

Cultural Schema and Reading Comprehension

Tan Fuhong

Nankai University

Introduction

This paper is mainly focused on the examination of the role of cultural schema in ESL/EFL reading comprehension, in particular, how the cultural schema helps or impedes ESL/EFL reading comprehension; most important of all, the implications for teaching EFL reading in China.

In most universities in China, two courses are offered for the non-English majors: one is the Intensive Reading; the other is the Extensive Reading. No matter it is Intensive Reading or Extensive Reading, the selections in EFL textbooks in China are mainly from American literature, magazine and newspaper articles, short biographies of famous Americans, and numerous articles on aspects of American culture such as racial issues, old age, retirement, and food, etc. Almost no selections are about our native culture or any other cultures. Despite many studies which highlight the importance of cultural background knowledge in reading comprehension, this area has been neglected in EFL reading instruction in China. Take the textbook *College English 2*, which is used in Intensive Reading in most universities, as an example. Eight texts in this book are written by American writers and chosen from American books, magazines and newspapers. Almost all of them, except one, are about American culture. And non-English majors have to spend half a year working at this book. It's not difficult to imagine how students would react when they're buried in EFL readings about other cultures. A quiz result further implies the significance of cultural background knowledge in reading comprehension. In the quiz, two passages (See appendix 1 and 2) with the same question are given to 33 Chinese EFL teachers to read to see whether cultural schema plays an important role in reading comprehension. Both passages are celebrations of festivals in narrative form. The teachers are asked to tell what festival is described in each passage. The result shows that these teachers can give a correct answer to the question in Passage 1 which is a description of their native culture about spring festival; while without specific culture knowledge they will never be able to answer the question to Passage 2 which is a description about Name Day in Greece. Isn't it high time that teachers should help students build or activate their prior culture knowledge before the reading starts?

Research on the role of culture schema in reading comprehension

Many studies have been done by researchers on the relationship between background knowledge and reading comprehension. Smith (1973) states that reading involves a "trade-off between visual and non-visual information... The more that is already known 'behind the eyeball,' the less visual information is required to identify a letter, a word, or meaning from the text" (as cited in Barnitz, 1985). The importance

of background knowledge in reading is central to schema theory (Rumelhart 1980), which claims that reading a text implies an interaction between the reader's background knowledge and the text itself. Carrell (1983) distinguished between formal schemata (knowledge about the structural configuration of texts) and content schemata (knowledge about the subject matter of text). Unlike content schema, the formal schema has been given a lot of attention in the Intensive Reading class in China; while content schema, which includes discipline-specific and cultural-specific, has not been given enough attention. Cultural-specific schema, in particular, has been neglected.

In terms of background knowledge, culture schema is a factor that influences foreign language reading and has been discussed by Barnett (1989), Carrell and Eisterhold (1983), and Johnson (1982). Most methodologies investigating the role of culture schema in reading comprehension were variations on Carrell's (1987) study. This study involved 28 Muslim Arabs and 24 Catholic Hispanic ESL students of high-intermediate proficiency in an Intensive English program at a mid-western university. Each student was asked to 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 students answered a series of multiple-choice comprehension questions and were asked to recall the text in writing. Analysis of the results suggested that culture schema affected the ESL readers' comprehension and recall. The participants comprehended and remembered better those passages that were similar in some way to their native cultures or more familiar to them. The study also suggested that readers' content schemata affected comprehension and remembering more than their formal schemata did. In the study, the participants remembered the most when both the content and rhetorical form were 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, Joag-Dev and Anderson (1979) conducted a study using two texts of weddings written in English, both of which were presented in the form of a personal letter, a common genre familiar to the students, and were similar in terms of structural complexity. One is the description of a traditional American wedding and the other is of a typical Indian wedding. It was predicted that subjects would:

- 1) recall more of the native than the foreign text
- 2) produce more expansions as a result of "remembering" items which were not mentioned in the text but were culturally appropriate and consistent with it
- 3) make more distortions of the foreign text

Both the Indian students, for whom English was the L2, and the American students, for whom English was the L1, read the two texts of descriptions and were asked to recall the descriptions. It was found that subjects were able to read the passage based on their own culture more rapidly than the passage based on the foreign culture, and they accurately recalled more of the native text and less of the foreign. The types of errors made by the subjects with the foreign texts confirmed the researchers' three predictions and suggested that the subjects made these errors

because they were unable to call on relevant cultural content schemata to check their understanding of the text. The study concluded that an important part of reading comprehension is cultural knowledge — readers will understand a text better if they share the content schema assumed by the writer but will distort the text if there is no shared schema.

