

FIRST LANGUAGE (L1) INFLUENCE ON SECOND LANGUAGE (L2) READING: THE ROLE OF TRANSFER

Khaled Karim

Department of Curriculum and Instruction
Faculty of Education
University of Victoria, B.C., Canada

1. INTRODUCTION

This paper reports a survey of current literature which relates to first language (L1) influence on second language (L2) reading. In particular the focus is on three aspects of this area: nature of L1 and L2 reading processes; the influence of L1 on L2 reading; and transfer as a contributing factor in second language reading.

To examine the first language influence on second language reading it is important to understand the nature and process of reading (both L1 and L2 reading). Psycholinguistic perspective characterizes reading as an active process in which the reader samples linguistic cues and based on those cues produces hypothesis about the message of the writer (Clarke, 1979). As Goodman (1970) states in his definition of reading:

reading is a psycholinguistic guessing game. It involves an interaction between thought and language. Efficient reading does not result from precise perception and identification of all elements, but from skill in selecting the fewest, most productive clues necessary to produce guesses which are right the first time. (p.260)

Reading in both first and second language contexts involves the reader, the text, and the interaction between the reader and text. Reading in L1 shares numerous important basic elements with reading in a second or foreign language, and on the other hand the processes also differ greatly. Reading in both the contexts require knowledge of content, form, and linguistic schema (Singhal, 1998). Readers use mental activities in order to construct meanings from text. These activities are generally referred to as reading strategies or reading skills. Successful L1 and L2 readers consciously and unconsciously engage in specific behaviours to enhance their comprehension of text. Reading comprehension involves multiple cognitive processes and that are related to each other (Horiba, 1996). The processes include recognizing letter, characters, and words; analyzing the syntactic and semantic structure of clauses and sentences, and generating inferences.

As cited in Clarke (1979), Rigg (1977a, 1977b) and Barrera (1977) have provided the first glimpse of the reading process in English as a Second Language (ESL). In all 3 studies the findings show that while reading, the subjects produced miscues that demonstrated their attempts to utilize graphophonic, syntactic and semantic cues to extract the author's message. Furthermore, the second language may contain a linguistic base that is syntactically, phonetically, semantically, and rhetorically distinct from the target language (Singhal, 1998). A reader who does not possess the same linguistic base as the L1 reader will face difficulties. The difficulties become greater when there is a greater difference between L1 and L2. According to Segalowitz (1986), if syntactic structure in a second language student's native language is very different from that of the target language, a greater degree of cognitive restructuring is required.

Second or foreign language learner uses first language knowledge and various strategies to facilitate their learning of target language (i.e., speaking, reading, and writing). This phenomenon is known as language transfer. Transfer occurs consciously as a deliberate communication strategy, where there is a gap in the learner's knowledge; and unconsciously either because the correct form is not known or because, although it has been learned, it has not been completely automatized (Benson, 2002). According to Chomsky's (1979) universal grammar theory, humans produce language through a deep structure that enables them to generate and transfer their own grammar to any other language (Lakshmanan, 1994). As people learn languages, they develop certain skills. They naturally transfer the skills learned in the first language (L1) to the second language (L2). O'Malley and Chamot (1990) define

transfer as "the use of previous linguistic or prior skills to assist comprehension or production" (p.120). This indicates that while reading or writing in second language, learners transfer their first language knowledge or skills. This transfer process may either support (positive transfer) or detract (negative transfer) from learning. Transfer can be facilitative, in areas where the two languages are identical.

