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Fumiko Yoshimura

INTRODUCTION

Statement of the Problem

Language transfer is one of the most important areas in second language (L2) research. Findings from previous research suggest that transfer occurs both at a linguistics level (e.g. Schachter; 1974, Rutherford; 1983) and at a rhetorical level (e.g. Soter; 1988, Indrasta, 1988).

While linguistic transfer has been extensively studied, rhetorical aspects have been attracted less attention among L2 researchers. Kaplan (1966), for example, analyzed the difference of thought patterns among different cultures. His analysis clearly demonstrates cultural variations in the ways of organizing discourse in written text (p.15). Kaplan stated that to teach only language is not enough to prepare students to compose in L2. L2 writers should be aware of rhetorical differences between their native language and the target language, and should acquire skills to develop culturally acceptable discourse. Thus, he stressed the importance of teaching contrastive rhetoric.

Although there has been increasing interest in contrastive rhetoric, empirical studies to date have been limited to the examination of L2 expository texts (e.g. Carrell; 1984, Carrell; 1985). Analysis of L2 narrative texts, thus, represents an area that has been neglected. Although story grammar was developed and used to analyze Western

stories, the question of whether it is universally applicable or not has not been tested. Matsuyama (1983) discussed story grammar using Japanese folk tales and found that story grammars which were created based on English do not capture the underlying structure of the Japanese stories. She argued that story schemata differ between Japanese and Western people and that the difference may be related to cultural values.

To give further support for the view that story schema is culture specific and also the contention that the underlying knowledge structure regarding the L1 narrative construction can be transferred to L2 story processing should contribute to the theory of contrastive rhetoric claimed by Kaplan, and language transfer theory in general. This is the rationale for conducting this research.

Purpose

The specific purposes of the proposed research are two-fold: (a) to determine whether the story structure is different between Western and Japanese folk tales, and (b) to examine the extent to which L2 readers rely upon L1 story schema during L2 narrative processing.

Theoretical Framework

In this study, story schema is defined as abstract structural knowledge about the way a story proceeds and this knowledge is viewed to act as a guiding force to comprehend and memorize stories. In order to capture the typical plot development of narrative stories in Japanese and Western cultures, folk tales from Japan and the West are analyzed by using the story grammar developed by Mandler and Johnson (1977). Folk tales are believed to have an ideal and typical format because they have been passed down orally from generation to generation. According

to Mandler and Johnson (1977), " an orally transmitted story will survive only if it confirms to an ideal schema in the first place or has gradually attained such a structure through repeated retellings" (p.113).

First language (L1) story schema was found to be critical in producing L2 texts (Indrasta; 1988, Soter; 1988). The present study is conducted to determine whether a similar transfer occurs during comprehension of narrative stories in L2. The specific hypothesis to be tested are first that the dependency on L1 story schema will be found in L2 narrative comprehension and second that it will be apparent through different recall rates or a changing of the plot into the one that fits the learner's L1 story schema in recall protocols.

Significance

If the transfer from L1 is found at the rhetorical level in narrative processing, it will provide further support for the theory of language transfer. Such a finding will also provide significant implications for instructional decision making, such as the choice of texts and choice of instructional methods in L2 reading and writing.

LITERATURE REVIEW

Empirical Studies on the Reality of Story Schema in Narrative Texts

Thorndyke (1977) discussed a comprehension model which assumes the existence of a hierarchical organizational framework of stories in the student's memory. This framework represents the abstract structural components of the plot. Thorndyke created a story grammar which represents this model and he successfully demonstrated empirically that such a framework is used during comprehension and recall of narratives.

Mandler and Johnson (1977) also tried to analyze the underlying structure of simple stories by using their own story grammar and examined the influence of such structure for recall using different age groups. They found that how well the story is structured affects the rate of recall for all age groups, suggesting readers' heavy reliance on their text structural knowledge.

Mandler (1984) also demonstrated the psychological reality of story schema by using "hierarchical clustering analysis". This is a technique to determine the extent to which readers' perception of the ways in which sentences are tied together are consistent with the structure analysis based on the story grammar. He found a high degree of consistency in this analysis and successfully demonstrated the psychological reality of story schema.