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 multiple-choice questions. The recall questions and the texts were also given to 19 American subjects for comparison purposes. Results showed 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. 72 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. Statistical analysis of the recall of the passage indicated that prior cultural experience prepared readers for comprehension of the familiar information about Halloween on the passage. However, exposure to the unfamiliar words seemed not to have a significant effect on reading comprehension.

All the studies show that culture schema plays an important role in ESL/EFL reading. Familiarity with a foreign culturally related topic, knowledge obtained from real experiences in the foreign culture and knowledge of foreign culture origin of prose is effective for reading comprehension.

The applications of schema theory in ESL/EFL reading

According to schema theory, ESL/EFL students from different countries have different schemata and most have difficulties in processing knowledge like English native speakers, and proficient readers are able to activate prior knowledge stored in memory to integrate new linguistic data in the comprehension process. Therefore, under schema theory, ESL/EFL reading classes should utilize pre-reading activities to activate prior knowledge and teachers should provide minimal background knowledge when students do not have sufficient prior knowledge, especially due to cultural differences.

The latter part of the paper will contribute to the following two aspects: the application of schema theoretic approach in ESL/EFL reading class and the content of pre-reading activities.

Despite all the recent developments in ESL/EFL research, the traditional grammar-translation approach is still practiced in most English reading classes throughout China. Memorization and sentence level analysis using bottom-up skills is dominant in reading classes and students suffer from the inevitable lack of ability to use top-down skills. Teachers in reading classes tend to focus on explaining complex vocabulary or phrases either before or in the course of teaching and language

complexity becomes their goal in helping students conquer reading problems. The teaching of background knowledge is almost neglected. Therefore, reading practice based on schema theory is highly recommended for such students not only because it focuses on training for culture-specific texts but also because it trains students to use a top-down process in reading.

It is sometimes desirable for students to be given reading materials on unfamiliar topics and unfamiliar cultures, particularly if we want them to eventually regard reading in a foreign language as a purposeful interesting activity which can enable them to gain knowledge of the world beyond their own experience. But what if, for such a body of readers, a large portion of the texts they read is nearly meaningless because their large store of prior knowledge is not related to the new material? New information cannot be integrated with old knowledge because of the gap between the two. According to Obah (1983), that is a painful dilemma. Can the background knowledge be built in EFL/ESL classroom setting? How? Quite a lot of studies provide solutions.

To cope with this dilemma, Obah (1983) recommends several successful approaches. First, reading material in all subject areas must be chosen with care to include a balanced mix of foreign and indigenous texts. Second, scientific concepts are to be couched in the native language, searching for idioms that will convey the concept with an immediacy equivalent to that experienced by a native English speaker meeting the concept for the first time. Third, the students are provided with experiences directly related to the new knowledge to expand their store of prior knowledge. Films and other visual aids perform the same function.

Carrell (1988) emphasizes that reading problems are not just caused by schema deficiencies, and the “relevant schemata must be activated”. In other words, readers may come to a text with prior knowledge but their schemata are not necessarily activated while reading. So “pre-reading activities must accomplish both goals: building new background knowledge as well as activating existing background knowledge”.

In fact, quite a few systematic teaching strategies have come up to help build and activate learners’ background knowledge to improve their reading comprehension, such as LEA (Language Experience Approach), SSR (Sustained Silent Reading), PReP (Pre-Reading Plan), CPA (Communicative Pre-reading Activities), and ETR (Experience-Text-Relationship).

In their discussion of the implications of schema theory for EFL/ESL readers, Carrell and Eisterhold (1983) suggest teachers manipulate either one of the two variables: the text and / or the reader. To do with the text, 4 activities are recommended. First, for the beginning reader, the Language Experience Approach (LEA) is an excellent way to control vocabulary, structure, and content. The second way to minimize interference from the text is to encourage narrow reading, as suggested by Krashen (1981). The third one is to develop materials with local settings and specialized low-frequency vocabulary. Finally, Sustained Silent Reading (SSR) is an excellent activity for ESL readers. To do with the readers, providing background information and previewing are particularly important for the less proficient language

students.

