Linguistic Development in English, Chinese and Persian Children: A Longitudinal Comparison

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Abstract

The linguistic development of English, Chinese, and Persian elementary school students was compared in order to identify possible language-based differences in the developmental trajectory of English grammatic, semantic, and morphosyntactic knowledge. The number and type of incorrect responses on an oral cloze test was used in an error analysis of each language group. Errors were classified as grammatic, semantic, or morphosyntactic, with an additional category for instances where students did not respond or said, "I don't know". Each error category was expressed as a proportion of errors out of the number of incorrect responses. All students demonstrated similar trajectories in their semantic and grammatic development, but the Chinese students exhibited a delay in morphosyntactic knowledge relative to the English students in grades 2 and 3. Information from contrastive analyses is used to explain the apparent language-based morphosyntactic error pattern of the Chinese students, and pedagogical implications of the results of the study are discussed.

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Introduction

Culturally diverse classrooms are common in Canadian urban schools. Data from the 2001 Census indicates that in cities such as Toronto and Vancouver, about 38% of the population speak a language other than English or French at home. Chinese dialects are very prevalent in Vancouver, whereas in Montreal people are more likely to speak Italian or Arabic if English or French is not their native language. Italian and Portuguese are more prevalent in Toronto than Vancouver, while Vancouver has more Punjabi speakers per capita than either Toronto or Montreal.

This linguistic and cultural diversity presents unique challenges to individual teachers striving to meet the educational needs of children who are not proficient in English, the language of instruction in regular Canadian classrooms. Considering that immigrant students generally begin school with less-developed skills in reading, writing and mathematics than their Canadian-born classmates (Statistics Canada, 2001), early identification of non-native English students who have reading problems or a reading disability is critical (Limbos & Geva, 2001; Poon-McBrayer & García, 2000).

Defining specific processes of screening, identifying, and remediating reading disabilities in non-native English students is problematic for several reasons. There is questionable validity in describing a non-native English student's academic performance with reference to measures normed on an English-speaking population (Gunderson & Siegel, 2001), yet this remains a common practice in many school districts and ultimately undermines a teacher's efforts to fully understand the educational needs of their non-native English students.

For example, Limbos and Geva (2001) demonstrated the significance of oral language proficiency in teachers' perceptions of students' reading skills. They found that teacher ratings of students' oral expression and oral comprehension correlated highly with their ratings of students' reading skills, and this was especially true for students whose native language was not English (.76 for oral expression and .85 for oral comprehension). Additional data from Limbos and Geva (2001) indicates the issue of teacher perception is not one of discriminatory judgments toward minorities but rather a lack of informed practice in teaching reading to minority populations. Limbos and Geva also found that teachers rated some non-native English speaking students as capable readers when their scores on norm-referenced measures were significantly lower than the scores of their native English peers. In general, the results of the study present concerns regarding the accurate classification of reading abilities, particularly for students whose native language is not English.

In a review of non-native English learners' reading processes, Fitzgerald (1995) stated that although non-native English students generally utilize similar cognitive processes as their native English classmates when learning to read, there may be differences in how and when these processes are used. To what extent these differences reflect linguistic features of specific languages or represent qualitative differences in some children's developmental trajectory remains unclear. It is possible that some differences in cognitive processes could reflect the relative saliency of phonological, orthographic, morphosyntactic, grammatic, or semantic characteristics of the native

language (e.g. Arab-Moghaddam & Sénéchal, 2001; Landerl, Wimmer & Frith, 1997; Schachter, 1974; Zobl, 1980).

The justification of this study comes from a need to refine our knowledge of whether or not there are language-based differences in how non-native English students learn to read. The perspective of this study is unique in that linguistic differences are the subject of analysis, rather than reading performance. That is, the non-native English students in this study are matched to English students in word reading, reading comprehension, and gender in order to isolate possible language-based differences in their knowledge of rule-based English linguistic systems.

Moreover, the sample of this study includes only those students with average to high average word reading and reading comprehension abilities. It is assumed that the exclusion of students with below average reading abilities, or possible reading problems, contributes to the formation of a more cognitively homogenous sample. Cognitive and academic skills have been found to influence language proficiency (Verhoeven, 1991). However, it is also acknowledged that while a non-native English student's executive processing skills may be intact, the extra processing demands of translation and lack of familiarity with English linguistic codes could impede the efficiency of executive processing that would be evident in the student's native language (Harrington, 1992).

