moves her hand to the area above her forehead when she begins talking about feeling movement in a plane. Chou very clearly displays her bodily orientation to the physical environment with the movement of a plane positioned in the area above her head. In terms of figure and ground, she is positioning herself as ground and the object as figure. It can also be inferred that the path is in the air above her and the figure (the plane) is moving away. It also needs to be mentioned here that right before this 18 second final segment, Chou had visibly shifted from displaying herself as driving a car a moment before the beginning of Segment Two (see Appendix, lines 18 and 19) by holding an imaginary car steering wheel in her hands.

By illustrating herself behind the wheel of a car, Chou was positioning herself in the action happening in a virtual environment. This is one of Kita's (2000) hypotheses, that the gesture is not only imagistic: "a gestural sign is formed by the cognitive system that is also used in the movement in the physical environment" (Kita, 2000, p. 170). Chou is in the action in an imagined physical environment, as in putting herself in the car, or in positioning herself as ground with a figure, the plane, passing overhead. When positioned behind the wheel of a car, and at one point swaying her entire body to illustrate the movement of the car, she was positioning herself as figure and the ground as passing outside the car. These actional gestures were all related to supporting broader oral ideas expressed in English and derived from the

concept map held in her hand, and what she remembered from her reading.

c) [or ground ride or in uh in the plane ah on the plane so]

still looking up from the concept map, her hand lightly bounces down at a deeper level in the space in front of her on ride and immediately moves upwards, chopping the air once in front of her on the conjunction or. Her hand continues upwards, spiraling distinctively. With her hand held momentarily flat and straight, she finishes the prepositional phrase in the plane. The spiraling circular movement continues upwards and changes into more of an up and down movement as says ah on the plane; her hand notably marks plane by a distinctive beat that is the apex of all the movement that occurred at this higher level of space in front of her. As she says on the plane Her left hand moves to a foot above her forehead, slightly in front of her, before dropping down to grasp the concept map at the end of plane so.

d) ah [finish]

left hand moves from holding the paper to palm up and open, facing the ceiling, as if designating an empty space as someone might say there isn't anything left.

Also clearly displayed in Segment Two and other parts of Chou's presentation were moments of the psychological predicate. Defining a psychological predicate (and hence a GP) requires reference to the context; that is because the psychological predicate and its context are mutually defining. As mentioned earlier, the GP:

1. marks a significant departure in the immediate context; and
2. implies this context as a background. (McNeill & Duncan, 2000, p. 145)

One of the salient moments in the data where the psychological predicate/growth point is easily identifiable is in Segment Two. Chou is describing how the body senses movement "kinesthetic sense" (see line a, Segment Two). Recall that a moment prior to Segment Two, she described driving a car (see line 19 in the Appendix) and had even placed her body in the car by holding a wheel in her hand and turning it from side to side. Chou's left hand then moves from the level of the ground (where she was driving a car) to a higher level above her head to describe how one's body feels the ground-ride "in the plane ah on the plane" (Segment Two, line c).

As in the description of the GP from McNeill and Duncan (2000), Chou moves from the immediate context, feeling the "ground-ride" in a car, to high above her head (i.e., in the sky) in the context of feeling the "ground-ride" in the plane. This sequence of gestures implies a larger

scene as the background with Chou at ground level and the plane in the sky above her head. This was just one of many moments in the data where Chou uses gesture to provide a background for the context of the current speech or her gesture signified an immediate departure from the current context.

Conclusions

Overall, the data from the present study demonstrate the importance of gesture in supporting a common literacy activity for L2 learners: the oral summarization of academic text. Both Segments One and Two have numerous examples of the gesture and the concept map working together to support Chou's English language, and many of the gestures co-occurring with speech are illustrators that support content. Most interesting are the concrete deictic gestures introduced during the first minute and eighteen seconds of her presentation (see Segment One), which are repeated beyond their introduction and become prominent illustrators for "eyes", "nose", and "ears". Moreover, thinking for speaking in these data has been found to be very different than originally expected from McNeill and Duncan's (2000) notion of thinking for speaking.

During the entire 3 minute and 47 second talk and question and answer period that followed, when Chou shifts to looking toward the audience from simultaneously talking and referring to the concept map, her gestures generally become more prominent and synchronized with speech. All through her presentation, the concept map becomes a crucial part of her thinking for speaking in many moments in the data. As a unique set of data, these data clearly illustrate a nexus of langue (formal writing) and parole (conversation) in thinking for speaking. The data illustrate how thinking for speaking in an academic setting becomes a synthesis of a wide variety of semiotic resources that exist in a dynamic co-constructed state with her audience. The major semiotic resources that support the English language in these data, beyond signals the audience supplied to Chou, are the concept map and her gestures.

Also of interest were moments in the data where the Growth Point/psychological predicate could be inferred. These moments provided a view into what Chou determined as salient in her next moment of speaking. Identification of the Growth Point/psychological predicate allows a glimpse into the summarization process of a non-native speaker of English as she worked to make herself clear to the audience.

Although there was no conclusive evidence of a transformation of Chou's L1 patterns of

thinking for speaking (i.e., Chinese patterns), there was the possibility of the creation of a container gesture in Segment One, which is not expected of speakers of Chinese (McNeill, 1992). In addition, Chou's patterns of gesture followed closely with subject-predicate relations and there was not a pattern of delays between verbs and gesture as found by McNeill and Duncan (2000) and McNeill (1992). However, thinking for speaking is very different in these formal circumstances than has been described in other studies (e.g., Negueruela, Lantolf, Jordan, & Gelabert, 2004).

An investigative focus on figure, path, ground, and manner (i.e., motion events), provided an additional insight into the links between language and gesture. One strong example in the data was Chou's emphasis on manner in Segment Two to describe the "ground-ride"; she provided insight into a lexical item, the word bounce, with which she was having difficulty producing. In other episodes in the data, figure and ground revealed Chou's cognitive/physical orientation to the images she was portraying for her audience. In these examples, the embodied nature of language is clearly evident (see also McCafferty, 2004).

As in other studies on gesture, this paper demonstrates the effectiveness of investigating gesture to make judgments about language and cognition. Moreover, as proposed by McNeill (1992), gesture provides a window on cognition. Further study of gesture, language, and cognition is needed, particularly in the ESL/EFL field.

Limitations

As in all research there were many limitations to this study. Despite extensive triangulation of the findings with a variety of data from the larger study, and an objective approach to the data, the findings are ultimately subjective. In addition, generalizability of the findings is limited. To counter a variety of limitations, data interpreted for the present paper are displayed for readers to make their own judgments about verifiability of the findings; that is, a sincere attempt has been made to create a transparent path from the data to the Discussion and Conclusions (Huberman & Miles, 1998; see also Altheide & Johnson, 1998).

Implications for teaching and learning and avenues for further research

For ESL/EFL classes, a possible path for using gesture data for the teaching and learning of English as a second or foreign language may be to teach students about the different categories

of gesture they may encounter and/or can use while listening to a lecture or during their own presentations. With the increased access to video cameras in a variety of teaching contexts, it would be interesting to have ESL/EFL students film themselves talking and study their use of gesture and language. Could a kind of metacognition of gesture interpretation be created for language learners? In addition, because the co-occurrence of language and gesture may have connections to language proficiency, gesture may provide an avenue to language assessment (Stam, 2002; see also McCafferty, 2002), not necessarily in a formal sense, but to gain a general idea of what language forms and lexical items are troubling learners.

It is also interesting to note the proposed differences in L1 language patterns expressed by the motion event and that thinking for speaking may be expressed through gesture. Would it be worthwhile to make ESL/EFL learners more aware of the differences in thinking for speaking patterns in their L1s and the target language? Slobin (2003) proposes the idea that if a language emphasizes path or manner than speakers will attend to one over the other; is this always the case even when semiotic resources in the L2 dominate the thinking for speaking context? If language learners become more aware of how figure, ground, path, and manner are expressed by gesture and in their writing, would this knowledge aid them in language learning, in listening, speaking, reading, or writing? How is thinking for speaking affected by the variety of semiotic resources available to language learners using the target language? What exactly is the concept of thinking for speaking in the variety of multimedia contexts available to assist communication in the target language? These and many other questions provide many practical research opportunities for ESL/EFL teachers and researchers, concerning the synthesis of gesture, speech, and semiotic resources such as concept maps and other media that support communication.

Appendix

1 C: Mine ah is ah is concept and the ah the article is from uh mapping ah human's mind and
2 comprehension--ah human's mind and understanding. So I choose this article because--ahh this
3 article is talk about sense--sensing information. So--ah there **are** ah five senses--ah there, there
4 are ah five ah information ah we receive from our ah organs--so ah the first infor--ah-information
5 we receive--sensory information we receive--uh visual information--ah we receive from the
6 organs of the eyes--ah organs of the eyes--so umm--we use the eye--ah we use the eye ahh and
7 integrate--integrate movement ah shape, color, etcetera. The second ahh sensory information we
8 can receive from auditory information. We use the organ--ears--so integrate noise, sounds, and
9 speech. And ah so ah sensory information is come from ahh tactile information. We use the
10 movements from organs ah scheme ah integrate the touch, ah pressure, and a temperature
11 sometimes we uhh we our skin can feel the ahh temperature is higher or ah low and pressure is a
12 hard or soft--ah we use this key to ah figure--and the thir--ah the fourth is olfactory information
13 ah this information--ah sensory information we use our nose to smell--ah to smell and breath ah
14 the smells-the smells is terrible or the ah smells are good ah smells good--uh we receive the
15 signals from the smells. And there are two kinds of ahh information but a this is called ahh taste
16 sense so we use our organ ahh tongue we use ahh integrate the sweet, sour, salt, or bitter, ah
17 sometimes--and the other is ah--the last thing is ah kinesthetic ah kinesthetic sense is we use the
18 body ah--we use the body--ah we use the body to feel movement such as when we ahh in the
19 car--we drove the car and we ahh use our body to feel the car is moving or is ahh--ahh stopped.
20 So ah this is ah-ah kinesthetic sense and sometimes we feel ahh the ground ride--or ground ride
21 or in-uh in the plane ah on the plane so ah finish it.

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The Relationships between the Use of Metacognitive Language-learning Strategies and Language-learning Motivation among Chinese-speaking ESL learners at a Vocational Education Institute in Hong Kong

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Abstract

There has been a lack of research on the relationship between metacognitive language-learning strategies (MCLLSSs) and language-learning motivation (LLM) among Chinese-speaking ESL learners in Hong Kong. This article reports the results of a survey of the relationships between the use of MCLLSSs and LLM among Chinese-speaking ESL learners at a vocational education institute in Hong Kong. The aims of the study were to identify the patterns of the use of MCLLSSs and LLM of the learners and to explore the relationships between the two variables. A survey questionnaire containing items on MCLLSSs of the Strategy Inventory for Language Learning (SILL) as well as items on integrative and instrumental motivation from the Attitude/Motivation Test Battery (AMBT) were administered to 192 ESL learners at the institute. Findings indicate that 'Paying Attention', 'Finding out language learning' and 'Self-monitoring' were of the high use range, while all the other strategies including 'Self-evaluation', 'Setting goals and objectives' 'Seeking practice opportunities' and 'Organizing' were of the medium use range. Respondents' level of LLM in general was found to be moderate, and respondents were more instrumentally than integratively motivated. Results indicate that the levels of the use of MCLLSSs are positively related to the levels of motivation of respondents, with integrative motivation having a stronger relationship with strategy use than instrumental motivation and total motivation. Results from stepwise regression show that integrative but not instrumental motivation predict the levels of strategy use. The conclusion of this study is that LLM is positively related to the use of MCLLSSs, and integrative motivation is a predictor of the use of MCLLSSs. The inadequacies of Gardner's (1985) dichotomous classification in measuring LLM are discussed, and implications for how to promote LLM in the local and other Asian contexts in order to bring about more use of MCLLSSs are suggested.

Keywords: Metacognitive language-learning strategies, language-learning motivation, Chinese ESL learners, Hong Kong, integrative motivation, instrumental motivation

1. Introduction

In the research on metacognitive language-learning strategies (MCLLSSs) to date, MCLLSSs have been treated as peripheral. Most research did not focus particularly on MCLLSSs and in most research MCLLSSs were included among cognitive, social and affective

language-learning strategies (LLSs). More and more research (e.g., Vandergrift, 2003; Wen & Johnson, 1997) has indicated the importance of MCLLSs in language learning, as they perform an executive and management function in language learning. MCLLSs were also found to be more useful among other types of LLSs (i.e., cognitive and social/affective), as they can be used for other learning activities in addition to language learning (Chamot & O'Malley, 1987).

Although previous studies attempted to investigate how the use of MCLLSs is related to a number of learner variables, there has been little research on how the use of MCLLSs is related to language-learning motivation (LLM).

2. Literature Review

MCLLSs are ‘thinking about the learning process, planning for learning, monitoring the learning task, and evaluating how well one has learned’ (O’Malley & Chamot, 1990, p. 137). They are being viewed as used to ‘oversee, regulate or self-direct language learning’ (Rubin, 1987, p. 25). Oxford (1990) emphasizes the coordinating functions of MCLLSs including centering, arranging, planning and evaluating language learning.

Based on different underlying theories of L2 learning, different classifications of MCLLSs have been developed over the past few decades (e.g., Bialystok, 1978; O’Malley & Chamot, 1990; Oxford, 1990). In this study, Oxford’s (1990) classification was adopted because her classification is theoretically more consistent (Hsiao & Oxford, 2002) than other classifications, and is conceptually more sophisticated (Oxford & Cohen, 1992). Ellis (1999) regards Oxford’s classification as the most comprehensive one to date, as she built her classifications on earlier ones.

Although there are many recent developments in LLM research (Dormyei, 2001), the most extensive research on LLM of integrative and instrumental motivation done by Gardner and his colleagues (Gardner & Lambert, 1959; Gardner, 1985; 1996) is the most widely recognized.

The instrumental goal of Chinese learners in L2 English learning is a well-established research finding (Tachibana, Matsukawa, & Qu, 1996; Lai, 1999). These findings have led to the doubt that instrumental motivation is not necessarily detrimental to linguistic achievement.

Studies on the relationships between the use of MCLLSs and LLM are rare both in western and Chinese contexts. In research to date, MCLLSs were often included as part of general LLSs. The main finding of this research has been that more motivated learners used a larger number of LLSs and MCLLSs, and used them more frequently than less motivated

ones (Okada, Oxford, & Abo, 1996; Schmidt, Boraie, & Kassabgy, 1996; Vandergrift, 2005). Another finding is that among a number of learner variables, LLM has the most powerful influence on reported use of LLSs (Oxford & Nyikos, 1989) and MCLLSs (Schmidt & Watanabe, 2001).

Apart from finding out the positive relationships between LLS use and general LLM, Schmidt et al. (1996) found integrativeness was unrelated to the use of learning strategies. In another study (Crookes & Schmidt, 1991), instrumental motivation was found to be related to LLS use. These findings are contrary to the earlier ones by Gardner and his colleagues that integrative motivation is more determinative for L2 learners. Despite these inconsistent findings, more and more research has shown that both types of motivation are needed for the use of MCLLSs (Okada et al., 1996; Yamaori, Isoda, Hiromori, & Oxford, 2003; Vandergrift, 2005).

As far as the use of specific MCLLSs are concerned, in a study by Wharton (2000) it was found that the level of motivation had a positive relationship with two items of the Strategy Inventory for Language Learning (SILL), that of goals and objective setting and of looking for people to talk to in L2. In a more recent study on young L2 learners of Taiwan, Lan and Oxford (2003) found that degree of likeness of English had positive relationships with the MCLLS items of listening closely to English speaker (Paying attention), checking own progress in learning English (Self-evaluating), analysing own mistakes and not making them again (Self-monitoring). Liking of English was found to have interaction effects with proficiency in its relationship with looking for chance to practice English (Seeking practice opportunities). However, in both the studies by Wharton as well as Lan and Oxford, LLM was measured by only one item of the perceived proficiency self-rating by respondents.

The conclusion from previous research on MCLLSs and LLM is that more motivated L2 learners employ more MCLLSs. However, we should note that in all these studies few details on the use of specific MCLLSs were given. The measurements of LLM in these studies were also too general. Thus, the details of the relationships between the use of specific MCLLSs and specific types of LLM are not known. There is a need to fill the gap in previous research of the lack of details reported on investigating the relationships between the use of MCLLSs and LLM. These findings can allow us to improve the teaching of ESL learners not only in the local Hong Kong context but also in other Asian contexts.

3. Purpose of the study

As we can see from the above literature review, previous research has found that the use of MCLLSs is related to LLM. However, there has been little research on the use of MCLLSs

focusing on young adults, especially learners undertaking vocational education. One limitation of past research on MCLLS is that it predominantly focused on tertiary students (Zhang, 2003). There is a need to increase our understanding on how the use of MCLLSs is related to LLM of this type of ESL learners.

Given the above background, this study focuses on the above two neglected areas of MCLLSs and LLM, particularly among Chinese-speaking ESL learners at a vocational education institute in the Hong Kong context.

This study was driven by three research questions:

1. What are the MCLLSs used by Chinese-speaking ESL learners at a vocational education institute in Hong Kong?
2. What are the patterns of LLM of Chinese-speaking ESL learners at a vocational education institute in Hong Kong?
3. What are the relationships between the use of MCLLSs and LLM of Chinese-speaking ESL learners at a vocational education institute in Hong Kong?

This article reports the findings of a study on the relationships between the use of MCLLSs and LLM among Chinese-speaking ESL learners at a vocational education institute in Hong Kong. The methods and procedures will be introduced in the next section. Answers to the above three research questions will then be given by the presentation of the results of this study. Discussion in light of the results will be made. Finally, implications for teaching, particularly for the local and the Asian context in general, will be given.

4. Methodology

4.1 Participants

A total of eight classes of year one students were randomly selected from all the 28 diploma year one classes of different streams of studies of about 25 students in each class.

In the diploma course year one, students have to take about 200 hours of English. The English curriculum is vocationally biased, in which students have to learn the different types of communication skills in the workplace, including speaking, writing, reading and listening.

Most of the students studying diploma year one course completed their Hong Kong Certificate of Education Examination (HKCEE) the same year. There are two main public examinations at the secondary level in Hong Kong. The first one is the HKCEE and the Hong Kong Advanced Level Examinations (HKALE). Most candidates take the HKCEE after their five-year study at a secondary school at the age of about 16. Those who have satisfactory results in their HKCEE are offered places to continue their studies in secondary school for two years (Form Six and Seven). The HKALE is normally taken by a student at the end of

their two-year sixth-form courses, and the results determine his/her entry to tertiary education. In both examinations, English is one of the compulsory subjects, meaning that they have to get at least a pass in them in order that they are eligible to continue their studies. Among those who decide not to prepare for their HKALE, vocational education is one of their choices.

As far as the role of English in the Hong Kong society is concerned, since colonial times English has been the dominant language in government, education, business and the law courts. English has traditionally been an important medium for communication, the media, tourism, and the arts in Hong Kong. Hong Kong is an international centre of trade, finance and commerce with a population of over six million, 98% of whom are Chinese with Cantonese as the predominant language. Cantonese is common in the daily lives of Hongkongers. Hong Kong people seldom have the need to use English except in the workplace. English has been serving the ‘value-added’ role in the Hong Kong society (Li, 1999).

4.2 Procedures

The nine items on MCLLS of Oxford’s (1990) SILL version 7.0 designed for speakers of other languages learning English were used to measure the use of MCLLSs (1). In Oxford’s (1990) classification, MCLLSs are divided into three groups, including Centering your Learning (one items), Arranging and Planning your Learning (six items), and Evaluating your Learning (two items). In this part, respondents were asked to rate how often they used the specific MCLLSs, ranging from ‘1’ (Never or almost never true of me) to ‘5’ (Always or almost always true of me). There are 50 items in the SILL version 7.0 measuring cognitive, metacognitive and social/affective LLSs. Only Part D which measures the use of MCLLSs was included in the questionnaire to suit the focus of this study. Despite only one part of the whole inventory being included in the questionnaire, this part can be regarded as an independent scale, as its reliability and validity statistics independent to the other parts have been reported (for example, Oh, 1992; Bremner, 1999). The SILL has also been administered in a lot of other research in investigating LLS use in the western (e.g., Oxford and Nyikos, 1989) and Chinese (e.g., Goh and Kwah, 1997) contexts. In Gardner’s (1985) AMTB, there are four items in the Integrative Orientation Scale which measure integrative orientation, and four items in the Instrumental Orientation Scale which measure instrumental orientation. These items were included in the survey questionnaire. A seven-point Likert scale from ‘Strongly Disagree’ to ‘Strongly Agree’ was adapted to a five-point scale to facilitate response. Gardner’s AMTB has undergone lengthy validation and widespread use since the

1960s. Good psychometric properties have been reported (Masgoret & Gardner, 2003).

The number of items on demographic data was kept to a minimum and these items were included at the end of the questionnaire. Suitable items from Oxford's (1990) Background Questionnaire, which is recommended to be used together with the SILL to collect information on learner characteristics, were included and modified whenever necessary.

The questionnaire in English was translated into Chinese by a translator who had specialized training in English/Chinese translation. The Chinese-translated version of the questionnaire was then back-translated by another translator who had the same training as the first translator. Although a Chinese version of the SILL is available (Yang, 1999), the items were translated because items in more local written Chinese were more easily understood by respondents. SPSS was used for statistical analyses.

5. Results

In this section, answers to the three research questions will be given. In order to answer the first research question, 'What are the MCLLSs used by Chinese-speaking ESL learners at a vocational education institute in Hong Kong', the results of descriptive analysis on the use of MCLLSs will be presented. This is followed by the results of the descriptive analysis on the LLM which provide answers to the second research question, 'What are the patterns of LLM of Chinese-speaking ESL learners at a vocational education institute in Hong Kong'. The findings of the relationships between the use of MCLLSs and LLM, which provide answers to the third research question, 'What are the relationships between the use of MCLLSs and LLM of Chinese-speaking ESL learners at a vocational education institute in Hong Kong', will be given at the end of this section.

A total of 192 questionnaires were collected. Among the respondents, 106 (57.6%) were males and 78 (42.4%) were females. Their mean age was 17.6. About 48% of them were from the Department of Hotel, Service and Tourism Studies, 29% were from the Department of Business Administration. Twenty four respondents (12.5%) studied electrical engineering, and 19 (9.9%) studied computing and information management.

5.1 The results of descriptive analysis on the use of MCLLSs

The means and standard deviations of the scores of the individual MCLLSs and the three MCLLS categories are given in Table 1 below.

Table 1

Means and Standard Deviations of the Scores of MCLLS and MCLLS Categories

MCLLS / MCLLS category	Mean	SD
Finding out about language learning	3.5	.89
Self-monitoring	3.5	.84
Paying attention	3.6	.86
Organizing	2.7	.90
Seeking practice opportunities	3.1	.70
Setting goals and objectives	3.1	.93
Self-evaluating	3.3	.91
Arranging and planning your learning	3.1	.66
Centering your learning	3.6	.86
Evaluating your learning	3.4	.75

The mean of the total score of these nine items was 3.2, which indicates a medium use (Oxford, 1990) of MCLLSs among the respondents. Among the seven MCLLSs, ‘Paying attention’ had the highest score, with a mean of 3.6 ($SD=.86$). Item 5, which measures ‘Organizing’ strategy, (‘I plan my schedule so I will have enough time to study English’) had the lowest score, with a mean of 2.7 ($SD=.90$). Similarly, among the three categories of MCLLSs, ‘Centering your learning’ (as measured by the item on ‘Paying attention’) was the most popular, while ‘Arranging and planning your learning’ was the least popular.

According to Oxford (1990), a mean within the range of 3.5 to 4.4 can be regarded as being within the low end of high use range. We see that in this study ‘Finding out about language learning’, ‘Self-monitoring’ and ‘Paying attention’ are within this range. The MCLLS category of ‘Centering your learning’, which is measured by the MCLLS of ‘Paying attention’, is also within this high use range. The remaining two categories are of the medium use range.

Cronbach’s alpha of the nine-item MCLLS scale is .878. This means that the scale has high internal consistency and reliability. This value is comparable to those previously reported (e.g., Bremner, 1999; Oh, 1992).

Pearson product-moment correlation coefficients were computed to investigate the relationships of the use of MCLLSs with different learner characteristics, including age, respondents’ perceived English proficiency, and their perceived importance of being proficient in English. There were no significant relationships between age and the respondents’ perceived importance of English proficiency with the use of MCLLSs (both in terms of individual items, strategies and categories). A possible reason for the lack of relationships found between age and the use of MCLLSs is that the respondents came from a

narrow age range (a minimum of 16 and a maximum of 23). Most of them attached a high importance English proficiency (with 68.3% chose ‘Very important’ and the rest 31.7% chose ‘Important’ and no respondent expressed it as not important). Therefore, no significant relationship was found between this learner characteristic with the use of MCLLSSs. On the other hand, respondents’ perceived English proficiency was found to be related to a number of MCLLSSs. Findings are given in Table 2 below.

Table 2

Pearson Correlation Coefficients of Respondents’ Perception of their English Proficiency with the Use of MCLLSSs

MCLLS / MCLLS category	r
Finding out about language learning	ns ^a
Self-monitoring	.191**
Paying attention	ns ^a
Organizing	.215**
Seeking practice opportunities	.232**
Setting goals and objectives	.227**
Self-evaluating	.183*
Arranging and planning your learning	.252***
Centering your learning	ns ^a
Evaluating your learning	.219**
MCLLS total score	.245**

*p<.05 **p<.01 ***p<.001

^a: not significant.

As we can see from the above findings, most of the significant coefficients were rather small. Yet they show that respondents’ perceived English proficiency was positively related to a lot of MCLLSSs and the general use of MCLLSSs. However, we should also aware that better perceived English proficiency may be a result of more frequent use of MCLLSSs.

A t-test was conducted and no gender difference was found in overall use of MCLLSSs. Among the nine individual items, the only gender difference was found in item 9 (of ‘Self-evaluation’). This item was more popular among female respondents ($t=-2.797$, $p<0.01$). No other gender differences in terms of both individual strategies and the categories were found.

Answers to the first research question, ‘What are the MCLLSSs used by Chinese-speaking ESL learners at a vocational education institute in Hong Kong’, are that there is a medium level of use of MCLLSSs among the learners. More specifically, ‘Finding out language

learning', 'Self-monitoring', and 'Paying attention' are of the high use range, while all the other strategies, namely 'Self-evaluation', 'Setting goals and objectives' 'Seeking practice opportunities' and 'Organizing' are of the medium use range.

The additional findings from descriptive analysis are that the use of MCLLSs is not related to the age and gender of the learners. Also, it is not related to learners' perceived importance of English proficiency. However, it was found to be positively related to learners' perceived English proficiency.

5.2 Results of the descriptive analysis on LLM

The means of the items of the Integrative and Instrumental Orientation Scales are given in Table 3 below.

Table 3

Means of Items of the Integrative and Instrumental Orientation Scales

Item	Mean	SD
1	4.0	.96
2	4.0	.95
3	3.3	1.06
4	3.7	.99
Integrative Motivation	3.8	.79
5	4.3	.95
6	4.0	.94
7	4.2	.93
8	3.6	1.00
Instrumental Motivation	4.0	.76
Overall mean	3.9	.71

The reliabilities of the Integrative and Instrumental Orientation scales, as indicated by Cronbach's alphas, were .804 and .817 respectively. They were higher than the alphas of .57 and .79 reported by Masgoret and Gardner (2003). These statistics show the two measures have high internal consistency.

The levels of motivation of respondents in this study can be regarded as moderate. Respondents were more instrumental in their motivation for learning English. A t-test was conducted to test for the difference between integrative and instrumental motivation. Results indicate that the difference was statistically significant ($t=-5.990$, $p<.001$).

A series of t-tests was performed to determine the gender differences in LLM. Significant differences were found in total motivation, integrative and instrumental motivation, with females higher in the respective means. As far as individual items are concerned, gender differences were found in all the eight items except for item 5 and 7. Findings from t-tests are

given in Table 4 below.

Table 4

Findings of t-tests of Gender Differences in LLM

Variables/Items	Mean (SD)		
	Male (N=106)	Female (N=78)	t-value
Overall LLM	29.98(5.37)	32.69(5.74)	-3.29**
Integrative motivation	14.40(3.04)	15.88(3.10)	-3.25**
Instrumental motivation	15.58(3.03)	16.81(2.96)	-2.73*
Item 1	3.84(.95)	4.15(.96)	-2.22*
Item 2	3.86(1.00)	4.18(.85)	-2.29*
Item 3	3.13(1.11)	3.59(.96)	-2.93**
Item 4	3.57(1.01)	3.96(.93)	-2.70**
Item 5	4.23(1.01)	4.40(.86)	-1.21
Item 6	3.77(1.01)	4.18(.79)	-2.94**
Item 7	4.11(.97)	4.36(.85)	-1.79
Item 8	3.47(.95)	3.87(1.02)	-2.75**

*p<.05

**p<.01

***p<.001

One possible reason for the insignificant gender differences in item 5 and 7 is that respondents regarded their future career (Item 5) and getting a good job in future (Item 7) as very important reasons for them to learn English regardless of their gender. We can see from the questionnaire in the Appendix that there is a difference between these two items. Item 5 focuses on the importance of English as perceived by respondents as in their future career. Item 7, on the other hand, is concerned with using English for finding a good job. These two items have the highest means among the 8 items, with Item 5 having a mean of 4.3 and Item 7 having a mean of 4.2.

As with MCLLS use, the correlation coefficients between LLM and a number of learner characteristics were computed. Total LLM and the two types of motivation were found to be not related with respondents' perceived English proficiency. This shows that how good respondents perceived their English is not related to their motivation. Item 1 and 2 of the Instrumental Orientation Scale, instrumental motivation and total LLM score were found to be related to age. The Pearson product-moment correlation coefficients obtained range from .16 to .18 (p<.01). Despite these weak relationships, the findings show the existence of age differences in instrumental motivation, with older learners having higher levels of instrumental motivation.

All the items on LLM were found to be significantly related to respondents' perceived importance of English proficiency, with Pearson product-moment correlation coefficients

ranging from .15 to .31. These findings show that the more motivated respondents are, the more important it is for them to be proficient in English. The weak correlations show that there may be a gap in respondents' perceived importance of English proficiency and the motivation to learn English. That is, a learner might view being proficient in English as important, yet he/she lacks the motivation, either integrative or instrumental, in their English learning.

Answers to the second research question, 'What are the patterns of LLM of Chinese-speaking ESL learners at a vocational education institute in Hong Kong', are that learners' level of LLM in general is moderate, and respondents are more instrumentally than integratively motivated.

Additional findings from the descriptive analysis indicate that there were age and gender differences in LLM, with older learners found to be more instrumentally motivated and female learners more motivated, in terms integrative, instrumental and total LLM. Learners' perceived English proficiency was found to be not related to LLM. Finally, learners' perceived importance of English proficiency was found to be positively related to LLM.

5.3 Results of the analysis on the relationships between the use of MCLLSs and LLM

In this section, results of the analysis on how the use of MCLLSs is related to LLM will be given.

Pearson correlation coefficients of the use of seven specific MCLLSs and the scores on integrative, instrumental and total motivation are given in Table 5 below.