In short, previous research findings consistently suggest that story schema does exist and it plays a critical role in the process of encoding and decoding of narrative texts.

Story Schema and Story Grammar

According to Mandler (1984) a story schema is "a mental structure consisting of sets of expectations about the way in which stories proceed" (p.18). On the other hand, a story grammar is "a rule system devised for the purpose of describing the regularities found in one kind of text" (p.18).

Thus, a story schema is abstract structural knowledge about the way a story proceeds and this knowledge acts as a guiding force to comprehend and memorize stories. There are many ways to represent the story schema (i.e. causal networks, scripts and plans) and story grammar is one of such methods. In this research, story grammar is used to analyze Japanese and Western folk tales.

Is Story Schema Culture Specific?

There is a long standing dispute over the universality of story schema and story grammar. Matsuyama (1983), for example, argued that story schema is culture specific and that story grammar models which were developed for analyzing Western stories often fail to capture the basic structure of stories from non-Western cultures. In contrast, Mandler (1984) claimed that "at least one kind of story schema is universal though the content of stories varies enormously from culture to culture" (p.52).

To determine whether story schema is universal or not, we have to go back to schema theory itself. Schema is a "general knowledge structure used for understanding" (Medin & Ross, 1992, p.346). As we experience events, it is integrated with a vast amount of prior knowledge, which in turn will be used to predict and understand a new event. Schema develops through generalizations of individual incidents. It is conceivable, then, that the abstraction occurs at various levels of conceptualization. If this is the case, then, schema can be said to be both culture-specific and universal: At lower levels of conceptualization, abstraction is event-specific, wherein, we can assume, schema differs to the extent that individuals' experiences vary in different cultures. Contrastingly, all the elements common to individual incidents/events are abstracted and represented at higher levels. It is, therefore, highly conceivable that higher level schema or knowledge structure is universal across cultures.

Summary of Matsuyama's Research

Matsuyama (1983) questioned the universal validity of story gram-

mars. She analyzed twenty Japanese folk tales using the story grammar developed by Mandler and Johnson (1977) and found that eighty percent of Japanese folk tales lack a goal structure for the main character. She claimed that this comes from Japanese cultural values deeply rooted in Buddhism which emphasizes the importance of having no desire for immediate rewards or goals in life.

According to Matsuyama, this lack of goal structure for the main character is the major characteristics of Japanese narrative stories, which distinguishes them from Western stories.

Story Grammar Rules

A story grammar is a hierarchical network of story nodes and relationships connecting these nodes. Figure 1 illustrates the rules.

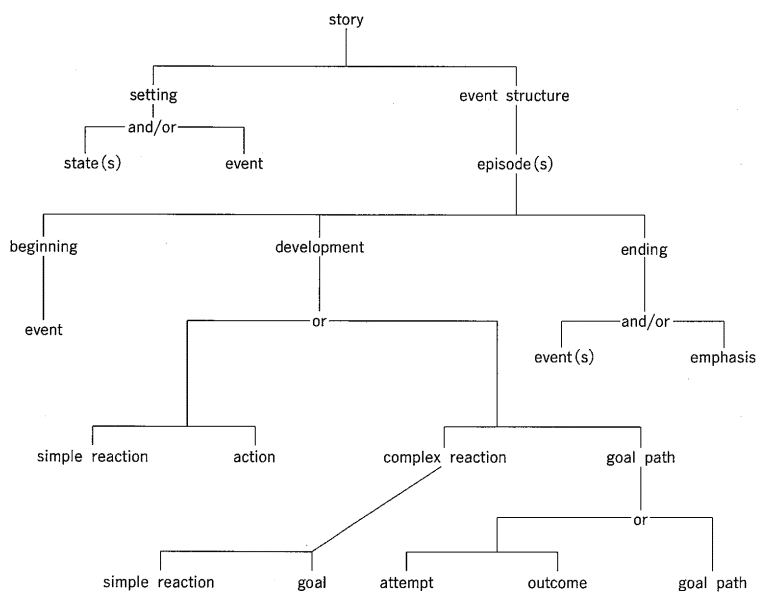


Fig. 1 Story Grammar created by Mandler and Johnson

In the story grammar, the nodes are connected by AND, THEN, or CAUSE relations. The AND relation connects two nodes when two events occur at the same time. In THEN relation, two events are temporally ordered. The CAUSE relation represents that one event is a cause or reason for the second event. The CAUSE relations indicates tighter connection between two nodes than the other node types.

