INTRODUCTION

Reading in one’s first language is a complex cognitive endeavor. Although a lot of research has been conducted on first language reading, there is still much about the act that is not fully understood. As for reading in English as a foreign language (hereafter EFL), much that has been learned and implemented in EFL pedagogy comes from first language reading research. As a result of the research, several theories have emerged. This paper provides an overview of one: the schema theory of reading. Specifically, this paper examines schema theory’s relevance to EFL reading and its implications for EFL reading instruction.

OVERVIEW OF THE SCHEMA THEORY OF READING

To understand schema theory and EFL reading, it is necessary to start with an examination of the first language reading research. It is a fact of the research history that “most of our current views of second language reading are shaped by research on first language learners (Grabe, 1991).” According to William Grabe, this is the case “because first language research has a longer history, first language student populations are much more stable, [and] cognitive psychology has seen comprehension research as a major domain of their field (p. 378).”

(A note regarding usage is warranted here. Schemata is the plural form that refers an individual’s background knowledge. A schema is the singular form that refers to one “chunk” of knowledge. A schema is made up of subordinate parts called nodes.)

One first language research article frequently cited by EFL researchers is the work of R.C. Anderson and P. D. Pearson: “A Schema-Theoretic View of Basic Processes in Reading Comprehension (1984).” As the article’s title suggests, its authors explain the basic processes of reading comprehension and develop the notion of schema and its relation to first language reading. Anderson and Pearson maintain that “a reader’s schemata, or knowledge already stored in memory, function in the process of interpreting new information and allowing it to enter and become a part of the knowledge store (p. 255).” They continue by adding that “a schema is an abstract knowledge structure” and that it “is structured in the sense that it represents relationships among its component parts (p. 259).” Think of a network of subordinate ideas united by an overarching theme. They use the example of a “ship-christening schema” to illustrate this abstract knowledge and its associated component parts, called nodes. A ship-christening schema when activated in the mind of an individual who has familiarity with such an event will activate subordinate nodes such as “done by a celebrity,” “bottle broken on the bow of the ship,” or “done just before launching (p. 260).” The activation of knowledge structures in a particular schema is not unidirectional; in other words, an individual node such as a
“bottle broken on bow” may trigger the activation of the entire “ship-christening schema,” or conversely the activation of the “ship-christening schema” structure can activate knowledge in the individual nodes to fill out a knowledge structure in a reader’s mind.

Activation of knowledge structures is vital to the reader because he or she can then make predictions about what is going on in a text. The reader makes predictions and actively seeks to confirm his or her schematic sense of what is taking place in a reading passage and if what was predicted is not confirmed, the reader can refine his schema thus making it even more elaborate, more nuanced. This is what schema theorists purport readers are doing all the time when reading in their mother tongues: the text activates a particular schema in the reader’s mind; the reader makes logical predictions about the text based on his schematic knowledge; the reader tries to confirm his predictions; and, finally, the reader refines his schema of the event based on what the text actually provides. The implications of the theory for reading in general are that the more schematic knowledge a reader brings to a reading passage the better he or she is able to make predictions and inferences about a text and the better he or she is able to comprehend it.

At first, the theory seems a bit awkward. It is as if the reader and text are trapped in a catch-22 situation: the reader can only fully comprehend a text if he or she already knows quite a bit about what is in the text. However, what adherents of schema theory are really claiming is not that a reader has a preexisting knowledge of all the possible knowledge structures a particular text may present, but rather that a reader, to successfully comprehend a text, must have a minimum schematic knowledge of the types of situations that may be encountered. Equipped with this basic framework of knowledge structures a reader can comprehend a text.

Anderson and Pearson go on to say that poor readers are poor readers for three reasons: first, they are likely to have gaps in knowledge; second, they will likely have an inadequate understanding of the relationships among the facts they do know about a topic; third, poor readers are less likely to piece together the overall pattern of a text into a coherent representation (p. 286). In other words, the reader is lacking the necessary schemata required by a text or his schemata are not sufficiently developed for the particular reading task.

Though drawn from first language research, the preceding discussion equally pertains to EFL reading. However, for EFL learners the challenge is compounded. The EFL learner must deal with both the linguistic complexities of a text such as vocabulary and syntax as well as the content, which may be laden with vaguely familiar, if not wholly unfamiliar target language cultural cues. The challenge for the EFL learner is, therefore, great.

FORMAL SCHEMA AND CONTENT SCHEMA

It is important at this juncture to distinguish two types of schema: formal schema and content schema.
Formal schema is the knowledge a reader has about the “rhetorical organizational structures of different types of texts (Carrell, 1987).” Is a particular text a persuasive essay? Or is it an informal letter from a friend? Letters, essays, poems, et cetera all have their own structural and semantic peculiarities. When a reader recognizes that a piece of writing is a persuasive essay and not a descriptive essay, he or she is using formal schema. Of course, it is necessary for readers of English as a foreign language to have formal schemata when encountering different types of texts. However, important as formal schemata may be to the EFL reader, empirical evidence in second language reading research suggests that “content schemata affects reading comprehension to a greater extent than formal schemata (p. 461).”