Table 5

Pearson Correlation Coefficients of the Use of MCLLSs and MCLLS Categories with Integrative, Instrumental and Total Motivation

MCLLS	Integrative LLM Total	Instrumental LLM Total	LLM Total
Finding out about language learning	.35***	.30***	.35**
Self-monitoring	.34***	.27***	.33***
Paying attention	.31***	.36***	.37***
Organizing	.08	.00	.05
Seeking practice opportunities	.30***	.15*	.24**
Setting goals and objectives	.13	.09	.11
Self-evaluating	.33***	.27***	.33***
Arranging and planning your learning	.24**	.14	.21**
Centering your learning	.31***	.36***	.37***
Evaluating your learning	.39***	.32***	.39***
MCLLS total score	.35***	.26***	.33***

The above findings show that integrative, instrumental and total motivation are positively related to the use of MCLLSs. Among the significant correlations, the largest coefficient between individual MCLLSs and the two types of motivation was found between ‘Paying attention’ and instrumental motivation. This is followed by the correlation between ‘Finding out about language learning’ and integrative motivation.

As far as the relationships between MCLLS categories and the two types of motivation are concerned, the largest correlation is found between ‘Evaluating your learning’ and integrative motivation, followed by that between ‘Centering your learning’ and instrumental motivation. The MCLLS having the strongest relationships with total motivation is ‘Paying attention’, followed by ‘Finding out about language learning’. The MCLLS category having the strongest relationship with total motivation, on the other hand, is ‘Evaluating your learning’. In terms of the relationship between general MCLLS use and total motivation, the relationship is moderate, as reflected by a coefficient of .33.

Stepwise regression analyses with the use of MCLLSs as the dependent variable were conducted to determine which type of LLM is the best predictor of the use of MCLLSs. Integrative motivation emerged as the only predictor of the use of MCLLSs, explaining 11.6% ($F=24.486$, $p<0.001$) of the total variance. Instrumental motivation, on the other hand, was found not to be a predictor of MCLLS use. The failure of instrumental motivation to be a predictor of MCLLS use seems to contradict its significant correlation with the use of MCLLSs. We should remember that one limitation of correlational statistics is that they do not show any causal relationships. Therefore, it is possible that higher instrumental motivation can be a product of more MCLLS use. Another possibility is that the positive relationship which exists between MCLLS use of instrumental motivation is resulted from the influence of another factor such as beliefs on language learning. More research is needed to clarify these uncertainties.

In order to further explore the relationships between MCLLS use and LLM, stepwise regression was again conducted, with individual items measuring LLM as the independent and the use of MCLLSs as the dependent variables. Results indicate that one item on integrative motivation (appreciating British art and literature) and one on instrumental motivation (being respected by others) significantly predict the use of MCLLSs. Their R-squares are 0.11 ($p<0.001$) and 0.038 ($p<0.01$) respectively, accounting for a total of 14.5% of the variance. These findings show that both integrative and instrumental motivation can predict MCLLS use, despite only one item from each of the two motivation scales was found to be predictive of MCLLS use.

6. Conclusion

The answer to the first research question, ‘What are the MCLLSs used by Chinese-speaking ESL learners at a vocational education institute in Hong Kong’, is that there is a medium use of MCLLSs among ESL learners undertaking vocational education in Hong Kong. More specifically, there is a high use of ‘Finding out about language learning’, ‘Self-monitoring’, and ‘Paying attention’, and there is a medium use of ‘Self-evaluating’, ‘Seeking practice opportunities’, ‘Setting goals and objectives’ and ‘Organizing’. ‘Paying attention’ is the most popular MCLLS and ‘Organizing’ is the least popular. MCLLS use is positively related to learners’ perceived English proficiency. There are no age and gender differences in the use of MCLLSs, and no relationships between the use of MCLLSs and respondents’ perceived importance of English proficiency exists.

The answer to the second research question, ‘What are the patterns of LLM of among Chinese-speaking ESL learners at a vocational education institute in Hong Kong’, is that there is a moderate level of motivation among the learners, with the level of instrumental motivation significantly higher than that of integrative motivation. Gender differences in motivation levels exist, with females having higher levels of both integrative and instrumental motivation. Older learners are more instrumentally motivated, and there are no relationships between the use of MCLLSs and learners’ perceived English proficiency. Learners’ perceived importance English proficiency is positively related to LLM and the relationship is weak.

The answer to the third research question, ‘What are the relationships between the use of MCLLSs and LLM of Chinese-speaking ESL learners at a vocational education institute in Hong Kong’, is that the use of MCLLSs is positively related to integrative, instrumental and total motivation. The positive relationships are moderate. ‘Organizing’ and ‘Setting goals and objectives’ are unrelated to LLM regardless of types. Finally, integrative motivation is a good predictor of MCLLS use.

The conclusion we can draw from the results of this study is that there are medium level of the use of MCLLSs and a medium level of LLM of Chinese-speaking ESL learners at a vocational education institute in Hong Kong. In addition, MCLLSs and LLM are positively related and integrative motivation is a good predictor of the use of MCLLSs.

The main implication of the findings of this study as a whole is that integrative motivation is an important factor influencing ESL learners’ use of MCLLSs. Together with the finding that instrumental motivation failed to be a predictor of MCLLS use, we know that integrative rather than instrumental motivation has a more prominent role in bringing about the use of MCLLSs. This finding contributes to our understanding of the more specific

relationships between the use of MCLLSs and LLM. As pointed out at the end of section 2, past research on language-learning strategies and language learning motivation has been too general and one purpose of this study is to fill in this gap in research.

Another implication of this study is that we should take into consideration the role of context in influencing the learning behaviours of L2 learners. In the Hong Kong context in which this study was located, the higher prevalence of instrumental motivation as compared to integrative motivation is a result of contextual influences. Although there is a lack of research, we can speculate that the popularity of some MCLLSs may be a result of contextual influences such as the lack of opportunities in the classroom to utilize them. Given this, there is a high possibility that different patterns of the use of MCLLSs and LLM as well as their relationships might be found in other contexts. More research in different contexts should be conducted in order that we have a better understanding of the patterns of MCLLSs and LLM as well as the relationships between them. However, there are some similarities among a lot of Asian contexts in terms of contextual influences on the use of MCLLSs and LLM. Some examples of these similarities are the emphasis of the monetary rewards attached to English learning, the examination-orientedness of the education system, the lack of training on LLSs and MCLLSs both at the classroom and teacher-training levels. The patterns of the use of MCLLSs and LLM found in different Asian contexts may have some commonness. Nevertheless, more research on these two variables and their relationships in different Asian contexts is needed before any firm conclusions can be drawn.

7. Discussion

The discussion of the findings on the use of MCLLSs, LLM and their relationships are given in this section.

The medium use of two out of the three categories of MCLLSs found confirms the earlier findings by Wen and Johnson (1997). This finding is also similar to the findings from Wu (2002) in a study of the same level of students at the same institute in 2002. However, compared to the mean of 3.5 as reported by Goh and Kwah (1997) among their 175 tertiary students from the PRC in Singapore, this finding is comparatively low. One possible reason is that respondents of this study were younger than those in the study by Goh and Kwah. As we know, age is a significant factor which affects MCLLS use. Older language learners have been consistently found to employ MCLLSs more frequently (Oxford, 1989). This age difference is further confirmed by the findings of a study by Lan and Oxford (2003). They found that a mean of 2.9 was reported by their 379 elementary school respondents in their overall strategy use, as measured by the children's version of SILL.

Apart from general MCLLS use, the more frequent use of ‘Paying attention’, ‘Self-monitoring’ and ‘Self-evaluating’ found in this study also confirms most earlier findings (e.g., Goh & Kwah, 1997; Goh, 2002). However, no previous study has reported the frequent use of ‘Finding out about language learning’ and ‘Setting goals and objectives’ found in this study. The popularity of these two strategies may be due to the moderate level of motivation reported by respondents. The more motivated a learner is in learning a target language, the more he/she tends to set clear goals and find out how to be better learners of that language.

Another observation is that similar to the earlier findings by Gunning (1997), ‘Seeking practice opportunities’ was found to be unpopular among Chinese learners, especially when respondents were required to practice their English in speaking with others. The lowest mean of 2.9 was found in the item ‘I look for people I can talk to in English’. The reason for the reluctance of respondents in talking to others in seeking their practice opportunities is contextual. English has been performing an instrumental role in the Hong Kong sociolinguistic context as mentioned in 4.1. It is seldom used in daily life. Therefore, using English, especially speaking, is limited to the classroom. However, as ‘Seeking practice opportunities’ was applied in general use and reading, respondents found it more easily applied. This is reflected by the higher means of 3.3 of both item 1 (‘I try to find as many ways as I can to use my English’) and 7 (‘I look for opportunities to read as much as possible in English’), a mean which is comparable to other MCLLS items.

One reason for the comparatively infrequent use of ‘Organizing’ is its higher cognitive demand this strategy imposes on learners. Respondents of this study were from a relatively academically less successful group. Therefore, we would expect that they might be more unwilling to adopt strategies such as ‘Organizing’ which require higher order cognitive processing. Compared to ‘Organizing’, other MCLLSs are more straight-forward and are therefore more popular among the respondents.

The lack of gender difference found in MCLLS use in this study is different from the finding of some earlier studies that females tend to employ more MCLLSs than males (Vandergrift, 1996). Another finding of the weak positive relationships between learners’ perceived English proficiency and the use of MCLLSs provide some evidence to support the earlier view that the use MCLLSs and LLSs is indirectly related to learners’ L2 performance (Oxford, 1990). Despite the weak relationships, this finding increases our confidence on the usefulness of MCLLS training on learners’ perception of their English proficiency.

The prevalence of both integrative and instrumental motivation was contrary to most previous findings that Chinese ESL learners were pre-dominantly instrumentally motivated as

described in the literature review.

What is worth mentioning is that from the responses of open-ended question of the Background Questionnaire, a lot of respondents expressed that one reason for the importance of being proficient in English was being able to communicate effectively with people of other nationalities for work and survival purposes. Some respondents on the same question also expressed that the reason for being more knowledgeable was also for instrumental purposes such as surviving in society, work and future studies (in order to find a good job). These responses reflect the inadequacies of Gardner's conceptualization. There have been doubts on the split between integrative and instrumental motivation (Dornyei, 1994), as other types of motivation such as manipulative motivation are at work and affect L2 achievement (e.g., Dornyei, 1990). In the factor analysis of 1,500 Egyptian learners of English by Schmidt et al. (1996) mentioned earlier, instrumental, integrative and intrinsic motivation emerged among the other six factors of linguistic motivation, determination, anxiety about using English in class, sociability, foreign residence, and beliefs about failure found. There are certain motivations for learning a language, such as traveling, that cannot be classified as either instrumental or integrative. At the same time, individuals may have both integrative and instrumental motivation in learning a particular language. Another related issue is that motivation is prone to change. It is highly possible that an individual starts learning a language with instrumental motivation and become more interested in learning the language because of integrative reasons such as art appreciation as they become more advanced in their language studies. More research is needed in the local and other Chinese contexts to gather information on the different types of motivation Chinese learners have in their L2 learning.

Despite the existence of the inadequacies of Gardner's dichotomous classification as described above, the prevalence of both the integrative and instrumental motivation partly confirms most previous findings of the prevalence of instrumental motivation of Hong Kong learners in their English learning due to the contextual influences as described in section 4.

The result that integrative, instrumental and total motivation are positively related to the use of MCLLSs confirms the findings of more recent research, such as those conducted by Okada et al. (1996) and Vandergrift (2005) mentioned in the literature review. These more recent studies found that both integrative and instrumental motivation are positively related to LLS use, including the metacognitive ones. The significance of instrumental motivation in the use of MCLLSs found in this study confirms the earlier view that it contributes significantly to LLM (e.g., Crookes & Schmidt, 1991). However, the above findings do not support the finding of Schmidt et al. (1996) that integrativeness is unrelated to strategy use.

As far as the relationships between the use of individual MCLLSs and LLM are

concerned, the existence of a significant relationship between ‘Finding out about language learning’ and LLM has not been reported in previous studies. In addition, the positive relationships found between LLM and the use of MCLLSSs of ‘Paying attention’, ‘Self-monitoring’ and ‘Self-evaluating’ respectively support the findings of Lan and Oxford (2003). The positive relationships found between ‘Seeking practice opportunities’ and the two types of motivation and total motivation confirm the findings of both Lan and Oxford (2003) and Wharton (2000). The non-existence of any significant relationships between ‘Organizing’ and the overall and different types of motivation also confirms all the previous findings described above.

8. Limitations of the study

There are three limitations of this study: the limitation of quantitative data, limitation of self-report data and the limitation of correlational statistics in showing the directions of relationships. They are discussed below.

8.1 The limitation of quantitative data

As mentioned earlier in this paper, findings from the open-ended question show that other types of motivation might be at work in motivating respondents of this study to learn English. Quantitative data can only provide us prescribed descriptive information. More research on other types of motivation such as the one conducted by Vandergrift (2005) is needed to enhance our understanding on LLM. It is highly possible that respondents used other types of MCLLSSs and they were not captured by the questionnaires. As suggested by Dornyei (2001), more qualitative data is needed so that we can capture a wider variety of data regarding LLM.

8.2 The limitation of self-report data

There have been detailed discussions on the limitations of self-report data (e.g., Cohen & Scott, 1996). The two main arguments over this issue are that whether strategy use is conscious or unconscious and whether L2 learners can accurately describe their use of strategies. Despite more and more evidence that has shown that adults (Cohen, 1996) and children (Chamot and El-Dinary, 1999) are able to articulate clearly their use of LLSs, no firm conclusion can be drawn until more evidence is available.

8.3 The limitation of correlations in showing direction of relationships

The relationships found between the use of MCLLSSs and LLM shown by the correlation coefficients do not tell us the directions of relationships. This is particularly true in this study,

given the fact that only two items of the motivation scales were found to be predictive of MCLLS use. Given this, it is possible that providing L2 learners MCLLS instruction will improve their learning outcomes and in turn raise their motivation for learning. As will be delineated below, implementing MCLLS instructions can be an effective way of raising motivation of learners.

Apart from the inadequacies of the dichotomous classification, another criticism of Gardner's framework is the lack of considerations of contextual influences. Dornyei (2001) criticises that research on LLM have been neglecting contextual factors and employing a traditional individualistic approach in motivational psychology. Studies utilizing Gardner's framework in other contexts such as India found instrumental motivation more important (Lukmani, 1972). It has been argued that contextual influences contribute to the prevalence of instrumental motivation among ESL learners in Hong Kong (Lai, 1999). However, given the almost equal importance of both integrative and instrumental motivation of the respondents found in this study, there is a need to further explore how the above contextual influences affect the LLM of ESL learners in Hong Kong.

9. Implications for teaching

The findings of ESL learners' prior knowledge and use of MCLLSs, their preference for some MCLLSs, the gender differences in LLM, the prevalence of both integrative and instrumental motivation, the positive relationships between the use of MCLLSs and LLM, the possibility of the existence of bi-directional relationships between MCLLS use and LLM, and finally the importance of context in influencing the use of MCLLSs and LLM of learners provide some implications for teaching. They are described in this section.

This study found a moderate use level of most MCLLSs. This shows that these MCLLSs are not totally new to the respondents, despite the lack of emphases of MCLLSs in most English curricular in Hong Kong. The development of materials and training programs on MCLLSs should be based on the different degree of popularities of different MCLLSs among our respondents. Strategies training can start with the MCLLSs of 'Paying attention', 'Self-monitoring', and 'Finding out about language learning', which learners are more familiar with and use more frequently. After learners have gained the mastery over these strategies, strategy training can proceed with introducing to learners MCLLSs such as 'Seeking practice opportunities' and 'Setting goals and objectives' which are less popular among them. Since 'Organizing' is the least popular among our respondents, effort should be put on raising their awareness of the potential benefits of employing this cognitively more demanding MCLLS. This is not only true in the Hong Kong context, but in other Asian

contexts as well, given the fact that MCLLS instruction is a relatively new area in the Asian context.

Female ESL learners were found to have significantly higher levels of both types of motivation. Teachers should emphasize these two benefits in encouraging female learners. They can also take practical steps such as leading learners to participate in the activities of other cultural groups, in addition to just focusing on the instrumental aspect of learning English. Raising the level of LLM of female ESL learners can also raise the LLM level of male ESL learners because of peer influences.

Both integrative and instrumental motivation were found to be prevalent among the respondents. They were also found to be positively related to the use of MCLLSs. Techniques on raising motivation should emphasize both types of motivation. In addition to raising learners' interests in the target community, teachers should let learners know the external rewards which could be brought about by knowing the English language, for example, increasing one's competitiveness in the labor market, career-advancement, etc. This can lead to an increased use of MCLLSs.

The finding of integrative but not instrumental motivation being the predictor of the use of MCLLSs shows the more important role of integrative motivation in the use of MCLLSs. This implies that teachers can pay more attention to raise learners' level of integrative motivation in order to facilitate the use of MCLLSs. However, given the strong inclination towards the instrumental motivation of ESL learners in Hong Kong and a lot of Asian contexts because of contextual influences, ESL learners may have resistance in changing their motivational orientation. It may be difficult for language teachers to develop the integrative orientation of their learners. Teachers may also have to face resistance from parents, schools and the education authorities.

It is highly possible that bi-directional relationships between the use of MCLLSs and LLM exist as described in section 8.3. Therefore, suggestions on improving the use of MCLLSs can raise the level of LLM. More motivated learners are more willing to learn and apply LLSs and this in turn results in better ESL learning. Because of this possibility, LLS instruction can be an effective means of heightening the LLM of learners. There are a lot of existing programs available (Hosenfeld, Arnold, Kirchofer, Laciura, & Wilson, 1981; Cohen, Weaver, & Lee, 1998). The encouraging outcomes of these programs imply that they can be adapted specifically for MCLLS instruction and for the local and other Asian contexts.

Finally, there is a need to point out that we should take into consideration the importance of contextual influences in designing instructional programs on MCLLSs and LLM. There is a need to develop cultural specific interventions. Existing programs on strategy instructions

are by no means targeting specifically on the cultural characteristics of Chinese and other Asian ESL learners. As already mentioned, there are some characteristics of the context of language learning which Hong Kong shares with other Asian countries such as Korea, Japan, Singapore and Taiwan. An example is the value-added role of English in the society. Another example is the examination-oriented education system. The design of instructional programs should take into consideration the common characteristics of ESL learners in the Asian context so that ESL learners in Asia can benefit from these programs.

In summary, the implications for teaching are that language teachers should make use of ESL learners' prior knowledge and experiences in using MCLLSs in MCLLS instruction, not only to raise learners' level of instrumental but also integrative motivation in order to bring about more MCLLS use, using MCLLS instruction as a means to raise the level of LLM, and finally taking into consideration contextual influences in designing programs for MCLLS instruction and raising LLM.

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Appendix

Survey questionnaire

We are carrying out a research on English learning, and would like to get your opinions. There are no right and wrong answers to the questions, and we would only like to get your valuable ideas. Information which you give will be kept confidential and only be used for research purposes. We would be grateful if you could spend 20 minutes to complete the following questionnaires.

Part I

Circle the response (1, 2, 3, 4 or 5) that tells HOW TRUE OF YOU THE STATEMENT IS.

- 1 Never or almost never true of me
- 2 Usually not true of me
- 3 Somewhat true of me
- 4 Usually true of me
- 5 Always or almost always true of me

- | | | | | | |
|--|---|---|---|---|---|
| 1. I try to find as many ways as I can to use my English. | 1 | 2 | 3 | 4 | 5 |
| 2. I notice my English mistakes and use that information to help me do better. | 1 | 2 | 3 | 4 | 5 |
| 3. I pay attention when someone is speaking English. | 1 | 2 | 3 | 4 | 5 |
| 4. I try to find out how to be a better learner of English. | 1 | 2 | 3 | 4 | 5 |
| 5. I plan my schedule so I will have enough time to study English. | 1 | 2 | 3 | 4 | 5 |
| 6. I look for people I can talk to in English. | 1 | 2 | 3 | 4 | 5 |
| 7. I look for opportunities to read as much as possible in English. | 1 | 2 | 3 | 4 | 5 |
| 8. I have clear goals for improving my English skills. | 1 | 2 | 3 | 4 | 5 |
| 9. I think about my progress in learning English. | 1 | 2 | 3 | 4 | 5 |

Part II

Respond the following statements.

- | | Strongly
Disagree | | Strongly
Agree | | |
|---|----------------------|---|-------------------|---|---|
| 1. Studying English is important to me because it will allow me to be more at ease with other people who speak English. | 1 | 2 | 3 | 4 | 5 |
| 2. Studying English is important for me because it will allow me to meet and converse with more and varied people. | 1 | 2 | 3 | 4 | 5 |
| 3. Studying English is important for me because it will enable me to better understand and appreciate British art and literature. | 1 | 2 | 3 | 4 | 5 |

4. Studying English is important for me because I will be able to participate more freely in the activities of other cultural groups. 1 2 3 4 5
5. Studying English is important for me because I'll need it for my future career. 1 2 3 4 5
6. Studying English is important for me because it will make me a more knowledgeable person. 1 2 3 4 5
7. Studying English is important for me because I think it will someday be useful in getting a good job. 1 2 3 4 5
8. Studying English is important for me because other people will respect me more if I have a knowledge of a foreign language. 1 2 3 4 5

Part IV

1. Your gender: Male / Female
2. Your age: _____
3. How do you rate your overall English proficiency? (Please circle)

Excellent Good Fair Poor

4. How important is it for you to become proficient in English? (Please circle)

Very important Important Not so important

5. Why?
-
-

6. Do you have other comments regarding this questionnaire?
-
-

**** End of Questionnaire. Thank you ****

Critical Thinking and Voice in EFL Writing

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Abstract

For years, it has been observed that Turkish EFL (English as a Foreign Language) students suffer from weaknesses in expressing their original thoughts in writing in a foreign language. This problem seems to be associated with critical thinking, defined as “making reasoned judgments to assessing the validity of something” (Beyer, 1995) and individual voice, defined as “authorial identity” (Ivanic, 1998; Hirvela and Belcher, 2001). In this paper, two issues are investigated: firstly, whether Turkish EFL users in an English Language Teaching (ELT) department display elements of critical thinking and voice; and secondly, whether these students think they possess them. The argumentative essays of 76 EFL students were analyzed via Stapleton’s (2001 p. 252) criteria which seek the elements of critical thinking (claims, kinds of reasoning, the extent of evidence, recognition of opposing arguments and refutation, and fallacies) and individual voice. Students’ perceptions related to critical thinking and voice were elicited through a questionnaire administered to the same group of respondents. The analysis of the essays shows that there are too many unsupported claims in the essays; therefore, the students ignore constructing arguments comprising claims supported with reasons and evidence from the texts they read. The amount of evidence and reasons used to substantiate these claims is not sufficient to form healthy arguments, which implies that the students tend to write or copy what they read rather than filtering it through their judgment and reasoning. Opposing arguments in the texts do not seem to be recognized and refuted. Claims are not supported with logical and related conclusions. The questionnaire demonstrates that the students have a high level of critical thinking and individual voice in expressing themselves clearly and putting their own viewpoint into their writing, rather than sharing somebody else’s viewpoint, which are not reflected in the essays. The results suggest that EFL students need to be supported in terms of critical thinking skills though they perceive themselves to be critical thinkers to overcome the difficulties in writing and to cope with the requirements of the multicultural world.

Key words: Critical thinking, voice, L2 writing.

Introduction

Recent trends in the educational domain emphasize the importance of critical thinking skills necessary for academic success and for life. Learners are expected to question the validity of ideas in texts or judge the ideas of other people. Also, they are to filter knowledge of all sorts through their reasoning and to find logical flaws instead of accepting them as they are. For long, it has been observed that Turkish EFL (English as a Foreign Language) students have

great difficulties when writing essays in English as they can not easily integrate their own ideas. The difficulty seems to stem from mere loyalty to texts given as course materials (coursebooks, reference books, hand-outs, reports on the net and so on). Moreover, their hesitation to write what they really think also poses the problem of “judging” and “questioning”. While writing essays, it is observed that students just copy excerpts from the texts without any elaboration. Beyond their limited English language knowledge, it is highly questionable whether this situation might be associated with critical thinking skills and voice, which are not emphasized explicitly within the Turkish educational system including language education (Kaya, 1997; Vancı-Osam, 1998; Gelen, 1999; Öner, 1999; Çokluk-Bökeoğlu, 2004; Dahmeroglu and Vancı-Osam, 2005).

Critical Thinking

Chance (1986, p.6) sees critical thinking as the ability to analyze facts, generate and organize ideas, defend opinions, make comparisons, draw inferences, evaluate arguments and solve problems. Beyer (1995, p. 8) defines critical thinking as "...making reasoned judgments", basically, seeing critical thinking as using criteria to judge the quality of something, from cooking to a conclusion of a research paper. In essence, critical thinking is a disciplined manner of thought that a person uses to assess the validity of something (statements, news stories, arguments, research, etc.). Critical thinking involves identifying, evaluating, and constructing arguments and the ability to infer a conclusion from one or multiple premises. To do so requires examining logical relationships among statements or data. Ambiguity and doubt serve a critical-thinking function and are a necessary and productive part of the process, urging the writer to continue the search until the correct conclusion is found (Beyer, 1985).

Briefly, critical thinkers judge and question an idea or thought based on reliable evidence by establishing logical relationships among statements or data based on reliable evidence or source by establishing logical relationships. In a text, within the framework of critical thinking, students are to recognize the following aspects: 1-the central claims or purpose of the text (its thesis): A critical reading attempts to assess how these central claims are developed or argued. 2-some judgements about context, 3-kinds of reasoning the text employs, 4-the evidence (the supporting facts, examples, etc) the text uses. Supporting evidence is indispensable to an argument. 5-the strengths and weaknesses of an argument (Knott, 2005). Accordingly, good writing should reflect the aspects of critical thinking. Therefore, a writer should generate some content, to put forth assumptions, evidence, and arguments that he can then defend and from which he can draw conclusions (Kurland, 2000). A thinking mind should be reflected in writing. Stapleton (2001, pp. 536-539) proposes the

following criteria to evaluate a written text in terms of critical thinking elements:

1-Arguments: Arguments are claims supported by a reason. A claim consists of a statement whose truth is arguable, and is often advanced in answer to a problem or controversial issue. A claim which stands alone without a supported reason is an opinion and cannot be classified as an argument. Claims may be proposals, definitions, and evaluations.

2-Reasons: Reasons are statements used to support claims and generally answer why the claim should be believed. Reasons must show a direct logical link to the claim in order to be bound into a single proposition called an argument. Reasons need not be new; however if they are simple repetitions of those found in the prompt, without elaboration, they do not indicate critical thinking.

3-Evidence constitutes statements or assertions serving to strengthen the argument. It can be defined as support for the truth of a proposition, especially those that derive from empirical observation or experience (Kemerling, 2002). Forms of evidence are personal experience, research studies, statistics, citing authorities, comparisons and analogies, pointing out consequences, facts, logical explanations, and precisely defining words (Ramage and Bean, 1999).

4-Recognition of Opposition and Refutation: Opposing viewpoints constitute statements that run counter or offer alternative interpretations to those expressed in the claim. As with the arguments, these alternative viewpoints do not have to be original: they can be taken from the prompt. Refutations are statements in which the writer responds to the opposing viewpoint in a way that shows that it is inadequate in some way. Shortcomings in opposing viewpoints can include logical flaws, poor support, erroneous assumptions or wrong values (Ramage and Bean 1999, p. 117). Refutations must be logically linked to the opposing views which they profess to counter. They can also offer rival causes or solutions. In refuting an opposing or alternate view, the writer maintains his conclusion.

5-Conclusion: A conclusion is a statement or series of statements in which a writer sets out what she wants the reader to believe. This belief is conveyed via an argument, evidence and other statements that the author uses to signal his belief. Conclusions are usually limited to agreeing, disagreeing or taking some middle ground with respect to the prompt.

6-Fallacies are errors in reasoning. Davis and Davis (2000) contend that thinking critically is to find logical fallacies. It occurs when the reason does not adequately support the claim in a number of ways (Kemerling, 2002).

Ramanathan and Atkinson (1999) imply that in order to think critically, one must have an individual voice. Secondly, this voice should not be influenced by concerns of group cohesiveness or the status of those making alternative claims. In order to display critical thinking skills, students have to have the freedom to voice their ideas comfortably. It is reported that there is a strong bond between critical thinking and voice (Stapleton, 2001, 2002).

Individual voice

Individual voice in writing refers to authorial identity (Ivanic, 1998; Hirvela and Belcher, 2001) or authorial presence (Hyland 2001). Elbow (1981) describes it as writing that “captures the sounds of the individual on the page” (p. 287). Voice is the speaking personality or the speaking consciousness (Holquist and Emerson, 1981 cited in Wertsch, 1991). An utterance can only be produced by a voice. An utterance, spoken or written, is always expressed from a point of view (voice). The notion of utterance is inherently linked with that of voice. It is concerned with the broader issues of speaking subject’s perspective, conceptual horizon, intention and world view (Wertsch, 1991 pp. 51-52).

The identification of authorial voice in written discourse proves quite difficult as it involves voice appropriation which is not a straightforward citation of other people’s ideas, but a rather complex set of linguistic strategies. In some cases, it is found related with the use of such linguistic means as the use of the first person and second person pronouns “I” and “you”, vocative “hey guy” and explicit voice marker “in my opinion”(Scollon et al., 1998 p.232). The study by Cummings et al. (2005 p. 32), in their categorization of utterances, the utterances reflecting “self” are defined as those in which the writer is the source of information or the writer expresses ideas or thoughts from his or her experience with the uses of “I”.

Of great significance, here, is that Eastern education differs from Western education with respect to the role of critical thinking and voice. Given that critical thinking and voice are deemed to be peculiar to the western culture, although Eastern philosophy encourages independent thought, the issues of voice and critical thinking have been mostly investigated by Western-oriented second language researchers who concluded that they should be an integral part of both first (L1) and second language (L2) writing (Paul, 1990; Facione; 1990;

Scollon, et al., 1998; Park and Stapleton, 2003; Condon and Kelly-Riley, 2004). On the other hand, Asian societies labeled as “status-oriented,” “hierarchical,” “group-oriented,” “collectivist,” “interdependent” are contrasted with the individualistic, adversarial, horizontal and critically thinking patterns of their western counterparts. Asian students are thought not to display critical thinking skills and an individualized voice in their writing (Fox, 1994; Ramanathan and Kaplan, 1996; Atkinson, 1997).

There is considerable research into Asian learners that claim Eastern education may be perceived by Western-oriented educators as something quite different, but this difference should not be taken as a “deficit”. For example, Le Ha (2004; 2006) argues that it is not necessarily a must to conform to Western teaching standards in ELT classrooms and the difference does not mean “corruption”. He believes that a harmonious combination of both standards will enrich language competence of Vietnamese language learners and teachers. Similarly, Liu (2005) argues against Sowden’s (2005) idea that Chinese students tend to “plagiarize” rather than think due to cultural conditioning. To him, the use of memorized language patterns in writing is not plagiarism and different from plagiarism of ideas. Likewise, Carroll (2004) stands against stereotyping Japanese learners as individuals lacking critical thinking skills. The reason for their reticence in discussion, to her, is their limited language proficiency and resources, rather than critical thinking skills.