Langer (1981) also believes that for adequate comprehension to occur, there must be a match between what the reader already knows and the content and vocabulary in a text. Langer provides the Pre-Reading Plan, – a very straightforward teaching strategy in which three phases are involved, which are initial associations with the concept; reflections on initial associations and reformulation of knowledge. According to Langer, PReP is one way in which recent research can be translated into classroom application. Its three steps are based on research that we can help students comprehend a text by creating conditions under which appropriate knowledge is brought to awareness and applied. This permits a link between text concepts and past experiences and sets up, in the mind of the reader, appropriate expectations about the language and content of the text.

In investigating how carefully planned pre-reading activities can help low-and intermediate-level ESL readers to trigger and build background knowledge, to bypass, in part, their syntactic deficiencies, and to begin interacting more successfully at these early stages with reading matter, Pearson-Casanave (1984) describes the CPA (Communicative Pre-reading Activity) and gives a specific example of how it was used in an ESL reading class. The result shows that CPA attacks several critical issues at once: the building of schemata, the development of relevant vocabulary without resorting to lists and drills, and the communicative use of language in a highly personal context. The ultimate goal – the reading of conceptually complete texts – becomes a much less formidable task.

Hudson (1982) reports a study showing an interaction between overall linguistic proficiency in ESL and content induced schematic effects in ESL reading comprehension. Specifically, that study demonstrates the facilitating effects on comprehension of explicitly inducing content schemata through pre-reading activities, especially at the beginning and intermediate proficiency levels, as compared to two other methods of inducing content schemata (through vocabulary activities and read-reread activities). The results of the study indicate that schemata production is involved in the short circuit of L2 reading, that the effectiveness of externally induced schemata is greater at lower levels of proficiency than at higher levels, and that induced schemata can override language proficiency as a factor in comprehension (Hudson, 1982).

Au (1978) concludes from her study that using the experience-text-relationship (ETR) method with minority children promotes their reading achievement. This method uses discussion to link what the child already knows to what he/she will be reading about in the basal reader. According to her, the key to the success of the ETR method is the teacher's willingness to let the children's past experiences be an integral part of the reading lesson.

Although helpful, these pre-reading activities might not be sufficient alone in the reading class in China and teachers will need to supply additional information and make consistent adjustment according to learner's language proficiency.

The situation in China

Almost all the materials in EFL reading class in China are about foreign culture,

but the building or activation of learners' background knowledge has been neglected by the teachers either due to the lack of awareness of schema's role in reading comprehension or due to the restriction of class time and textbooks. Indeed, most current EFL textbooks in China attempt schema building and activation through pre-reading activities/tasks. This is a good try. However, there may be limits to the effectiveness of such activities and there may even have been some over-emphasis of the schema perspective and neglect of other areas especially language proficiency. In some textbooks which are mainly in use in China, the pre-reading activities are mostly listening materials in form of songs, poems, stories or dialogues. These activities are intended to build and activate readers' background knowledge, either discipline-specific or culture specific, but they are beyond learners' language proficiency. To be exact, such pre-reading activities add extra burden to learners' reading of the real text. Instead of building or activating their background knowledge, such activities expose learners to another complete new content area for which relevant schema has to be built and activated. In the real class, most teachers and students just omit these pre-reading activities and come directly to the real text using the traditional grammar-translation method which is still a bottom-up level of reading.

Two questionnaires (see appendix 3 and 4) have been done to both the students and the teachers to see if cultural background knowledge is being given enough attention in Chinese EFL reading class. 50 students and 10 teachers from Nankai University participate in the questionnaires and the results confirm the situation described above. Both the students and teachers believe in the significance of cultural background knowledge in reading comprehension, but due to the heavy course load and time limit, the teachers just omit the pre-reading activities intended to build or activate students' background knowledge. Another complaint from both the teachers and students is that some pre-reading tasks in the textbook are far beyond student's language proficiency and it's not easy to find other proper materials for the teachers to replace the difficult ones in the textbook.

So it becomes an urgent task for EFL teachers in China to provide appropriate schema building and activation tasks to effectively attain the goal of building and activating learners' schema knowledge.

