Comprehension of a Non-text: The Effect of the Title and Ambiguity Tolerance

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This study investigated the effect of the title and ambiguity tolerance on the comprehensibility of a non-text. To this end, ten irrelevant sentences from different texts were put together to make two seemingly cohesive and coherent texts. The two texts were exactly the same except for the fact that one of them carried a title whereas the other had no title. The two texts were randomly given to two groups of intermediate EFL students. Students were expected to read the text and answer 10 reading comprehension questions. Eight questions asked for the reference of specific pronouns or words; one asked for the topic and one for the main idea of the text. Considerable difference was found between the performance of the students on the titled text and the untitled text. It indicated that the title had made students construct a meaning regardless of the fact that the text was basically meaningless and that the title was not a real title. Further analysis of the results indicated that ambiguity tolerance could not provide enough justification for the results found and that the presence of the title was the best explanation provided for the performance on the non-text.

Key Words: non-text, ambiguity tolerance, title, comprehensibility

1 Introduction

Reading comprehension is a complex mental process. In order for comprehension to take place, the reader has to combine the information elicited from the text and his world knowledge. This means that reading comprehension is an interactive process of making meaning and requires effort on the part of the reader (Anderson, 1999; Erten & Razi, 2009; Grabe & Stoller, 2002). The reader integrates different sources of knowledge and constructs a cognitive representation of the text information (Alptekin, 2006; Donin et al., 2004; Ehrlich, 1990; Fukkink et al., 2005; Kintsch, 1998; McNamara, 2001; McNamara & Kintsch, 1996; Salmero n, Kintsch & Can as, 2006; Van den Broek, Rapp & Kendeou, 2005; Wei, 2009). Different factors may influence the level of comprehension achieved by the reader. One of the key factors in this regard is the prior knowledge of the reader. A large number of studies have underscored the great effect of background

“Prior knowledge, also termed world knowledge or background knowledge, is generally defined as the sum of what a person knows about the content of a text” (Brandao & Oakhill, 2005; pp. 1-2). Prior knowledge is closely related to text coherence (Kintsch, 1994). Brandao and Oakhill (2005) state that readers have to use their background knowledge if they are to construct integrated and coherent text representation. “They need to build links between the text and their prior knowledge to fill in information that is left implicit” (p. 2).

The important question is how the related prior knowledge is activated and what triggers its activation. It has been mentioned that the title of a text is one of the triggers. According to the cognitivist interpretation of reading comprehension, the title of a text has an influential effect on text coherence. “Before subject reads the text, the title gives him some macrostructural information and activates cognitive schemata which facilitates the integration of textual information” (Brouillet et al., 1997, p.117).

2 Purpose of the Study

The present study aims at investigating the effect of the title as a schemata activator on text comprehension. In doing so, the study, however, has focused on a non-text to cancel out the effect of any type of text reader interaction e.g. related to the background knowledge (schemata). A non-text can be claimed to be schemaless in the sense that it is basically nonsense. However, it is hypothesized that the mere presence of a title can make a difference in understanding a text even if it is non-sense (a non-text); that is, the title may encourage readers to search through their prior knowledge and activate a schemata even though that schemata may have no apparent relationship to the text. This way, readers make sense of the nonsense text (non-text). Furthermore, since a non-text is potentially rich with ambiguity, it is thought that ambiguity tolerance may interfere with the results. Hence, it is also considered as a factor in this study. As such, the study specifically seeks answers to the following questions:
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1. Does a title affect the comprehension of a non-text? In other words, is a titled non-text more comprehensible than an untitled non-text?
2. Which one explains the comprehensibility of a non-text better? The presence of a title or the cognitive style (ambiguity tolerance/intolerance) of the readers?

3 Review of the Literature

A number of studies have underlined the importance of the title in activating the related schemata and fostering comprehension (e.g. Brouillet, Syssau, & De La Haye, 1997; Johnson, 1972; Johnson, 1973; Muramoto, 1996). For example, Alba, Alexander, Hasher, and Caniglia (1981) found that the presence of the title of a text increased comprehension and recall of the text through the activation of an appropriate schema.