Le Ha & Viete (2002), in a different study, explores the representation of ‘self’ and finds evidence for voice in her research writing. In the same vein, the presence of voice is demonstrated in Japanese written discourse (in L1) by Matsuda (2001), who claims that the practice of constructing “voice” is not foreign to “collectivist cultures, giving the evidence for voice in electronic texts through the use of language specific discursive features.”

An assessment of critical thinking elements and voice in second language writing was conducted by Stapleton (2002). In his study, to find out whether Asian learners display elements of critical thinking and individualized identity, a nine-item questionnaire was issued to 70 second year students from five different faculties at a large university in northern Japan. In contrast to the established views that Asian students have hierarchical tendencies, he found that Japanese students possessed a firm grasp of elements of critical thinking. The participants had little hesitation to voice opinions counter to authority figures.

In Turkish culture, such values as authority, social harmony and deference to the elders and teachers are much appreciated as in several Asian cultures like Japanese (Stapleton, 2001), Thai (Hongladarom, 2006) and Chinese culture (Liu, 2005). This is reported to have a significant influence on learner independence in Turkish context. Palfreyman (2001) contends that previous experiences and social context could influence learner independence

because learners cannot be thought independent of their own culture. The observed problem is closely associated with the problem of autonomy of the learners in the Turkish educational setting. For example, Sert (2006) reports that Turkish EFL students lack the capacity for self-assessment in monitoring their own language learning process. There are several other studies that pinpoint many university students lacked necessary critical thinking and reflection skills to cope with the requirements of academic life such as skills of how to plan, conduct and evaluate research (Karasar, 1984; Buyukozturk, 1996; Karagul, 1996; Öner, 1999; Buyukozturk, 1999; Koklu and Buyukozturk, 1999). Additionally, Erdogan's (2003) study at a Turkish secondary school shows that teachers cannot resist traditional constructs of teaching as they are educated in the same society. Other descriptive studies in the Turkish context also confirm the relationship between learner dependence and social context in Turkey (Iskenderoglu, 1992; Keskekci, 1995). Alpay-Altuğ et al., (2003) attempted to identify some factors that are to influence the development of critical thinking skills in a group of 1026 adolescents. As the previous studies revealed that age, gender, academic success have impacts on the development of critical thinking, their study aimed to find the relationship between critical thinking levels and parents' attitudes towards their children, their income and education levels. The findings indicated that critical thinking skills were positively correlated with mothers' liberal attitudes and they increased as fathers' education levels got higher.

Kökdemir's (2003) study provides clues about the dispositions of Turkish university students towards critical thinking skills. In his study, Kökdemir conducted a critical thinking module with freshman students in the course "An Introduction to Psychology" in the Economy, Administration and Communication Faculty, Başkent University. It was observed that students had difficulty on their first attempt, but later could achieve the tasks comfortably and felt open to critical thinking. It was reported that such a practice should be turned into a reflexive action and such thinking can be taught.

An additional number of studies which assess critical thinking in the classroom environment show that critical thinking instruction has not been embedded into the Turkish educational system and that students and teachers have not been guided in such a thinking style (Kaya, 1997; Gelen, 1999; Öner, 1999; Çokluk-Bökeoğlu, 2004). Furthermore, it is indicated that coursebooks are not selected or adapted to enhance critical thinking (Munzur, 1998). Critical thinking skills and voice as associated with EFL writing have not been investigated in the Turkish milieu yet.

Problem

The PISA (Program for International Student Assessment) Project, which was conducted by a collaboration of ministries of education of 41 countries in 2003 evaluated four reading comprehension strategies (PIRLS: Progress in International Reading Literacy Study), among 150 000 children of various ages in obligatory education in the European Union and candidate countries, in relation to their social environment, in terms of a) Focusing on and retrieve explicitly stated information, b) Making direct inferences, c) Interpreting and integrating ideas and information, d) Examining and evaluating content, language, and textual elements (PIRLS 2001 Framework). The results showed that Turkish students along with students from Cyprus, Slovenia, and Norway appear to be towards the end of the scale. This situation might be open to any interpretation. Some may think that the use of a western scale in the measurement of literacy skills in Turkish context is not reliable; however, it is worth investigating whether the problem lies in the rote memorization-based instruction in which Turkish students are involved. Since the traditional instructional process urges the students to receive ready-made information without questioning, they are not encouraged to think critically, which is probably transferred into ELT classes as well (Vancı-Osam, 1998; Dahmeroglu and Vancı Osam, 2005).

Turkish EFL students frequently struggle in writing essays in L2 literature classes as they are expected to judge, evaluate the literary texts and express their thoughts freely. Essays are argumentative in nature, therefore they should be conscious of the major tenets of argumentation, which is a renewed pedagogical interest in the form of critical thinking (Rottenberg, 1991 p.V).

Specifically, in writing essays, the students seem to have difficulties in producing claims of their own, which is related to the probable lack of voice. They do not reflect their viewpoint for fear that their ideas are not validated or appreciated. Therefore, in the exams, the students just report what they have been taught, rather than produce critical comments. They all agree with whatever the text says and with whatever the teacher says. They appear to be unaware of their importance and the value of their ideas. Students also seem to be prone to receive any information without questioning. Meanwhile, their attempt to question or comment on what is taught and read is vain as such an attitude is not acceptable in the traditional educational system in which the learners are not encouraged to think critically and independently. Students might have certain dispositions for critical thinking at the very beginning of their education, but, later on, their disposition seems to be spoilt by the existing educational system.

Integrating critical thinking at all levels of education might help address the problem

indicated above and might make students aware that they are important as individuals. Such an integration will make them believe that their ideas/thoughts, decisions, evaluations are of great value in their education both in the mother tongue and in a foreign language. Therefore, the first step to compensate for this inadequacy in education is to indicate the existence of the problem.

Therefore, in this paper, we aim to measure critical thinking levels of EFL students in order to gain insights into the problem mentioned. The research questions addressed in this paper are as follows:

- 1- Do Turkish EFL students in ELT departments display elements of critical thinking and individual voice as manifested in their essays?
- 2- How do they perceive themselves in terms of critical thinking elements and individual voice as a component of critical thinking?

Methodology

Informants and Instruments

Essays

76 essays of sophomore undergraduate students in a literature class in an ELT Department were analyzed in terms of the elements of critical thinking and voice. The essays were written in their final exams. A set of literary works studied during the term in An Introduction to English Language Literature Course served as the prompts for the essays. The students had been assigned to collect information about them on the internet and returned homework, which familiarized them with the content as in Stapleton's study (2001).

Percent interrater reliability was calculated out of the independent assessments of the essays by two raters, one of whom is the researcher and the other was a colleague (above 0.90). The number of agreed-on elements were identified and divided by the total number of agreements and disagreements and multiplied by 100 (Hall and Van Houten, 1983, p. 27).

Questionnaire

Additionally, a questionnaire was administered to the same group of students (76) to probe their perceptions as to whether they show critical thinking and individual voice. The items related to harmony and clarity in the questionnaire were adapted from Stapleton (2001 p. 252), but the remaining items directly sought for the elements of critical thinking and voice perception.

The questionnaire sought for the perceptions of students about clarity (Item 1), evidence,

reason, opposing arguments conclusion, harmony (Items 2, 3, 4, 5) and voice (Item 7). A Likert scale was used. The answers were scored on a five-point scale in which “1” corresponded to “strongly disagree” and “5” to “strongly agree”. Item 1 checked “clarity”, whether they can produce claims clearly stated. In piloting, the questionnaires were delivered in English, but later, to support comprehension, it was decided that they should be translated into Turkish and back translated.

The internal reliability of the questionnaire with seven items including clarity, evidence, reason, recognition, conclusion, harmony and voice was found to be 0, 68. The sixth item was dropped to increase the overall consistency. With six items, the reliability coefficient was found to be 0.74. The analysis was done with the remaining six items.

Procedure

To analyze the questionnaire, the mean scores of the responses were first calculated and later evaluated. In analysing essays, some solid linguistic indicators in addition to criteria given above are taken into account:

1-Knowing that **claims** consist of proposals, definitions and evaluations the analysis of claims in the essays was as follows: For proposals, modals like “may”, “might” and verbs like “suggest”, “show”, “demonstrate”, “indicate” and so on were considered. The use of simple present tense, and verb “to be” mostly indicated definitions. Evaluations are deemed to require an extensive use of adjectives as well as subjective judgments.

2- In the essays, **reasons** are often identified by indicator words and phrases such as “because”, “for this reason” and “for one thing” and such similar conjunctions showing cause and effect relationships. Additionally, although the essays include many repetitions of the reasons taken from the prompts, all logical reasons are tallied.

3-**Evidence** may be of many forms irrespective of language use whether it be personal experience, research studies, statistics, citing authorities, comparisons and analogies, pointing out consequences, facts, logical explanations, precisely defining words (Ramage and Bean, 1999).

4-**Opposing viewpoints and refutations** are identified by indicator phrases and words such as

It may be argued that ..

It might be asserted/contended/maintained/claimed that ..
It is said thatbut,....
Some people claim that....however.
Conjunctive devices like “although”, “despite” and “even though”

5- In evaluating **conclusions**, first, we examined whether the essays had a conclusion or not. Secondly, it was considered whether the main premise was concluded properly through reasoning. Explicit conclusions containing declarations such as “I agree”, “I disagree”, “I am undecided” or indicator words or phrases including “therefore”, “instead” and “as a result” or “in conclusion” were taken into account in addition to implicit conclusions

To examine “voice” in the essays, first, the essays were divided into the smallest terminable units, which are the shortest units which a sentence can be reduced to (Larsen-Freeman and Long, 1991; Cummings et al., 2005). The total number of T-Units and the number of T-Units representing “self” per essay was calculated, which was taken as the indicator of the extent to which the student writers displayed authorial voice in their essays.

Results

Of the essays, 60 were on Seven Deadly Sins in Dr Faustus by Christopher Marlowe, while 6, on love in The Flea by John Donne and 10, on the limitations of human beings in Dr. Faustus by Marlowe. Each essay was attentively elaborated in terms of critical thinking elements and agreed elements are recorded in the results (Table 1).

Critical Thinking Elements and Individual Voice in the Essays

Arguments: Claims-Reasons-Evidence: There are a huge number of claims, most of which are in the form of definitions in the essays. However, the number of reasons and evidence is not as many as that of the claims. Students remain unable to obtain evidence from the texts to back up their claims. Additionally, Arguments are weakly supported due to the inadequacy of evidence and reasons. Some claims are as follows:

“*Dr. Faustus’ pride results in his personal catastrophe*”.
“*Step by step, his morality corrupts and salvation becomes inevitable*”
“*All the properties of ancient tragedy are reflected in Dr. Faustus*”.
“*It (the story of Dr. Faustus) has full of moral lessons for human beings*.”
“*The story (Dr. Faustus) aims to make people learn from others’ mistakes by observing*”

“The poem (The Flea) focuses on a conceit, flea biting is likened to sexual intercourse”

“The poem (The Flea) is woven with metaphorical uses.”

“The poet (in The Flea) and his lover are restricted with the social norms as intercourse before marriage is not acceptable”

Recognition of Opposition and Refutation

Interestingly, though the students had already studied the texts and read the commentary/criticism provided, no previously stated commentary or view about the characters, plot, conflict or setting in the literary works was mentioned and/or refuted. When all the statements are considered, it is seen that they narrated what they read in a plain and non-responsive way, showing no emotion or reaction. As the students preferred to report pre-established and previously constructed arguments, they obviously neglected to form a new argument by stating a claim and to support it. They did not try to refute what has been said before.

Fallacies

Fallacies are the most challenging and intricate part of the analysis. Most students tended to oversimplify complicated aspects of the texts. This may be due to the inadequacy of textual knowledge and limited English language knowledge.

A great deal of students attempted to write about a topic closely related to the topic required, which averts the direction of the argument (Straw Man fallacy). This may be associated with the fact that they have already prepared the essays and have not gone to the bother of writing a new one during the exam. It might also be related to the easy access to the internet resources and ready made essays.

Drawing an irrelevant conclusion was quite the most frequent fallacy committed by the students. It is seen that most of the arguments had irrelevant conclusions. Out of 76 essays, 24 had an irrelevant and not fully developed conclusion. Two had no conclusion at all.

Hasty generalization, in which students jump to conclusions without evaluating reasons and evidence, was detected as well. Moreover, along with the fallacy “begging the question” a kind of circular reasoning, ad hominem fallacy, which is an attack against the source of an argument, not against the idea in the argument, was also seen in the essays (see Rottenberg, 1991 pp. 223-233, and Foldop Online Dictionary of Philosophy).

The number of fallacies observed were: Oversimplification (41), Straw Man fallacy (36) and Irrelevant conclusion (24), Hasty generalization (8), Begging the question (1), and Ad hominem fallacy (1), some examples of which are shown below:

1- "Dr. Faustus is a short play which was written by C. Marlowe. Of course, in this play the most important point is seven deadly sins" (oversimplification).

2- "People who made one of these seven deadly sins would be killed (oversimplification)

3- "In this century poems are written in metaphysical genre "(hasty generalization)

4- Fleas were a popular subject for humourous and love poetry in all countries at Renaissance"(hasty generalization).

5. Even (?) in our life, there are always sins which we avoid doing or if we did by mistake, we try to get rid of them.(the essay continues with sins in real life) (Straw Man fallacy)

6- From a student essay about "How is love viewed in The Flea" (Straw Man fallacy)

John Donne in the 17th Century

The 17th Century begins with the death of the Elizabeth Tudor. Then James I in 1603 enthrones the England. So it gives rise to some social, economical, religious, political events. These important events are that appearing the Catholics and Puritanists.

In these period, Puritanism is seen at the high level even though many people who don't accept Puritanism. Puritanists are the purer Christianity than the protestantists. They think protestantists are not real Christian. They have many strict rules However as some people could not accept it, the secularism, is seen in that period.

Oliver Cromwell is the founder of a government which is commonwealth. It is very important event in order to show their existence. As the society begin to understand the realities. Scientific interests are seen in that period.

Some examples of metaphysical poets are seen. It is lyric poet. Metaphysical poets are related to two things which don't show the realities. In the 17th century is the age of the prose. So economical writing are seen even though some conceits are seen. But they are not the high rate as in the 16th century.

The most prominent writers are John Donne and John Milton. John Donne who writes the Flea is metaphysical poet . The fundamental aim shows the love in the poet. It includes many conceits.

7-Dr Faustus is a different example of tragedyit is a tragic story. It is an example of tragedy. (Begging the question)

8-From a student essay about Dr Faustus that was to be written about Dr Faustus and his seeking for knowledge) (Straw Man fallacy)

Within the text of Christopher Marlowe is Doctor Faustus as a reader recognizes the struggle between super ego and id. In the play, Faustus struggles with himself while Lucifer and Mephistopheles struggle with him. It is represented the constant struggle between id and super

ego.....

Table 1: Critical thinking elements in the essays

	Claims	Reasons	Evidence	Opposing Arguments &Refutations	Fallacies	Irrelevant Conclusion
Rater 1	310	44	33	4	111	24
Rater 2	320	44	30	4	111	24
Percent Interrater Reliability	97	100	90	100	100	100

In terms of individual voice in the essays, out of 1267 T-Units, there were only 14 utterances representing ‘self’ in the essays.

Critical Thinking and Individual Voice as perceived by the students

The questionnaire shows that almost all the respondents perceive that they display a high level of critical thinking (Table 2).

Table 2: Mean Scores in the Questionnaire.

	N	Mean	Standard Deviation
Clarity	76	4.06	0.85
Evidence	76	3.69	0.98
Reason	76	4.07	0.76
Recognizing others' viewpoints	76	4.28	0.78
Conclusion	76	4.14	1.0
Voice	76	4.39	0.80

Conclusions

The phenomenon found in this study of essays implies that the students under investigation still retain a sense of loyalty to the texts and reticent to isolate themselves from the arguments within them. Primarily, the vast number of the claims confirms their dependence on the texts. The claims are not supported with adequate evidence from the texts in the form of facts, experience, citing authorities, comparisons and analogies, consequences, and logical explanations. This idea is strengthened with the small number of causal relations and the frequency of irrelevant conclusions, most of which pave the way for fallacies. The existing cause and effect structures reflect perfect grammaticality, which gives the feeling that they are copied or memorized. The phenomenon shows that students tend to memorize and write what they read rather than filter it through their judgment and reasoning. Copying the parts of the texts which do not contain the arguments, reporting just claims in the form of proposals,

definitions, and evaluations might indicate that texts are handled for their informativity rather than the source of evidence and the bases of their arguments. This situation fits into the didactic approach or concept-based instruction in the classic educational system where learning is centered on the retention of previously learned information and where no thinking is required (Çokluk-Bökeoğlu, 2004, p.29). In this particular study, the analysis of essays in terms of voice indicates that the students are frightened to add their comments into the essays. The number of T-Units reflecting “self” were quite few when compared with the total number of T-Units. This aspect of the present study supports the views reported in the studies into learner autonomy and independence in Turkey (Karasar, 1984; Iskenderoglu, 1992; Buyukozturk, 1996; Karagul, 1996; Öner, 1999; Buyukozturk, 1999; Koklu and Buyukozturk, 1999; Erdogan, 2003; Sert, 2006).

To our surprise, the results of the questionnaire are not in conformity with the phenomenon in the essays. The former shows that the students desire to express their points of view freely and that they do not want to reflect the text or the teacher’s ideas in their writing. However, in the essays, it is observed that they seem to be hesitant to write their ideas explicitly. They are restricted to the texts they read as was seen in the essays, which indicates a contradiction. This contradiction may suggest that there are some other factors influencing the success of Turkish EFL learners in writing other than the lack of critical thinking. As Carroll (2004) asserted, language proficiency levels and resources may play a role in hindering them from reflecting what they really think.

The results of this study are important in the following aspects: First, they partly indicate that critical thinking is not emphasized in the Turkish educational system. Since language learning is regarded as part of a memorization-based system of education in Turkey and learners are not independent enough (Palfreyman, 2003; Tekışık, 2005, pp. 12-13; Sert, 2006), EFL students fail in expressing their own ideas with their own words and thinking critically in content-based courses. Their failure might be interpreted respective of how the students have been educated till they attend university, since their previous education most probably shapes the observed code of behavior along with other personal and social factors.

Second, it gives an idea about thinking patterns of a group of Turkish language learners. Therefore, this study is important as it may contribute to the continuing discussion regarding cultural constructs of language learning with specific reference to Asian foreign language learner profile as it shows that Turkish learners seems to share similar thinking behavioural patterns as those mentioned in the studies of Fox (1994), Ramanathan and Kaplan (1996), and Atkinson (1997). Further studies might be conducted to design more suitable curricula to meet the cognitive needs of Turkish learners so as to help them compete with their peers in

the western countries. As Le Ha (2004) contends, there are many cultures through which the world is perceived differently, and so the difference does not mean a “deficit”. Critical thinking can be integrated into the educational practices and taught (Kökdemir, 2003) as such a thinking style is not totally “foreign” to Asian learners (Matsuda, 2001; Stapleton, 2002). Amalgamated curricula might serve Turkish students better.

This study should be taken as an attempt to identify an educational problem and to pinpoint the existence of a recoverable defect in Turkish educational system. A further step will be to seek remedies to integrate critical thinking into the classroom and the curricula.

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The Effect of Short-Term Exposure on Familiarity with Accented English for Japanese EFL Learners

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Abstract

This research investigated how nonnative speakers of English could adapt to accented English. The effect of short-term exposure on familiarity with accented English and the strength of accent were examined. The results showed four findings: 1) Adaptation to accented English could occur for nonnative speakers immediately, 2) nonnative speakers of English adapted to both knowledge of transferred L1 language background and accentedness, 3) the adaptation to accentedness was more important to process accented English than knowledge based on features of speech, and 4) the learned abstract knowledge could improve processing of accented English. Overall, these findings suggest that nonnative speakers of English can familiarize themselves with accented English and attempted to adapt to accentedness sensitively, and exposure to varieties of English can expand the flexibility of speech perception for Japanese EFL learners.

Keywords: accented English, familiarity, EFL Learners, speech perception, accentedness

1. Introduction

English has now being spoken by a great number of nonnative speakers all over the world. The spread of English raises the issue of mutual intelligibility among English speakers including both native speakers and nonnative speakers. As one method to deal with the issue of intelligibility, numerous studies have investigated the effects of accented English. Munro (1998) explained that foreign-accented speech could be defined as nonpathological speech produced by nonnative learners. Accented English consists of many various elements: segmentation, syllabification, intonation, speech rate or accentedness. In addition, some research broadened the definition of a dialect into the features of pronunciation and the regional background of speakers (Major, Fitzmaurice, Bunta, & Balasubramanian, 2005). The objective characteristics of accented English remain obscurely defined. However, even though the countless features of various types of English are changing sequentially, scaling

the strength of accentedness has been devised to classify accented English.

To measure the accentedness of speakers, the method of interval scaling has been used in numerous studies (Munro & Derwing, 1995a; Major et al, 2005). Even though the raters of accentedness are untrained native speakers, they could measure the accentedness sufficiently (Mackey, Finn, & Ingham, 1997; Bongaerts, van Summeren, Planken, & Schils, 1997). In fact, many experiments adopted native speakers as raters of accentedness, but even if inexperienced and untrained raters could measure the accentedness, it is unclear whether nonnative speakers can rate the accentedness. Some previous research consisted of mixed raters: both nonnative and native speakers (Olson & Samuels, 1973; Elliot, 1995), yet that factors influence the accentedness scaled by nonnative speakers was not clear, and how the accentedness scaled by nonnative raters influenced listening comprehension was ambiguous.

Accents exist within both native speakers and nonnative speakers, and the diversity of accents sometimes disadvantages the understanding of listeners (Magen, 1998; Schimid & Yeni-Komshian, 1999). Moreover, strong accentedness caused listeners to underestimate the speakers' intelligence and social status (Brennan & Brennan, 1981). Accent identification depends on the speaker's role (Bresnahan, Ohashi, Nebashi, Liu, & Shearman, 2002).

As stated above, speech with strong accentedness is judged negatively. However, should the accent be excluded from speech of nonnative speakers? Even if nonnative speakers learn model English, it is evident that their English pronunciation cannot avoid the influence of other aspects: mother tongue, amount of native language use, age of acquisition, and motivation as has been stated in previous research (Moyer, 1999; Piske, Mackay, & Flege, 2001). In addition, even if learners of English cannot avoid changing their own English and bumping into various types of English, how do listeners familiarize themselves with varieties of English including accented English?

The familiarity with accented English has been scrutinized in several pieces of research (Gass & Varonis, 1984; Weil, 2001; Derwing, Rossiter, & Munro, 2002; Clarke, 2003; Clarke & Garrette, 2004;). Gass and Varonis (1984) found that topic familiarity was an important factor to understand accented English. However, with regard to training, interaction between tasks and adaptation occurred in several days (Clarke, 2000; Weil, 2001). The long-term training did not influence listeners' comprehension but positive attitudes toward accented English (Derwing et al, 2002), although the findings suggested that native speakers could adapt to accented English immediately (Clarke, 2003; Clarke & Garrette, 2004). Familiarity possibly occurred in both short and long-term training. However, those experiments have been done by native speakers of English, so that the processing of accented English for nonnative learners of English was not clarified. In addition, given that the

proficiency was based on high intelligibility, feasibly caused the positive mutual understanding (Bent & Bradlow, 2003), the nonnative speakers with high proficiency could familiarize themselves with accented English immediately.

As for the practical contribution of familiarity with accented English, native speakers have encouraged nonnative speakers to decrease the strength of accentedness in pronunciation as judged by native speakers because accented English is unacceptable and avoidable. In addition, the investigation of attitudes for accented English illustrated that Japanese learners prefer the speech of native speakers to accented English spoken by nonnative speakers (Chiba, Matsuura, & Yamamoto, 1995; Matsuda, 2000). To summarize the above, it is necessary that not only the relationship between nonnative and native speakers, but also the issue of mutual intelligibility among nonnative speakers should be scrutinized in the context of English for nonnative speakers. The primary purpose was to investigate whether familiarity with accented English occurred immediately for nonnative speakers in an experiment based on a reaction time measurement. Secondly, if adaptation to accented English did occur within nonnative speakers of English, what factors caused the adaptation to accented English. To scrutinize whether the processing of accent perception for nonnative speakers is based on either language background knowledge or degree of accentedness, the experiment of familiarity with both shared language background and shared accentedness was examined.

2. Experiment 1

The purpose of this experiment was to clarify whether adaptation to accented English could occur in sentence verification tasks (SVTs) and whether nonnative speakers of English could adapt to accented English. Some researchers illustrated that native listeners could rapidly adapt to foreign accented English in a word identification task (Clarke, 2003; Clarke & Garret, 2004). However, it was not clear whether this adaptation could happen for nonnative listeners. In addition, although accented English cost much more processing time than native English in SVT (Munro & Derwing, 1995b), the systematic effects of accented English were not scrutinized. To investigate whether nonnative listeners could familiarize themselves with accented English immediately, this experiment adopted a reaction time measurement because processing efficiency is a sensitive phenomenon.

2.1 Method

2.1.1 Subjects

Thirty-eight undergraduate students and graduate students were recruited from a local

university for participation in this experiment. They are all Japanese learners of English and reported no hearing problems. Their English proficiency was based on self-reported TOEIC test scores, and was diverse including intermediate and advanced level.

2.1.2 Design

Experiment 1 used a mixed design with the four groups (accented English: Canadian English, Canadian-Japanese English, Japanese English, and Chinese English) for between-subject factors and four blocks (block: 1, 2, 3, and 4) for within-subject factors. The four blocks of twelve sentences were presented to each subject. Breaks between blocks were prepared if participants would like to take them. Each break depended on subjects' fatigue. To investigate the adaptation to accented English, sentence verification tasks (SVTs) in this experiment were manipulated. Subjects in each group heard either forty-eight sentences recorded by the Canadian speaker (Canadian English condition), thirty-six sentences recorded by the Canadian speaker, followed by twelve sentences produced by the Japanese speaker (Canadian-Japanese English condition), forty-eight sentences recorded by the Japanese speaker (Japanese English condition), or forty-eight sentences recorded by the Chinese speaker (Chinese English condition).

2.1.3 Speech stimuli

The researcher manipulated sentence verification tasks, true or false judgments, to estimate processing time. The sentence verification tasks (SVTs) consisted of forty-eight sentences, some of which were created by Munro & Derwing (1995b). The researcher in this experiment constructed the rest of the speech stimuli in this present research. Those sentences were fundamentally universal or based on mathematical knowledge (Appendix 1). To produce the speech stimuli, the forty-eight sentences were recorded by the male Canadian speaker, by the female Chinese speaker, and the male Japanese speaker, who were rated in accentedness tasks.

These speakers' accentedness was 2.18 (Canadian), 5.70 (Japanese), and 7.70 (Chinese) on the rating scale follows labels: "9 = very strong accent" and "1 = no accent". Prior to recording, the speakers familiarized with the sentences to remove errors of orthography to phonology translation. In some of the recording tasks in which audible and or visible hesitation lexical mistakes occurred, the researcher asked the speakers to produce the same sentences repeatedly and correctly. The speakers sat in a quiet room and read the list of SVTs at natural rate with the SONY ICD-SX20 recorder, and then it was transferred to a DOS operating system to be converted to .wav files (Channels: Stereo; Frequency = 44000 Hz).

Each file was edited visually and aurally on a computer display and the experimenter removed extraneous noise to normalize the speech stimuli. After refining the sentences, the experimenter added silence to the end of the sentences.

2.1.4 Procedure

Subjects sat in a comfortable, quiet room in front of a computer screen. First of all, the researcher explained that this research was to investigate listening ability to relieve psychological stress and anxiety for tests. The sentence verification tasks (SVTs) required subjects to push either the true button if the meaning of sentence was correct, or the false button if the meaning of the sentence was not correct. Secondly, the researcher instructed subjects to respond as accurately and quickly as possible in the SVTs. Before the actual examination, subjects had six practice sentences, produced by a nonnative speaker who was different from the speakers in the experiment 1, to familiarize themselves the methodology of SVTs. After the practice tasks, subjects started the SVTs.

In this experiment, the participants first saw three fixed crosses that remained visible for the duration before the listening trial. After 1000 milliseconds, listening materials produced by each speaker were presented to subjects. Immediately after the speech sentence then disappeared, the screen was white except for the words “True or False” until subjects pressed either the true or the false button on the computer keyboard. After listeners pushed one of the buttons, the next sentence of SVTs played without any milliseconds. These tasks continued repeatedly until listeners completed the forty-eight sentences in each condition. Figure 1 illustrates the sequence of the procedure in this experiment. According to auditory stimuli, the order of forty-eight sentences was randomized in each block during the SVTs between block 1 to block 4 in all conditions except the Canadian-Japanese condition. In the Canadian-Japanese condition, after block 3 ended, speech stimuli in Canadian-Japanese English condition changed the speech sentences produced by the Canadian English speaker into auditory sentences recorded by the Japanese English speaker. The speech stimuli did not include the same sentences in SVTs. In summary, all meanings of the sentences were different in the Canadian-Japanese condition similar to other conditions.

2.2 Results

2.2.1 Accuracy

For this mixed design with four groups (accent English: Canadian English, Canadian-Japanese English, Japanese English, and Chinese English) for between-subject factors and four blocks (block: 1, 2, 3, and 4) as within-subject factor, a repeated measures

Analysis of Variance (ANOVA) was conducted. Figure 1 shows the mean percentages of correct answers for the four groups of accents. No significant interaction between conditions and blocks, $F(9, 102) = 1.61$, ns, was calculated. However, there were significant main effect of both groups, $F(3, 34) = 6.98$, $p < .01$ and blocks, $F(3, 102) = 4.76$, $p < .01$.

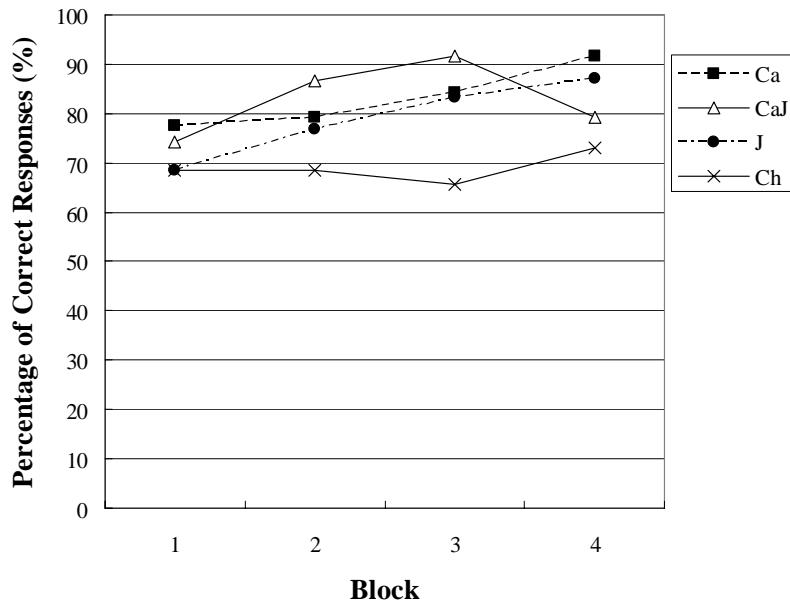


Figure 1. Mean Percentage of Correct Responses Based on Twelve Stimuli per Block in Sentence Verification Tasks of Experiment 1.