2. ISSUES

Studies of transfer have mainly dealt with its effects on either speaking or writing but the effects on reading and listening have been neglected (Ringbom, 1992). According to Ringbom, the main differences between L2 comprehension and L2 production concern the roles played by context and by potential knowledge. She also adds that transfer in comprehension is overt transfer, in which some cross-linguistic similarity is perceived between L2 input and existing or potential L1-based knowledge. It is noteworthy that this has a stunningly facilitative effect on learning. On the other hand, in case of production, transfer is covert. Here L1-based forms and procedures are used in the absence of appropriate L2-based forms or procedures. To identify the positive or negative effects of transfer is much more difficult in production. As comprehension normally proceeds production, transfer in comprehension is equally important as transfer in production (Ringbom, 1992). Ringbom believes that overt transfer may be transfer of forms, especially lexical items. It can also be phonological and morphological forms, grammatical patterns or even procedures. As mentioned earlier, transfer in comprehension (i.e., overt transfer) occurs when some degree of cross-linguistic similarity is perceived between L2 input and existing or potential L1-based knowledge, it thus, occurs mostly across related languages (e.g., Spanish and Italian). So the greater the cross-linguistic distance between the languages, the less transfer there is in comprehension (e.g., Tibetan and German). As Ringbom states, "overt transfer has an overwhelmingly facilitative influence on the process of comprehension: the closer the perceived distance, the more (positive) transfer there is" (Ringbom, 1992; p.105).

As second language learners use different strategies to facilitate their comprehension and production (i.e., reading and writing) and transfer of first language skills or knowledge is one of those, it is vital to examine whether transfer plays a positive or negative role on reading in second language. And as comprehension - the learning stage, comes before production, it is natural that transfer in production occurs after transfer influences learning. So it is needed to focus on the stage at which transfer occurs first (i.e., comprehension) and thus there will be a better chance to understand how L1 influences the learning of another language, especially reading in this context. On the other hand, as literacy is composed of many component skills, the component skills of reading (such as phonology, orthography, and comprehension) need to be carefully assessed in both L1 and L2 in order to trace the development of L1 and L2 abilities in relation to each other (August, Calderon & Carlo, 2000). Moreover, the study of language transfer strategies may help us to better understand the positive influence first language knowledge has in the processes of reading in another language.

The following part of the paper presents report based on the review of literature dealing with the issue of role of transfer in second language reading.

3. THEORETICAL CONCEPTIONS AND RELATED LITERATURE

Much research has been conducted on second language reading skills to understand the role of transfer and first and second language reading relationship. Several studies have provided evidence for transfer in the areas of orthographic skills, phonological awareness and processing, vocabulary skills and comprehension skills.

Phonological processing skill is strongly related to reading performance in monolingual English speakers. Additional variance in word reading skill in English is explained by orthographic processing skill. Although English is the most widely studied language in terms of predictors of reading, investigators studying other alphabetic language have found that phonological awareness influences reading ability in individuals learning to read in their first language (Gottardo, Yan, Siegel & Wade-Woolley, 2001). Investigation has been done recently on the relationship between word-reading skill and phonological and orthographic processing in bilingual speakers. Dorgunoglu, Nagy and Hancin-Bhatt (1993) studied the effect of phonological awareness in L1 on word reading in L2. Subjects in their study were native speakers of Spanish who were learning English. Their study demonstrated that reading skill and phonological awareness in the child's L1 (Spanish) predicted the ability to learn to read new English words, whereas L1 and L2 oral proficiency did not predict the ability to learn to read unfamiliar words.

Gottardo, Yan, Siegel and Wade-Woolley (2001) have also found evidence of cross-language transfer in phonological awareness. In their study they examined factors associated with English reading skill in a group of 65 children whose first language was Cantonese and whose second language was English. Parallel measures of phonological processing, orthographic processing, and oral-language skill were administered in English and Cantonese. Findings of the study showed that phonological skill in both L1 and L2 was correlated with L2 reading and contributed a unique variance to L2 reading, even though the children's L1 was not written in an alphabetical orthography, whereas the second language (English) had an alphabetic orthography. The results of the study illustrate that the relationship between phonological processing skill in the child's L1 and decoding skill in an alphabetic orthography exists even if the L1 does not have an alphabetic orthography. The findings add to a growing body of evidence for cross-language transfer of phonological processing in L2 learning of English as Second Language (ESL) students.

Several studies have provided evidence for the transfer of orthographic skills from L1 to L2. In a study, Chikamatsu (1996) examined whether L1 orthographic effects in word recognition are transferred in L2 word recognition. He conducted the study among 45 American and 17 Chinese college students who were enrolled in a second semester Japanese language course. Lexical judgment tests using Japanese *kana* (a syllabic script consisting of *hiragana* and *katakana*) were given to those two groups of native English and native Chinese learners of Japanese. The visual familiarity and length in test words were controlled to examine the involvement of phonological or visual coding in word recognition strategies. The result of the study demonstrated that native speakers of English and Chinese utilized different word recognition strategies due to L1 orthographic characteristics, and such L1 word recognition strategies were transferred into L2 Japanese *kana* word recognition.