It has also been found that readers face comprehension problems when they read special texts without a title (Bransford & Johnson, 1972; Levy, 2001; Wiley & Rayner, 2000). The absence of the title has also been indicated to increase the reading time and to hinder the comprehension of situation model questions (questions that demand an integration of the text information and the reader’s prior knowledge). This is referred to as the title effect (Levy, 2001) and has been confirmed through other studies. Daniel & Raney (2007), for example, found that the absence of a title influenced the accuracy rate of answering for situation model questions more than surface-form or text-base questions.

3 Method

3.1 Participants
Forty five university students took part in this study. All the students were juniors studying English Translation at Abadeh Azad University, Iran. The majority of the students were female (7 males and 38 females). This is the usual norm in the Iranian university classes. Today, more than 70% of the students in many fields are females.

3.2 Instruments and materials
3.2.1 The English non-text
An English non-text was the basic data collection instrument used in the present study (Appendix A). The reason why such a non-text was created instead of using a real text was to reduce the possible effect of content familiarity or background knowledge. The non-text consisted of 10 separate sentences taken from different texts. These sentences were put together in a way to create a
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seemingly coherent and cohesive text of 133 words. All the texts from which sentences were taken came from the textbook “Mosaic II” (Werner & Nelson, 2007) which is written for intermediate students. All the sentences were taken from texts that seemed neutral to both genders. Attempt was made to choose sentences that seemed to make a unified text when put together. That is, attempt was made to create a text that was not very obviously nonsense; otherwise the participants could guess the research purpose and therefore the whole text would be useless. The non-text was followed by 10 reading comprehension questions, one question asked for the main idea of the text, one asked for the general topic or subject of the text, and 8 others asked for the reference of a particular word or pronoun.

3.2.2 The second language ambiguity tolerance scale (SLTAS)

The SLTAS questionnaire (Ely 1995) was used to check for the participants' level of ambiguity tolerance. This questionnaire which is specially designed for language learning consists of 12 items written in English in Likert-scale format with a set of four responses. The ambiguity tolerance/intolerance of the participants is indicated by the total score that they get on this scale which runs from 12 to 48. The higher the score, the more intolerant learners are of foreign language ambiguities. The reliability of this questionnaire was estimated to be .84 using Cronbach alpha.

3.3 Data collection procedure

At first the participants were given the SLTAS questionnaire to check for their ambiguity tolerance/intolerance of a foreign language. It took them about 5 minutes to answer the questions. Then they were given the non-text to see how much they would comprehend the non-text. Due to the administrative restrictions, convenience sampling was utilized; that is, two available classes were selected as the participants of this study. They were indicated to be of the same level of reading comprehension based on the scores they had got on the final reading comprehension exam at the end of the previous term. One of the classes took the titled text and the other the untitled text randomly.

3.4 Data analysis

The data collected were analyzed in 3 stages. During the first stage, students were divided into two groups: those who received the titled text and those who received the untitled text. They were then compared as to their performance on the non-text. During the second stage students were divided into two groups of ambiguity tolerant and ambiguity intolerant ones based on their total score on the SLTAS and were compared based on their performance on the non-text regardless of the fact that they had received the
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titled or the untitled text. In the last stage, students, according to their
cognitive style and the type of the text they had received, were divided into 4
groups as follow: titled-text ambiguity tolerant; titled-text ambiguity
intolerant; untitled-text ambiguity tolerant and untitled-text ambiguity
intolerant. The groups were then compared concerning their comprehension
of the non-text. The results are presented in the following section.

4 Results

The results of the study are depicted in Tables 1 to 4. Table 1 depicts the results of
the students’ performance on the titled and untitled texts. The first row represents
students’ performance on question 1 to 8 which were all related to finding
references for specific pronouns or words in the text. As such questions 1 to 8 were
put in the same category of reference. The second row indicates their performance
on the question asking for the topic of the text and the third row is related to the
main idea. As depicted the students’ performance on the titled and untitled text is
quite different in all the three areas

Table 1. The Results of the Performance on the Non-text Based on the Title

<table>
<thead>
<tr>
<th></th>
<th>Titled text (26 students)</th>
<th>Untitled Text (19 students)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>P</td>
</tr>
<tr>
<td>Reference</td>
<td>182</td>
<td>87.50</td>
</tr>
<tr>
<td>Topic</td>
<td>21</td>
<td>80.77</td>
</tr>
<tr>
<td>Main Idea</td>
<td>17</td>
<td>65.38</td>
</tr>
<tr>
<td>Total</td>
<td>220</td>
<td>84.61</td>
</tr>
</tbody>
</table>

Table 2 depicts the results for the students’ performance on the non-
text according to their cognitive style. It is indicated that ambiguity intolerant
students have performed better than ambiguity tolerant students in all the
three categories, though the performance on the topic item is very similar.