Post-hoc comparisons were performed using Bonferroni adjustment for multiple comparisons. The percentages of correct responses in the Canadian English group ($M = 83.1\%$, $SD = 2.4$) were higher than the responses in the Chinese English group ($M = 69.0\%$, $SD = 2.5$), $p < .01$. In addition, the percentages of correct responses in the Canadian-Japanese English group ($M = 82.9\%$, $SD = 2.4$) were higher than the responses in the Chinese English group, $p < .01$. To compare the effect of blocks, the percentages of correct responses in block 4 ($M = 82.8\%$, $SD = 1.9$) were higher than the responses both in block 1 ($M = 72.2\%$, $SD = 2.1$) and in block 3 ($M = 81.2\%$, $SD = 2.1$). In summary, correct answers increased during the task.

2.2.2 Fluency

Reaction time (RT) from correct responses was calculated. RT falling outside the range of ± 2 standard deviations from the each subjects' mean responses was excluded from this analysis in order to avoid other latency and error effects. Figure 2 shows the mean RT for four groups of accents. There were no significant effects for both groups, $F(3, 34) = 2.15$, ns

and block, $F(3, 102) = 0.50$, ns. In addition, a significant interaction between groups and blocks, $F(9, 102) = 3.50$, $p < .01$, was calculated. The significant interaction between groups and blocks was explored using a simple main effects analysis. The simple main effects analysis yielded the significant effect of the groups within block 3, $F(3, 34) = 4.20$, $p < .05$. In block 3, RT in the Canadian English group ($M = 979.16\text{ms}$, $SD = 229.46$) was significantly quicker than RT in the Chinese English group ($M = 2025.89\text{ms}$, $SD = 241.87$), $p < .05$. Furthermore in block 3, RT in the Canadian-Japanese English group were significantly quicker ($M = 1043.64\text{ms}$, $SD = 229.46$) than RT in the Chinese English group, $p < .05$.

In addition, the simple main effect of both the block within the Canadian English group, $F(3, 32) = 3.44$, $p < .05$, and the blocks within the Canadian-Japanese English group, $F(3, 32) = 3.57$, $p < .05$, was explored. In the Canadian English group, RT in block 3 significantly decreased more rapidly ($M = 979.16\text{ms}$, $SD = 229.46$) than RT in block 1 ($M = 1382.87\text{ms}$, $SD = 234.46$), $p < .05$. In the Canadian-Japanese English group, RT in block 4 ($M = 1753.83\text{ms}$, $SD = 341.48$) decreased significantly more than RT in both block 2 ($M = 1155.30\text{ms}$, $SD = 261.32$), $p < .05$, and block 3 ($M = 1043.64\text{ms}$, $SD = 229.46$), $p < .05$.

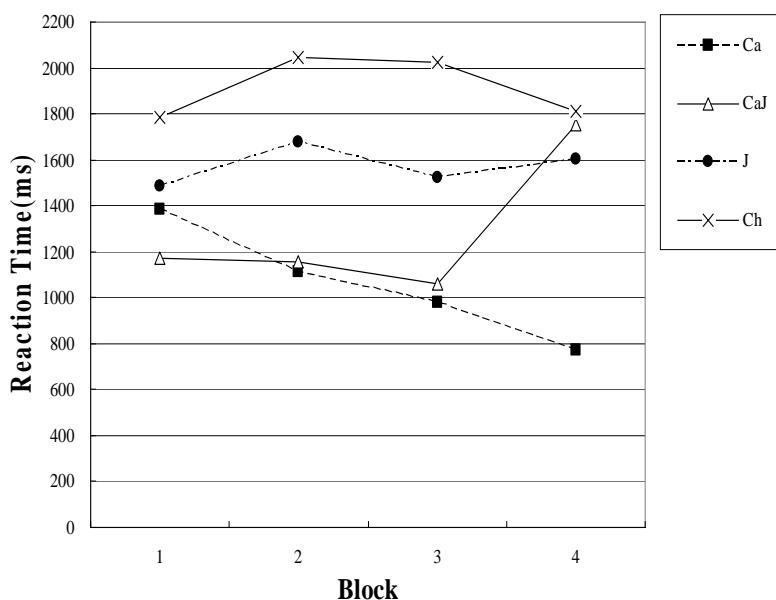


Figure 2. Mean Reaction Time Based on Twelve Stimuli per Block in Sentence Verification Tasks in Experiment 1.

2.2.3 Trade-off relationship

In this experiment, additional trade-off effects between accuracy and fluency were considered, so the investigation of the trade-off relationship was analyzed using a standardized baseline measure. To compare both mean correct responses and reaction time in a one dimensional way, z-scores were adopted. There were significant main effects for blocks, $F(3, 102) = 6.42$,

$p < .01$ and significant interaction between groups and blocks, $F(9, 102) = 4.63, p < .01$, and there was no significant main effect for groups, $F(3, 34) = 0.01, \text{ns}$. The simple main effects analysis indicated a significant effect of the groups within the block 4, $F(3, 34) = 4.51, p < .01$. In the block 4, z scores in the Canadian English group ($z = 0.65, SD = 0.21$) were significantly higher than z scores in the Canadian-Japanese English group ($z = -0.413, SD = 0.21$), $p < .01$.

In addition, the simple main effects of both the block within the Canadian English group, $F(3, 32) = 15.55, p < .01$, and the block within the Canadian-Japanese English group, $F(3, 32) = 4.55, p < .01$, and the block within the Japanese English group, $F(3, 32) = 3.79, p < .05$, were explored. In the Canadian English group, z scores in block 4 were significantly higher ($z = 0.65, SD = 0.21$) than z scores in block 1 ($z = -0.60, SD = 0.21$), $p < .01$, and z scores in the block 2 ($z = -0.19, SD = 0.23$), $p < .01$. Furthermore, z scores in block 3 ($z = 0.14, SD = 0.23$) were significantly higher than z scores in block 1, $p < .05$. In the Canadian-Japanese English group, z scores in block 4 ($z = -0.41, SD = 0.21$) were significantly lower than z scores in both block 2 ($z = 0.21, SD = 0.23$), $p < .05$, and block 3 ($z = 0.46, SD = 0.23$), $p < .01$, and z scores in block 3 were higher than z scores in block 1 ($z = -0.27, SD = 0.21$), $p < .05$. In the Japanese English group, there was no significant relationship between the groups and blocks.

2.3 Discussion

In this experiment, the purpose was to clarify whether adaptation to accented English could occur in sentence verification tasks (SVTs) and whether nonnative speakers of English could adapt to accented English immediately. The results showed that Japanese EFL learners of English could adapt to Canadian English during the SVTs, and showing that the processing time of Canadian English improved immediately. These findings were similar with previous research (Clarke, 2003; Clarke & Garette, 2004). In addition, the same result was replicated; the processing of accented English was more time-consuming than native accented English (Clarke, 2003; Clarke & Garette, 2004; Munro & Derwing, 1995b; Schimid & Yeni-Komshian, 1999). Some explanation of faster RT in the Canadian English group was the task specific strategy. However, on comparison the Canadian-Japanese English group with Japanese English group in block 4, such effects did not appear. This means that the subjects simply did not adopt a task-based strategy but a processing strategy for accented English. Furthermore, the percentages of correct responses increased during the tasks, and the scores of relatively stronger accented English groups were lower than other accented groups. Inconsistent with the experimental prediction, the adaptation to stronger accented English

such as Japanese accented English and Chinese accented English did not occur in the SVTs. However, as the analysis of the combination of both accuracy and fluency, the processing of Japanese accented English might increase during the tasks. Exhaustively, to scrutinize the data, both that processing time in the Canadian accented group decreased in block 4 and sequential processing in Japanese accented English, it was possibly assumed that a greater amount of access to accented English was required to adapt to accentedness for nonnative speakers. In addition, given the high correct responses achieved in the Japanese accented group continuously from block 1 to block 4, abstract knowledge of accentedness could be structured for nonnative speakers of English.

Conversely, if a retrieval system of abstract knowledge based on speech specific features improved over tasks, the existing storage of such knowledge could be readily adapted into processing. Otherwise, if both structuring and processing the knowledge simultaneously is operationalized, processing time would require much more time to adapt to new accented English. However, in this experiment, it could not clarify whether accentedness could contribute to the processing of knowledge based on abstract specific features.

3. Experiment 2

In the experiment 1, Japanese EFL learners could quickly adapt to Canadian English except for other accented English, although the percentage of correct responses increased in regard to the sequence of blocks. This result has suggested two possible paths of processing; 1) Listeners could acquire understanding of accentedness on line but not knowledge of features of L1 background. 2) Listeners could structure knowledge transferred from L1 specific features, and accentedness committed to construction of abstract knowledge of accented English, even if they are nonnative learners of English. To scrutinize this hypothesis, experiment 2 was conducted.

3.1 Method

3.1.1 Subjects

The subjects were twenty-eight undergraduate students and graduate students recruited from a local university for participation in experiment 2. . They are all Japanese learners of English and reported no hearing problems. Their English proficiency was based on self-reported TOEIC test scores, and was diverse including pre-advanced and advanced level.

3.1.2 Design

Experiment 2 used a mixed design with the three groups (conditions: Indonesian

A-Indonesian B, Indonesian B-Japanese, and Indonesian B-Indonesian A) as between-subject factors and four blocks (block: 1, 2, 3, and 4) as within-subject factors. The four blocks of twelve sentences were presented to subjects. Breaks between blocks were prepared if participants would like to take them. Each break depended on subjects' fatigue.

To investigate generalization to accentedness, sentence verification tasks (SVTs) in this experiment were manipulated. In the Indonesian A-Indonesian B condition, the subjects in each group heard thirty-six sentences recorded by the Indonesian A speaker, followed by twelve sentences produced by the Indonesian B speaker. In the Indonesian B-Japanese condition, the subjects in each group heard thirty-six sentences recorded by the Indonesian B speaker, followed by twelve sentences produced by the Japanese speaker. Similarly in the Indonesian B-Indonesian A condition, in the first three blocks, subjects listened to thirty-six sentences produced by the Indonesian B speaker, and the twelve listening stimuli changed into sentences recorded by the Indonesian A speaker in the last block. Table 6 summarized the conditions in the experiment 2.

3.1.3 Speech stimuli

The script of the sentence verification tasks (SVTs) was the same as in experiment 1 (Appendix1). To produce the speech stimuli, forty-eight sentences were recorded by the male Japanese speaker, by the male Indonesian A speaker, and by the male Indonesian B speaker, who were rated in the previous scaling tasks. These speakers' accentedness was 5.70 (Japanese), and 6.85 (Indonesian A), and 6.25 (Indonesian B) on the rating scale follows labels: "9 = very strong accent" and "1 = no accent". The recording methodology was the same as experiment 1.

3.1.4 Procedure

Experimental procedures were identical to the previous experiment 1 except for speech stimuli.

3.2 Results

3.2.1 Accuracy

For this mixed design with three groups (conditions: Indonesian A-Indonesian B, Indonesian B-Japanese, and Indonesian B-Indonesian A) as between-subject factors and the four blocks (block: 1, 2, 3, and 4) as the within-subject factors, a repeated measures Analysis of Variance (ANOVA) was conducted. Figure 3 shows the mean percentages of correct responses for the three groups of accents. There were no significant main effects for both conditions $F(2, 25) =$

2.16, ns and blocks F (3, 75) = 1.15, ns. In addition, the significant interaction between conditions and blocks, F (6, 75) = 4.96, p < .01, was calculated.

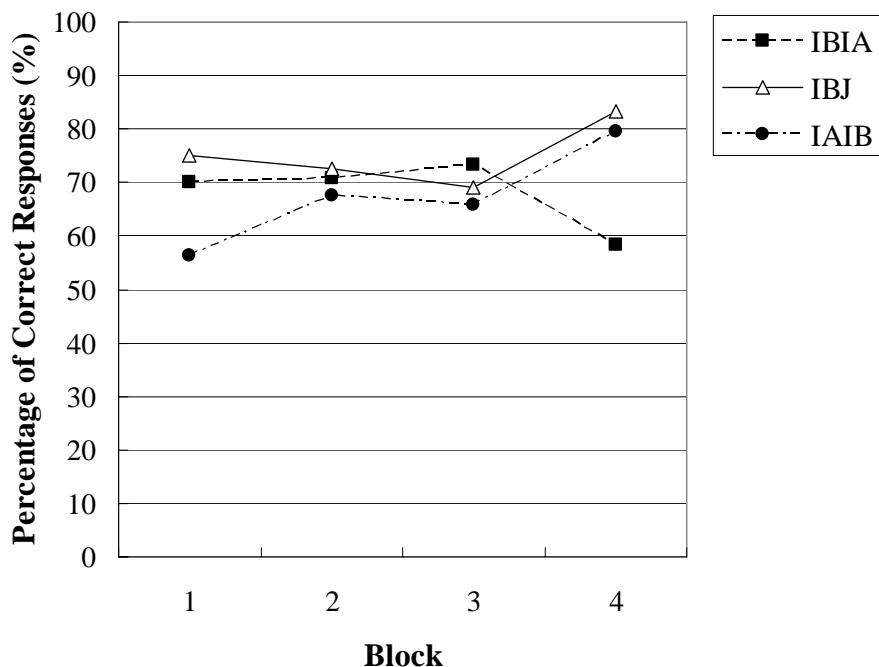


Figure 3. Mean Percentage of Correct Responses Based on Twelve Stimuli per Block in Sentence Verification Tasks in Experiment 2.

The simple main effects analysis yielded a significant effect of the conditions within both block 1, $F (2, 25) = 4.12$, $p < .05$ and block 4, $F (2, 25) = 15.91$, $p < .01$. In block 1, the percentages of correct responses in the Indonesian A-Indonesian B condition ($M = 56.5\%$, $SD = 4.9$) were significantly lower than the responses in the Indonesian B-Japanese condition ($M = 75.0\%$, $SD = 4.6$), $p < .05$. On the other hand, in block 4, the percentages of correct answers in the Indonesian B-Indonesian A condition ($M = 57.4\%$, $SD = 3.6$) were significantly lower than the responses in the Indonesian B-Japanese condition ($M = 83.3\%$, $SD = 3.4$), $p < .01$ and the Indonesian A-Indonesian B ($M = 79.6\%$, $SD = 3.6$), $p < .01$.

In addition, the simple main effects analysis indicated a significant effect on the blocks within the Indonesian B-Indonesian A condition, $F (3, 23) = 3.44$, $p < .05$, and within the Indonesian A-Indonesian B condition, $F (3, 23) = 5.20$, $p < .01$. In the Indonesian B-Indonesian A condition, the correct responses in block 4 ($M = 57.4\%$, $SD = 3.6$) were lower than the responses in block 3 ($M = 73.1\%$, $SD = 4.3$), $p < .05$. Furthermore, in Indonesian A-Indonesian B condition, the percentages of correct responses in block 4 ($M = 79.6\%$, $SD = 3.6$) were significantly higher than in block 1 ($M = 56.5\%$, $SD = 4.9$), $p < .01$.

3.2.2 Fluency

The analysis in this experiment was essentially the same as in experiment 1. Figure 4 shows the mean RT for four groups of accents. There were no significant effects on accent conditions, $F(2, 25) = 0.86$, ns. However, there were significant effects of blocks, $F(3, 75) = 7.12$, $p < .01$, and interaction between conditions and blocks, $F(6, 75) = 2.97$, $p < .05$.

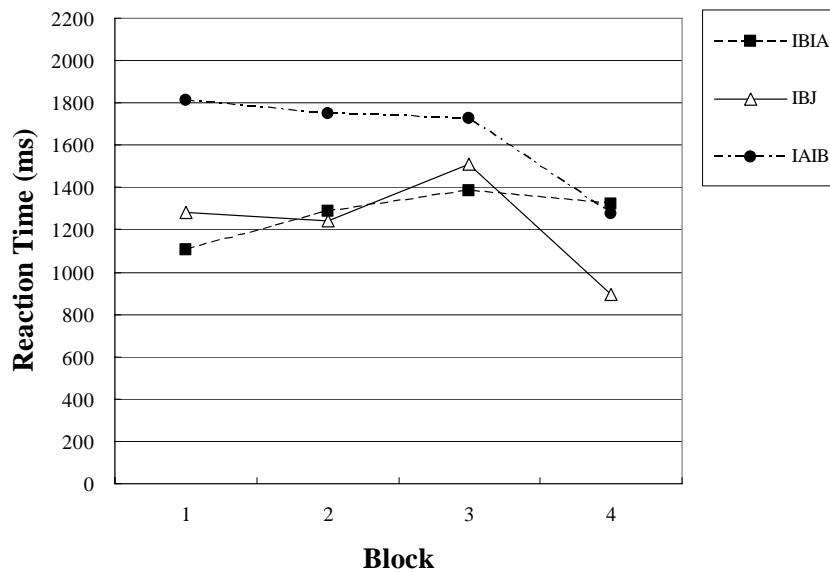


Figure 4. Mean Reaction Time Based on Twelve Stimuli per Block in Sentence Verification Tasks in Experiment 2.

The simple main effects analysis yielded a significant effect of the block within the Indonesian B -Japanese condition, $F(3, 23) = 5.71$, $p < .01$. In the Indonesian B -Japanese condition, RT in block 4 was significantly quicker ($M = 892.37$ ms, $SD = 174.55$) than RT in block 3 ($M = 1509.71$ ms, $SD = 275.11$), $p < .01$. In addition, the simple main effects analysis indicated a significant effect of the block within the Indonesian A-Indonesian B condition, $F(3, 23) = 3.14$, $p < .05$. In this condition, RT in block 4 decreased significantly quicker ($M = 1277.51$ ms, $SD = 183.99$) than RT in block 2 ($M = 1752.33$ ms, $SD = 267.52$), $p < .05$.

3.2.3 Trade-off relationship

In the experiment 2 as well as in the experiment 1, additional trade-off effects between accuracy and fluency were analyzed using a standardized baseline measure. To compare both mean correct responses and reaction time in a one dimensional way, z-scores were adopted. There were significant main effects on blocks, $F(3, 75) = 4.10$, $p < .01$ and significant interaction between conditions and blocks, $F(6, 75) = 7.03$, $p < .01$, was calculated. In addition, there was no significant main effect on conditions, $F(2, 25) = 0.01$, ns.

Significant interaction between groups and blocks was explored using a simple main effects analysis. The simple main effects analysis indicated a significant effect on the conditions within block 4, $F(2, 25) = 10.91$, $p < .01$. In block 4, z scores in the Indonesian B-Indonesian A condition ($z = -0.37$, $SD = 0.16$) were significantly lower than z scores in the Indonesian B-Japanese condition ($z = 0.55$, $SD = 0.16$), $p < .01$, and z scores in the Indonesian A-Indonesian B condition ($z = 0.58$, $SD = 0.17$), $p < .01$.

In addition, the simple main effects analysis of both the block within the Indonesian B-Japanese condition, $F(3, 23) = 8.09$, $p < .01$, and the block within the Indonesian A-Indonesian B condition, $F(3, 23) = 6.95$, $p < .01$, were explored.

In the Indonesian B-Japanese condition, z scores in block 4 ($z = 0.55$, $SD = 0.16$) were significantly higher than z scores in block 2 ($z = -0.10$, $SD = 0.23$), $p < .05$, and z scores in the block 3 ($z = -0.41$, $SD = 0.25$), $p < .01$. In the Indonesian A-Indonesian B condition, z scores in block 4 ($z = 0.58$, $SD = 0.16$) were significantly higher than z scores in block 1 ($z = -0.44$, $SD = 0.27$), $p < .01$, block 2 ($z = -0.04$, $SD = 0.25$), $p < .05$, and block 3 ($z = -0.10$, $SD = 0.26$), $p < .01$.

3.3 Discussion

In this experiment, the results showed processing time was influenced by accentedness more than knowledge of accented English based on language background. In both the Indonesian A-Indonesian B condition and the Indonesian B-Japanese condition, the processing time decreased in block 4. This finding suggested that the perception of accentedness was more sensitive than the understanding of the accent of specific features. However, in the Indonesian B-Indonesian A condition, there was no influence of accentedness on reaction time. Even if the accentedness in block 4 increased more than the one between block 1 and block 3, processing time was the same as in previous tasks. This result presumably provided the more minute effects of knowledge based on language background on the processing time because the reaction times in block 4 would cost more than from block 1 to block 3 due to the outcome of the Canadian-Japanese condition in experiment 1.

With regard to the correct responses, accentedness was the most important factor on listening judgment. In block 1, the percentages of correct responses in speech stimuli produced by Indonesian B were easier than the speech sentences recorded by Indonesian A. In addition, the Japanese accented English was easier than Indonesian accented English in block 4, and the correct responses in Indonesian B accented English was better than the scores in Indonesian A accented English. Furthermore, in the Indonesian B-Indonesian A condition, the responses in block 4 were lower than those in block 3. The achievement of

SVTs depended on the accentedness. Even if the processing time in block 4 was not different from block 3 in the Indonesian B-Indonesian A condition, the percentages of correct responses in block 4 were lower than in block 3. With the investigation the integration of accuracy and fluency, in Indonesian B-Indonesian A condition, the integrated processing for accented English suggested the stronger effect of accentedness over knowledge based on speakers' L1 background. Those findings suggested generalization to accented English consisted of both accentedness and knowledge based on the language background. However, these two factors indirectly influence on processing and semantic identifications relatively.

4. General discussion

This research investigated the notion that the adaptation to accented English consists of three dimensions: processing efficiency, accentedness and knowledge based on language background. In addition, the two experiments demonstrated four findings: 1) Adaptation to accented English could occur for nonnative speakers immediately, 2) nonnative speakers of English adapted to both knowledge of transferred L1 language background and accentedness, 3) the adaptation to accentedness was more important to process accented English than knowledge based on features of speech, and 4) the learned abstract knowledge could improve processing of accented English.

First, for nonnative speakers, the adaptation to low accented English occurred immediately. In experiment 1, nonnative Japanese speakers of English could improve processing sequentially, although Canadian English was not native-like accentedness. However, nonnative listeners did not adapt to English with a stronger degree of accentedness rapidly. Similarly, this result was confirmed in experiment 2. In these two experiments the accentedness of English was more than a middle strength accent, so that processing efficiency required much time to familiarize itself with accentedness. This means that the stronger the accentedness is, the more processing time listeners require (Clarke, 2003; Clarke & Garette, 2004; Munro & Derwing, 1995b; Schimid & Yeni-Komshian, 1999).

Secondly, adaptation to accented English consisted of both accentedness and knowledge based on language background. Attempting to hypothesize on flexible familiarity with accented English, rapid adaptation to accented English includes familiarity with accentedness and abstract knowledge fundamental to the first language background. In experiment 2, the listeners recognized the accentedness to preserve the features of accent and immediate processing would occur in a processing device. However, if the input has stronger accentedness, much processing time is required to become familiar with accented English. In addition, simultaneously, unconscious features based on a speakers' mother tongue were

scrutinized in the processing device, but this knowledge is not defined completely. In summary, abstract knowledge is similarly processed to become familiar with accented English. The effects of this instable knowledge were small but limited quantity, so while adaptation is progressing, the extent of the effects of knowledge is limitedly affective.

Inconsistent with the prediction, both accentedness and knowledge of the first language could manipulate the processing of accented English. In experiment 2, the generalization to accented English based on the same language background did not occur. This illustrated that relatively speaking accentedness was the more important factor to adaptation to accented English than abstract knowledge in speech. The findings of Clarke (2003) and Clarke and Garette (2004) showed that generalization to the Spanish accented English including shared features occur immediately for native speakers of English. However, in experiment 2, generalization to Indonesian English did not occur for Japanese speakers of English. With regard to those results, even if two accented Englishes consists of the same specific features, the perception of accentedness is the most important factor to process speech for listeners, and the reception of accentedness is very sensitive for nonnative speakers.

In incorporating the results of experiment 1 and 2, the small effect of stored knowledge might be considered in processing accented English. The integrated processing of Japanese accented English was systematically similar to that of the Indonesian A-Indonesian B condition in experiment 2. This illustrated that the empirical knowledge of Japanese accented English could be retrieved from the storage system because Indonesian A-Indonesian B condition shared the same condition, relative effect of accentedness, but shared knowledge of accented English in block 4 was different. In addition, because accuracy of responses with Japanese accented English could improve over tasks in experiment 1, seemingly the knowledge could support the processing of accented English less positively.

Other data elucidated the mechanism of accent perception. Some subjects did not identify what nationality speakers had. Furthermore, several subjects conjectured that the Indonesian B was from an English community and he was a native speaker of English. This meant that it was difficult to identify the nationality of speakers of English from speech stimuli for nonnative speakers, if the listeners had no experience of accented English. In these experiments, even if subjects were exposed to sequential accented speech, the striking knowledge of accented English was accumulated incompletely as stated in retrospection.

Pedagogically, this research provided one insight into effects of accented English. The present research included two experiments and suggested previous results showed that mental maintenance for accented English required processing time to store vague concepts, and to access the assumable meaning in speech stimuli. Consequently listeners' listening

comprehension deteriorated. However, as suggested in the experiment by Bent & Bradlow (2003), even if speech materials were accented, have English proficiency with high intelligibility for example near-native standard, nonnative speakers could understand such speech stimuli to be similar to speech recorded by native speakers. Furthermore, by storing this feature of accented English learners can adopt the knowledge and generalize it to other accented English. To summarize, expanding the experience of accented English improved nonnative speakers' knowledge and flexibility of speech perception. Secondly, the results in the two experiments suggested that accented English has an attraction as effective teaching materials. For instance, qualitative data from the questionnaires also showed the positive attitudes toward the varieties of English. Some listeners reported that listening to other accented English was really fun and we should notice varieties of English as real languages in the world. Exposure to accented English could change attitudes positively (Derwing, Rossiter, & Munro, 2002; Matsuura, Chiba, & Fujieda, 1999). From the questionnaires the researcher found that short-term exposure to accented English could motivate subjects to listen to obscure speech even if it was not easy for nonnative speakers to adapt to accented English because the very strong accentedness confused and sometimes disregards the speech.

Furthermore, to strictly control the influences of accentedness, the researcher provided new methods to scrutinize both the adaptation and generalization. First, English proficiency should be controlled. If the English proficiency with high intelligibility was near-native, nonnative speakers could understand such speech stimuli (Bent & Bradlow, 2003), so presumably the direction of influence of accentedness would be different between high proficiency and low proficiency English language learners. A threshold of adaptation to accentedness possibly exists. Secondly, adaptation and generalization to other accented English can be scrutinized. Scaling accentedness can apply to other types of accented English. The accentedness scaling was verified by much research including this research (Major et al., 2005; Munro & Derwing, 1995a; Piske, MacKay, & Flege, 2001). To comprise and investigate various factors of both adaptation and generalization, an integrated database of accentedness could be useful as well as a bank of sophisticated speech materials.

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APPENDIX1

Sentence Verification Tasks

Gasoline is an excellent drink.

Elephants are big animals.

Japan is an island.

Spaghetti grows on tall trees.

Hot and cold are opposites.

The sun always sets in the north.

The inside of an egg is blue.

An airplane can fly in the sky.

It always snows in Singapore.

March has thirty-eight days.

Most people wear hats on their feet.

Dolphins swim in the desert.

Exercise is good for your health.

All men can have babies.

All dogs have fifteen legs.

Pork is a kind of vegetable.

Vegetarians eat both fish and beef.

Babies can drink alcohol.

1000 yen is less than 100 yen.

The earth is round.

There are many cities on the moon.

Korea is a country in Asia.

People eat through their noses.

Red and green are colors.

Gold is a metal.

Milk comes from chickens.

A monkey is a kind of bird.

Ships travel on water.

A grandfather is a man.

A grandmother is a man.

An orange is a kind of fruit.

Dinosaurs are an extinct species.

Wine is made from grapes.

Penguins can fly in the sky.

Butter is made from milk.

Germany is a country in Europe.

A hamburger is a kind of metal.

Ants are bigger than crocodiles.

400 is twice as many as 200.

A lemon is a kind of fruit.

Thirty three is smaller than thirty nine.

An uncle is an older woman.

There are many rabbits on the moon.

Christmas is on December 25th.

Wednesday is the first day of the week.

A soccer ball is bigger than a baseball.

A developing country is a poor country.

English is a foreign language in Japan.

Examining Gender-based Variability in Task-prompted, Monologic L2 Oral Performance

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Bio Data:

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Abstract

With an awakening of interest in gender, a wide array of potentials has emerged for research, theory and practice in SLA. The present study examined the monologic oral performance of 20 male vs. 20 female Iranian EFL learners on a participant-rated LCIT (least culturally inhibiting topic) vs. a participant-rated MCIT (most culturally inhibiting topic), addressed to a male vs. a female teacher. Performance was rated in terms of fluency, complexity, and accuracy. $2 \times 2 \times 2$ Repeated Measure Mixed Factorial ANOVA revealed the following results: a) fluency varied significantly due to gender, and topic separately, b) complexity significantly varied due to topic, and c) accuracy demonstrated significant statistical difference regarding teacher gender, participant gender, and the interaction of the two. Topic also influenced variability, and finally the interaction of all the three variables, i.e. teacher gender, participant gender, and topic significantly influenced accuracy of participants' speech. Implications of the study are discussed.

Key words: gender, task, variability, fluency, complexity, accuracy

Introduction

Gender as "something not always apparent, but always present" (Sunderland, 2000, p. 203)

seems to have introduced thriving potentials for research, theory and practice in second/foreign language education over the last decades (Hruska, 2004; Norton and Pavlenko, 2004b). Now, more than ever before, SLA can no longer afford to treat gender as one variable among a host of others. Rather, it is increasingly becoming a standpoint from which language teaching dynamics can be visualized, explored, and perhaps revisited (Chavez, 2001).

Early concerns with gender in practical SLA research used to be heavily influenced by classical claims in mainstream psychology about females' superior verbal skills like the capacity to produce more fluent, accurate, complex speech and longer sentences (e.g. Weiss, Kemmler, Deisenhammer, Fleischenhaker, and Delazer, 2003). The argument in favor of the female advantage rests further on demographics on females outnumbering males in foreign language majors (e.g. Morris, 2003;), hypothetically higher compatibility of females' cooperative communicative patterns with communicative language teaching (Chavez, 2001), females' positive attitude to integration with target language community (e.g. Baker and McIntyre, 2003), as a predictor of achievement (Goldberg and Wolf, 1982), results from tests of varying scales (Altani, 1995 for instance), female superiority in L2 skills such as grammar (Andreou, Andreou and Vlachos, 2004), vocabulary (Nyikos, 1990), reading (Pae, 2004), and spoken interaction (Gass and Varonis, 1986).