Lambert and Tucker (1972) conducted a study of English-speaking students in a French immersion program and found that students who had received all their reading instruction in French were still able to perform at the same level as average students instructed in English on English word knowledge and word discrimination tests. Based on this finding, Lambert and Tucker concluded that the students had applied the skills they had developed in French to English reading tasks.

A few study tried to find out the relationships between vocabulary knowledge and reading for English-language learners (e.g., Fitzgerald, 1995b). The findings of these studies combinely demonstrate that English vocabulary is a primary determinant of reading comprehension for English as a Second language readers, and that those whose first language has many cognates with English have an advantage in English vocabulary recognition (August, Calderon, &Carlo, 2000).

Again, to understand the nature of transfer in second language reading, several studies have investigated the concept of cross-language transfer of comprehension skills. Cummins et al. (1984) evaluated the Japanese and English reading skills of Japanese students attending the School of Supplementary Japanese Studies in Canada. Strong relations between performance on measures of Japanese proficiency and performance on measures of English proficiency were found. Considering this they concluded that children who arrived in Canada at an older age and with better command of their native language were likely to be among the highest performers on the measures of English academic achievement.

August, Calderon and Carlo's (2000) investigation focused on understanding the manner in which enabling skills for reading are transferable from Spanish to English. The study examined how performance on indicators of Spanish reading ability at the end of second grade could predict English reading performance at the end of third grade. The study took place in three locations in USA. Data was collected at the end of second grade, the beginning of third grade, and the end of third grade. They examined differences in transfer across phonological, orthographic, and comprehension processes. They also evaluated whether transfer effects would vary for Spanish-instructed and English-instructed students. The result of the study indicated that Spanish phonemic awareness, Spanish letter identification, Spanish word recognition, and fluency in letter and word identification in Spanish were reliable predictors of English performance on parallel tasks in English at the end of third grade. The results were consistent with their hypothesis that reading skills acquired in school contexts can be transferred across languages.

Jiang and Kuehn (2001) in their study examined the issue of transfer for low-intermediate ESL students enrolled in an academic English development course at the community college level. They focused to see what role transfer plays in the development of the English academic language proficiency among early and late immigrant

students. Twenty-two volunteers were selected from two ESL courses for the study. It was found from the comparison of mean score of each group from pre-and post-test on each test task that late immigrants students (adult immigrants) had higher L1 cognitive and academic language proficiency and they made significant progress on their development of English academic language skills- both reading and writing. The results provided both quantitative and qualitative evidence on positive transfer of prior linguistic and cognitive skills from L1 to L2.

Among some other studies that supported the results that comprehension strategies are transferred are Escamilla (1987) and Jimenez, Garcia and Pearson's (1995; 1996) studies. Escamilla (1987) studied native language reading achievement and second language oral proficiency as predictors of second language reading achievement. The subjects in that study were third and fourth grade Spanish-speaking students who were enrolled in bilingual education programs. The results of the study showed that Spanish reading comprehension skill best predicted scores on both the English vocabulary test and the English comprehension test.

Explicit instruction in comprehension strategies such as prediction, summarizing, and questioning has been shown to be useful with poor first-language readers, and some evidence also suggests that it would also be useful with second-language readers (August, Calderon & Carlo, 2000). As cited by them, a case study of excellent Spanish-English bilingual readers by Jimenez *et al.* (1995) showed the use of such strategies for identifying words and comprehending text in both languages, and the frequent use of information from the other language. A larger-scale study carried out by the same group of researchers (Jimenez *et al.*, 1996) also demonstrated that successful bilingual readers all use certain strategies for comprehending both Spanish and English texts. The strategies used were: focusing on unknown words, using cognates as one source of knowledge, monitoring comprehension, making inferences, and actively using prior knowledge. In this study unsuccessful readers focused much less on comprehension as their goal for reading (August, Calderon & Carlo, 2000).