Table 2. The Results of the Performance on the Non-text Based on the Cognitive
Style

<table>
<thead>
<tr>
<th></th>
<th>Ambiguity Tolerant (24 students)</th>
<th>Ambiguity Intolerant (21 students)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>P</td>
</tr>
<tr>
<td>Reference</td>
<td>142</td>
<td>73.96</td>
</tr>
<tr>
<td>Topic</td>
<td>17</td>
<td>70.83</td>
</tr>
<tr>
<td>Main Idea</td>
<td>11</td>
<td>45.83</td>
</tr>
<tr>
<td>Total</td>
<td>170</td>
<td>70.83</td>
</tr>
</tbody>
</table>

The results of the students’ performance on the non-text, based on
both the title and the cognitive style of the participants, are depicted in Table
4. It is clear that the second group; that is, the ambiguity intolerant students
who have received the title text have the highest performance on reference, topic and main idea questions. The ambiguity tolerant students who have received the titled text are the second in their performance. The Table also indicates that the weakest performance (on the main idea and topic questions) is related to the ambiguity intolerant students who have received the untitled text. On reference questions the ambiguity tolerant students who have received the untitled text have the lowest performance. The last column of the Table also indicates the overall performance of all the groups. It is clear that the titled-text ambiguity intolerant students had the best and untitled-text ambiguity intolerant students had the lowest performance on the non-text.

Table 3. The Results of the Performance on the Non-text Based on the Title and Cognitive style

<table>
<thead>
<tr>
<th></th>
<th>N of students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
</tr>
<tr>
<td>Titled-Text Amb. Tol.</td>
<td>15</td>
</tr>
<tr>
<td>Titled-Text Amb. Intol.</td>
<td>11</td>
</tr>
<tr>
<td>Untitled-Text Amb. Tol.</td>
<td>9</td>
</tr>
<tr>
<td>Untitled-Text Amb. Intol.</td>
<td>10</td>
</tr>
</tbody>
</table>

5 Discussion

This study focused on studying the effect of the title and ambiguity tolerance on a non-text comprehension. The results were indicative of the strong effect of the title on the non-text comprehension. Considerable difference was found between the performance of the students on the titled text and the untitled text. The difference was very noticeably clear and indicative of the fact that the title had made students construct a meaning regardless of the fact that the text was basically meaningless and that the title was not a real title. A non-text can be said to be the same for different groups in the sense that it's not related to any specific background knowledge. As such no specific text-reader interaction is expected for a specific group of readers, and this means that the results found in the present study could largely be allocated to the role a title may play in the comprehension of a text; that is, in order to make sense of a text the readers are expected to activate a relevant schemata and to link it to the information provided in the text. This is what was found in the present study. Although the text was basically meaningless and not specifically related to any schemata, the readers under the effect of the title had activated a schemata and made meaning out of the non-text. This is the
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way a title prepares the readers for comprehending a text, based on the cognitivitist interpretation (Brouillet, Syssau & De La Haye, 1997). It imposes a meaning upon the readers even if that meaning is a wrong one.

The study also indicated that the ambiguity tolerance/intolerance could not be a good justification for the performance on a non-text. It was hypothesized that the ambiguity tolerant students would have a better comprehension of the non-text than the ambiguity intolerant students. This was assumed since a non-text, because of lack of cohesion and especially coherence, can be said to be rich with ambiguity. However, this expectation didn’t come to be true and in fact the ambiguity intolerant students slightly out-performed the ambiguity tolerant ones when they received the titled text though the reverse was true when they received the untitled text. This indicated that the effect of a title would be a better justification for the results found in this study. This was confirmed by the fact that the majority of the students had expressed topics or main ideas which were in line with the title. The participants’ division into four groups also provided more support for this finding. The study indicated that, unlike the expectations, the group who had the highest performance was the ambiguity intolerant group who had received the titled text. The expectation was that the ambiguity tolerant group receiving the titled text would indicate the highest performance. Overall the results were indicative of the fact that it is the title that mostly explains the comprehension of a (non)text not the ambiguity tolerance as the two groups who had received the titled text in the present study had a better comprehension of the non-text than the two groups who had received the untitled text regardless of the fact that they were ambiguity tolerant or intolerant.