Variability: Dominant frameworks

Within the range of "almost overwhelming" (Wolfram, 1991, p. 104) theoretical perspectives, sociolinguistic, psycholinguistic, and cognitive accounts of variability have been of a celebrated status. Of the sociolinguistic accounts, *Labovian paradigm*, *dynamic paradigm*, and *social psychological paradigm* are distinguishable. As far as the psycholinguistic framework is concerned, *speech planning* and *speech monitoring* models are highlighted and finally the only cognitive account of variability is Skehan's *dual processing system*. In what follows, a brief description of each of the models is presented in respective order.

Labovian paradigm (Labov, 1970), which has been immensely influential in shaping the earliest works on variability (Tarone, 1982, 1983), identified social factors such as social class, age, and gender responsible for inter-speaker, and stylistic factors responsible for intra-speaker variation. As described by Ellis (1994), styles in terms of the Labovian paradigm are

. . . spread along a continuum according to the amount of attention paid by the speakers to their own speech . . . Attention serves as the mechanism through which causative social factors such as verbal task (in particular), topic, interlocutor, setting or the roles of the participants influence actual performance. (p. 122)

The dynamic paradigm (Bailey, 1973; Bickerton, 1975) drawing on language change studies states that varieties of language constitute a Creole continuum. Following this paradigm, inter-speaker variation may be due to the speakers' differential access to varieties, but intra-speaker variation occurs when speakers have access to multiple varieties and depending on the situational factors like topic, purpose, and addressee they choose to employ one variety rather than another.

Social psychological models explain variation in terms of the speakers' attitudes to in-group and out-group members (e.g. Beebe, 1988). *Speech Accommodation Theory* (Giles, 1971) is the most prominent social psychological framework that has motivated accounts of variability in L2 learners' language. Three types of variation in the speech of the speakers are distinguished, namely *convergence* (when the speaker adjusts his/her speech to that of the interlocutor), *divergence* (keeps his/her speech distinct from and dissimilar to that of the interlocutor) and *maintenance* (makes no attempt to change his/her speech). Speech accommodation is determined by the speaker's attitude to the interlocutor(s) and can take place at any levels of language use including lexico-grammatical or discoursal levels (*ibid*). The appeal of Speech Accommodation Theory lies with the central emphasis it lays on the role of addressee as a predictor of variability (Ellis, 1994).

Speech planning model proposed by Levelt (1989) assigns psycholinguistic sources to variability at several stages of speech production. The stages include a) conceptualizer at which situational factors and communicative purpose shape the speaker's decision as to the variety of language, b) the formulator stage where speech plan is made by opting for internalized lexicon, grammar and phonological rules, c) articulator stage which converts the speech plan into actual speech, and d) final stage which enables the speaker to get feedback of his/her own speech and make phonological and grammatical adjustments (see De Bot, 1992).

Speech monitoring model (Morrison and Low, 1983) resembles the model of language production proposed by Levelt (1989). However, it further distinguishes *macro-level* (involving adjustments in terms of communicative purpose and at sentence level) and *micro-level* monitoring (lexical, syntactic and phonetic adjustments). Morrison and Low (*ibid*) also propose *pre-articulatory* monitoring which occurs before the phonetic plan is made, and *post-articulatory* monitoring which operates on actualized speech.

Skehan's cognitive approach to variability characterizes modern trends of research in which tasks have become the focus of research in their own right (Skehan, 1998; Robinson, 2003 among others). According to Skehan (1996, 1998) language competence is composed of

formulaic lexical expressions and grammatical rules. Speakers operate the ‘dual processing system’ which enables them to have access to both sources of knowledge. Nevertheless, depending on the communicative pressure or the accuracy demand, they have a varying dependence on lexical and grammatical processing resources (*ibid*). Noting that in spontaneous production, due to the limitation of attentional sources, learners are more likely to rely on lexical processing, Skehan’s perspective according to Ellis (2003, p.25) is that

it may be possible to identify the task conditions and procedures that lead learners to place a differential emphasis on fluency, i.e. performance free of undue pauses, and false starts, complexity, i.e. the use of a wide range of grammatical structures, and accuracy, i.e. the correct use of grammatical structures.

Models and frameworks reviewed so far constitute only a part of the whole picture of theorizing task and variability and a single theory will be far from adequate in accounting for all the dimensions. As Zuenglar (1989, p. 66) puts it, “one theory will most likely be insufficient in explaining the complexity of performance variation”. Ellis (1994, p. 132) makes a similar point maintaining that “the study of L2 variability calls for a perspective inclusive of both a sociolinguistic and a psycholinguistic perspective”. Gender is one of the factors that can inherently be of interest to different perspectives of variability accounts.

Gender, task and L2 variability

Although addressing gender issues in language education predates SLA, early works were almost invariably preoccupied with the so-called female superiority (see Chavez, 2001; Sunderland, 2000 among others). Another research trend was inspired by pure gender and language studies in which male and female communicative patterns were investigated. For example Coates (1993) argument that females’ communication is cooperative and males’ is competitive, hierarchically-oriented motivated classroom interaction research on male dominance in L2 situation (e.g. Spender, 1982). Concerning other aspects including communicative language use, since “TESOL profession [has] taken too long to examine gender” (Willet, 1996, p. 344), literature on the relationship between task and gender is particularly scarce.

Robinson (2001, 2003) affiliated with Skehan’s cognitive perspective identified three dimensions of tasks that cause variability in the learners’ language, namely task complexity, task difficulty, and task conditions. In this triple categorization, task conditions (as interactional factors) are further divided into participation and participant variables. Gender, in Robinson’s (2001) terms, falls in the subcategory of participant variables. O’Sullivan

(2000) could show that both males and females tended to produce more grammatically accurate forms in the presence of female interviewers, but their fluency or complexity did not vary. O'Loughlin (2002), nevertheless, in a study on the effect of the gender of the examiner in the oral interview component of IELTS could not find any differences in relation to the gender of the examiner quantitatively or qualitatively. Young and Milanovich (1992) suggested that both the interviewers' and the interviewees' gender may be among the factors that bring about variations.

Topic of the task is also one of the influential factors in determining task difficulty or complexity (Brown, Anderson, Shilock, and Yule, 1984; Selinker and Douglas, 1985). In different ways topic of the task can prompt variability, and gender preference of the topic can well be one of them. Gass and Varonis (1986) concentrating on same-sex and opposite-sex dyads, found among other things that "only in male/female conversations is the majority of the conversation devoted to personal topics. In both female/female and male/male groups, the conversation tends to be more objective, dealing with such topics as past and future university studies, job status, and job description . . ." (Gass and Varonis, 1986, p. 337). Freed and Wood (1996) raised the issue of topic among the factors that determine the forms that occur in interaction. As Chavez stated, "[T]opics around which tasks are organized may also influence achievement scores of males as opposed to those of females" (p. 36) and one of the ways in which this can occur is through topic selection. She proceeded to quote several perspectives on gender preferences of speech topic in L1 (Bischoping, 1993; Coates, 1997; Johnstone, 1993). Coates (1997) maintained that men prefer less personal topics than women, while Johnstone (1993) concentrating on Midwestern men and women attributed physical and social themes to men's and community-related topics to women's stories. Bischoping (1993), on the other hand, endorsed a dismissive view of the distinction between male and female preferred topics. Based on these, Chavez (2001) argued that if the differences applied to L2 as well, then performance on tasks would be influenced by the preferences.

Considering the theoretical accounts of variability reviewed above, and also allowing for the "under-researched sites as regards gender and language learning . . . in developing countries, in Africa, Islamic countries . . ." (Sunderland, 2000, p. 216), this paper addresses variability in Iranian context by asking the following research question:

What is the effect of participant gender, teacher gender, and the learner-perceived cultural inhibition of topic on the fluency, complexity, and accuracy of L2 learners' monologic oral L2 performance?

Method

Participants

The participants in the study were 20 male and 20 female sophomore and junior English majors doing their Language Laboratory and Phonology courses at a private university in the Northwestern Iranian border town of Salmas. They were selected on the basis of a TOEFL test which yielded two (one all-male and the other all-female) homogeneous groups. The males' average age was 20.85 with the youngest and oldest being 19 and 25, respectively. The females' ages ranged between 20 and 26, and the average age equaled 21.65. Of the males, 12 (60%) spoke Azerbaijani, 3 (15%) spoke Persian, and the remaining 5 (25%) were the native speakers of Kurdish. Of the females, there were 11 (55%) Azerbaijani, 1 (5%) Persian and 8 (40%) Kurdish native speakers. (Azerbaijani and Kurdish are regional languages serving everyday communication and lacking written medium in Iranian context. Persian is used as the official language through which all public-life activities, especially schooling and instruction takes place.) They participated in the study as part of the course assessment throughout and near the end of the autumn semester from September 2005 through February 2006 in their respective courses.

Data collection procedures

To begin with, a criterion had to be established to identify a culturally 'inhibiting' task topic, which was one of the three independent variables. For this purpose, an operating definition was presented as follows:

A culturally inhibiting topic is by definition a topic which is not an explicitly moral, religious, social or political taboo, but remotely and by extension it may be associated with one or more than one of them following the norms of the society in question. The speakers as members of the social community are, therefore, likely to avoid expressing their ideas openly and straightforwardly when talking about it in public, non-intimate interpersonal language use like classroom or interview situations.

With the definition in hand, the next step was to identify the least culturally inhibiting topic (LCIT) and the most culturally inhibiting topic (MCIT) to be used as prompts in the experiment. This step involved several stages. At stage one, one representative level book was chosen out of three conversational English series with the longest record of use in Iranian context, i.e. *New Interchange 3: English for International Communication* (Richards, et al., 1997), *Spectrum: A Communicative Course in English-Level 5* (Warshawsky, rein and Frankfurt, 1999) and *Headway: Upper Intermediate* (Soars and Soars, 1983). Another selection involved randomly picking out 5 general topics of the speaking activities/themes out of each of the three books. Conversations or speaking activities with similar themes and those

explicitly provocative regarding religious (Islamic) norms, e.g. dating, were excluded from selection. The resulting 15 general topics were subsequently presented to the 47 participants who were asked to number the topics from the least inhibiting (1) to the most inhibiting (15) on the basis of the operational definition. Therefore, for each topic there were 47 numerical values ranging from 1 to 15, the mean of which determined the least and most culturally inhibiting topics. Figure 1 clearly illustrates the fact that to the participants, the least culturally inhibiting topic (LCIT) was '*city and population*' while the most culturally inhibiting topic (MCIT) was '*love and marriage*'.

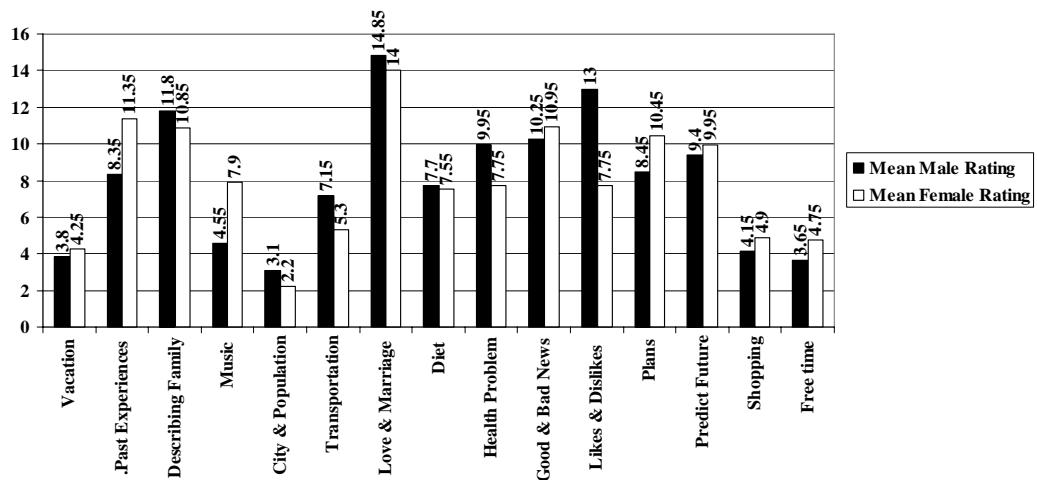


Figure 1 .Mean rating of topics by male and female participants

In this study, the spoken protocols of the participants' task-prompted monologues on the LCIT and MCIT, addressed to a male and a female teacher, were compared for fluency, complexity and accuracy. The dependent variables were fluency, complexity and accuracy with the independent variables being gender of the participant, the teacher, and gender perceived cultural inhibition of the topic. Table 1 illustrates the design of the study.

Table 1. Experimental design of the study

	Male teacher (addressee)		Female teacher (addressee)	
	Monologic talk on ' <i>city and population</i> '	Monologic talk on ' <i>love and marriage</i> '	Monologic talk on ' <i>city and population</i> '	Monologic talk on ' <i>love and marriage</i> '
Male participants	N= 20	N= 20	N= 20	N= 20
Female participant	N = 20	N = 20	N = 20	N = 20

For the purpose of collecting the data, arrangements were made to attend to task

performances by having every individual participant at a time speaking to the male and female teacher on LCIT (i.e. *city and population*) and MCIT (i.e. *love and marriage*) in the language laboratory. Each participant was given a 2-minute planning time before, and a 5 minute speaking time, both constant across all participants, and all four performances for each participant. The male teacher in the experiment was the second author, and the female teacher was a departmental staff member and course lecturer with whom the participants were already acquainted. The time gap between the two performances with male teacher and those with female teacher was 4 weeks to meet the course schedule. Teachers as addressees merely gave the topics and initial directions refraining from any feedback, or verbal interaction during the monologues. In order to eliminate uncontrolled planning, and preparation effects, arrangements were also made so that the participants who finish with their task performance could not see the ones who are waiting for their turn. The spoken protocols of the participants elicited on the four speaking events were digitally recorded.

Data Analysis

The recorded data files of the participants' speech converted to appropriate format and analyzed with Cool Edit Pro Version 2.0 which proved especially helpful with detecting pause lengths and marking out T-unit boundaries. Then, they were transcribed and coded for fluency, complexity and accuracy by two raters. One of the raters was the second author, and the other an EFL lecturer as a staff member of a different university who had been given complete instructions on coding the protocols for the three aspects.

Fluency

The ratio of meaningful words per pause (WPP) was calculated for gauging fluency. Since there are no well-defined, universally agreed-upon criteria on pause, different local criteria are employed. '*Pause*' in this study following Crookes (1986) was operationalized as non-phonation in interclausal or intraclausal position longer than 0.60 seconds, false starts, occurrence of interword or intraword suprasegmental hesitation markers such as *mum*, *uh*, etc. (also known as filled pauses), and intraword vowel stretched longer than 0.60 seconds. In obtaining the fluency measures, repetitions, inaudible or fragmented words, unsystematic occurrence of disruption or distortion of speech by non-linguistic vocal sounds (such as coughing, sighing, etc.) as well as the words containing these occurrences word medially were ignored. Coding for fluency did not include aspects of grammatical accuracy or mispronunciation as long as they were not meaningfully distinct. Kappa coefficients (as indices of inter-rater reliability) of the number of words and the number of pauses turned out

to be 0.91 and 0.83, respectively.

Complexity

For establishing complexity of speech, different word occurrences (Types) were divided by total word occurrences (Tokens) and the result multiplied by 100. It is also known as Type-Token Ration (TTR) (see Richards, Schmidt, Platt and Schmidt, 2003). Coding for complexity disregarded sentence fragments, repeated words, incomplete clausal units, and interclausal or intraclausal interjections. The inter-rater reliability levels (indicated by kappa coefficient) were 0.90 and 0.83 for the types (i.e. the number of different words) and for the tokens (or words), respectively.

Accuracy

The general approach is to obtain the percentage of error-free T-units to the total number of T-units. T-unit is defined as “one main clause plus whatever subordinate clauses, phrases, and words happen to be attached to or embedded within it” (Menhert, 1998, p. 90). Kappa coefficient for the error-free T-units was 0.94 and the total number of T-units was 0.81. Repetitions, fragments, and clusters of indistinct propositional link with the adjacent clausal units were left out of consideration.

Results

Fluency

2×2×2 Repeated Measure Mixed Factorial ANOVA results showed that a) the mean word per pause (WPP) significantly varied across the speech addressed to male vs. female teachers, and also b) it varied significantly depending on whether the speech was about ‘city and population’ or ‘love and marriage’. However, participant gender and different interactions of variables did not prove significant. The results appear in Tables 2.

Table 2. ANOVA table for fluency as a factor of participant gender, teacher gender, and topic

Source	df	Mean	F
		Square	
Tests of Within-Subject Contrasts			
Teacher gender	1	35.34	30.78**
Teacher gender × Participant gender	1	3.69	3.21 ns
Error (Teacher gender)	38	1.14	
Topic	1	66.17	63.41**
Topic × Participant gender	1	2.64	2.53 ns

Error (Topic)	38	1.04	
Teacher gender × Topic	1	0.16	0.37 ns
Teacher gender × Topic × Participant gender	1	0.79	0.18 ns
Error (Teacher gender × Topic)	38	0.42	
Tests of Between-Subject Contrasts			
Participant gender	1	0.24	0.07 ns
Error	38	3.09	

** Significant at $p < 0.01$

ns = not significant

As illustrated in Figure 2, the participants' monologues addressed to the female teacher contained a significantly higher mean of words (5.50) than the monologues addressed to the male teacher (4.55).

Fluency also significantly varied due to topic. On the task with LCIT (*i.e. city and population*), on average, the average number of words per pause amounted to 5.67 which exceeded 4.39 as the mean of words per pause on tasks with MCIT (*i.e. love and marriage*). Figure 3 shows the mean word per pause values on LCIT (*i.e. city and population*) and MCIT (*i.e. love and marriage*) tasks.

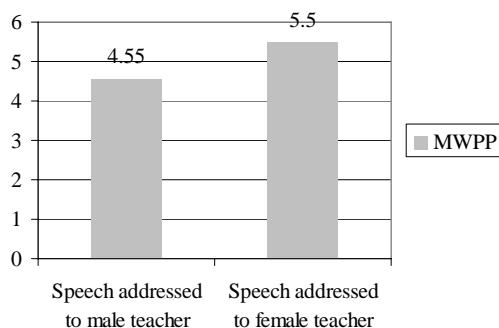


Figure 2. Mean word per pause values in the students' task-prompted, monologic talk addressed to male vs. female teacher

MWPP = Mean Word Per Pause

Complexity

As far as complexity of production is concerned, ANOVA results could only establish significant differences with regard to LCIT (The Least Culturally Inhibiting Topic) *i.e.* '*city and population*' vs. MCIT (The Most Culturally Inhibiting Topic) *i.e.* '*love and marriage*' at $p < 0.01$. In other words, the participants' monologic, task-prompted speech complexity significantly varied depending only on whether the topic of the monologue was '*city and*

population' or '*love and marriage*'. All other differences regarding the other variables and their different interactions proved insignificant as presented in Table 3.

Table 3. ANOVA table for complexity as a factor of participant gender, teacher gender, and topic

Tests of Within-Subject Contrasts		df	Mean Square	F
Teacher gender		1	0.44	0.00 ns
Teacher gender × Participant gender		1	68.34	0.63 ns
Error (Teacher gender)		38	107.65	
Topic		1	2390.81	22.53**
Topic × Participant gender		1	381.95	3.60 ns
Error (Topic)		38	106.07	
Teacher gender × Topic		1	229.08	3.71 ns
Teacher gender × Topic × Participant gender		1	18.25	0.29 ns
Error (Teacher gender × Topic)		38	61.64	
Tests of Between-Subject Contrasts				
Participant gender		1	356.67	1.81
Error		38	196.63	

** Significant at $p < 0.01$

ns = not significant

As shown in Figure 4, the participants' speech varied significantly ($p < 0.01$) depending on whether they talked about LCIT or MCIT. They produced a higher mean of Types per Tokens when talking about MCIT (61.89) than when talking about LCIT (54.07).

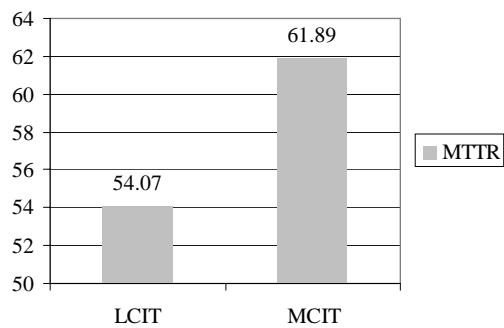


Figure 4. Mean Type-Token Ratio on task with LCIT as opposed to task with MCIT

MTTR = Mean Type-Token Ratio

LCIT = The Least Culturally Inhibiting Topic (i.e. city and population)

MCIT = The Most Culturally Inhibiting Topic (i.e. love and marriage)

Accuracy

Results indicated statistically significant differences in terms of the mean percentage of error free T-units as a matter of a) participant gender ($p < 0.01$), b) teacher gender ($p < 0.01$), c) interaction of teacher and participant gender ($p < 0.05$), and d) interaction of all three variables, namely participant gender, teacher gender, and topic ($p < 0.01$). In other words, 2×2×2 Repeated Measure Mixed Factorial ANOVA results showed that the average error-free T-unit number in participants' production significantly varied depending on the gender of the participant, gender of the teacher, interaction of these two, and the interaction of participant gender, teacher gender, and topic (See Table 4).

Table 4. ANOVA table for accuracy as a factor of participant genders, teacher gender, and topic

Tests of Within-Subject Contrasts		df	Mean Square	F
Source				
Teacher gender		1	1037.90	8.65**
Teacher gender × Participant gender		1	717.11	5.97*
Error (Teacher gender)		38	119.93	
Topic		1	88.55	0.69 ns
Topic × Participant gender		1	87.63	0.68 ns
Error (Topic)		38	128.24	
Teacher gender × Topic		1	63.06	0.49 ns
Teacher gender × Topic × Participant gender		1	1061.57	8.34 **
Error (Teacher gender × Topic)		38	127.24	
Tests of Between-Subject Contrasts				
Participant gender		1	2959.86	11.26 **
Error		38	362.74	

* Significant at $p < 0.05$; ** Significant at $p < 0.01$

ns = not significant

Starting with the between-subject factor (i.e. participant gender), a greater mean percentage of error free T-units was found on the part of females than males. Results presented in Figure 5 indicate that female participants in the study in general produced a

significantly higher mean percentage of error-free T-units (70.55) than their male counterparts (61.94).

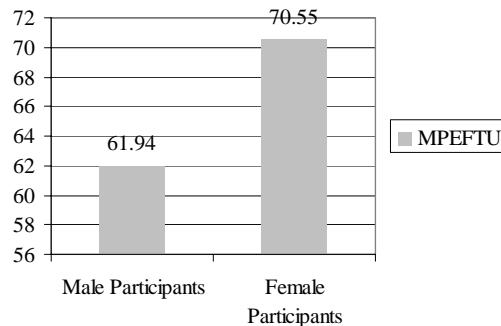


Figure 5. Male and female participants' MPEFTU on task-prompted, monologic tasks

MPEFTU = Mean Percentage of Error-free T-Units

Teacher's gender turned out to be an influential factor in determining the participants' percentage of accurate structures (Figure 6). Mean percentage of error-free T-units in the task-prompted talk addressed to male teacher (that is 68.79) was significantly higher ($p < 0.01$), than that addressed to female teacher (i.e. 63.70).

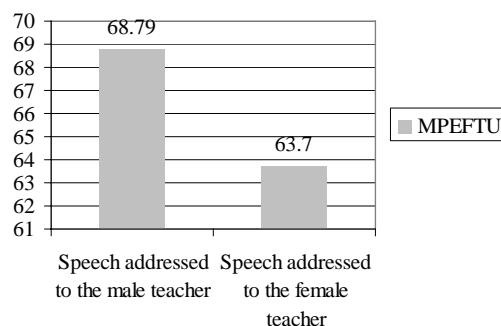


Figure 6 - Mean percentage of error free T-units in the participants' monologic, task-prompted speech addressed to male as opposed to female teacher

MPEFTU = Mean Percentage of Error-Free T-Units

Accuracy of task-elicited production varied as a matter of interaction of the teacher and participant gender. In other words, accuracy as indicated by the mean percentage of error-free T-Units was significantly different depending on the interaction of male and female teachers and participants at $p < 0.05$. Figure 7 demonstrates the graphic representation.

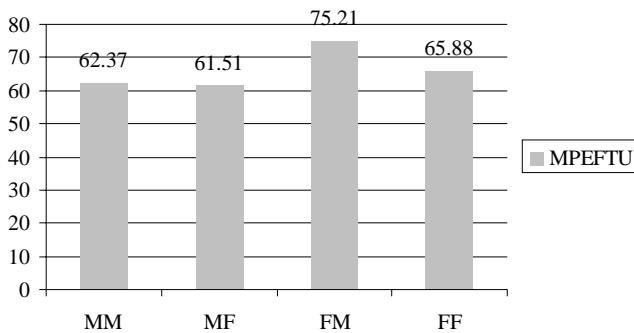


Figure 7 - Mean percentage of error free T-units in the task-prompted, monologic speech of male and female participants addressed to male and female teacher

MPEFTU = Mean Percentage of Error-Free T-Units

MM = male participant addressing the male teacher; MF = male participant addressing the female teacher; FM = female participant addressing the male teacher; FF = female participant addressing the female teacher

Since the significant differences between the means cannot be established on the basis of the values of the means, several matched pair T-tests were employed. Matched pair T-test has the same function in Repeated Measure ANOVA as Scheffe in factorial ANOVA. The results indicated significant differences between the following pairs: a) male participant-male teacher vs. female participant-male teacher, b) male participant-female teacher vs. female participant-male teacher, c) female participant-male teacher vs. female participant-female teacher. More clearly,

- When addressing the male teacher, female participants' s speech contained a higher Mean Percentage of Error-free T-Units (75.21) than males' speech (62.37);
- Females' speech addressed the male teacher had more Error-free T-Units on average (75.21) than males' speech addressed to the female teacher (61.51);
- Female participants' used more Error-free T-Units on average when addressing the male teacher (75.21) than when addressing female teacher (65.88).

Finally, accuracy varied significantly as a matter of the interaction of all of the three independent variables, i.e. participant gender, teacher gender, and topic. Figure 8 presents the mean percentage of Error-free T-units.

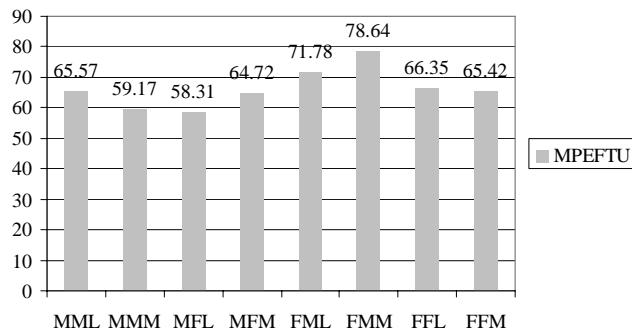


Figure 8. Mean percentage of error-free T-units in the task-prompted, monologic speech across participants, teachers, and topics.

MPEFTU = Mean Percentage of Error-Free T-Units

MML = Male participant, Male teacher, the least culturally inhibiting topic;

MMM = Male participant, male teacher, the most culturally inhibiting topic;

MFL = Male participant, female teacher, the least culturally inhibiting topic;

MFM = Male participant, female teacher, the most culturally inhibiting topic;

FML = Female participant, male teacher, the least culturally inhibiting topic;

FMM = Female participant, male teacher, the most culturally inhibiting topic;

FFL = Female participant, female teacher, the least culturally inhibiting topic;

FFM = Female participant, female teacher, the most culturally inhibiting topic

Here again, as in the previous case, the data looks too voluminous and confusing as graphically represented. Therefore, based on matched pair T-test results, significant mean differences between the pairs from among the 8 groups of means include:

- Male participants when performing the LCIT task produced a significantly higher mean percentage of error-free T-units when talking to the male teacher (65.57) than to the female teacher (58.31).
- When addressing the male teacher on MCIT task, females produced a significantly higher mean percentage of error-free T-units (78.64) than males on LCIT (65.57);
- When addressing the male teacher on MCIT task, females' speech contained a higher mean percentage of error-free T-units (78.64) than that of males (59.17);
- Females talking to males about MCIT produced a significantly higher percentage of error-free T-units (78.64) compared to males addressing female teacher on LCIT (58.31);

- On MCIT task, females' monologue addressed to the male teacher has a higher mean percentage of error-free T-units (78.64) than males' directed to female teacher (64.72);
- Mean percentage of error-free T-units in females' speech on LCIT addressed to the male teacher was significantly higher than that of males addressing male teacher on MCIT, that is 71.78 as opposed to 59.17;
- On LCIT task, females addressing male teacher used a significantly higher percentage of error-free T-units on average (71.78) than males addressing female teacher (58.31);
- Females produced a higher mean percentage of error-free T-units when addressing the male teacher on MCIT than when addressing the female teacher on LCIT, i.e. 78.64 compared to 66.35.

Discussion and Conclusion

Results of the study indicated significant differences in terms of fluency depending on the teachers' gender. Participants' speech addressed to the female teacher was more fluent than that addressed to the male teacher. This can be attributed broadly to 'interlocutor' effect in Labovian paradigm (Labov, 1970), dynamic paradigm (Bailey, 1973; Bickerton, 1975), Speech Accommodation Theory (Giles, 1971) in which variability is influenced by the addressee. Following speech planning model by Levelt (1989) teacher's gender can be an instance of situational factor in conceptualizer stage. In terms of speech monitoring (Morrison and Low, 1983), this can be associated with lexical adjustment at micro-level and pre- or post-articulatory monitoring. This finding brings together characterization of females' cooperative communicative pattern by Coates's (1993) and Skehan's (1996, 1998) formulation of fluency as a matter of spontaneous production. It can be speculated that the participants' anticipation of female teacher's cooperative style could have reduced communicative pressure and resulted in a more spontaneous, fluent style. This finding receives general support from Robinson (2001), and Young and Milanovich (1992). However, fluent speech in the presence of female teacher is rejected by O'Sullivan (2000) and O'Loughlin (2002) who failed to find such a variation in their studies. Additionally, significantly higher fluency was found when the topic was LCIT than on MCIT'. Topic is one of the causative social factors in Labovian paradigm (Labov, 1970) influencing performance variability occasioned by the attention mechanism. This finds support in dynamic paradigm by Bailey (1973) and Bickerton (1975) who treat topic as an instance of situational factors responsible for intra-speaker variability. It can also be argued that because of the least

cultural inhibition of '*city and population*', it imposes less communicative pressure and contributes to spontaneity and thereby fluency of speech. General support to this finding is lent by Freed and Wood (1996), and Chavez (2001), Brown et al. (1984), and Selinker and Douglas (1985).

As far as complexity is concerned, a higher complexity was found on MCIT. In other words, participants' speech was more complex when they talked about '*love and marriage*' than when they talked about '*city and population*'. In addition to being compatible with Labovian paradigm, dynamic paradigm, Freed and Wood (1996), and Chavez (2001) Coates (1997), Skehan's (1996, 1998) cognitive model specifically contributes to interpreting more complexity on culturally inhibiting topic. A plausible line of argument would be that since talking on '*love and marriage*' is inhibiting to the participants, they are more likely to experience communicative pressure to pick words. Also, if interest is taken to lead to familiarity and thereby complexity of production, this finding is confirmed by Bischoping (1993) who argues for disappearance of gender-specific interest in topic.

