

A Comparison of L1 and L2 Reading: Cultural Differences and Schema

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Abstract

Reading in the L1 shares numerous important basic elements with reading in a second or foreign language, the processes also differ greatly. Intriguing questions involve whether there are two parallel cognitive processes at work, or whether there are processing strategies that accommodate both first and second languages. This paper will examine how reading in the L1 is different from and similar to reading in the L2. More specifically, factors of cultural differences: content (background knowledge) schema, formal (textual) schema, linguistic (language) schema, will be examined. Based on such a discussion, a profile of a biliterate reader is provided.

Introduction

The ability to read is acknowledged to be the most stable and durable of the second language modalities (Bernhardt, 1991). In other words, learners may use their productive skills, yet still be able to comprehend texts with some degree of proficiency. Reading, whether in a first or second language context, involves the reader, the text, and the interaction between the reader and text (Rumelhart, 1977). Although reading in the L1 shares numerous important basic elements with reading in a second or foreign language, the processes also differ greatly. Intriguing questions involve whether there are two parallel cognitive processes at work, or whether there are processing strategies that accommodate both first and second languages. Despite these interests, second language research on reading, is frequently dismissed as being marginal and derivative from first language reading. Reading in a second language, for example, was often viewed as merely a slower version of doing the same task in the native language. Such comparisons, however, imply that second language tasks are mapping tasks – that is replacing one mode of behavior with another. While it is true that the L1 and L2 reading process have similarities, it is also important to recognize that many factors come into play, which in turn make second language reading a phenomenon unto itself. Despite the similarities between reading in an L1 and reading in an L2, a number of complex variables make the process of L1 different from L2. Because the reading process is essentially "unobservable" teachers need to make significant efforts in the classroom to understand their students' reading behaviors and be able to help students understand those behaviors as well. It is therefore important that teachers know as much as possible about the cultural, linguistic, and educational backgrounds of their readers since many of these factors that influence reading in an L2 context.

This paper will examine how reading in the L1 is different from and similar to reading in the L2. More specifically, factors of cultural differences: content (background knowledge) schema, formal (textual) schema, linguistic (language) schema, will be examined. Based on such a discussion, a profile of a biliterate reader is provided. While the research in this domain encompasses a great deal of literature which cannot possibly be covered in its entirety here, it is hoped that this discussion will nonetheless provide readers with an overview in this area.

Types of Schema

Before proceeding any further, the notion of schema must be defined. Schemas, or schema as they are sometimes known, have been described as "cognitive constructs which allow for the organization of information in long-term memory (Widdowson, 1983). Cook (1989) states, "the mind, stimulated by key words or phrases in the text or by the context, activates a knowledge schema" (Cook, 1989, p. 69). Widdowson & Cook both emphasize the cognitive characteristics of schema which allow us to related incoming information to already known information. This covers the knowledge of the world, from everyday knowledge to very specialized knowledge, knowledge of language structures, and knowledge of texts and forms they take in terms of genre, and organization. In addition to allowing us to organize information and knowledge economically, schemas also allow us to predict the continuation of both

spoken and written discourse. The first part of a text activates a schema, that is, calls up a schema which is either confirmed or disconfirmed by what follows.

Research on the theory of schema has had a great impact on understanding reading. Researchers have identified several types of schemata. Content schema, which refers to a reader's background or world knowledge, provides readers with a foundation, a basis for comparison (Carrell & Eisterhold, 1983; Carrell, Pharis, & Liberto, 1989). Formal schema, often known as textual schema, refers to the organizational forms and rhetorical structures of written texts. It can include knowledge of different text types and genres, and also includes the understanding that different types of texts use text organization, language structures, vocabulary, grammar, level of formality/register differently. Schooling and culture play the largest role in providing one with a knowledge base of formal schemata.

While formal schemata cover discourse level items, linguistic or language schemata include the decoding features needed to recognize words and how they fit together in a sentence. First language readers, may through repeated examples, be able to generalize a pattern or guess the meaning of a word, which may not have initially been part of their linguistic schema. The building of linguistic schema in a second language can proceed in the much the same way.