How is the Story Structure Different between Japanese and Western Folk Tales?

To confirm Matsuyama's claim, in this study Western and Japanese folk tales were analyzed using the story grammar developed by Mandler and Johnson(1977). Western folk tales collected by Grimm (Shub, 1971) and Japanese folk tales collected by Seki (1993) were used for analysis. The two sets of folk tales are comparable in that both were transmitted orally over centuries and neither Grimm nor Seki modified any of the stories when transcribing them. Three folk tales from each collection were chosen after reviewing twelve Western folk tales and one hundred and seventy nine Japanese folk tales.

In Western folk tales, the goal for the main character is clear and the relation between the goal and the attempt or the outcome is closely related. The relation between the main and sub goals is also clearly shown: There is usually one main goal, and on the path to reaching the goal, the main character forms subgoals. The connections between episodes are strong and mostly they represent the CAUSE relationship.

In contrast, none of the Japanese stories represent the goal structure for the main character explicitly. Some lacks the goal structure totally. And even when a goal is set up, the main character's attempt to achieve the goal does not seem to have a direct bearing on the outcome. The ending of the story appears abrupt because the main character is not

rewarded for his efforts to achieve the goal; rather the reward comes abruptly in totally unexpected fashion. Sometimes episodes are connected with either rather weak THEN (or temporal) relations instead of CAUSE relations.

Thus, it can be seen that there are some clear differences in the overall story structure of Western and Japanese folk tales.

METHOD

Research Questions

Two primary research questions were addressed in this study: (a) Do L2 readers rely upon L1 story schema during L2 narrative comprehension?; (b) If they do, to what extent and how do L1 story schema affect L2 performance?

Informants

The informants of this study are sixteen college students learning Japanese as a foreign language. They are from Western cultures and recruited from the second and third year Japanese classes at Ohio University.

Materials

The testing materials were created based on *Nihon No Mukashi Banashi* and *Once upon a time in Japan*. The original stories were shortened and simplified while the original format and ideas were retained: one (kasajizo) represents a typical Japanese folk tale without explicit goal structure, and the other (Momotaro) has a typical Western story structure with specific goal statements. Syntactic complexity and

the number of idea units are controlled to make the two texts as comparable as possible.

Tasks

The informants were asked to read two Japanese folk tales at their own speed. After reading each text, they were asked to rewrite what they remembered from the story and answer four probe questions for each text. about the content of the story. The questions were made so that they represent the informants' understanding of the story structure. Of the four questions, two were text explicit and two were implicit questions.

Analysis Procedure

The informants' recall protocols were analyzed, by using (a) overall recall amount, (b) recall amount in each category, (c) reading time, (d) rate of distortion (The way in which the story was changed was analyzed comparing with the difference of story structure between Western and Japanese folk tales), and (e) the number of correct answers for probe questions. The text explicit questions and text implicit questions were counted separately to discover the degree to which the informants made use of inferences.

RESULTS

Research Findings

There is no important difference found in the average number of ideas remembered, the reading time, the number of correct answers for probe questions. Nor any schema-based distortion was found in free

recall protocols in either text.

The rate of remembrance in each category, however, supported their use of L1 story schema in processing their texts. The following graph summarizes the number of ideas remembered in each category.