One of the primary findings in this study on accuracy was that females were in general more accurate than males. If accuracy can be equated with superiority in language, a higher accuracy of females can be attributed to the conventional female superiority in language capacity (Chavez, 2001). Other supportive accounts are the triple categorization by Robinson (1996, 1998), Freed and Wood (1992), etc. Accuracy was found to vary significantly depending on the teacher's gender. Participants tended to produce a more grammatically correct L2 when addressing the male teacher. This emphasizes the interlocutor effect in prompting learner attention (Labov, 1970), situational factors in dynamic paradigm (Bailey, 1973; Bickerton, 1975), and in Levelt's (1989) speech planning model, and participant factor as source of variability in Robinson (2001, 2003). In particular, it seems to be consistent with Morrison and Low (1983) who proposes syntactic adjustments at micro-level. Higher accuracy in addressing the male teacher is refuted by O'Sullivan (2000) who suggested the opposite and O'Loughlin (2002) who failed to bear out any differences, whatsoever.

Higher accuracy was also found in the interaction of teacher gender and participant gender. Results indicated that

- a. When talking to the male teacher, females' speech was more accurate than that of males,
- b. Females speech in talking to the male teacher was more accurate than males' speech when talking to the female teacher, and
- c. Females produced a more accurate speech when talking to the male teacher than to the female teacher.

General frameworks of variability (i.e. sociolinguistic, psycholinguistic, cognitive) and claims by Freed and Wood (1996), Selinker and Douglas (1985), Robinson (2001, 2003), Young and Milanovich (1992) apply to all three of the findings above. On the other hand, all three are rejected by O'Loughlin (2002) who dismisses any such differences. More importantly, the three findings go against those presented by O'Sullivan (2000) who claims a higher accuracy with the female interviewer. Finding (a) can also be interpreted in the light of convergence in *Speech Accommodation Theory*. Assuming that the male teacher is an out-group member to the female participant (Beebe, 1988), one can suggest that females have adjusted their speech to the speech of the male as proficient authority in L2. Nevertheless, males were more inclined to maintenance than convergence or divergence with the male teacher as in-group member (Giles, 1971). Following Skehan (1996, 1998), female speech to male teacher as addressee is one of the conditions that leads to communicative pressure and the requirement to be precise. As far as (b) is concerned, with opposite gender addressee, females perceived more communicative stress than males (Ellis, 2003; Skehan, 1996, 1998) which resulted in females' dependence on grammatical rule system, but apparently males did not experience the pressure. Regarding (c), the same argument holds true for females as an intra-speaker variation in sociolinguistic accounts.

Accuracy in this study was also reported to vary due to interaction of participant gender, teacher gender and topic. On further analysis significant differences were detected in 8 combinations of the three variables. Specifically,

- a. Males talked about '*city and population*' to the male teacher more accurately than to the female teacher,
- b. When the addressee was the male teacher, females' speech about '*love and marriage*' was more accurate than males' speech about '*city and population*',
- c. When addressing the male teacher and talking about '*love and marriage*', females were more accurate than males,
- d. Females talking to the male teacher about '*love and marriage*' were more accurate than males talking to the female teacher about '*city and population*',
- e. When the topic was '*love and marriage*', females were more accurate with the male teacher than males with female teacher,
- f. When the addressee was the male teacher, females' speech about '*city and population*' was more accurate than males' speech about '*love and marriage*',
- g. When the topic was '*city and population*', females talking to the male teacher were more accurate than males talking to female teacher, and 88

- h. Females' speech to the male teacher about '*love and marriage*' was more accurate than their speech to the female teacher about '*city and population*'.

The formidable-looking pattern above can be reduced into a more simplified pattern by having parts (a), a combination of parts (b) through (e), a combination of (f) and (g), and (h):

- i. Males' speech to the male teacher about '*city and population*' was more accurate than that to the female teacher (part a);
- j. Females' speech about '*love and marriage*' to the male teacher was more accurate than males' speech no matter the teacher gender or topic (combination of parts b through e);
- k. Females' speech about '*city and population*' to the male teacher was more accurate than males' speech to the male teacher about '*love and marriage*' as well as males' speech to the female teacher on '*city and population*' (combination of f and g);
- l. In their own speech production, females' speech about '*love and marriage*' to the opposite gender teacher was more accurate than that about '*city and population*' to the same-gender teacher (part h).

Concerning the four significant differences, as in the case of the interaction of the participant and teacher gender (see above), all the generalizations presented by the perspectives or studies about the relationship between gender and variability are relevant. Also, like all other findings in this study, O'Loughlin (2002) could not give support to accuracy differences. Parts (i) through (l) all indicate a general tendency on the part of the participants, especially the females to be accurate when talking to the male teacher which is diametrically opposed to the findings by O'Sullivan (2000). This tendency on the females' part can be due to the male addressee which following Skehan (1996, 1998) may have offered the greatest communicative pressure and led to higher accuracy. Another source of accuracy might be the fact that due to the socio-cultural factors in Iranian context, females may have been more self-conscious in their speech addressed to the male teacher. Iran, like many other Middle Eastern countries, is for the most part, a traditionally male-dominated society and even with an increasing number of females, especially in education, males almost exclusively hold the administrative, policy and decision-making bodies.

The findings by Gass and Varonis (1986) on topic preference can lend support to some of the findings above. Assuming that preferring personal topics in opposite-gender dyads and objective topics in same-gender dyads may lead to automaticity and thereby accuracy of production, then parts (i) and (l) are justified. However, part (k) is contradicted by the same assumption. Skehan's (1996, 1998) cognitive model helps to explain (j). It has already been

argued that females' speech to the male teacher is communicatively stressful and makes them attend to the repertoire of grammar rules and be more accurate. Moreover, such a communicative pressure is escalated due to the inhibiting nature of the topic, i.e. '*love and marriage*'. The doubled communicative pressure is likely to have prompted an utmost care in females' speech leading to higher accuracy than males' speech in all conditions.

Implications and Suggestions for Further Research

The findings bear several implications for SLA. The clearest message of this study is for the task-based language teaching and learning. Gender can no longer be viewed a static, unitary variable related to the learners only. Rather, it must be seen as an ever-present reality inseparable from and interacting with performances of the learners, teachers, interviewers, interviewees, peers, and groups. The second implication can be for communicative oral language testing that must be adequately sensitized to the fact that gender of the test-taker, tester, and males' and females' attitude to the test topic may introduce bias, and distort the reliability and validity of tests. A fairer oral communicative test would, therefore, involve interviewers/testers of both genders, and a variety of topics to avoid test-taker inhibition. Syllabus designers and curriculum developers must also make room for the gender of the prospective teachers, learners, and the topic within the target socio-cultural context as influential factors in determining quantity, quality, and nature of classroom interaction. For example, syllabus designers must select the content that fosters rather than inhibits interaction because of teacher's gender, peer's gender, group gender, and topic, and the interrelation between these factors. Indeed, for syllabus designers this would mean a more intimate understanding and application of socio-cultural context of education in target situation analysis phase. Language teaching practitioners at large need to be duly attentive to gender which may affect or even obscure interaction in certain ways. Interaction influenced by teacher gender, learner gender or topic can lead up to biased judgement of learner performance on the part of the teachers, and language educators. Ignoring gender issues may also obstruct learner engagement in interactive tasks and obstruct L2 acquisition. Above all else, an intimate and at the same time an extensive understanding of dimensions of gender-related variability is called for in the realms of research, theory and practice in SLA.

Limitations of this study included a 4-week lapse between two performances due to course restrictions, lack of a universally accepted definition of cultural inhibition, and somewhat low number of participants. Although controlling for all these variables would be formidable, some variables including age, personality, motivation, socio-economic status could have influenced the results as intervening variables. Future research, while controlling

these limitations, may also address

- SLA and gender identity focusing on regional, ethnic, religious, and multicultural contexts,
- ESL classroom context as a different discursive space within the native culture milieu, and the way gender is constructed differentially across the two,
- discoursal, pragmatic, and sociolinguistic aspects of gender and ESL/EFL learning situation, and
- negotiation of gender identity (whether student, teacher, peer, or group) in the second/foreign language classroom setting and the way it clashes or aligns with norms and aspects of gender interaction in L1.

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The Relationship between Syntactic Clustering of Obligatory/Null Subject Parameters and Proficiency Levels in L2 Acquisition: New Evidence from a Grammaticality Judgment Test

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Abstract

This action research investigates Persian learners' clustering acquisition of overt obligatory subjects and PRO in infinitival clauses in English as L2. In L1 acquisition research, the correlations between superficially unrelated linguistic phenomena are analyzed in terms of clustering effects. For instance, in German L1 acquisition, there is evidence for a clustering acquisition of subject-verb agreement and the decrease of (incorrect) null subjects (Clahsen and Hong, 1995). The developmental connection between these two phenomena in L1 acquisition has been interpreted as clustering appearance of syntactic properties of non-pro condition. Thus, the present research will report on a grammaticality judgment test (GJT) investigating the clustering appearance of obligatory overt subjects and PRO in infinitival clauses in 60 Persian learners of English divided into three proficiency levels, each level consisting of ten early starters and ten late starters. Our main finding is that the two phenomena covary in the Persian learners indicating that properties of overt obligatory subjects and PRO in infinitival clauses are acquired through parameter resetting, rather than separately. Moreover, we observed no difference between the performance of early and late starters with respect to clustering acquisition of the above linguistic variables.

Keywords: clustering effects, developmental correlations, finite clauses, infinitival clauses, non-finite clauses, null subject, obligatory overt subject, parameter (re)setting , parametric variation, PRO

Introduction

The idea that adult L2 acquisition might be similar in nature to child L1 development was one of the starting points for the systematic investigation of L2 acquisition in the 1970s. At that time a number of researchers (Dulay *et al*, 1982) observed that L2 learners systematically pass through developmental stages, similarly to what had been found for children acquiring their mother tongue (Brown, 1973). It was concluded that L1 and L2 acquisition are parallel in major ways; the extent of the parallelism, however, was controversial.

Several L2 acquisition researchers have taken the stance that L2 learners have access to clustering acquisition of the syntactic systems in much the same way as children learners of L1 do (Schwartz and Sprouse, 1994). But, despite the accumulation of new data and models in recent years, it has proved difficult to resolve this question (Clahsen and Muysken, 1989). So, concerning clustering acquisition of L2 syntax, two approaches are discussed most extensively in current research:

1. The strong clustering hypothesis: In L2 acquisition, there are developmental correlations between superficially unrelated linguistic phenomena which are analyzed in terms of clustering effects.
2. The weak clustering hypothesis: In L2 acquisition, the parametric properties are acquired separately from one another, rather than through clustering appearance.

The two approaches make different predictions for grammatical phenomena that fall under UG parameters, and one way of empirically testing them involves three requirements. Firstly, two grammatical phenomena (A and B) which are connected in a UG parameter (P) must be investigated where A is the trigger for the clustering acquisition of B. Secondly, L1 acquisition research should have demonstrated that A and B developmentally correlate, which can be explained in terms of developmental clustering. Thirdly, to rule out transfer effects, it seems necessary to find a group (G) of L2 learners who do not have A and B in their native language. If, under these three conditions, one would demonstrate that the two grammatical phenomena (A and B) developmentally coincide in that group, parallel to what has been found for child L1 learners, then this parallelism would indicate that the process of clustering effects is operative both in L1 and in L2 acquisition, thus supporting the strong clustering view. If, however, the acquisition of A and B in the group does not co-occur under the three conditions mentioned above, then we have reason to believe that L2 learners acquire A and B separately from one another and that clustering appearance is not functioning in L2 learners in the same way as in child L1 learners (Clahsen and Hong, 1995).

This article is structured as follows. We will first briefly describe the major differences between Persian and English with respect to obligatory/null subjects and infinitival clauses. We then summarize results from the previous studies. We next go on to formulate the research questions and hypotheses as well as to explain the method of the present study. Finally, the findings and results will be discussed to come up with some conclusions and pedagogical implications.

Obligatory/Null Subjects

Persian is a pro-drop language which allows empty subjects in main and embedded clauses. These empty arguments are identified by inflectional suffixes. In Rizzi's (1986) theory of *pro*, two parameters are hypothesized to account for the distribution of empty subjects: 1. licensing of *pro*, and 2. identification /recovery of the content of *pro*. The licensing of the empty subject can be accomplished through government by inflection or agreement. In English which is a non-pro-drop language, inflectional possibilities do not license *pro*; whereas in Persian, German, and Italian it does. The following examples will clarify the differences between Persian and English:

1. *pro* Arabi harf mizanad ama nemidan-am dar cheh sathi. (*pro* in main clause)

S/he Arabic speech hits but don't know I at which level.

(S/he speaks Arabic but I don't know the level.)

2. Modir-e madreseh goft ke hala *pro* dar kelas hast-and. (*pro* in embedded clause)

The principal of school said that now in class are they.

(The principal said that they are in class now.)

3. Har mah che ghadr hoghogh *pro* migir-i? (*pro* in interrogative clause)

Every month how much salary get you?

(How much salary do you get every month?)

As illustrated in (1-3), inflectional resources like suffixes at the end of Persian verbs specify tense, person, number and nominative-case features. More specifically, the verb suffix 'am' in (1) indicates present tense, first person singular and nominative case; the verb suffix 'and' in (2) shows present tense, third person plural and nominative case; finally the verb suffix 'i' in (3) conveys past tense, second person singular and nominative case. The empty category in specIP of such clauses as above, in fact, is a null pronoun bearing Nominative case which is typical of subject-less pro-drop languages such as Persian. Whereas, in English that is a non-pro language the same syntactic properties as person, number and case are specified through overtly independent resources like subject pronouns.

Infinitival Clauses

There are some interesting differences between Persian and English in the realization of non-finite clauses. Whereas English licenses non-finite clauses, Persian complement clauses are all finite. That is, the verb in - Root clauses inflects for Person / Number and Tense. These features are manifested in terms of inflectional suffixes:

1. *pro* Tasmim gereftand *pro* khaneh ghadimi ra be-foroosh-and.

They decision took house old-Acc Sub sell they.

(They decided *PRO* to sell the old house.)

2. *pro* Talash kardam ke *pro* yak moalem englisi shav-am.

I effort made that one teacher English become I.

(I tried *PRO* to become an English teacher.)

3. Ali ghol dad ke *pro* beravad.

Ali promise gave that go he.

(Ali promised *PRO* to go.)

The distribution of PRO in English was normally assumed to be restricted by the principle A of the Binding Theory: PRO is ungoverned, allowing PRO to appear in the subject of non-finite clauses (1-3) as there is no governor for this position. There are several reasons (Radford, 1998) to believe that there really is a subject in infinitive clauses, which is 'invisible'. Put more technically, there is an element in subject position of infinitive clauses which is not visible in the phonetic representation of the clause. While in Persian, all verb complements (1-3) other than NP and PP are tensed CPs. In fact, Persian complement clauses do not instantiate INFL specifications such as [-finite], [-tense], [+null case], [-person], and [-number] found in English for PRO.

Theoretical Background

Certain theoretical hypotheses have been adopted on the nature of the ability to process the linguistic input with respect to L2 acquisition (Brown, 1973; Bloom *et al.* 1975; Clahsen & Hong, 1995; Carroll, 2001; Hulstijn, 2002; Gregg, 2003). Yet, a close investigation of them would reveal a controversial issue about how language learners manage to re-set parametric variations of different domains of target system in real life situations. A number of SLA researchers (Epstein, *et al.*, 1993b) argue for a strong UG or Full Access Hypothesis (FAH) claiming that UG in its entirety constraints language acquisition. While a second group of

psycholinguists (Felser & Roberts, 2004) support a weak UG or Fundamental Difference Hypothesis (FDH) claiming that L2 acquisition is governed by cognitive faculties that are distinct from the domain-specific language faculty termed as UG. In fact, the latter group attributes the empirical differences between child and adult language processing to other factors such as the child's limited memory span and cognitive resources. Along similar line(s), they believe that some striking differences exist between non-native (adult L2) and native speakers in terms of sentence processing. They suggest that these differences can be explained by presupposing that the syntactic representations computed by L2 learners during comprehension are shallower and less detailed compared to those of native speakers.

Research evidence from English L1 acquisition confirms an initial stage of omitting subjects and inflections (Gregg, 2003). Epstein (1998) reports developmental relationship between some tense inflections and obligatory subjects. Clahsen and Hong (1995) also claim that in German L1 acquisition, there is evidence for a clustering appearance of subject-verb agreement and the use of obligatory subjects. Youhanaee (2004) also reports that he could find some properties associated with the null-subject parameter such as V-S constraint and subject-verb agreement cluster developmentally in L1 acquisition by Persian-speaking children before the age of 6.

As for L2 acquisition, research has resulted in controversial findings and conflicting suggestions with respect to the clustering effects of syntactic variables. Hilles (1991) found statistically significant correlations between inflectional suffixes and the increase of overt pronominal subjects in some of the Spanish learners of English. The reliability of Hilles' findings, yet, may be criticized as the role of L1 transfer is not clear in her study. Along similar line(s), Vainikka and Young-Scholten (1994) carried out a research on developmental clustering effects in the acquisition of German by 6 Korean and 11 Turkish learners. The findings indicate that the acquisition of subject-verb-agreement paradigm is developmentally correlated to the correct obligatory subjects at advanced (stage 3) level. They further conclude that what they found in the acquisition of German as L2 is parallel to what has been found in German child language acquisition. However, since this correlation is what they could observe just for advanced learners, it might be logically argued that the two linguistic structures appeared in the learners as a result of their separate learning rather than developmental clustering effects.

On the other hand, certain studies have suggested counterarguments against the clustering effects in L2 acquisition. Lakshmanan (1991) carried out a longitudinal study on null subjects and subject-verb agreement in the performance of three learners of English with different L1 backgrounds. The results show that the development of correct use of obligatory subjects is

not well accompanied by using correct subject-verb-agreement paradigm. Moreover, Clahsen and Hadler (2004) carried out an experimental study to evaluate the clustering effects of null subjects and subject-verb agreement in 33 Korean learners of German as L2. The reaction time (RT) software recorded the subjects' grammatical judgments as well as the time spent on each item. The results indicated that 20 subjects did not demonstrate good correlations of the two linguistic phenomena, in fact, they acquired either just one of them or none. Meanwhile, 13 subjects connected the two phenomena indicating that they had acquired both of them. In spite of their findings, the researchers conclude that the correlations of the phenomena do not provide sufficient evidence for the clustering effects.

Start Age of L2 Acquisition

The most popular theory connecting age factor to second language development refers to the 'Critical Period Hypothesis' (CPH) initially based on the claims of Penfield and Roberts (1959) and further developed by Lenneberg (1967). There are different interpretations of the CPH with respect to second language, nevertheless, most of them agree on the assumption that after the onset of puberty it would be impossible for the learner to have access to target competence at the level of a native speaker. While experts commonly believe in a 'critical period' for developing one's first language, there has been extensive discussion about the role of such a period for a second language so that it has changed into a controversial issue. As a result, in the last few decades a number of important studies were carried out on the CPH and second language acquisition. Scovel (2000) reports that during the 1980s SLA researchers' interest swung away from CPH. This shift of opinion was brought about as a reaction to the negative evaluation of early L2 learning at school (Burstall *et al*, 1974) indicating that what early starters had gained at primary school was largely lost within a few years at secondary school. However, it seems that in recent years SLA practitioners have begun a second round of studies on the relationship between various aspects of L2 competence such as syntax and CPH (Singleton and Lengyel, 1995).

Research Questions and Hypotheses

1. Do clustering effects of null and overt obligatory parameters appear in the interlanguage of Persian learners of English?
2. Is the emergence of clustering effects of parameters of null/overt obligatory subjects observed at all levels of L2 proficiency?
3. Is there a significant relationship between the start age of L2 acquisition and the

clustering learning of parameters of null/overt obligatory subjects?

Hypothesis 1: There is no significant difference between English natives and Persian L2 learners in terms of linguistic knowledge of parameters of null/obligatory subjects.

Hypothesis 2: There is no relationship between the L2 proficiency levels and the clustering of null/overt obligatory subject parameters.

Hypothesis 3: There is no relationship between the start age of L2 acquisition and the clustering effects of null/overt obligatory subject parameter.

Research Design and Methodology

Participants

The present study includes a total of 60 university freshman students who are majoring in Persian literature, social sciences, management, psychology and law in Guilan University. They were randomly selected based on the information received from the results of a proficiency TOEFL test administered to 750 students in the Faculty of Humanities in Guilan University. Subsequently, based on the results of a questionnaire distributed among the population, 30 students with an early start age and 30 students with a late start age were selected and divided into three main groups. In this study we refer to them as pre-intermediate (TOEFL scores ranging from 350 to 400), intermediate (TOEFL scores ranging from 400 to 450) and post-intermediate (TOEFL scores ranging from 450 to 500). Each main group is composed of two sub-groups of different start-age of L2 acquisition. The first half, or the early starters, whose start age varies from 5 to 7 were initially exposed to English in a private language institute or in the Primary School. The other half consists of late starters to learn English whose start age varies from 12 to 13. The late starters were first exposed to English in grade 1 or 2 in the Guidance school. Moreover 10 native speakers of English, between 24 to 49 years old, took part in this study as the control group. Furthermore, a one-way ANOVA was computed on the results of the TOEFL test. The value of F observed in the ANOVA equals 1471 which is significant at the probability level of .05.

Research Design

The present study adopts a causal-comparative design to compare three experimental groups of different proficiency levels (pre-intermediate, intermediate and post intermediate) with a control group of native speakers in terms of syntactic clustering of Obligatory/null subject parameters. Further analyses are computed to find out the differences between the early / late

starters at different proficiency levels with respect to the clustering acquisition of obligatory/null subject parameters in English and their different performance on each linguistic variable.

Materials:

A GJT with 32 items was constructed containing 8 grammatical sentences for each possible combination of various types of English obligatory subjects including obligatory referential, quasi and expletive subjects in main/embedded clauses.

Example: Tom says that he usually goes to the students' club.

Considering 8 ungrammatical counterpart items for the above-mentioned structures there would be a total of 16 items with respect to the first syntactic variable, namely overt obligatory subjects.

Example: * Do you have much time to continue or is to late?

Recall that infinitival clauses in English are non-finite structures without obligatory subject pronouns and tense or agreement inflections. This is in contrast to verb clauses in Persian which are finite structures with overt or inflected subjects. So, eight grammatical English sentences were constructed on infinitival clauses as well as eight ungrammatical counterpart sentences as illustrated by the following sentence pair.

Examples: They told John to invite his classmates.

- They want that change my job.

Also, 8 filler items were used to make sure that the participants were in fact performing the task accurately and then all of items were randomized. Each item is followed by three choices as G (Grammatical), U (Ungrammatical) and NS (Not Sure). One or zero points would be awarded depending on the correct judgment and correction of each item made by the testees. More specifically, the participants would receive one score for each correct judgment of Grammatical items. In the case of Ungrammatical sentences, the correct judgment should be followed by correction in order to gain the participants' one score. They would not receive any score for choosing NS choice at all.

Results

In this section, the results of the data analyses are presented and tabulated as an attempt to find answers to our research questions. The results obtained from a TOEFL test and the GJ task used for Persian learners and English natives are presented in summary tables and graphs. The GJT contained 32 testing items representing two different syntactic properties namely

obligatory subjects and infinitival clauses. The aim was to investigate whether the subjects who are from different proficiency levels and start-age have clustering knowledge in both or acquired just one of the properties. In the meantime, we administered a TOEFL test to divide the Persian learners into three proficiency levels of pre-intermediate, intermediate and post-intermediate. Moreover, the subjects in each level are composed of equal number of early starters and late starters.

Figure 1: Mean percentage of all groups' performance on grammaticality judgment test

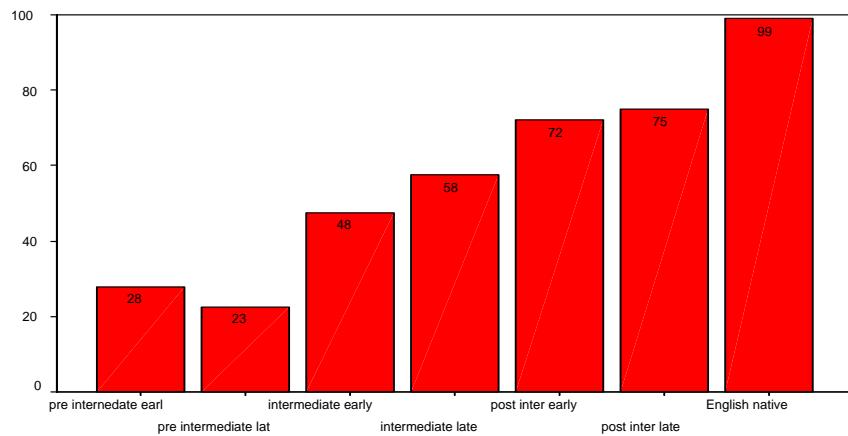


Figure 1 presents the results of the subjects' performance on GJT in terms of mean percentage. As illustrated, the two start-age groups in each proficiency level demonstrated similar performance on the task. The only exception is observed in the intermediate level. More specifically, the intermediate late starters received a mean percentage of 58, while their early-starter counterparts gained 48. The post-hoc Scheffe test indicates that this difference is significant at the level of .05 probability. As for the pre-intermediate level, the early starters could achieve slightly higher scores (28) than the pre-intermediate late starters (23). The two sub-groups in the post-intermediate level also performed almost equally with a difference of 3 percentage in the mean scores (72 for early starters vs. 75 for late starters). As it was expected, the English natives gained the highest score in GJT. In other words, they could achieve perfect mean percentage in the test. Another important point illustrated in the figure refers to the matching of the mean percentages on GJT of the groups' levels in a hierarchical order. Among the Persian learners the post-intermediate level received the highest mean score while the pre-intermediate level gained the lowest one and the intermediate level falls between. In the meantime, the English natives could obtain the highest mean score among all subjects.

Figure 2: Mean percentage of all groups' performance on obligatory and null subjects

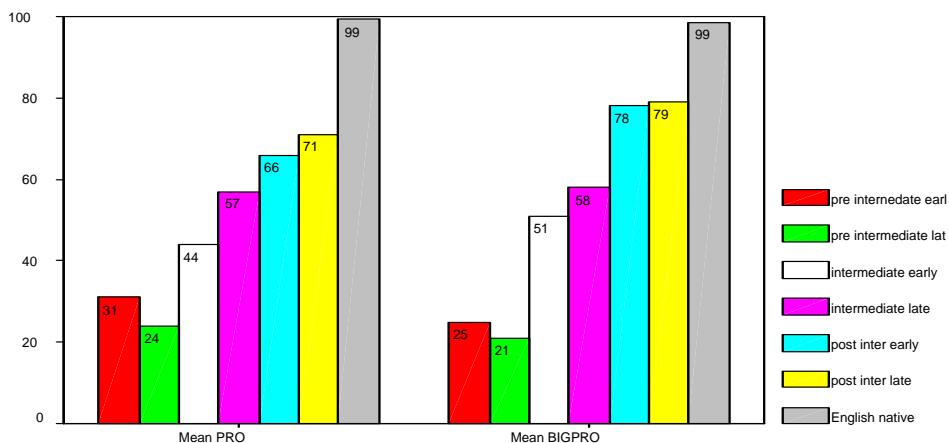


Figure 2 presents the performance of all groups on obligatory and null subjects. In the first place, the results show that the subjects of each proficiency level gained comparatively different scores on both variables. While the English natives could gain the highest scores on both phenomena, the post-intermediate group received the best scores among the Persian learners. Likewise, the intermediate group could get better result than the pre-intermediate group that gained the lowest scores. The figure also illustrates two symmetric columns representing the subjects' achievements on the two syntactic properties. This will, in turn, serve as a good piece of evidence for clustering appearance of the obligatory and null subjects in our study sample. Secondly, the achievements of the two start-age sub-groups indicate that there should be positive relationships between the two start-age sub-groups at all three proficiency levels.

More specifically it follows that the early and late starters at the pre-intermediate and post-intermediate levels performed almost equally well on GJT. However, at the post-intermediate level it is the other way round, that is post-intermediate late starters could perform better than their early counterparts. However, to know whether the difference between the sub-groups at the intermediate level is significant we would further need to analyze the data through ANOVA method.