From the above discussion it is evident that schema plays an important role in text comprehension, both in the L1 and L2 context. For example, whether reading in a first or second language, one can assume that both native and non-native readers will understand more of a text when they are familiar with content, formal, and linguistic schema. An L2 reader, however, who does not possess such knowledge can experience schema interference, or lack of comprehension- ideas which are examined further in the following discussion pertaining to relevant research in this area.

Content Schema, Cultural Orientation, and Background Knowledge

Content schema or cultural orientation in terms of background knowledge is also a factor that influences L2/FL reading and has been discussed by Barnett (1989), Carrell and Eisterhold (1983), and Johnson (1982). Most methodologies investigating the role of schemata or background/prior knowledge were variations on Carrell's (1987) paradigm. This study involved 28 Muslim Arabs and 24 Catholic Hispanic ESL students of high-intermediate proficiency enrolled in an intensive English program at a midwestern university. Each student read two texts, one with Muslim-oriented content and the other with Catholic-oriented content. Each text was presented in either a well-organized rhetorical format or an unfamiliar, altered rhetorical format. After reading each text, the subjects answered a series of multiple-choice comprehension questions and were asked to recall the text in writing. Analysis of the recall protocols and scores on the comprehension questions suggested that schemata affected the ESL readers' comprehension and recall. Participants better comprehended and remembered passages that were similar in some way to their native cultures, or that were deemed more familiar to them. Other studies have shown similar effects in that participants better comprehended and/or remembered passages that were more familiar to them (Ammon, 1987; Carrell, 1981; Johnson, 1981, 1982; Langer, Barolome, Vasquez, & Lucas, 1990; Shimoda, 1989). Further evidence from such studies also suggested that readers' schemata for content affected comprehension and remembering more than did their formal schemata for text organization. For example in the Carrell's (1987) study described above, subjects remembered the most when both the content and rhetorical form was familiar to them. However, when only content or only form was unfamiliar, unfamiliar content caused more difficulty for the readers than did unfamiliar form.

Steffensen and Joag-Dev (1984) conducted a study using two descriptions of weddings both written in English. One was a description of an American wedding, while the other was of an Indian (subcontinent) wedding. Both the Indian students, for whom English was an L2, and the American students, for whom English was the L1, read the descriptions and were asked to recall the descriptions. It was found that readers comprehended texts about their own cultures more accurately than the other. While the readers indicated that the words were easy to understand, the unfamiliar cultural protocol of an Indian wedding made the passage more difficult to remember.

Johnson's (1981) study investigated the effects of the cultural origin of prose on the reading comprehension of 46 Iranian intermediate advanced ESL students at the university level. Half of the subjects read the unadapted English texts of two stories, one from Iranian folklore and one from American folklore, while the other half read the same stories in adapted English. The subjects' reading comprehension was tested through the use of multiple-choice questions. The recall questions and the texts were also given to 19 American subjects for comparison purposes. Results revealed that the cultural origin of the story had a greater effect on comprehension than syntactic or semantic complexity of the text. In another study, Johnson (1982) compared ESL students' recall on

a reading passage on Halloween. Seventy-two ESL students at the university level read a passage on the topic of Halloween. The passage contained both unfamiliar and familiar information based on the subjects' recent experience of the custom. Some subjects studied the meanings for unfamiliar words in the text. Results of recall protocols suggested that prior cultural experience prepared readers for comprehension of the familiar information about Halloween on the passage. However, exposure to the unfamiliar words did not seem to have a significant effect on their reading comprehension. An interesting study was carried out by Kang (1992). Kang's study examined how second language readers filter information from second language texts through culture specific background knowledge. Korean graduate students with advanced English read stories and answered questions. A think-aloud protocol assessing their understanding and inferences indicated an effect of culture specific schemata and inferences upon text comprehension. Although all the variables and factors surrounding the issues of how culture shapes background knowledge and influences reading are not fully understood, there is agreement that background knowledge is important, and that content schema plays an integral role in reading comprehension. Overall, readers appeared to have a higher level of comprehension when the content was familiar to them. Given this, second language readers do not possess the same degree of content schema as first language readers, and hence, this can result in comprehension difficulties.