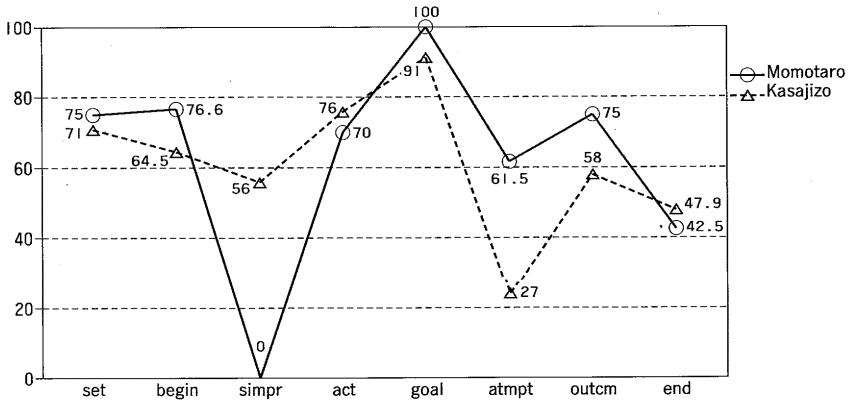


Fig. 2. The rate of remembrance in each category

As Mandler (1984) found in his experiment, the ideas in the setting and in the beginning are well remembered. Unlike Mandler's experiment, however, goal is the category well remembered in both texts in the present study. It should be noted, moreover, that a clear difference exists between the two folk tales in the categories of attempt and outcome. In Kasajizo, the rate of remembrance is only 27% for attempt and 58% for outcome, while in Momotaro, the rate is as high as 61.5% for attempt and 75% for outcome. The low remembrance rate in these categories in Kasajizo may be attributed to the mismatch between the main character's action sequence and overall goal structure of the story. In Momotaro, attempt and outcome were well recalled. Presumably, this can be explained by the fact that the goal is clearly set in the Momotaro text. The clear contrast in the remembrance rate in the two goal-dependent categories (attempt and outcome) between the two

stories seems to suggest that the Western informants in this study relied upon their L1 goal-based story schema in processing Japanese folk tales.

The content of the informant's response for probe questions shows interesting patterns. The answers for Momotaro questions were very uniform across the informants, forming consensus. The answers for Kasajizo varied much more widely. Moreover, in inferring the motivation for the actions of the main character, some informants created their own goal for him, which indicates they activated Western schema for folk tales.

Discussion

Due to the small sample size, the study findings have limited generalizability. It was found first that the Western informants used their L1 story schema when reading non-Western stories, yet its effect was far more limited than had been predicted. There are several possible reasons explaining this findings.

First, the informants are not yet fluent readers in L2. They are still heavily involved in lower-level processing, such as the generation of grapheme-phoneme correspondences, the association of words to their semantic representations, or the identification of basic syntactic structure within the portion of text currently being read. Presumably, little cognitive capacity is left for higher-level processing, including schema activation.

Another explanation is that while schema is an active guiding force in L2 writing, it may not play such a central role in comprehension. Unlike in production, in comprehension, a subtle difference in L1 and L2 schema may not affect the process of meaning reconstruction. The human mind is flexible enough to allow us to understand stories even when they are structured differently. Medin and Ross (1992) wrote,

“schema may be learned from modifying other schema..., we learn in relation to a known schema. If a new event is not an instance of any schema, it may still be related to a known schema” (p.351). To understand Japanese stories, the Western informants in this study may have used their L1 schema with some modifications. Further research is desirable to examine the precise ways in which L1 schema is modified during L2 text processing.

The third possibility is that the goal structure may not be essential to story comprehension. There are two types of goals; a goal for the main character and the story-level goal. Even though Kasajizo does not have a goal for its main character, it has a goal at the story level. Presumably, a story can be understood when a story-level goal is present. This interpretation contradicts the claim by Foss and Bower (1986) and Thorndyke (1977). The role of different types of goals needs to be clarified in future research.

Finally, L1 schema may not affect L2 adult learners, especially those in the academic context. This particular L2 population, typically, has a vast amount of prior reading experience. They are also cognitively and intellectually mature. Through their prior reading and other real-life experience, L2 readers, unlike children, have developed well-formed schema. It is conceivable that a story schema, once developed in one language, can handle stories from another culture as a variation of prototypical forms.

CONCLUSION

The findings from this research are inconclusive because of the small sampling size. Replicated research is highly recommended with a larger number of informants.

The pedagogical implication we can draw from the results of this

study is that if the difference of schema does not have much of an influence on people's understanding of narrative texts, then it is not necessary to allot extra time for schema activation instruction. This claim challenges the recent trend of emphasizing the importance of schema activation instruction (e.g. Carell; 1984, Carell; 1985) at least for narrative texts. The findings of this study suggests an important implication about the instructional choice.

* This is a condensed version of Yoshimura's master thesis (1994).

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