Conclusion

There is no doubt that schema theory has positively influenced the teaching of reading and that prereading activities - building up absent schemata and activating resident schemata - can improve ESL/EFL reader comprehension in many situations. For the Chinese students, who learn English as a foreign language and are mainly exposed to foreign language of foreign culture, culture schema knowledge is vital for their reading comprehension, together with discipline content schema knowledge. Therefore, it would seem sensible for teachers to employ pre-reading activities but not to blindly assume that the expected effect is actually occurring. In other words, teachers should take the time to verify the usefulness of the activities they use and pay attention to possible schema-interference or non-activation. Consistent adjustment is needed in accordance with the learners' language proficiency.

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Appendix

Appendix 1 (Adapted from the webpage:

<http://www.c-c-c.org/chineseculture/festival/newyear/newyear.html>)

During the day Spring Couplets were put on the walls or on the sides of the gate-ways. In addition, symbolic flowers and fruits were used to decorate the house, and colorful pictures were placed on the walls. After the house was cleaned it was time to bid farewell to the Kitchen God. Free from the every-watchful eyes of the Kitchen God, the family now prepared for the upcoming celebrations. All members of the family would gather for the important family meal in the evening. At midnight following the meal, the younger members of the family would bow and pay their respects to their parents and elders. Then the children were given Lai-See Envelopes. The whole family sat together talking or playing cards or watching TV while enjoying the delicacies, such as melon seeds, flowers, fruits and tray of togetherness.

Question: What day is described?

Appendix 2 (Barnitz, 1985: 16)

The kitchen was buzzing with activity as a large and fancy dinner was being prepared. Flowers were everywhere. This day was more important than George's birthday. Each year his family held an open house in his honor. Guests brought wine and baked goodies. George was greeted with hugs and kisses. This was a day for celebrating. George was so happy. He could not miss the chance to join in and show his skill. He rushed to the front of the line, pulled out his handkerchief and placed a glass on his head. Everyone was watching George as he showed his talents and turned to the beat. The same words were repeated everywhere in the house. The guests admired and clapped as the man of the day smiled with happiness.

Question: What day is described?

Appendix 3

The questionnaire to the students:

Directions: For Question (Q) 1-9, tick the answer that you like, and for Q10, give a brief answer.

Q1: Does your teacher provide any cultural background knowledge before reading/starting a new lesson?

Often / Sometimes / Seldom / Never

Q2: If your teacher provides cultural background knowledge before starting a new lesson, do you find it helpful in your comprehension of the new lesson?

Yes / No

Q3: Is the cultural background knowledge provided by the teacher enough for your comprehension of the text?

Yes / No

Q4: In what form does your teacher provide you cultural background knowledge?

Listening to a story / Listening to a song / Reading a poem / Reading an article / Describing pictures / Question and answer / Watching a video program / Oral discussion / Other forms

Q5: Is the cultural background knowledge provided by the teacher difficult to understand?

Yes / No

Q6: Do you expect your teacher to provide any cultural background knowledge before each new lesson?

Yes / No

Q7: How do you usually build or expand your cultural background knowledge?

Listening to the news, radio programs and songs / Watching films and video programs / Reading magazines, papers and books / Learning from the teachers / Communicating with foreigners

Q8: Does your teacher use the pre-reading tasks in the textbook to provide or activate your background knowledge?

Most often / Sometimes / Seldom / Never

Q9: Does your teacher provide extra materials from his/her own selections to provide or activate your background knowledge?

Most often / Sometimes / Seldom / Never

Q10: Do you like the pre-reading tasks in the textbook? Why or why not?

Appendix 4

The questionnaire to the teachers:

Directions: For questions (Q) 1-4, tick the answer you like, and for Q4 and Q5, give a brief answer.

Q1: Do you provide any cultural background knowledge before each new lesson?

Most often / Sometimes / Seldom / Never

Q2: What materials do you use to provide background knowledge?

Materials from the textbook / Materials from my own selections

Q3: In what form do you provide background knowledge?

Listening to a story / Listening to a song / Reading a poem / Reading an article / Describing pictures / Question and answer / Watching a video program / Oral discussion / Other forms

Q4: Do you think the background knowledge activities (pre-reading tasks in the textbook) acceptable to the students' proficiency?

Yes to all / No to all / Some are acceptable and others are not

Q5: Do you use the background knowledge activities (pre-reading tasks) in the textbook? Why or why not?

Q6: In the real teaching, are there any factors that prevent you from providing or activating students' background knowledge? (for example, class time)