Formal and Linguistic Schema and Text Comprehension

Many studies have also examined the role of text schemata in relation to readers' comprehension. Most of these studies employed similar methodologies in that participants read texts and then recalled information, for the most part in writing. The structures inherent in the texts (e.g., compare-contrast, problem-solving structures in expository text, and standard versus structurally interleaved versions of stories) were identified. Recalled information was analyzed for specific variables such as the number of propositions recalled, and temporal sequence of story components.

For the most part, these studies suggested that different types of text structure affected comprehension and recall (Bean, Potter, & Clark, 1980; Carrell, 1984). Some studies also showed that there may have differences among language groups as to which text structures facilitated recall better (Carrell, 1984). For example, Carrell's (1984) study showed that Arabs remembered best from expository texts with comparison structures, next best from problem-solution structures and collections of descriptions, and least well from causation structures. Asians, however, recalled best from texts with either problem-solution or causation structures, and least well from either comparison structures or collections of descriptions. These results; however, must be taken as suggestive as further studies examining the interaction of language background with text structure are needed. Regardless of these findings, as previously stated, it is important to recognize that organizational structures in text will differ across cultures.

Stone's (1985) study examined whether language patterns found in English, which differed from those in Spanish, would have a significant effect on ESL learners' comprehension while reading English text. Average fifth grade readers were randomly assigned to either an initial Spanish-speaking group or an initial English speaking group. Nine stories were developed for the study, three for each of three different language patterns categories: similar, moderately similar, and dissimilar. Measures included a retelling and comprehension questions. Results showed that on the retelling measures, the lowest scores were found on stories that were most dissimilar from the students' initial language, and oral reading errors increased as language pattern similarity decreased. The results support the contention that texts violating readers' expectations about language patterns can have disruptive effects.

Over the last few years, the field of contrastive rhetoric has emerged initiated by the work of Kaplan (1966). Its areas of focus are the role of the first language conventions of discourse and rhetorical structure on L2 usage, as well as cognitive and cultural dimensions of transfer, particularly in relation to writing. For the most part, contrastive rhetoric identifies problems in composition encountered by L2 writers and by referring to rhetorical strategies of the first language, attempts to explain them. It is clear that such differences in text structure can lead to difficulties in reading.

Mauranen (1992) examined cohesion in both Finnish and English economic texts and found that Finnish writers employed relatively little metalanguage for organizing text and orienting the reader. In contrast, native English speakers used plenty of devices for orienting the reader in terms of what is to follow in the text and how the reader should understand the different sections of the text. This pattern was found in their writing as well. Finnish writers used less demonstrative references than native English writers. Lindeberg (1988), in her examination of text linguistic features, found differences between Finnish and English writers in terms of topic development and the functions of verbs. Numerous differences have also been found in terms of writing styles between American-English and other languages. American students for example will often comment on the more theoretical and abstract essays of French writers whose essays lack the details and rhetorical patterns found in the American essay tradition. Chinese writing is often described as being verbose, ornamental, and lacking in coherence from a Western point of view, while Japanese writing has been noted for differences in

text organization. It appears that they prefer a specific-to-general pattern placing the general statement at the end of paragraphs (Connor, 1996). Lastly, it is important to point out that The differences between the writing systems and rhetorical structures of the native language and the target language may be another factor that influence reading. Orthographic systems vary widely and while some languages may contain many numbers of symbols, other languages contain a limited number. For example, Chinese calligraphy is a writing system with numerous symbols and one that has strong aesthetic elements thereby differing from English. Arabic also has a unique writing system in that it is written and read from right to left. These kinds of differences in writing systems can pose difficulties for second language readers. Undoubtedly, students reading in a second language will encounter such difficulties not faced by first language readers. In summary, teachers must therefore be explicit about the structures of the materials the students are reading in the L2 class through which students can become aware of culturally shaped expectations about text and language. Connor (1996) provides an extensive survey on this issue and considers the types of differences between the native and target language that can interfere with text comprehensibility.