Another assumption of the study is that potential language-based differences in the acquisition of English linguistic knowledge may be identified through error analysis. This assumption naturally draws upon theories of language transfer, wherein contrastive analyses are used to either predict or explain where a learner will encounter problems and

learn with ease (Schachter, 1974). Criticism of language transfer theories and the use of contrastive analyses are numerous; one of the most salient arguments is that not all errors are attributable to transfer from the native language, and errors that are predicted from contrastive analyses do not always occur (Wardhaugh, 1970). Other problems with contrastive analyses point to a reliance on collective, rather than individual linguistic behavior (Odlin, 1994), and the fact that the scope of language transfer can vary depending on the learner's perspective of the social context (e.g. Beebe, 1980). It is clear that the results of a contrastive analysis must be interpreted from the perspective that although errors may provide evidence of native language influence, they are not necessarily the sole or primary influence.

The error analysis of the present study is derived from responses on an oral cloze task, which has been used to measure grammatic awareness in elementary students of various language groups, such as Punjabi, Portuguese, Chinese, Arabic and English (Abu-Rabia, 1995; Chiappe & Siegel, 1999; Chiappe, Siegel, & Wade-Woolley, 2002; Da Fontoura & Siegel, 1995; So & Siegel, 1997). In this oral cloze task, the examiner reads a sentence with a word missing. The student responds with a word that fits the grammatic, semantic and morphosyntactic conditions of the sentence.

The results of the oral cloze tasks in the above studies were used to determine the relationship between students' grammatic awareness and reading skills. So and Siegel (1997) and Abu-Rabia (1995) identified a co-occurrence of delays in grammatic awareness and reading disability in Chinese and Arabic students identified as poor readers. Studies conducted with bilingual students in English classrooms produced

different findings. These studies utilized an English oral cloze along with a parallel oral cloze in the students' native language. Chiappe and Siegel (1999) found that performance on the oral cloze differentiated students on the basis of language as well as ability – both good and poor readers from Punjabi-speaking families had lower scores on the oral cloze relative to their monolingual English peers. Similar language and ability differences were found with English-Portuguese bilinguals in Da Fontoura and Siegel (1995), but in this case the poor readers' lower scores were evident only in the English oral close.

In summary, although the single language studies of Chinese (So & Siegel, 1997) and Arabic (Abu-Rabia, 1995) students appear to follow results similar to English samples that differentiate good and poor readers (e.g. Chiappe, Siegel, & Wade-Woolley, 2002), the results from bilingual students in Chiappe and Siegel (1999) and Da Fontoura and Siegel (1995) are not entirely consistent. The results of Chiappe and Siegel's study coincided with results from studies in the English language (e.g. Siegel & Ryan, 1988) in that poor readers had significantly lower scores on the oral cloze in their native language and in English. On the other hand, poor readers in Da Fontoura & Siegel did not have significantly lower scores on the oral cloze in their native language, but they did have lower scores on the English oral cloze.

It is interesting that the discrepant results from the oral cloze task occurred with bilingual children, but not with monolingual children. To what extent could the findings from these studies be attributable to the students' English language proficiency? The oral cloze task invariably taps into linguistic proficiency because it involves morphosyntactic

and semantic knowledge as well as general grammatic awareness; this is evident in the fact that a morphosyntactic, semantic, or grammatic error could occur in the same sentence. Consider the following example:

Betty *dig* a hole with her shovel (morphosyntactic error).

Betty *built* a hole with her shovel (semantic error).

Betty *deep* a hole with her shovel (grammatic error).

The purpose of this study is to compare the errors of bilingual (Chinese/English and Persian/English) and monolingual (English) students on an oral cloze task to identify possible differences in grammatic, semantic, or morphosyntactic development that are independent of word reading or reading comprehension performance. The comparison will address the following questions: How do the number of errors of Chinese/English, Persian/English, and English students compare on the oral cloze task? And when a Chinese/English, Persian/English, or English student makes an error, is the error attributable to their semantic, morphosyntactic, or grammatic development?