6 Conclusion

This study indicated that the title of a text has an influential effect on the readers comprehension of it. This effect is such that makes readers construct a meaning even out of a non-text which is basically incoherent and meaningless. The study also indicated that ambiguity tolerance/intolerance cannot provide enough justification for the performance on a non-text (ambiguous text). This indicates the impact of pre-reading and warm up activities on reading comprehension. A title, like warm up or pre-reading activities, provides readers with some information to start with and hence activates a specific schemata that in turn helps readers make sense of the most difficult texts by creating a link between the text and the schemata. The study could provide teachers with the idea of giving high importance to the text title in particular and to pre-reading and warm up activities in general. However, the fact that the sample used in the study was a small one demands due caution in generalizing the findings.
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Society teaches children to act like male or females at a young age. As a matter of fact they are essential. Something that we know for certain is that even the ancients were fascinated by ideas of this. For example, personality traits such as shyness seem to be inherited. The primitive, often brutal, struggle to reach the top is an irresistable challenge to the human need for adventure. This is true of some animals, and it is especially true of human beings. In the last several decades, however, researchers have been so active in this area that we understand more about the mind today than we ever imagined possible. Yet the reason for this gap has little to do with natural ability. Today, change is virtually unavoidable. Some of these changes are radical.

1. The topic of this paragraph is ....................
2. The main idea of this text is ................................
3. The word “they” in line 2 refers to ............... 
4. The word “this” in line 3 refers to ............... 
5. The word “the top” in line 4 means the top of ............... 
6. The word “this” in line 5 refers to ............... 
7. The word “it” in line 5 refers to ............... 
8. The word “this” in line 7 refers to ............... 
9. The word “this gap” in line 8 means the gap between ............... and ............... 
10. The word change in line 8 means change of/to ............... 

Read the following text carefully and fill in the blanks with the appropriate answers. Write only one answer for each question. For question 1, specify a general topic about which the text is talking and for question 2 write the main idea of the text in a sentence.

Men and women
Society teaches children to act like male or females at a young age. As a matter of fact they are essential. Something that we know for certain is that even the ancients were fascinated by ideas of this. For example, personality traits such as shyness seem to be inherited. The primitive, often brutal, struggle to reach the top is an irresistible challenge to the human need for adventure. This is true of some animals, and it is especially true of human beings. In the last several decades, however, researchers have been so active in this area that we understand more about the mind today than we ever imagined possible. Yet the reason for this gap has little to do with natural ability. Today, change is virtually unavoidable. Some of these changes are radical.

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10. The word change in line 8 means change of/to ………………

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Appendix B

The Second Language Ambiguity Tolerance Scale (SLTAS, Ely, 1995)

| Items | 
|-------|-------|
| 1 | When I’m reading something in English, I feel impatient when I don’t totally understand the meaning |
| 2 | It bothers me that I don’t understand everything the teacher says in English |
| 3 | When I write English compositions, I don’t like it when I can’t express my ideas exactly |
| 4 | It is frustrating that sometimes I don’t understand completely some English grammar |
| 5 | I don’t like the feeling that my English pronunciation is not quite correct |
| 6 | I don’t enjoy reading something in English that takes a while to figure out completely |
| 7 | It bothers me that even though I study English grammar some of it is hard to use in speaking and writing |
| 8 | When I’m writing in English, I don’t like the fact that I can’t say exactly what I want |
| 9 | It bothers me when the teacher uses an English word I don’t know |
| 10 | When I’m speaking in English, I feel uncomfortable if I can’t communicate my idea clearly |
| 11 | I don’t like the fact that sometimes I can’t find English words that mean the same as some words in my own language |
| 12 | One thing I don’t like about reading in English is having to guess what the meaning is. |