4. IMPLICATIONS

Different aspects of transfer in second language reading are examined in the light of research that has been undertaken to identify the L1 influence on L2 reading and also to investigate what role transfer plays in L2 reading. The review of the research studies has demonstrated the correlation between L1 reading and L2 reading ability and also established that transfer of prior linguistic and cognitive skills from L1 has positive impact on L2 reading.

The review of the research literature displayed the following cases of transfer in L2 reading context: phonological awareness/processing skills, orthographic strategies for word recognition, vocabulary knowledge, comprehension and cognitive skills. The review also sheds light into the fact that successful L1 and L2 readers consciously and unconsciously engage in specific behaviours to enhance their comprehension skill. As, the second language contains syntactically, phonetically, semantically and rhetorically distinct linguistic base, L2 readers use different schema and strategies in learning and facilitating their reading. Again, as L2 readers do not possess the same linguistic base as L1 readers, they encounter difficulties. Such difficulties may be greater when there is greater difference between L1 and L2. Second language learners use different strategies and prior linguistic knowledge in the form of transfer to facilitate their L2 learning (learning reading, writing, and speaking). Transfer can be facilitative, in areas where the two languages are identical and it can lead to different rates of second language reading development.

The present review of research portrayed that transfer of different aspects occurs at different stages of second language reading process and development. This suggests that transfer of first language linguistic knowledge and cognitive skills facilitate second language reading. This positive relation between L1 and L2 reading suggests a common underlying proficiency in reading ability across languages. Finding such positive correlation between reading across languages, Eisterhold (1990) concluded, "literacy skills can transfer across languages" (p. 95).

So, in a second language learning context, it is vital to investigate whether the learner is transferring L1 knowledge or skills and if so is it facilitating or creating constraints on the way of successful reading. Based on the positive or negative role of transfer, effective instructional methods can be designed for students of different age groups.

Based on the research review of transfer studies, the following pedagogical implications can be suggested:

- The study of transfer strategies of reading may help us to better understand the positive influence first language has in the learning of reading in another language.
- Teachers should understand the advantage that students who have had L1 education possess the ability to transfer the prior linguistic knowledge, prior skills, or existing schemata to facilitate their reading acquisition of the target language.
- If teachers focus on the positive transfer skills that students have, it may be positive to teach these students ways to help them use the second language more effectively. (Jiang & Kuehn, 2001)
- ESL and remedial programs may provide two different kinds of courses: one for L2 students who have had L1 education and have high L1 academic language proficiency and cognitive skills, and the other for students who have had little or no L1 education with little L1 proficiency and cognitive skills. Thus, teachers can address the different needs of the two groups and provide more appropriate instruction for each type of student. (Jiang & Kuehn, 2001)
- When two languages are identical (e.g., Spanish and English) it appears that learners utilize the same basic reading behaviours and use more transfer strategies. Teachers in these cases can provide implicit instructions of transfer comparing L1 and the target language. As in O'Malley and Chamot's (1990) study, they showed that transfer strategies can be directly and effectively taught in the classroom. The subjects in their study were being taught specific cognitive reading strategies, which included transfer of cognates and similar sounding words in the L1 languages that could be applied to understanding new words in the L2.
- Study of transfer can enable teachers to do the early screening of phonological processing skill in children's L1 or L2 as a tool for determining children at risk for later reading difficulties in English or other alphabetic orthographies. (Gottardo et al., 2001)

5. CONCLUSION

The review of research studies shows that there is a correlation between L1 and L2 reading ability and L2 learners transfer prior linguistic and cognitive skills from L1 to facilitate their reading in L2. Transfer of reading skills has an overwhelmingly facilitative influence on L2 reading. Teachers, therefore, need to understand the advantage of L2 learners who possess the ability to transfer the prior linguistic knowledge, prior skills or existing schemata to facilitate their learning of reading in the target language. This enables teachers to teach the students ways to help them use the second language more effectively. Most importantly, investigating and understanding reading transfer strategies will help us to better understand the influence first language knowledge has in the reading and writing of another language.

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