Method

Design

Children were tested in the spring of grades two through four. Groups of Chinese and Persian students were identified from those students who spoke Chinese or Persian at home. Only students from the Chinese and Persian groups who attended grades two through four at a school in the district were included in the sample. Each student from the Chinese and Persian groups was matched to a monolingual English student in the same school. Students were matched on word reading performance (Wide Range Achievement Test – 3/WRAT-3, Wilkinson, 1993), reading comprehension (Stanford Diagnostic Reading Test, Karlsen & Gardner, 1994), and gender.

The students' grade 2 scores on the reading subtest of the Wide Range Achievement Test – 3 (WRAT-3; Wilkinson, 1993) and the Stanford Diagnostic Reading Test (Karlsen & Gardner, 1994) were used to classify the sample on the basis of reading achievement. Students were considered at-risk for reading failure and omitted from the sample if their performance on the WRAT-3 and the Stanford Diagnostic Reading Test was at or below the 25th percentile. Students included in the sample were considered not at-risk for reading failure with scores at or above the 30th percentile. Percentiles ranging from 30 to 74 on the WRAT-3 and Stanford Diagnostic Reading tests were considered average; percentiles from 75 to 99 were considered high average. Each Chinese and Persian student was matched to an English student based on similar average- to high-average scores. Mean WRAT-3 and reading comprehension scores for each language group in grade 2 are presented in Table 1.

Insert Table 1 about here

In rare cases where a Chinese or Persian student's WRAT-3, reading comprehension, and gender could not be matched to an English student within the same school, an index of the Chinese or Persian student's socioeconomic status (SES) was used to identify English students within the same SES with similar WRAT-3, reading comprehension and gender profiles. The SES index was based on information from a national database pertaining to average income and other income-related measures, such as real estate value, for all people in each school region.

Participants

The final sample consisted of 14 Persian, 33 Chinese and 47 English students. The gender distribution of Persian students was 4 males, 10 females; Chinese students, 18 males and 15 females; and English students, 22 males, 25 females. The mean age of the grade 2 sample ranged from 93.33 months (Chinese) to 93.96 months (English), with standard deviations in age ranging from 3.36 to 4.59.

The Chinese and Persian children received the same English classroom instruction as their native English-speaking peers. In the case of most Chinese or Persian children who are born in Canada or who arrive from their native country at a young age, they begin the same schooling in mainstream English classrooms at the same time as their native English peers, despite limited oral proficiency.

Procedure

Trained graduate students conducted assessments in the schools. The WRAT-3 and the oral cloze were administered to each student individually and the Stanford Diagnostic Reading Test was administered in a group setting in each classroom.

District Wide Reading Program

The school district to which the children belong is one that has made a commitment to a balanced reading acquisition program that includes phonological awareness instruction. The district's Firm Foundations Program (School District No. 44, North Vancouver, 2001) involves ongoing performance assessments throughout Kindergarten to identify and track the progress of students with reading difficulties. Teaching within the Firm Foundations program incorporates direct instruction of phonological awareness, concepts of print and sound-symbol awareness in a play-based environment. Students identified as at-risk for reading difficulties receive additional help through guided play at school and at home. Firm Foundations is part of Reading 44, the district's comprehensive balanced reading program developed locally by primary, intermediate and secondary teachers and members of the district's Student Services Department (School District No. 44, North Vancouver, 1999).

Measures

Word Decoding

The blue form of the Wide Range Achievement Test – 3 (Wilkinson, 1993) was administered to children in grades 2 through 4. The task of this reading subtest begins with naming 15 capital letters (A, B, O, S, E, R, T, H, U, P, I, V, Z, J and Q) followed by

word reading from a list of increasing difficulty. Sample words include *in*, *book*, *spell*, *abuse*, *collapse*, and *usurp*. Ceiling was established at ten consecutive incorrect word-reading errors.

Reading Comprehension

Reading Comprehension was assessed in grades 2 through 4 with the Stanford Diagnostic Reading Test (Karlsen & Gardner, 1994). This was administered to all students at the same time in each classroom. Every child received a booklet and was required to read the passages and provide responses to multiple-choice questions within a prescribed time limit.

Grammatic Awareness (Error Analysis)

Grammatic awareness was assessed in all grades with an oral cloze task (Siegel & Ryan, 1988; Willows & Ryan, 1986). The examiner read a list of 11 sentences and signaled the child for a missing word in the sentence. The children responded with a single word that fit in the missing section. For example: "Sally has a party dress and a school dress. She has two _____(dresses)"; "The hungry dogs have _____ (eaten) all the food"; "Jane _____ (and) her sister ran up the hill."