Table 1: The post-hoc Scheffe test for performance of the sub-groups on obligatory and null subjects

Multiple Comparisons							
			Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
Scheffe	Dependent Variable	(I) start age and level	(J) start age and level			Lower Bound	Upper Bound
PRO	pre intermediate early	pre intermediate late	7.0000	3.0076	.507	-4.5202	18.5202
		intermediate early	-13.0000*	3.0076	.018	-24.5202	-1.4798
		intermediate late	-26.0000*	3.0076	.000	-37.5202	-14.4798
		post inter early	-35.0000*	3.0076	.000	-46.5202	-23.4798
		post inter late	-40.0000*	3.0076	.000	-51.5202	-28.4798
		English native	-68.4000*	3.0076	.000	-79.9202	-56.8798
	pre intermediate late	pre intermediate early	-7.0000	3.0076	.507	-18.5202	4.5202
		intermediate early	-20.0000*	3.0076	.000	-31.5202	-8.4798
		intermediate late	-33.0000*	3.0076	.000	-44.5202	-21.4798
		post inter early	-42.0000*	3.0076	.000	-53.5202	-30.4798
BIGPRO	intermediate early	post inter late	-47.0000*	3.0076	.000	-58.5202	-35.4798
		English native	-75.4000*	3.0076	.000	-86.9202	-63.8798
		pre intermediate early	13.0000*	3.0076	.018	1.4798	24.5202
		pre intermediate late	20.0000*	3.0076	.000	8.4798	31.5202
		intermediate late	13.0000*	3.0076	.018	24.5202	-1.4798
		post inter early	-22.0000*	3.0076	.000	-33.5202	-10.4798
	intermediate late	post inter late	-27.0000*	3.0076	.000	-38.5202	-15.4798
		English native	-55.4000*	3.0076	.000	-66.9202	-43.8798
		pre intermediate early	26.0000*	3.0076	.000	14.4798	37.5202
		pre intermediate late	33.0000*	3.0076	.000	21.4798	44.5202
BIGPRO	post inter early	intermediate early	13.0000*	3.0076	.018	1.4798	24.5202
		post inter late	-9.0000	3.0076	.217	-20.5202	2.5202
		English native	-14.0000*	3.0076	.009	-25.5202	-2.4798
		pre intermediate early	-42.4000*	3.0076	.000	-53.9202	-30.8798
		pre intermediate late	35.0000*	3.0076	.000	23.4798	46.5202
		intermediate early	42.0000*	3.0076	.000	30.4798	53.5202
	post inter late	intermediate late	22.0000*	3.0076	.000	10.4798	33.5202
		post inter early	9.0000	3.0076	.217	-2.5202	20.5202
		post inter late	-5.0000	3.0076	.831	-16.5202	6.5202
		English native	-33.4000*	3.0076	.000	-44.9202	-21.8798
BIGPRO	post inter early	pre intermediate early	40.0000*	3.0076	.000	28.4798	51.5202
		pre intermediate late	47.0000*	3.0076	.000	35.4798	58.5202
		intermediate early	27.0000*	3.0076	.000	15.4798	38.5202
		intermediate late	14.0000*	3.0076	.009	2.4798	25.5202
		post inter early	5.0000	3.0076	.831	-6.5202	16.5202
		post inter late	-28.4000*	3.0076	.000	-39.9202	-16.8798
	English native	pre intermediate early	68.4000*	3.0076	.000	56.8798	79.9202
		pre intermediate late	75.4000*	3.0076	.000	63.8798	86.9202
		intermediate early	55.4000*	3.0076	.000	43.8798	66.9202
		intermediate late	42.4000*	3.0076	.000	30.8798	53.9202
BIGPRO	post inter late	post inter early	33.4000*	3.0076	.000	21.8798	44.9202
		post inter late	28.4000*	3.0076	.000	16.8798	39.9202
		pre intermediate early	4.0000	2.4646	.846	-5.4403	13.4403
		pre intermediate late	-26.0000*	2.4646	.000	-35.4403	-16.5397
		intermediate late	-33.0000*	2.4646	.000	-42.4403	-23.5397
		post inter early	-53.0000*	2.4646	.000	-62.4403	-43.5397
	intermediate early	post inter late	-54.0000*	2.4646	.000	-63.4403	-44.5397
		English native	-73.6000*	2.4646	.000	-83.0403	-64.1397
		pre intermediate early	-4.0000	2.4646	.846	-13.4403	5.4403
		pre intermediate late	-30.0000*	2.4646	.000	-39.4403	-20.5397
BIGPRO	intermediate early	intermediate late	-37.0000*	2.4646	.000	-46.4403	-27.5397
		post inter early	-57.0000*	2.4646	.000	-66.4403	-47.5397
		post inter late	-58.0000*	2.4646	.000	-67.4403	-48.5397
		English native	-77.6000*	2.4646	.000	-87.0403	-68.1397
		pre intermediate early	26.0000*	2.4646	.000	16.5597	35.4403
		pre intermediate late	30.0000*	2.4646	.000	20.5597	39.4403
	intermediate late	intermediate late	-7.0000	2.4646	.271	-16.4403	2.4403
		post inter early	-27.0000*	2.4646	.000	-36.4403	-17.5397
		post inter late	-28.0000*	2.4646	.000	-37.4403	-18.5397
		English native	-47.6000*	2.4646	.000	-57.0403	-38.1397
BIGPRO	post inter early	pre intermediate early	33.0000*	2.4646	.000	23.5597	42.4403
		pre intermediate late	37.0000*	2.4646	.000	27.5597	46.4403
		intermediate early	7.0000	2.4646	.271	-2.4403	16.4403
		post inter early	-20.0000*	2.4646	.000	-29.4403	-10.5397
		post inter late	-21.0000*	2.4646	.000	-30.4403	-11.5397
		English native	-40.6000*	2.4646	.000	-50.0403	-31.1397
	post inter late	pre intermediate early	53.0000*	2.4646	.000	43.5597	62.4403
		pre intermediate late	57.0000*	2.4646	.000	47.5597	66.4403
		intermediate early	27.0000*	2.4646	.000	17.5597	36.4403
		intermediate late	20.0000*	2.4646	.000	10.5597	29.4403
BIGPRO	English native	post inter early	-1.0000	2.4646	1.000	-10.4403	8.4403
		post inter late	-21.0000*	2.4646	.000	-30.4403	-11.5397
		pre intermediate early	-20.6000*	2.4646	.000	-30.0403	-11.1397
		pre intermediate late	54.0000*	2.4646	.000	44.5597	63.4403
		intermediate early	58.0000*	2.4646	.000	48.5597	67.4403
		intermediate late	28.0000*	2.4646	.000	18.5597	37.4403
	intermediate late	post inter early	21.0000*	2.4646	.000	11.5597	30.4403
		post inter late	1.0000	2.4646	1.000	-8.4403	10.4403
		English native	-19.6000*	2.4646	.000	-29.0403	-10.1397
		pre intermediate early	73.6000*	2.4646	.000	64.1597	83.0403
BIGPRO	post inter late	pre intermediate late	77.6000*	2.4646	.000	68.1597	87.0403
		intermediate early	47.6000*	2.4646	.000	38.1597	57.0403
		intermediate late	40.6000*	2.4646	.000	31.1597	50.0403
		post inter early	20.6000*	2.4646	.000	11.1597	30.0403
		post inter late	19.6000*	2.4646	.000	10.1597	29.0403

*: The mean difference is significant at the .05 level.

Table 1 shows the inter/intra level comparisons on their achievements in obligatory and null subjects. First of all, the results of a one-way ANOVA indicate that the Fs observed

equal 147 and 274 for obligatory subjects and null subjects, respectively. They are both significant at the probability level of .05. In the second phase a post-hoc-Scheffe test (Table 1) revealed that all the start-age sub-groups are significantly different on obligatory subjects except for the following pairs: (a) pre-intermediate early and late starters (.507), (b) intermediate late and post-intermediate early starters (.21), and (c) post-intermediate early and late starters (.831). Likewise, the comparisons of the start-age sub-groups on null subjects indicate that they significantly differ except for the following pairs: (a) pre-intermediate early and late starters (.84), (b) intermediate early and late starters (.27), and (c) post-intermediate early and late starters (.1). So, here it would be legitimate to claim that there is a positive relationship between the two start-age sub-groups at each level based on their achievements for the obligatory subjects, on the one hand, and for the null subjects, on the other hand.

Table 2: The post-hoc Scheffe test for the performance of the main groups on obligatory and null subjects

Multiple Comparisons							
			Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
Scheffe	Dependent Variable	(I) Proficiency level	(J) Proficiency level			Lower Bound	Upper Bound
PRO	Preintermediate	Intermediate	-23.000*	2.8292	.000	-31.3613	-14.6387
		Postintermediate	-41.000*	2.8292	.000	-49.3613	-32.6387
		Natives	-71.9000*	3.4651	.000	-82.1405	-61.6595
	Intermediate	Preintermediate	23.000*	2.8292	.000	14.6387	31.3613
		Postintermediate	-18.000*	2.8292	.000	-26.3613	-9.6387
		Natives	-48.9000*	3.4651	.000	-59.1405	-38.6595
	Postintermediate	Preintermediate	41.000*	2.8292	.000	32.6387	49.3613
		Intermediate	18.0000*	2.8292	.000	9.6387	26.3613
		Natives	-30.9000*	3.4651	.000	-41.1405	-20.6595
	Natives	Preintermediate	71.9000*	3.4651	.000	61.6595	82.1405
		Intermediate	48.9000*	3.4651	.000	38.6595	59.1405
		Postintermediate	30.9000*	3.4651	.000	20.6595	41.1405
BIGPRO	Preintermediate	Intermediate	-31.5000*	1.9513	.000	-37.2669	-25.7331
		Postintermediate	-55.5000*	1.9513	.000	-61.2669	-49.7331
		Natives	-75.6000*	2.3899	.000	-82.6629	-68.5371
	Intermediate	Preintermediate	31.5000*	1.9513	.000	25.7331	37.2669
		Postintermediate	-24.0000*	1.9513	.000	-29.7669	-18.2331
		Natives	-44.1000*	2.3899	.000	-51.1629	-37.0371
	Postintermediate	Preintermediate	55.5000*	1.9513	.000	49.7331	61.2669
		Intermediate	24.0000*	1.9513	.000	18.2331	29.7669
		Natives	-20.1000*	2.3899	.000	-27.1629	-13.0371
	Natives	Preintermediate	75.6000*	2.3899	.000	68.5371	82.6629
		Intermediate	44.1000*	2.3899	.000	37.0371	51.1629
		Postintermediate	20.1000*	2.3899	.000	13.0371	27.1629

*. The mean difference is significant at the .05 level.

Table 2 illustrates the differences among the main groups of three different proficiency levels on the obligatory and null subjects. In the first step, a one-way ANOVA was computed and we found that the Fs observed equal to 162 and 834 for obligatory and null subjects, respectively. Both of them are significant at the .05 probability level. Secondly, a post-hoc Scheffe test was administered and the results demonstrated that all main groups of different proficiency levels are significantly different from one another at the probability level of .05. This would serve to claim that the interlanguage of the Persian learners of English is totally

dynamic in nature in spite of some sub-group differences concerning their achievements of the syntactic properties of L2.

Discussion

In the first place, we might argue that the acquisition of the two phenomena 'obligatory subjects' and 'null subjects' do in fact covary in L2 learners. The results of our GJT with Persian learners of English show that in these learners there is clustering effect between overt obligatory subjects and infinitival clauses. This is in agreement to what was found for child L1 acquisition as well as our control group in this study. Since this experiment is based on cross-sectional data, we can claim that these learners acquired the two linguistic variables at the same time rather than separately. In other words, the Persian learners of L2 in different groups demonstrated clustering appearance with respect to obligatory and null subjects. This may imply that L2 learners go through somehow similar processing mechanism to that of native speakers to the syntactic input of the target system. However, our finding that in Persian learners of English, the acquisition of the obligatory-subject parameter is crucially tied to the acquisition of the infinitival paradigm does not necessarily entail that this is the only way to acquire the L2 parameters. Since there is nothing that forces the relation to be a biconditional one, L2 learners might have full access to UG parameters, but simply use different triggers from those used by children to set L1 parameters.

Secondly, according to what we observed in this research, clustering acquisition happened for all three levels of L2 proficiency. This is demonstrated by correlational studies (Figure 2). The highest clustering was observed at the post-intermediate level while the lowest one belongs to the pre-intermediate level. In the meantime, the post-intermediate subjects received the highest mean score on GJT among the groups of Persian learners of L2. Accordingly, here we might argue that the post-intermediate subjects have access to other learning strategies as well as to clustering. Alternatively, we might argue that some of the post-intermediate subjects may have gone through an earlier stage at which 'obligatory subjects' and 'infinitival clauses' have been fully linked. This means that our post-intermediate subjects must have lost one of these properties later in development. This possibility cannot be totally excluded, but it seems to be *ad hoc*, and additional considerations would be required to explain why, how and when those learners should have lost one of the two properties. Moreover, the evidence available from other L2 studies (see review of literature) does support the idea that the L2 learners' acquisition of obligatory subjects is developmentally connected with the correct use of verb forms.

Finally, according to the ANOVA data, the early and late starters of L2 acquisition in this study did not manifest significant differences with respect to obligatory subjects and infinitival clauses in the GJT. The only exception was attributed to the intermediate level in which the late starters could perform significantly better than their early-starter counterparts. More analyses indicate that the intermediate late starters gained more scores on both variables compared with the intermediate early starters. One possible justification would be that an early-start age cannot be regarded an advantage in L2 acquisition with respect to clustering acquisition.

Conclusion and Implications

We conducted a grammaticality judgment test (GJT) with Persian learners of English at three proficiency levels of pre-intermediate, intermediate and post-intermediate to examine the clustering acquisition of obligatory subjects and infinitival clauses. According to a questionnaire, half of the members in each group were the early-starters who started L2 learning at 5-7 years old and the other half were late-starters who started L2 learning at 12-13 years old. We found that the pre-intermediate learners acquired the two variables in clusters and there was no significant difference between the early and late starters. In the intermediate learners, the correlation showed almost perfect connection between the two variables. Moreover, the intermediate late starters gained significantly better achievement than their early-starter counterparts. Finally, the post-intermediate group acquired the obligatory subjects and infinitival clauses fully, and the correlational coefficient between them is almost high. We conclude that our results support the strong clustering view according to which processes such as parameter resetting are operative in L2 development.

Our findings may be relevant and applicable to the field of language teaching and useful to language teachers by deepening their understanding of the nature of L2 acquisition. As (far as) L1 acquisition is concerned, the Logical Problem Hypothesis (White, 1989, pp 4-5) offers a convincing argument as to how young children manage to have access to the complex system of their mother tongue within a short period of time. Along similar line(s), L1 research evidence has brought about a general consensus that children go through a psycholinguistic process of clustering effects resulting from setting a particular parameter of Universal Grammar. As for the process of L2 acquisition, certain theories have been formulated the most attractive of which are Full Access Model (FAM) or Strong Clustering View and Fundamental Difference Hypothesis (FDH) or Weak Clustering View. The results of the present study show that the learners at all proficiency levels somehow develop a

systematic competence of English obligatory/null subject parameters during their language learning process. More specifically, our findings are in harmony with the view that adult and child L2 learning happens through clustering mechanism compatible with Strong Clustering Hypothesis, but with learners coming up with a system somehow different from that of native speakers.

Finally, another dimension of the present study deals with the start-age of L2 acquisition which can be of important implications for policy makers in our educational system in Iran. Age has always been a controversial issue and people often ask questions about the optimal age of L2 acquisition. Summaries of studies on age and rate of attainment in L2 (Krashen *et al*, 1982) confirm that older children and adults initially acquire many aspects of the L2 faster than younger children. While, with acquisition of pronunciation and influence of the socio-affective filter adults sometimes experience problems with second language acquisition. In general, it is hypothesized that younger acquirers tend to attain higher levels of proficiency in second languages than those who begin SLA as adults. At present, L2 learners in Iran formally start at the age of about 13 (the second grade in Guidance Schools. The present research indicates that in general there are no significant differences between the early and late starters with respect to the pattern of clustering acquisition of the target system in L2. The pedagogical implications, therefore, are that we do not need drastic changes concerning the present start age of L2 acquisition in our country.

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Appendix

Grammaticality Judgment Test (GJT)

1. I left without giving an explanation.
2. Don't you feel the house shaking?
3. Robert wondered what he to say.
4. I knew what wanted to do next.
5. Have you decided to answer the letter?
6. Yesterday sold the house at a very good price.
7. Mary will remember that she locking the door later.
8. They want to repair the broken chair I was sitting on.
9. They predicted that might snow heavily.
10. Who did Bill go to Paris that to visit?
11. This book is very interesting to read.
12. This will lead us to decide what follows.
13. Mary says that she often visits the museum.
14. Does John plan he studying in a university?
15. She types both fast and accurately.
16. The teacher cancelled the picnic to punish us.
17. Mary knows that should behave herself.
18. Preparing breakfast in a hurry burned the toast.
19. Is this the letter which arrived yesterday?
20. You had better to stay in bed with your cold.
21. We agreed that we waiting until next week.
22. What year was it when Islamic revolution happened in Iran?
23. John promised to be on time tomorrow.
24. Which candidate can you guess people will vote as president?
25. Did the lawyer agree helps the arrested man?
26. Do we have much time to continue or is it too late?
27. They seldom go to the movies.
28. I decided I changing my job.
29. To be invited at the party it was a great opportunity.
30. They prefer very much to go on a picnic.
31. From now and on I will study hard.
32. Susan wore a raincoat because was raining.
33. They told Smith to invite his classmates.
34. Chuck and Liza intend that marry very soon.
35. Usually is a TV set in every classroom.
36. The doctors advised her to take more rest.

37. What's the cost of this watch?
38. Mary asked how writes a business letter.
39. Which book would you recommend reading?
40. They are trying hard to pass the exam.

The Key for Successful Reader-writer Interaction: Factors Affecting Reading Comprehension in L2 Revisited

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Abstract

Reading comprehension is a very complex process and in order to grasp how readers make sense of written symbols, it is essential that the process of reading comprehension and the role of factors leading to the product of this process be understood properly. There is no shortage of studies on reading comprehension aiming to clarify its nature and attempting to illustrate how the task of comprehension is accomplished. However, there seems to be no systematic framework incorporating the vast array of factors involved in affecting the communication between the reader and the writer. The present paper is an attempt to provide a more comprehensive and clearer framework for better appreciating the interplay of variables playing a part in the success of written communication with a particular focus on EFL contexts.

Key words: reading comprehension, reader-writer interaction, L2 reading, TEFL/EFL/ESL

Background

Reading is one of the ‘most complex forms of information processing’ (Kolers, 1973, p. 29) and is probably the ‘most extensively researched’ language skill (Bachman, 2000, p. x). Reading can be claimed to date back to the invention of writing at least 5000 years ago (Orasanu & Penny, 1986, p. 1). Jennings (1982, p. 3) even asserts that ‘reading is older than printing or writing or even language itself.’ The complex processes involved in reading, however, remained largely uninvestigated until the mid-19th century (Vernon, 1984, p. 48).

Since then, different scholars have looked at the same entity from different angles and have reached somewhat different conclusions about the nature of reading. Discrepancy of views has partly been the result of the different purposes with which researchers have approached reading. While some have studied reading to uncover the underlying processes,

others have tried to identify its sub-skills for teaching and testing purposes. Although many researchers have endeavoured to reveal its true nature, all attempts to do so have only partially been successful; and the literature on reading is lacking an organized model accounting for the success or failure of communication attempts between the text-producer and the receiver. The present paper, therefore, aims to help better understanding of reading through illustrating the intricate relationships which exist between so many variables affecting the success of the reader-writer interaction, namely reading comprehension.

Generally speaking, two factors may influence reading comprehension: internal and external. Internal factors, called reader variable here, refer to everything related to the reader such as his/her cognitive abilities and strategies, background knowledge, and affective characteristics. External factors, called text variable, context variable, and writer variable in this study, refer to all factors external to the reader. Text variable includes such elements as text modality and text-characteristics (lexical density, structural complexity, etc.). Context variable refers to all situational elements such as the time of reading and the place of reading, as well as the larger socio-economic context. Writer variable refers to the text-producer. Each variable is discussed in some detail in turn.

Reader variable

There is little dispute among researchers that the reader plays the central role in an act of reading. While the reader was once believed to be a passive receiver of information, he/she is now considered an active participant in a reading activity. The emphasis on the role of the reader, however, does not mean that other variables have no influence on reading comprehension. Rather, the ultimate product is the result of interaction between the reader and other variables. Based mainly on the research and arguments of Goodman (1968; 1970; 1973) and Smith (1971; 1973a, b), it is now accepted unanimously that the reader contributes more than ‘the visual symbols on the page’ do (Grabe, 1991, p. 377). However, each reader’s contribution will be different from that of others because readers are different in their ‘shared knowledge, language skills, strategies ... and “other personal characteristics” ’ (Alderson, 2000, p. 128).

Although visual input is necessary for reading to take place, it is not enough for successful comprehension. Non-visual information, or what the reader already has, plays a major role (Smith, 1973a). This non-visual information, or what the brain imposes upon the eye (Smith & Holmes, 1973, p. 50), has generally been known as background knowledge. This knowledge, also referred to as content schemata (Singhal, 1998, p. 2), refers to one’s knowledge of the world, the culture, and the language. According to Anderson and Freebody

(1981, p. 84) ‘background knowledge is crucial for reading comprehension.’ Johnston (1983, p. 30) distinguishes between qualitative and quantitative background knowledge. While the former refers to inappropriate background knowledge leading to a ‘completely inappropriate model of text meaning’ (p. 31), the latter refers to a reader’s lack of related background knowledge (e.g., a rural student reading about city metros). It has been shown that differences in background knowledge ‘may indeed account for a significant portion of variance in comprehension performances in normal reading situations’ (Jenkins & Pany, 1981, p. 167), and that such differences affect the ease or difficulty with which one understands a text (Singhal, 1998, p. 2).

In discussions on background knowledge, particular attention has been given to schema in organising and activating the reader’s background knowledge. Schema theory, which comes from cognitive psychology, owes much to the work of Bartlett (Rumelhart, 1981, p. 3) and Piaget (Orasanu & Penney, 1986, p. 6). Schemata, the plural form of schema, also called ‘building blocks of cognition’ (Rumelhart, 1981, p. 3), refer to ‘abstract knowledge structure[s] stored in memory’ (Garner, 1987, p. 4). In fact, ‘The role that background information plays in comprehension has been formalised in schema theory’ (Kitao & Kitao, 2000, p. 2). ‘According to schema theories all knowledge is packed into units … [which] are the schemata. Embedded in these packets of knowledge, in addition to the knowledge itself, is information about how this knowledge is to be used’ (Rumelhart, 1981, p. 4; Rumelhart, 1984, p. 2). In schema theory, comprehension of a text involves activation of relevant schemata, which are initiated as a result of ‘bottom-up observation’ (Rumelhart, 1981, p. 18), and proceeds through a constant process of testing the activated schemata, evaluating their suitability, and refining or discarding them (Johnston, 1983, p. 17; Rumelhart, 1984, pp. 3, 6). The schemata or old information which ‘provide general “ideational scaffolding” for new information’ (Garner, 1987, p. 7) are activated to make new incoming information comprehensible. According to Alderson (2000, p. 17) schemata act as ‘filters’ for new information. Despite the fact that schema theory ‘is not a well-defined framework for the mental representation of knowledge’ (Grabe, 1991, p. 389), ‘it has been an extremely useful notion for describing how prior knowledge is integrated in memory and used in higher-level memory processes’ (p. 390).

A similar theory to schema, proposed mainly to account for learning, is ‘constructivism’. The theory of constructivism is generally attributed to Jean Piaget, who articulated mechanisms by which knowledge is internalized by learners. As its name implies, constructivism emphasises the building (i.e., constructing) that occurs in people’s minds when they learn. Based on this theory, what a learner intakes depends more on what is already

stored in that his/her brain than on what is actually read, heard or observed. In other words, every individual constructs a unique mental image by combining information in their heads with the information they receive using their senses. Proponents of this theory contend that human beings are not passive recipients of information; namely, learners actively take knowledge, connect it to previously assimilated knowledge and make it theirs by constructing their own interpretation (Cheek, 1992). A similar phenomenon may be claimed to take place while a reader is trying to decipher written symbols.

Singhal (1998, p. 2) distinguishes between three types of schema: content schema, which refers to one's background or world knowledge; formal schema, also known as textual schema, which refers to one's knowledge about a text's organisational and rhetorical structure; and language or linguistic schema, which refers to one's knowledge of lexicon, syntax, and semantics. The implication is that while L2 readers bring their L1 content and formal schema to L2 situations, they need to develop L2 language schema from the beginning.

Sometimes the existence of the relevant schema may distort rather than facilitate comprehension (Rumelhart, 1981, p. 21). The reason may be that they rely too much upon what one might know. Lack of relevant schemata has also been reported to hinder comprehension. Studying 7-year-old pupils' story comprehension, Rosowsky (2000, p. 46) reported that while all the pupils 'unanimously "understood" the word "heroine" in a story they were reading ... What they did not understand was how and why this class A drug had turned up in a story about heroes.'

A component of background knowledge, called cultural knowledge in this study, is responsible for distortions in reading comprehension as a result of a mismatch in L1 and L2 cultural schemata. Cultural knowledge gains importance when a reader reads a text with cultural elements with which he/she is less familiar. Steffenson, Joag-Dev and Anderson (1979) and Steffenson and Joag-Dev (1984) report that cultural knowledge differences between American and Indian readers led to different interpretations of texts about marriage in these cultures. Comparing Iranians and Americans on their comprehension of culturally-biased folklore stories, Johnson (1981, p. 169) found that 'the cultural origin of the story had more effect on the comprehension of the ESL students than the level of syntactic and semantic complexity.' Rosowsky's (2000, p. 50) study with Asian bilingual students studying in the UK also revealed that reading comprehension was much influenced by 'cultural bias'.

Accordingly, a beginning Iranian EFL learner may become puzzled on reading that Johnny goes to school on Fridays and that the school is closed on Saturdays and Sundays. The simple reason for this is that he/she uses his/her L1 cultural knowledge in understanding

the text but since there is a mismatch between L1 and L2 situations in this regard, the attempt for comprehension fails. (In Iran, and many other Islamic countries, weekend days are Thursday and Friday, rather than Saturday and Sunday). Likewise the notion that the Iranian calendar week starts with the first weekday (Saturday), whereas in L2 situation (American culture) it starts with a weekend day (Sunday) rather than the first weekday, may cause some comprehension problems. Also an Iranian EFL learner reading texts about traffic regulations may find it hard to understand that drivers should keep left rather than right while driving, as is the normal practice in the UK and some other countries. Similarly, Iranian EFL readers may have problems in understanding why plugs and sockets are three- rather than two-pinned; how it is possible to hear a public phone ringing in the street; how one can have his/her photo taken using a machine with nobody else to take the photo; and so on. No doubt, some of these cultural differences are related to differences in progress made in technology.

Another element of reader variable is knowledge of language, or linguistic knowledge. According to Alderson (2000, p. 80), linguistic knowledge includes ‘phonological, orthographic, morphological, syntactic, and semantic information’ and ‘discourse-level knowledge, including ... text organisation and cohesion, text types and associated conventions, as well as metalinguistic knowledge’. An example of phonological-orthographic language knowledge is the knowledge that not all types of consonant cluster in English can occur at the initial or final word positions (Zakaluk, 2000, p. 8). The observation that there are obvious differences in the phonological and orthographic pattern of Iranian EFL readers’ L1 and L2 may introduce some problems at least for beginning readers. For example, no consonant clusters can occur at the initial word position and none with more than two phonemes anywhere else in a word in Farsi, the official language of Iran.

Along the same lines, one’s knowledge of morphological and syntactic patterns of the language will facilitate the comprehension and reading speed (Anderson & Freebody, 1981, p. 80). In the case of L2 learning, similar patterns brought from the L1 situation will help at all linguistic levels (i.e., phonological, orthographic, etc.). Semantic knowledge, or the knowledge of words and relationships between them, plays the most important role compared to other linguistic knowledge types. There is no dispute among researchers that vocabulary knowledge is crucial to reading comprehension (Anderson & Freebody, 1981, p. 77; Jenkins & Pany, 1981, p. 176; Johnston, 1983, p. 14; Grabe, 1991, p. 392; Schoonen, Hulstijn & Bossers, 1998, p. 98; Khaldieh, 2001). Coleman (1971) reports that lexical complexity of texts account for 80% of the variance in reading comprehension (in Anderson & Freebody, 1981, p. 80), implying that the higher one’s degree of lexical knowledge, the higher the

degree of comprehension. Schoonen et al. (1998, p. 87) bring evidence that in the case of L1, 60% of the variance in reading comprehension is related to vocabulary knowledge, and that ‘FL [Foreign Language] vocabulary is the best predictor of FL reading comprehension’ (p. 89).

One’s knowledge of discourse and text structure has also been reported to affect reading comprehension. For example, understanding coherence, or superficially non-existent relations between sentences, is a determining factor in reading comprehension (Taylor, 1985, p. 2). A difference in text-organisation in L1 and L2 is a potential source of misunderstanding. An instance of this is the system of writing addresses in Farsi and in English: while Farsi speakers move from more general to more specific in writing addresses and do not begin each heading on a separate line, the reverse is true in English.

Readers from a different linguistic environment and speaking a non-standard dialect may face problems in reading not only because of sub-culture differences but also because of differences in linguistic knowledge. As Zakaluk (2000, p. 8) points out, in some non-standard dialects there are differences in pronunciation of special items between standard and non-standard codes, such as ‘test’ pronounced as ‘tess’, ‘mend’ pronounced as ‘men’, ‘find’ pronounced as ‘fine’, and ‘cold’ pronounced as ‘coal’. However, whether such differences in pronunciation pose any reading difficulties has not been shown (p. 9). In a nutshell, it seems that even though cultural and background knowledge play a great role in reading comprehension, without linguistic knowledge, no reading may exist at all.

Another reader characteristic that influences reading comprehension is one’s cognitive abilities. Readers with normal cognitive abilities vary slightly in their performances and this is perhaps why some scholars relate reading to thinking. Goodman (1970, p. 108), for example, notes that efficient reading results from ‘an interaction between thought and language.’ Others have emphasised readers’ cognitive strategies and meta-cognitive knowledge in affecting reading comprehension (Baker & Brown, 1984, p. 34; Aslanian, 1985, p. 20; Johnson, 1998, p. 23; Schoonen et al., 1998, p. 75).

The point is not, however, having a certain type of knowledge; rather the reader’s ability and success in activating and using that knowledge and relating new information to old information seem to be vital for understanding. The reader’s (cognitive) ability to link all sources of information to one another in order to construct the writer-intended meaning has been recognised by Trabasso (1981, p. 56), Lorch and van den Broek (1997, p. 214), and Johnson (1998, p. 22). Lorch and van den Broek (1997, p. 244), for instance, assert that ‘Individual differences in working memory capacity have been demonstrated to be good predictor of variance in both overall reading ability ... and specific reading skills.’

Similarly, Rumelhart (1984, p. 19) compares reading comprehension to ‘a detective act’ where the reader has to use his/her cognitive ability to connect all the relevant information in the situation to solve the problem. This implies that one’s degree of comprehension is not only affected by his/her background, cultural, and language knowledge but also by his/her cognitive abilities including intelligence. The resulting comprehension is the product of the interaction among these and other factors elaborated in the following pages.

An often-neglected aspect of the reader is his/her affective state. The affective state refers, on the one hand, to a reader’s purposes, perspectives, motivation, emotional mood, etc., prior to reading. On the other hand, it refers to the affective responses brought about by the text while reading. A reader may read the same text at different times for different purposes and with different kinds of attention paid to information on the page, and therefore, with different degrees of comprehension. The influence of one’s goals, views, and emotional states on reading comprehension has been documented by Garner (1987, p. 7), Lorch and van den Broek (1997, p. 237), Pressley (1997, p. 248), and Alderson (2000, p. 80). The way affective responses during reading may affect the direction of reading and the extent of the reader’s cognitive involvement have been discussed by Carroll (1970, p. 30), Lorch and van den Broek (1997, p. 233), and Alderson (2000, p. 83).

Based on the discussion in the preceding paragraphs, it becomes evident that several factors contribute to shaping the ultimate comprehension. First, all aspects of the reader variable interact with one another; secondly, they interact with textual and contextual factors; and finally, there is an interaction between the reader and the writer. All of these affect the success of communication. The interaction between the reader and the text has been documented by Smith (1971, p. 195), Johnston (1983, p. 21), Alderson and Urquhart (1984, p. xvi), Aslanian (1985, p. 20), Geva (1992, p. 734), and Alderson (2000, p. 3). The reader-writer interaction has been pointed out by Smith (1971, p. 13) and Colley (1987, p. 113). It seems almost impossible, however, to clearly understand the exact degree of contribution of each variable to the final product.

Text variable

The second important variable which considerably affects reading comprehension is text variable, since without written material, there will be no reading at all. Nuttal (1982, p. 15) believes that text is ‘the core of the reading process’. Text, or written discourse, is the product of the writer’s thought expressed through some visible shapes, whether alphabetic or ideographic, printed or hand-written, something kinesthetic or written in Braille, written on a piece of paper, carved on a stone, or displayed on a computer screen. The factors subsumed

under the text heading include graphic, para-linguistic, linguistic, and organisational characteristics of a text, and text types. What follows is a brief look at these text-related elements.

No doubt the first text characteristic is whether the symbols and the code used are familiar to the reader or not, i.e., whether it uses Latin symbols, Chinese symbols, Arabic symbols, etc., and whether the code or language is familiar. Although there should be a complete match between the symbols and the language used in the text and those possessed by the reader, this is by no means a guarantee for the reader's success. Goodman (1973, p. 26) believes that because readers read for meaning and with minimal use of graphic cues, the differences in L1 and L2 in terms of direction of reading (right-to-left in Farsi, top-to-bottom in Japanese, left to right in English) will not affect 'the basic reading process' considerably. While Grabe (1991, p. 387) agrees that direction of reading will not influence reading comprehension, Kitao and Kitao (2000, p. 4) contend that Japanese English readers may face problems for this reason. It seems that while such differences may be problematic in early stages of reading, they will become less important as readers get more exposure to and fluency in L2 reading (Grabe, 1991, p. 387).