Content schema is the background knowledge “a reader brings to a text (p.461).” Content schemata are all the chunks of information a reader has gained through a lifetime of direct and indirect experience; therefore, this experience and hence an individual’s content schemata will have been profoundly influenced by his mother culture. To illustrate the relevance of culture to an individual’s schematic organization of knowledge, consider the example of commuting to and from work. Commuting activates very different schemata for a Nepalese villager and a Japanese office worker raised in Tokyo. It seems obvious that content schemata, therefore, are important with respect to cross-cultural understanding and reading comprehension in English as a foreign language.

A seminal article on the importance of content schema and reading comprehension in English was written by M.S. Steffensen, C. Joag-Dev and R. Anderson (1979). According to them:

When a person reads a story, the schemata embodying his background knowledge provide the framework for understanding the setting, the mood, the characters, and the chain of events. It stands to reason that readers who bring to bear different schemata will give various interpretations to a story. In particular, an individual who reads a story that presupposes the schemata of a foreign culture will comprehend it quite differently from a native, and probably will make what a native would classify as mistakes. (p. 11)

Steffensen et al. in their research show how when a group of Americans and a group of Indians were asked to read a passage from a text about a “traditional” American wedding, the Indians responded to a post-reading comprehension test and questionnaire with inappropriate “elaborations” and “distortions” of the material that was read (p. 12-28). Similarly, the Americans did poorly when they were asked about a passage describing an Indian wedding. The upshot of the study was that “differences in background knowledge about the content of text material” are a source of difficulty when trying to comprehend texts of a foreign culture (p. 28). There is a potential problem of mismatch between the mother-culture schemata of a reader and the appropriate schematic response a second language text is trying to elicit. Texts are often filled with embedded cultural cues. If the reader fails to understand these cues, reading comprehension suffers.
IMPLICATIONS FOR TEACHING READING TO EFL STUDENTS

EFL teachers can apply insights from the schema theory research to classroom reading instruction. Two strategies for teaching reading will be discussed. They are pre-reading activities and narrow reading.

Pre-reading activities
Pre-reading activities are an excellent way for students to draw on their current knowledge and develop schemata prior to reading a given text. Connections between details and the overall structure of a particular schema are explored in class before students do any reading. The technique can be as simple as brainstorming on the blackboard. The teacher writes a keyword on the blackboard and then elicits associated words from the students. If all goes as planned, lines are drawn on the blackboard between words and a network of connections becomes apparent to the students as they participate in the brainstorming activity. While doing this, the teacher has a chance to gage the students’ level of schematic knowledge about the topic. After the blackboard is full of networked information, the teacher can draw the students’ attention to the student-generated associations that are most relevant to the reading that will follow. This simple activity need not be limited to words. Photos and drawings can be used too.

This procedure provides a visual representation of the important schematic associations needed to comprehend a story; it allows for cultural differences (if any) between the reader’s mother culture and the reading passage’s source culture to be identified and discussed before any reading is done.

Pre-reading is an excellent classroom activity, but it in no way guarantees reading success. It may be that a particular text is simply too difficult for a group of students; the text may require schematic knowledge beyond the students’ current understanding.

Narrow Reading
For lower level learners or any student population that finds reading in English particularly challenging, it makes sense to initially limit unfamiliar content in texts as much as possible until students achieve a level of automaticity (Eskey and Grabe, 1988) in word and phrase recognition (p. 235). Stephen Krashen has advocated “narrow reading.” Narrow reading is extensive reading in one area of the reader’s choice. Krashen maintains that this technique will help students develop richer vocabularies and more elaborate schemata (p. 339). Students doing narrow reading are encouraged to read about content that is already familiar to them in their mother tongue. Thus the EFL learner can develop fluency in English language reading without being encumbered by a text overloaded with unfamiliar content.

CONCLUSION
Teachers sometimes rely on Flesch Reading Ease scores and headword counts to judge the difficulty of reading materials. As useful as these measures are, they do not take into
account the content and cultural cues that are contained in a given reading passage. This is where schema theory helps. Schema theory asserts that the reader, his or her background knowledge, and the content of a given text are the core components of the reading process. Schema theory suggests that EFL teachers need to be aware of the content and embedded cultural cues in texts and the potential difficulty they pose to the EFL learner. Whereas traditional approaches to teaching reading have focused almost exclusively on the text, schema theory implies that the scope be broadened to include both the text and the reader’s background knowledge.

References