Incorrect responses on the oral cloze were categorized as semantic, morphosyntactic, or grammatic errors; instances where students did not respond or said, "I don't know" were assigned to a single error category. A second rater reviewed all error classifications and any discrepancies were resolved through discussion. Semantic errors were defined as responses that did not accurately reflect the most logical meaning of the sentence. The response could be grammatically and morphosyntactically

correct, but the overall meaning of the sentence would be illogical or ambiguous. For example, the prepositions "on" or "to" would provide a clear meaning to the sentence "Jeffrey wanted to go _____ the roller coaster", whereas the preposition "in" would make the meaning less clear. Going *on* the roller coaster indicates that Jeffrey wants to ride it, while going *to* the roller coaster means that Jeffrey wants to be in its vicinity. Going *in* the roller coaster could mean that Jeffrey is sitting in a car of the roller coaster, or that the entire roller coaster is enclosed in some sort of large structure. Without more information, the meaning of "*in*" is ambiguous, and therefore considered a semantic error. Other examples of semantic errors were "Dad *spell* Bobby a letter several weeks ago" and "The brown dog is small, the gray dog is smaller, but the white one is the *prettiest*".

Grammatic errors occurred when the response was a part of speech (e.g. a noun, verb, adjective, preposition, etc.) that did not fit with the surrounding grammar of the sentence, e.g. "The hungry dogs have *lots* all the food"; "The girl *very* is tall plays basketball well". An error was also grammatic if the student responded with a reformulation of the target sentence, e.g. "Jane _____ (and) her sister ran up the hill/*Jane's sister* ran up the hill".

Morphosyntactic errors were defined as within-word errors that did not alter the meaning of the sentence. The errors in this category could encompass both morphological and syntactic knowledge, depending on the students' use of free and bound morphemes. For example, the free morpheme "done" in "We have done the work already. We *done* it yesterday" is classified as a morphosyntactic error due to the

incorrect use of the morpheme *done*, and this incorrect use is simultaneously determined with reference to the syntactic conditions of the preceding sentence. Other examples of morphosyntactic errors were "Dad *sended* Bobby a letter several weeks ago" and "Yesterday, Tina and Marie *was* walking down the street".

Results

The number of error responses for each individual student in each grade was transformed into a proportion. The proportion of incorrect responses (pin) was expressed as the number of incorrect responses divided by the total number of responses (pin = number incorrect/number incorrect + number correct). The proportions of semantic, morphosyntactic, and grammatic errors, as well as the proportion of "don't know" responses, were expressed as the number of semantic, morphosyntactic, grammatic errors and "don't know" responses divided by the number of incorrect responses (psem = semantic errors/number incorrect; pmorsyn = morphosyntactic errors/number incorrect; pgram = grammatic errors/number incorrect; and pdk = don't know responses/number incorrect).

Proportion incorrect. There was a significant grade X language interaction F (4,182) = 4.155, $p < .003$ in the proportion of students' incorrect responses, with significant effects of grade F (2,182) = 51.60, $p < .001$ and language F (2,91) = 8.51, $p < .001$. Both the Chinese and the Persian students had significantly higher proportions of errors than the English students in grade 2 ($p < .001$ and $p < .002$, respectively). In grade 3, the Chinese students had the highest proportion of errors compared to both the Persian ($p < .033$) and English ($p < .001$) students. The Chinese students' proportion of errors remained higher

than the English students in grade 4 ($p < .019$), but their proportion of errors was not significantly different from the Persian students ($p < .198$, ns). Overall, the mean proportions of incorrect responses decreased for each language group as the students progressed through each grade. The mean proportion of incorrect responses for each language by grade is shown in Table 2.

Insert Table 2 about here

Semantic Errors. There was no significant grade X language interaction F (4,182) = 2.14, ns, and no significant effect of language F (2,91) = 1.73, ns. There was a significant effect of grade, F (2,182) = 7.35, $p < .001$, wherein mean proportions of semantic errors for each language group generally decreased as grade increased.

Morphosyntactic Errors. There was no significant grade X language interaction, F (4,182) = .486, ns, and no significant effects of grade, F (2,182) = .494, ns. There was a significant effect of language F (2,91) = 4.36, $p < .016$, attributable to the Chinese students, who had a higher proportion of errors than the English students in grades 2 ($p < .022$) and 3 ($p < .014$).