Similarly there has also been some attention paid to whether para-linguistic features of a text, i.e., capitalisation, underlining, paragraph headings, and subtitles have any influence on reading comprehension. According to Johnston (1972), these graphic cues signal meaning, but ESL students do not give such cues due attention; instead, they focus on 'phonologically related graphic aspects of individual words' (in McLeod & McLaughlin, 1986, p. 115). Lorch, Lorch and Klusewitz (1995, p. 51) report that underlining, or 'light signalling', helps the reader's recall in comparison with no underlining and 'heavy signalling' in which important information is underlined along with some non-important information. Their findings also indicate that while capitalisation reduces reading speed, it improves the memory for recalling capitalised information.

Jenkins and Pany (1981) cite studies by several researchers, in some of which paragraph and title headings helped readers to 'answer more comprehension questions correctly' (p. 169), and in others, carried out with children, adolescents and adults separately, 'no advantage was found for passages with paragraph headings' (p. 170). Pictures in text have been recognised as having a positive effect on reading comprehension for the reason that they give the reader 'broader and deeper background knowledge' (Jenkins & Pany, 1981, p. 171). On the other hand, Maxwell (1994, p. 69) brings evidence from a study done by Grant and Davey (1991) in which paragraph or title headings did not seem to influence 'overall comprehension'.

More important text characteristics in affecting comprehension include lexical density, syntactic complexity, and semantic abstractness. The influence of new information and lexical density as well as passage length on reading comprehension has been emphasised by Johnston (1983, p. 21) and Alderson (2000, p. 127). Complexity of structure accompanied by sentence length has also been reported to reduce text comprehensibility (Pearson & Camperell, 1981, p. 33). An issue in structural complexity has been the transformational distance between a sentence's surface and deep structures, i.e., the shorter the distance, the easier the comprehension. Therefore, kernel sentences (simple, active, and declaratives) are expected to be understood more easily and rapidly than non-kernel transformed sentences such as interrogatives and passives (Pearson & Camperell, 1981, p. 32). Differences in syntactic structures between L1 and L2 have also been reported as a source of reading problems for L2 learners. For example, German EFL readers might face problems because they 'attend more to function words' in their language, while English readers 'attend more to content words' (Grabe, 1991, p. 388).

To reduce the degree of lexical density and syntactic complexity, some have suggested simplification, arguing that linguistic simplification increases readers' comprehension (Yano, Long & Ross, 1994, p. 189). 'Elaborate modification' has been used as another alternative to reduce text difficulty, in which texts are elaborated with the hope that 'redundancy and explicitness compensate for unknown linguistic items.' Simplification has, however, proved to be a better tool than elaboration (Yano et al., 1994, p. 211). Alderson (2000, p. 82), however, questions the former on the grounds that simplification 'not only does ... disauthenticate the text, it also risks making the texts harder to understand.' As an alternative, he suggests developing easier tasks or test questions.

Structural complexity, also called micro-structure variation, is different from macro-structure variation in that the former operates on the intra-sentential level, but the latter deals with organisational variation on the inter-sentential and discourse level. The changes in a text's macro-structure, e.g., changing the place of main and subordinating ideas, have been reported to disturb comprehension (Pearson & Camperell, 1981, p. 32). Johnson (1981, p. 169) notes that organisation of ideas in a text affects reading comprehension more than its language complexity. Johnston (1983, p. 25) cites a study by Freebody (1980) in which 'the order in which subjects read passages affected their comprehension.' Grabe (1991, p. 338) mentions a study done by Carrell (1984) with readers from Spanish, Asian, and Arabic language backgrounds in which different cultures favoured different organisational structures, which in turn affected readers' recall and comprehension. Similarly, Maxwell (1994, p. 68) reports a study by Dee-Lucas and Larkin (1990) in which the change of

rhetorical organisation affected the degree of reading comprehension. Singhal (1998, p. 4) confirms that ‘differences in text structure can lead to differences in reading.’

Semantic abstractness refers to the notion of whether ideas expressed in the text are easy enough for the reader to understand, an issue also connected to the reader’s background knowledge. Apart from semantic abstractness, the ‘density of arguments in propositions’ also affects reading comprehension (Johnston, 1983, p. 22).

Text type, topic, genre and writer’s style have also been recognised as factors affecting reading comprehension (Alderson, 2000, pp 83, 127). Welrich (1998) distinguishes five text types: descriptive, narrative, expository, argumentative, and instructive (*ibid.*). To be added to this list is poetry. Clearly, the kind of reading and the degree of attention each type requires are somehow different from others. As Johnson (1998, p. 22) points out, while narrative texts are mainly read for enjoyment, expository texts have the goal of giving information, and therefore, ‘narrative texts can never be comprehended; they can only be experienced.’

Another text-related factor important for comprehension is coherence and cohesion. Text-related context, or co-text, has been shown to facilitate comprehension, recall, and reading speed (Smith, 1973a, p. 75; Smith & Holmes, 1973, p. 60; Zakaluk, 2000, p. 15). Text meaningfulness is usually conveyed through local coherence, or cohesion, and global coherence, simply called coherence (Colley, 1987, p. 129). The existence of logical relation markers or discourse markers, such as conjunctions has been reported to facilitate reading comprehension (Geva, 1992, p. 731). Coherence has been recognised as more crucial than cohesion because, as Nuttal (1982, p. 16) points out, a text which is not coherent will be nonsense, although it may be cohesive.

The way new and old information is organised in the text has also been shown to affect reading comprehension. For example, Colley (1987, p. 130) observed that if ‘the given information and its antecedent are separated by intervening material,’ cohesion is reduced or lost, making it difficult to comprehend the text. Therefore, foregrounding the given information rather than backgrounding it, i.e., keeping it active in the mind of the reader by keeping it as close as possible to its antecedent, makes the text more cohesive and easier to understand.

One of the text characteristics is how far it presumes the reader to have the necessary background knowledge. Some texts have been reported to lead to incomprehension or misunderstanding because they do not provide the reader with effective bottom-up clues to activate the related schemata (Rumelhart, 1981, p. 22, & 1984, pp. 7, 19; Kitao & Kitao, 2000, p. 2). Another text-related factor is the nature and the number of inferences the text invites

the readers to make (Lorch & van den Broek, 1997, p. 219). The time it takes a reader to make inferences, such as referential and causal inferences, and the ease with which these inferences are made may be potential factors affecting the speed and the degree of reading comprehension. In L2 reading, inferences can be made using L1 or L2 cues or a combination of these (Ringbom, 1992, p. 100).

Context variable

Although researchers have mainly emphasised the role of reader and text and also the interaction between the two (Alderson & Urquhart, 1984, p. xvi, for example), the role of context has largely remained unnoticed. Context refers to something beyond the text itself, and therefore, is not to be mistaken with textual context or co-text. Generally, context variable refers to all reader-, writer-, and text-external factors, such as environmental and situational elements, and the larger socio-economic context. As Walberg, Hare and Pulliam (1981, p. 154) rightly emphasise, comprehension may not be blocked due to the absence of linguistic or background knowledge but ‘due to environmental distractions’. Comprehension may, therefore, be affected by the time of reading, i.e., early in the morning, after a day’s work, etc.; and also by the place of reading, i.e., in the library, in the classroom, in an exam session, in a car, etc. Although such environmental elements may be considered trivial, their potentiality for affecting comprehension, small as it may be, should not be neglected.

There seems to be little research addressing the above issues. Studying 368 Nigerian primary students, Williams (1981, p. 31) found that environmental elements like school type (whether private or public, for example), degree of exposure to mass media, and subjects’ language environment contributed significantly to their reading performance in ESL. Walczyk, Kelly, Meche and Braud’s (1999) study on the effect of time-limit on reading comprehension reveals that with no time-limit, ‘readers are not probably being optimally challenged’ (p. 158), and with severe time pressure, readers do not think critically (p. 157), and that ‘the best reading comprehension was observed under mild time pressure’ (p. 156) because of the readers’ being probably more mindful (p. 164).

Another contextual factor is the social setting in which the act of reading takes place. Reading does not take place in a vacuum (Alderson, 2000, p. 25) and the situation in which it occurs may have an impact on how it is comprehended. For instance, the sign ‘No entry’ means ‘Please, do not enter.’ However, the situation in which a reader reads it may change its meaning. If one notices the sign on a private room, it tell ‘outsiders’ not to enter the room, but not to the occupier himself/herself. However, if one notices the same sign at the entrance to a street, it means different things depending on whether one is driving or walking. To use

Widdowson's (1978) terms, while the sign has a single significance, it has different values depending on settings in which it occurs. The kind of comprehension gained through the interaction between the text and the context, which may be called pragmatic comprehension, indicates how differences in situational contexts can result in different understandings, and are, therefore, a potential source of miscomprehension if the reader does not attend to contextual elements. Similarly, the meaning of 'prayer' depends on whether it is said in a church or in a mosque. Here, the difference both in situation and in culture contributes to the value of the word.

The influence of pictures, charts, etc. was examined in the discussion under text variable as para-linguistic elements. Goodman (1968, p. 21), however, believes that such cues are external to language and reader, thus forcing them to come under our category of contextual elements. However, they are, in essence, different from our definition of context which covers environmental, situational, and social elements.

Writer variable

Undoubtedly, the essence of a text owes much to its producer, i.e., the writer. Although the writer does not influence the reading act as directly as other variables do, he/she contributes the most to the reading act, indirectly though. The kind of interaction that the reader has with the writer may not be similar to the kind of interaction he/she has with the text, or the kind of communication a listener has with a speaker, as in both these latter cases both of the communication or interaction parties are present. However, the reader and the writer can be supposed to have some abstract form of interaction/communication, because when producing the text, the writer most certainly takes the characteristics of his/her readers into account (Nuttall, 1982, p. 14; Johnston, 1983, p. 14).

Similarly, while reading a text, the reader intuitively constructs a picture of who the writer had in mind; and the more the reader is familiar with the writer's style and purposes, the more successful he/she will be in 'getting' his/her message, which in turn leads to a successful communication between the two. In reading, the reader cannot consult the writer to clarify ambiguities, which is why readers ultimately get less or more than the intended message, and that the 'intended meaning is ultimately unknowable' (Johnston, 1983, p. 11). Taylor (1985) argues that there is an active co-operation between the reader and the writer in that the reader tries to get the meaning out of the text by bringing meaning to the written material.

Obviously, the writer's assumptions about the reader will not always come true, and because no two people may have exactly the same background knowledge, 'there always is a

mismatch of some kind' between the writer's and the reader's background and expectations (Nuttall, 1982, p. 7). Nonetheless, the writer should still be as helpful as possible, adhering to what Grice (1975) called 'co-operative principle' for oral discourse (Pearson & Camperell, 1981, p. 30; Johnston, 1983, p. 27). Therefore, the degree of reading comprehension depends on the 'active collaboration between writer and reader' (Taylor, 1985, p. 5) on the one hand, and the interaction of other factors previously described on the other.

L1-L2 relationship

All the variables discussed so far influence reading comprehension in any language. When a reader can already read in a language and tries to read in a second language, another element, i.e., the relationship between L1 and L2, is added to the previous factors. The following is a short review of research and arguments about the relationship between L1 and L2 reading.

Most of our understanding about reading in a second language comes from research in first language (Alderson & Urquhart, 1984, p. xv; Grabe, 1991, p. 378; Chun & Plass, 1997, p. 61), and therefore, the majority of findings from L1 situations have been readily generalised for L2 situations with little consideration given to potential differences. However, such generalisations may not always be true and, as Grabe (1991, p. 389) puts it, L1 research findings 'cannot always be applied directly to L2 contexts'.

The relationship between L1 and L2 reading has been studied from two different perspectives. While some researchers have focused on the differences and similarities between reading in the first language and in a second or foreign language, other researchers have studied the role of L1 reading ability in L2 reading comprehension. Studies in the former group have pointed out that although there are many similarities in the process of reading in L1 and in L2 and virtually in any other language (Singhal, 1998, p. 3), they have also discovered that there are certain dimensions to reading which are unique to a second language (Wade-Woolley, 1999, p. 448). Researchers in the latter group have spoken up for a balance between linguistic interdependence and threshold hypotheses (Ulijn & Salager-Meyer, 1998, p. 83; Taillefer & Pugh, 1998, p. 98; Yamashita, 2002, p. 92).

In terms of similarities between L1 and L2 reading, Goodman (1973, p. 27) argues that reading is 'much the same for all languages' implying that a good reader in L1 will also be a good reader in L2. Such a similarity between L1 and L2 not only in terms of reading but also other language skills and mainly spoken skills has been proposed by second-language acquisition researchers (e.g., Krashen, 1981). MacLean (1984) reports another similarity between L1 and L2 reading in terms of the speed of reading. His longitudinal study with one subject who read a variety of texts in L1 and L2 showed that she read all passages at nearly

the same speed and that ‘she exhibited minimal flexibility in her reading rate across the passages’ (p. 61).

Jonz’s (1994, p. 305) study showed that non-native speakers were less sensitive than natives to textual sequence and he concluded that ‘the non-natives depended more on bottom up processing ... than on top down processing’. It should be mentioned, however, that the comprehension processing Jonz is talking about is based on reading cloze-format texts rather than normal texts. Singhal (1998, p. 1) argues that reading in either language requires the possession of certain types of schema (content, formal, linguistic); in both cases reading is done for the construction of meaning; and both L1 and L2 readers use similar reading skills and strategies.

While Singhal’s last assertion seems to have been confirmed by studies done by Block (1986; 1992), who found that L1 and L2 readers used similar reading strategies and comprehension-monitoring processes (Li & Munby, 1996, p. 201), his claim that effective readers in L1 and L2 use both top-down and bottom-up processes (p. 1), does not seem to have been substantiated by Jonz’s study above. In either case, however, reading comprehension involves the interaction of many variables.

While Alderson and Urquhart (1984, p. xv) suggest that the differences between L1 and L2 reading are less clear, many other researchers have pointed out differences and explained the reasons for these differences. For example, Chun and Plass (1997, p. 63) note that while L1 readers are mainly involved in higher-level processing such as generating inferences, L2 readers ‘pay more attention to lower-level processes’. They divide differences between L1 and L2 reading into three groups: background knowledge differences; language processing differences; and social context differences, i.e., ‘expectations about reading and how texts can be used’ (p. 62).

One of the differences between L1 and L2 reading is that while L1 readers are already proficient enough in the spoken language, having acquired 5,000 to 7,000 words and a working knowledge of the grammar by the time they start reading (Grabe, 1991, p. 387), L2 readers only start learning these aspects of the target language at the time they start reading. However, many L2 learners already do have the experience of reading in their own language from which they will have built up additional ‘world knowledge’ (Chun & Plass, 1997, p. 62). The case is different for L2 readers who do not know reading in L1 (Alderson, 2000, p. 24). An L2 reader’s L1 can help or disturb his/her reading depending on the similarities or differences in orthographic, lexical, syntactic and discourse systems between the two languages (Ringbom, 1992, pp. 88, 90; Chun & Plass, 1997, p. 62).

Cziko (1994, p. 151) cites a study done by Hatch, Polin and Part (1974), who found that

while L1 readers mainly relied on contentives, L2 readers relied both on contentives and syntactically redundant elements in comprehending cloze passages. His own study showed that only advanced non-native readers as well as L1 readers could use semantic constraints in cloze tests while less advanced L2 students were able to use syntactic constraints only (p. 154). According to Ulijn and Salager-Meyer (1998, p. 81), while L2 reading problems are attributed to L2 language problems, L1 reading problems are attributed to problems within reading itself. According to Li and Munby (1996), translation, which may take the form of mental conversion, is a reading strategy unique to L2.

To summarise the research findings discussed so far, several reasons have been put forward by different researchers for the differences between L1 and L2 reading (Grabe, 1991, p. 387; Singhal, 1998, p. 3; Mitchell & Myles, 1998, p. 61). The above researchers have identified the following reasons for the differences between L1 and L2 reading:

- 1) L2 learners are cognitively mature;
- 2) L2 learners already know at least one other language;
- 3) L2 learners have different kinds of motivation for reading in L2 than L1 learners have for L1 (L2 learners are motivated both instrumentally and integratively) (Mitchell & Myles, 1998);
- 4) L1 readers already have a big vocabulary repertoire and know grammar when beginning to read, while L2 readers begin from scratch;
- 5) Older L2 readers have a more well-developed conceptual sense of the world;
- 6) L2 readers make elaborate logical inferences from the text;
- 7) L2 readers make more use of meta-cognitive strategies (Grabe, 1991);
- 8) L2 learners draw upon strategies of first-language learning, knowledge of likely language systems, and knowledge of how language operates socially;
- 9) L2 readers operate in a different linguistic context (use different vocabulary and grammar);
- 10) L2 readers may not have the relevant cultural/background knowledge (Singhal, 1998).

The above differences between L1 and L2 makes the task of the L2 reader different from that of the L1 reader; and comprehension failure may occur for an L2 reader if he/she is either not fully competent in the language and/or there is a mismatch between the cultural knowledge he/she processes and that required to function successfully in L2 context (Wallwork: 1978, p. 83; Montgomery, 1986, pp. 174-75).

A controversial issue regarding the relationship between L1 and L2 reading is how far

reading ability in L2 is affected by L1 reading ability. The linguistic inter-dependence hypothesis or reading universals, assumes that the process of reading in all languages is the same (Goodman, 1973, p. 27) and once the related ability is acquired in one language, it is easily transferable to all other subsequent languages; that ‘we really only learn to read once’ (Taylor, 1985, p. 4); and that L2 readers do not need to gain proficiency in L2 reading ability if they have acquired such an ability in L1 (Chun & Plass, 1997, p. 63).

The alternative hypothesis called threshold hypothesis, ‘short circuit hypothesis’ (Chun & Plass, 1997, p. 63) and ‘lexical threshold’ (Ulijn & Salager-Meyer, 1998, p. 81), was introduced by Alderson (1984; 2000). In this hypothesis, before L1 reading ability can be successfully transferred to L2 situation, a certain language threshold level needs to be attained by L2 reader (Alderson, 2000, p. 23). In this view, both L1 reading ability and L2 linguistic knowledge contribute to the reading ability in L2 (Alderson, 2000, p. 122). Both hypotheses presuppose that reading ability in any language is different from linguistic ability or language-specific knowledge, and therefore, a good reader in L1 would be a good reader in L2 (Schoonen et al., 1998, p. 73).

Empirical studies, however, have not found a high degree of relationship between reading comprehension in L1 and L2, indicating that not all L1 reading ability is transferable to L2 situations. For example, Groebel (1980) conducted a study with 454 university students (L1 was Hebrew and L2 was English for most subject in the study). The correlation between reading comprehension in L1 and L2 ‘which was statistically significant’ was 0.315 (p. 57). She concludes that when reading involves higher levels of comprehension, there is a correlation between L1 and L2 reading comprehension (p. 59). Studying Dutch EFL learners, Schoonen et al. (1998, p. 96) found that L1 and L2 reading comprehension ‘correlate substantially, but not highly; about 38% ... of the variance is common.’ They also report other studies in which a low degree of correlation has been found between reading ability in L1 and L2 (p. 73). Schoonen et al. (1998, p. 74) rightly emphasise that even if L1 reading ability transfers to L2 reading, not all that ability is transferable because the reading ability is composed of both L1 linguistic knowledge and language-independent general reading skills, of which only the latter are transferable.

Taillefer and Pugh (1998) studied the L1-L2 reading relationship with 39 subjects for whom French was L1 and English was L2. Their findings suggested that strong L1 readers who were weak in L2 linguistic knowledge were poor L2 readers, but they were better readers than those who were poor L1 readers and also weak in L2. They also found that those readers who were strong in L1 reading and in L2 linguistic knowledge were equally efficient readers in either L1 or L2 (p. 96). They conclude that good L1 readers ‘who are good

“linguists” in L2’ have no difficulty in transferring their L1 reading strategies to L2. They also assert, based on their findings, that ‘reading is not “just” reading’ for those L2 readers who are weak in either L1 reading or L2 linguistic knowledge or both (p. 105).

Reviewing a few studies on the relationship between L1 and L2 reading, Yamashita (2002, p. 82) concludes that ‘the contribution of L1 reading ability increases when learners’ L2 proficiency level becomes higher’ and that ‘L1 reading ability is more likely to be transferred when the [L2] reading task is less demanding.’ She cites a study carried out by Carrell (1991) with English Spanish readers and Spanish English readers, in which it was found that Spanish language proficiency was more important than English reading ability for the former group, but the Spanish reading ability was a stronger predictor for the latter group. Such a finding seems to support Taillefer and Pugh’s (1998, p. 98) claims that the relative importance of each predictor variable varies depending on the ‘directionality of learning’ (i.e., L1 English to L2 Spanish vs. L1 Spanish to L2 English), and also on ‘the nature and cognitive demands of the task itself’.

Yamashita’s (2002, p. 81) own study with 241 Japanese EFL students, in which the compensatory relationship between L1 reading ability and L2 linguistic knowledge in L2 reading comprehension was studied, showed that there was a mutual compensation between the two independent variables in arriving at the highest comprehension in L2 reading. Yamashita (2002, p. 92) concludes that there is a complex interaction between L2 linguistic knowledge and L1 reading proficiency or cognitive ability. The same idea is supported by Ulijn and Salager-Meyer (1998, pp. 82-83) who state that researchers now call for a ‘balanced blend’ of the threshold hypothesis and linguistic interdependence hypothesis. They assert that ‘empirical research has largely resolved the debate about whether L2 reading is a linguistic or a cognitive problem. It is neither one, but both of these’ (p. 83).

In brief, the general consensus seems to be that while L1 reading ability affects L2 reading comprehension, the role of L2 linguistic knowledge seems to be much more significant at least for low-proficient L2 readers (Chun & Plass, 1997, p. 62; Taillefer & Pugh, 1998, p. 98; Ulijn & Salager-Meyer, 1998, p. 82; Alderson, 2000, p. 23; Yamashita, 2002, p. 92). A somewhat different finding has been reported for the relationship between L1 and L2 writing by Schoonen, van Gelderan, de Glopper, Hulstijn, Simis, Snellings and Stevenson (2003, p. 166), in which L2 writing proficiency correlated highly with L1 writing proficiency, which was more than its correlation with L2 linguistic knowledge.

Conclusion

To reiterate, four broad variables were discussed as factors affecting the process and the

product of the act of reading: the reader, the text, the context, and the writer, each with some other inter-related elements. It was also made clear that none of these variables or their elements act separately; rather, the resulting outcome, be it comprehension or miscomprehension, is the product of the interaction among all the variables on the one hand, and all the factors within each variable on the other hand. To arrive at comprehension, therefore, all variables and elements inside them have a share with different degrees of contribution. In the case of L2 learning, in addition to the above variables, another variable enters the scene, i.e., the relationship between L1 and L2 on the one hand (similarities or differences), and the degree of L2 readers' literacy in L1 on the other. The success of the communicative activity in question here owes much to a proper interplay of all the factors discussed above. The implications for both reading/literacy teachers and researchers are far-reaching: they need to regard their students' or subjects' reading process not as a simple activity but a complex multi-faceted process, and when analysing their comprehension failure or success, teachers and researchers should not neglect the potential interactive role of so many factors mentioned above.

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Book Review

Oxford Practice Grammar Series

Norman Coe, Mark Harrison, Ken Patterson, John Eastwood, and George Yule
Oxford University Press, 2006

Reviewed by Francis A. Andrew
Colleges of Applied Science
Nizwa, Oman

Norman Coe, Mark Harrison, and Ken Paterson's *Basic*, John Eastwood's *Intermediate*, and George Yule's *Advanced*, the three books that make up *Oxford Practice Grammar* series, are essential textbooks for foundation year students who need to attain a standard sufficient to enable them to sit the IELTS and other such examinations and for the academics who are charged with helping them.

The *Basic* book, divided into 11 sections, deals with aspects of grammar which range from the present simple tense to relative clauses and is, as its title suggests, essentially a grammar book; yet it has the added advantage of having several features which make it more than just a conventional reference book, one of which is the color pictures which accompany each grammar point to ensure that the pages possess an aesthetic quality necessary to give substance to the tabular explanations and make sure that the lessons do not take on the monotony grammar books can sometimes do. Another is how it deals with presentation and practice. Unlike a reference book, once a point has been explained, a great deal of reinforcement practice is given such as exercises requiring students to choose appropriate words from a list in order to complete a sentence and more complex tasks which involve the construction of both statement and interrogative sentences, each of which provide a brisk and lively pace for both teachers and students. Another area of contrast is whereas a reference book simply explains a point, the *Basic* book includes different types of assessment tests at each stage of the text--after each point is addressed, at the end of each section, and at the back of the text--to help students check what they have learned, the latter of which is useful in that it both consolidates for the students what they have accomplished throughout the entire course and helps teachers and administrators assess to what extent the book has benefited the students and therefore acts as a tool to gauge its suitability for further English language courses and programs in any given educational institution. Lastly, an interactive CD-Rom lends more liveliness to the lessons than a traditional grammar reference would and helps

students to find and correct their own mistakes.

The *Intermediate* book and its 16 sections are the next step in the series. Illustrating more difficult grammar points from word classes (e.g. nouns, verbs, adjectives, conditionals, subjunctives and linking words), this text offers the same colorful layout, effective presentation of teaching points and practice, assessment tools, and CD-Rom as the *Basic* does, but the opening units of this text are mainly revisionary, something which can be beneficial to many students who need to review what they have learned in earlier courses. Furthermore, the *Intermediate* book presents the points in its core chapters in a more in-depth way than the *Basic* book does and details more instances about how the grammar can be used.

The last book in the series, the *Advanced* text and the 17 sections that compose it, like its predecessor, presents revisionary material (for both texts) and helps students continue on the cline to tackle still more advanced grammar points (e.g. from simple sentences and verbs to connectors and focus structures), but it does not have any color pictures, something that gives it the appearance of leaning towards a more conventional grammar book. Nevertheless, its teaching points, focus on assessment, and CD-Rom, like its two companions, ensure readers that it does not deviate from its intention of providing a course format which goes beyond being a mere reference book; instead it is a successful blend of the conventional forms of grammar instruction with more modern elements designed to maintain the students' interest and attention.

While teachers and students will assuredly agree that the texts that make up the Oxford Practice Grammar series are solid resources for the teaching and learning of grammar, the books, due to the absence of other important items which are normally present in core course texts such as contextualized reading practice, still have to be treated as supplemental materials; yet I would greatly emphasize that they are extremely important supplementary materials and should be given high prominence in any English language program where students need additional help in grammar.

Book Review

Pragmatics: A multidisciplinary perspective

L. Cummings. Edinburgh: Edinburgh University Press, 2005. Pp. 336

Reviewed by Nguyen Thi Thuy Minh

Vietnam National University

Hanoi, Vietnam

Pragmatics: A multidisciplinary perspective is, as its back cover points out, “the first truly multidisciplinary text of its kind.” Offering a diversified perspective on pragmatics to illustrate how the field embraces quite a strong reciprocal relationship with many of its neighboring academic disciplines, the book’s 10 chapters prove themselves to be a rich source of information for a wide readership, especially those interested in linguistics, cognitive science, and language pathology.

Its first chapter, “The Multidisciplinary Nature of Pragmatics,” sets the stage for the rest of the book by clarifying the links between pragmatics and related disciplines and examines a number of pragmatic theories and concepts that are relevant to this discussion such as speech acts, implicature, relevance, deixis and presupposition. Cummings also plausibly points out that pragmatics not only owes a large part of its conceptual grounds to “a range of academic disciplines” (p. 1) but also contributes a great deal to enlightening these disciplines.

Chapters 2 through 9 continue the discussion by focusing on a variety of pragmatic aspects with a view to highlighting their multidisciplinary nature. Chapter 2, “Theories of Meaning,” for example, begins by exploring the complexity of meaning in the different perspectives of truth-conditional semantics (the referential/denotational approach), psychology and artificial intelligence (the psychologistic/mentalistic approach), and pragmatics (the social/pragmatic approach). Cummings also coins the expressions “meaning in the world,” “meaning in the mind,” and “meaning in action” to reflect the emphasis of each approach but stresses that they are all interrelated. Chapter 3 addresses inferences in light of logic and semantics (i.e. deductive inferences), psychology and artificial intelligence (i.e. elaborative inferences), and pragmatics (i.e. conversational inferences). Again, Cummings emphasizes that if a comprehensive account of pragmatic phenomena is to be achieved, all of these views need to be considered. Following the discussion of the psychological basis of conversational inferences in chapter 3, the next chapter, “Relevance Theory,” examines the

work of Sperber and Wilson (1995) with specific regard to its relevance-based account of communication and the underlying cognitive psychological processes. While criticizing the work, Cummings carefully notes that it is its reductionism that should be challenged, not the “entire project of explaining cognition” (p. 134). As revealed by its title, “Pragmatics and Mind,” chapter 5 seeks to establish what linguistic pragmatics can offer to the studies of the mind’s structure. By showing how pragmatics is “the best mirror of the human mind” (p. 157), Cummings convincingly points out that like pragmatics, the mind is essentially non-modular and thus can be more appropriately dealt with in “a post-modularity setting” (*ibid.*). Chapter 6, “Argumentation and Fallacies of Reasoning,” drawing on a number of intertwined theoretical frameworks such as semantic, epistemic, dialectical, psychological, rhetorical and pragmatic, again indicates pragmatics and its neighboring disciplines complement one another. In chapter 7, “Habermas and Pragmatics,” Cummings examines Habermas’ post-positivistic view of pragmatics. Summarizing Putman’s criticism of the unintelligibility of the positivistic view of rationality, Cummings examines Habermas’ rational account of social communication and shows how his misidentification of the problem of positivism has trapped him in the paradox of his own account of rationality. Chapter 8, “Artificial Intelligence and Pragmatics,” clarifies the bidirectional relationship between pragmatics and artificial intelligence, a discipline that is concerned with the computational simulation of human intelligence. Cummings goes to great lengths to demonstrate how the emphasis on language use is at the heart of every concept of intelligence and, vice versa, how artificial intelligence can influence and inform pragmatics. Chapter 9, “Language Pathology and Pragmatics,” deals with different kinds of pragmatic disorders and the contribution of pragmatic theories to clinical linguistic practice. Additionally, it also points out how clinical pragmatics can offer insight into the study of linguistic pragmatics.

Finally, chapter 10, “Beyond Disciplines,” neatly concludes the book by summing up the preceding chapters’ discussions and points to the future development of pragmatics as a multidisciplinary field of study (e.g. Cummings suggests that we look to some other disciplines such as cultural anthropology, neurolinguistics or game theory for further insights into pragmatics).

Overall, the book makes a strong case for investigating pragmatics from a multidisciplinary perspective. Well written and insightful, it constitutes a valuable addition to the existing pragmatics literature and offers little opportunity for criticism except that, because its discussions are heavy with terminology, a glossary at the end would be helpful for novice researchers and students who are new to the field.

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