Conclusion

In summary, it can be said that the reading in an L1 is similar to and different from reading in an L2. Reading in both contexts requires knowledge of content, formal, and linguistic schema. Reading is also a meaning-making process involving an interaction between the reader and the text. Readers use mental activities in order to construct meaning from text. These activities are generally referred to as reading strategies or reading skills. Successful L1 and L2 readers will consciously or unconsciously engage in specific behaviors to enhance their comprehension of texts. Both top-down and bottom-up strategies are used by effective readers as they read. Goodman (1996) and Smith (1986) suggest that readers go through an ongoing process while reading which involves the continuous process of sampling from the input text, predicting what will come next, testing and confirming predictions, and so on. Readers do not read word for word, but rather use their background knowledge, and various strategies such as predicting and confirming to comprehend text. To this extent then one can say in general terms that reading in the L1 and L2 can be similar. However, as seen from the studies above reading in the L2 is also very different from reading in the L1.

Second language refers to "the chronology of language learning; a second language being any language acquired after the native" (Stern, 1983, p. 12). This definition implies a firmly developed native language. In addition, the term second language implies that the language is probably not spoken in the home. Furthermore, the second language may contain a linguistic base that is syntactically, phonetically, semantically, and rhetorically distinct from the target language. As previously discussed, schema plays an important role in reading comprehension. An L2 reader who is not familiar with culturally based knowledge or content schema, or a reader who does not possess the same linguistic base as the L1 reader will encounter difficulties. Such difficulties may be greater when there is a greater difference between the L1 and the L2. If for example, 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 (Segalowitz, 1986). Grabe (1991) also notes that students begin reading in an L2 with a different knowledge base than they had when starting to read in their L1. For example, L1 readers already have a sufficient vocabulary base and know thousands of words before they actually start to read. They also have some grammatical knowledge of their own language. L2 readers on the other hand, do not share these advantages. Furthermore, while the second language reader may have linguistic skills, they often do not have finely honed sociocultural skills, which often means that a second language reader is not equipped with the knowledge to perceive texts in a culturally authentic, culturally specific way, an idea related to lack of content schema. The end result, comprehension, is based on linguistic data.

Given the above discussion, a profile of a biliterate reader can be offered. Biliteracy means that one can read in two more languages. The ability to read and read successfully implies text comprehension and the knowledge of which reading strategies and skills to use, and under what conditions in the languages in question. A biliterate reader in Spanish and English, for example, would mean that the reader is able to read successfully in both languages and would engage in some of the following reading behaviors to enhance reading comprehension and to read effectively. Such a reader would overview text before reading, employ context clues such as titles, subheading, and diagrams, look for important information while reading and pay greater attention to it than other information, attempt to relate important points in text to one another in order to understand the text as a whole, activate and use prior knowledge to interpret text, (which includes content, formal, and linguistic schema), reconsider and revise hypotheses about the meaning of text based on text content, attempt to infer information from the text, attempt to determine the meaning of words not understood or recognized, monitor text comprehension, identify or infer main ideas, use strategies to remember text (paraphrasing, repetition, making notes, summarizing, self-questioning, etc), understand relationships between parts of text, recognize text structure, change reading strategies when comprehension is perceived not be proceeding smoothly; evaluate the qualities of text, reflect on and process additionally after a part has been read, and anticipate or plan for the use of knowledge gained from the reading. While this list is not

prioritized or complete, it does provide one with a description of the characteristics of successful biliterate readers. Such a reader would employ these strategies and reading behaviors when reading in all languages. Furthermore, the biliterate reader, regardless of text type, language, or orthography would develop strategies and schemas for dealing with different languages and texts. The biliterate reader therefore is a flexible reader and one who possesses the knowledge, skills and strategies to accommodate to each language situation, and hence the process of reading in either language will not be seen as different by the reader.

In summary, this paper has attempted to discuss some of the differences and similarities between reading in a first language and reading in a second language. Factors of cultural differences were considered with special attention directed to the role of schema and how this relates to text comprehension in an L1 and L2. There are certainly a number of other factors which would contribute to the difference in L1 and L2 reading, but it is hoped that this discussion shed some light on how cultural factors, namely differences in types of schema can contribute to this difference. While the two processes are also similar in some ways, it must be noted that students' perception of their reading difficulties are also similar in many ways across languages. Readers, especially L2 readers, can better understand some of those similarities. Teachers must therefore question students about their reading and reading behaviors, as students themselves can offer tremendous insights into both their L1 and L2 reading experiences.

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