Grammatic Errors. There was no significant grade X language interaction F (4,182) = .111, ns, with no significant effects of grade, F (2,182) = 1.36, ns, or language F (2,91) = 2.11, ns.

"Don't Know"/No Response. There was no significant grade X language interaction, F (4,182) = .672, ns, and no significant effects of grade F (2,182) = 2.53, ns or language F (2,91) = .867, ns.

Error Analysis

The data show that the Chinese students' proportion of incorrect responses is attributable to relatively slower English morphosyntactic development. In grades 2 and 3, the Chinese students had significantly more morphosyntactic errors than the English students – a pattern that was not evident with the Persian students. The Chinese students also had a significantly higher proportion of incorrect responses than the English students in grade 4, but the data do not show that this was attributable to their proportions of morphosyntactic, semantic, or grammatic errors, nor was it attributable to the proportion of "don't know"/no response errors. It may be that the distribution of the different types of error became relatively more uniform in grade 4, or that there is an additional source of variance not identified in this study.

The only instance where the proportion of Persian students' incorrect responses was higher than the English students was in grade 2. The source of this error is difficult to identify. Post-hoc analyses indicated that the Persian students had significantly higher proportions of semantic errors than the English ($p < .039$) and Chinese ($p < .004$) students in grade 2; however, there was no interaction and no effect of language in the proportion of semantic errors.

All language groups displayed similar patterns in their semantic and grammatic development. While the mean proportion of semantic errors (psem) generally decreased for each group throughout grades 2 through 4, the mean proportion of grammatic errors (pgram) increased for each group from grades 2 through 4. Table 3 shows the mean proportions of semantic and grammatic errors for each language group by grade.

Insert Table 3 about here

When interpreting these results it is important to remember we are looking at *proportions* of errors, rather than the number of errors, throughout each grade. This distinction accounts for an interesting developmental trend shared by the Chinese, Persian, and English groups of this study. The fall in psem means that, for all language groups, it is less likely for students to make semantic errors as their grade level increases. The rise in pgram indicates that, if a student makes an error in the upper grades, it is more likely to be a grammatic error. An inference to be made from this data is that the acquisition of English semantic knowledge could occur relatively earlier than the acquisition of English grammatic knowledge.

This inference reflects a body of research (see O'Grady, 1997, for a review) indicating that when young children first learn to talk, their utterances are characterized by a predominance of nouns. This phenomenon is evident in a diverse sample of language groups, representing wide variability in grammatical structures as well as cultural differences in parent-child dialogue.

Gentner (1982) notes that the prevalence of nouns in children's early speech may be a natural consequence of the efficiency of nouns – that is, in any language, children may use nouns to encapsulate both form and meaning (i.e. semantics). In this sense, if semantic constraints of a language are utilized first in the natural course of language acquisition, and this strategy is apparent across a variety of languages, it is possible that children learning a second language may also exploit the use of nouns in their early speech. This initial use of nouns could account for the earlier mastery of semantic

knowledge, relative to grammatic knowledge, which is apparent for all the language groups of this study.

Discussion

Performance on the oral cloze task did not differentiate Chinese, Persian and English students on the basis of semantic or grammatic development; in fact, the developmental trajectory of each groups' semantic and grammatic knowledge was similar. The mean proportion of semantic errors decreased over time, while the mean proportion of grammatic errors increased. This is not to say that the number of grammatic errors increased – the proportion of total errors (pin) in all groups decreased throughout each grade (see Table 2). The data show that, within the overall picture of fewer errors being made as the students mature, their chances of making semantic errors was more likely to occur in grade 2 than in grades 3 or 4. Moreover, if a student made an error in grade 3 or 4, it was more likely to be a grammatic error. It appears that the students in this study, regardless of their native language, took longer to acquire English grammatical rules than English semantic rules. All students demonstrated a general developmental trajectory wherein their mastery of English semantic knowledge preceded their mastery of English grammatical knowledge.

One exception to this pattern was evident in the performance of the Chinese students. The Chinese students represented the only language-based difference in performance on the oral cloze task, with a significantly higher proportion of morphosyntactic errors than the English students in grades 2 and 3. Combining this information with the developmental trajectory described previously, it may be said that

while the Chinese students followed a pattern of semantic and grammatic acquisition that was similar to their Persian and English classmates, they were also relatively delayed in their morphosyntactic development throughout grades 2 and 3.

Some basic features of the Chinese, Persian, and English languages could be used to explain how a higher proportion of morphosyntactic errors was found with the Chinese students but not with the Persian students in grades 2 and 3. The Sino-Tibetan genealogy of the Chinese language is distinct from both English and Persian. Persian is an Indo-European language and is more grammatically similar to English than Arabic, although its script is essentially Arabic (Killam & Watson, 1983). Morphosyntactic differences between the languages are apparent in inflections of verbs, plurals and possessives. There are no inflections of verbs, plurals, or possessives in Chinese, but English has third person verb, plural and possessive inflections, while Persian has first, second, and third person as well as plural inflection (Chen, 1999; Khanlari, 1979). The similar genealogy and use of inflection in the Persian language could account for the relatively smaller proportion of morphosyntactic errors in the Persian sample in grades 2 and 3. In other words, it appears that the Persian students in this study acquired their knowledge of English morphosyntactic rules earlier than the Chinese students.

Two sources of error remain unaccounted for in this study: the proportion of Chinese students' incorrect responses in grade 4 and the proportion of Persian students' incorrect responses in grade 2. Although both the Chinese and Persian students had significantly higher proportions of incorrect responses than the English students in these grades, the data did not indicate that the errors were attributable to grammatic, semantic,

or morphosyntactic development, nor to the number of "don't know" responses. A post-hoc analysis indicated that the Persian students' errors in grade 2 may be attributable to their semantic development, but further research is needed to determine whether or not Persian students experience a temporary lag in their acquisition of English semantics.

The prevalence of grammatic errors in later grades, with relatively less semantic and – for the Persian and English students – less morphosyntactic errors suggests that, for Persian and English students, English semantic and morphosyntactic knowledge may be mastered sooner than grammatic knowledge. The Chinese students in this study exhibited similar patterns of semantic and grammatic development, but the relative delay in morphosyntactic knowledge throughout grades 2 and 3 presents a different trajectory of general linguistic development. Further research involving different language groups is needed to determine if the developmental patterns of linguistic knowledge found in this study are also evident in other languages.

Overall, the results of the study present relevant findings for teachers of students whose first language is not the language of the classroom. Since there were no effects of language in the Chinese, Persian, or English students' semantic and grammatic development, it may be erroneous to attribute academic problems to these areas, provided that the student's word reading and reading comprehension performance is average. It is also helpful to be aware of the difference in Chinese students' morphosyntactic development, and to note that the delay in their morphosyntactic development did not appear to influence their word reading or reading comprehension abilities, since the scores on these measures in this study were average to high average.

It should also be noted that application of information regarding any apparent language-based difference in students' linguistic development must be tempered with professional pedagogical judgment. The abilities of individual students should always be recognized in order to avoid stereotyping and the development of generic teaching practices for specific language groups (Fitzgerald & Noblit, 2000). Nevertheless, recognizing that some patterns of error may be attributable to groups of students – and not applicable to others – can be helpful for teachers who need to identify the nature of specific academic problems in students who speak other languages.

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Table 1

Mean WRAT-3 and Reading Comprehension Scores for Each Language in Grade 2

WRAT-3				
	Mean	SD	Minimum	Maximum
English	68.30	20.87	30.00	99.00
Chinese	74.39	13.75	47.00	99.00
Persian	79.43	17.28	47.00	99.00
Reading Comprehension				
	Mean	SD	Minimum	Maximum
English	56.81	19.75	30.00	89.00
Chinese	55.51	19.74	30.00	92.00
Persian	48.50	12.25	30.00	67.00

WRAT-3 = Wide Range Achievement Test, Third Edition

Table 2

Mean Proportion of Incorrect Responses for Each Language by Grade

	Grade 2	Grade3	Grade 4
English	.327	.255	.219
Chinese	.479	.421	.309
Persian	.500	.305	.240

Table 3

Mean Proportions of Semantic and Grammatic Errors for Each Language by Grade

		Mean Proportions of Error	
		Semantic	Grammatic
Grade 2			
	English	.105	.400
	Chinese	.070	.309
	Persian	.179	.326
Grade 3			
	English	.077	.429
	Chinese	.078	.328
	Persian	.170	.356
Grade 4			
	English	.048	.458
	Chinese	.057	.417
	Persian	.012	.401