

FEATURES AFFECTING COHERENT INTERPRETATION OF ENGLISH ARGUMENTATIVE TEXTS

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1. INTRODUCTION

In discourse analysis there has been much concern with text coherence (van Dijk 1977; de Beaugrande and Dressler 1981; Bamberg 1983; Enkvist 1985). The concept of coherence varies with scholars.¹⁾ However, since no solid principle exists to distinguish coherent discourse from incoherent discourse, the determination of coherence often relies on the intuitive judgements of the reader. As a result, not many analytical studies on textual coherence have been conducted. In the present research I attempt to conduct an analysis of textual coherence in English argumentative texts. I do not aim to suggest a principle for determining whether or not a text is coherent; rather, I am concerned with the features affecting the reader's judgement of coherence. The main focus of the research is given on features interrupting American readers' coherent interpretation of English argumentative essays written by American students (NSE), Korean ESL students in the United States (KESL), and Korean EFL students in Korea (KEFL).²⁾

2. PREVIOUS WORKS

While text analysts have mainly concerned with what makes a text coherent (Bamberg 1983) or what is a reliable and valid indicator of coherence (Connor

1) The diversity in definitions of the term 'coherence' often causes confusion for researchers who adopt the concept in their discourse analyses. Some discourse analysts distinguish coherence from cohesion, while some do not. For example, Beaugrande (1980) defines the term 'coherence' as conceptual connectivity and the term 'cohesion' as sequential connectivity of surface elements (p.10). On the other hand, Halliday and Hasan (1976) use only the term 'cohesion' to refer to semantic relations: "relations of meaning that exist within the text" (p.4).

2) The abbreviation representing the ethnicity of the writer and location is used to refer to the three groups of writers in the study.

and Lauer, 1985), Wikborg (1985) has examined what causes breaks in the coherence of a text. Her study of English and Swedish essays written by Swedish university students shows that topic-structuring and cohesion problems are the disturbing features which make it difficult for the reader to follow the line of reasoning. The types of coherence breaks found are six topic-structuring problems and five cohesion problems, as listed below (1985b:360-361):

(1) Types of coherence breaks in student writing

I. Topic-Structuring Problems

1. Unspecified topic
2. Unjustified change of/drift in topic
3. Misleading paragraph division
4. Irrelevance
5. Misleading disposition (ordering of material)
6. Misleading headings

II. Cohesion Problems

7. Uncertain inference ties
8. Missing or misleading sentence connection
9. Misleading distribution of given and new information within the sentence
10. Too great a distance between the cohesive items in a cohesive chain
11. The type of cohesive ties does not actually hold (e.g. an overtly signaled contrast or illustration is not borne out by the actual semantic relations established by the proposition(s))

The most frequent types of coherence problems among the eleven categories are uncertain inference ties, misleading paragraph division, missing or misleading sentence connection, unjustified change of/drift in topic, and unspecified topic. Wikborg has provided the definitions of only these five types. First, 'uncertain inference ties' refer to the instance in which reference words, such as pronouns, demonstratives and articles, have no clearly identifiable referent in the text or more than one possible referent. They also include a 'bridging' or 'discontinuity' problem³⁾ which occurs because of a lack of sufficient cohesive ties on the surface. 'Missing or misleading sentence connection' is another cohesion prob-

3) Wikborg adopts the term 'discontinuity' from de Beaugrande and Dressler (1981:101), who use it to refer to the case where the relationship between sentences is not specified by apparent cohesive devices on the surface.

lem. This type of problem is due to a non-use of sentence connectors or an inappropriate or incorrect use of sentence connectors. The sentence connectors that Wikborg lists include all the devices which specify "the way in which what is to follow is systematically connected to what has gone before" (Halliday and Hasan, 1976:227). Thus, the connectors consist not only of conjunctions (e.g. *however, in addition*) and adverbs (e.g. *first, previously*), but also of whole propositions (e.g. *as was defined above, this is because...*). Next, 'misleading paragraph division' is the most frequent topic-structuring problem, which includes two types of problems. One is "a change of topic or topic aspect within the orthographic paragraph" (p.103) and the other is "a change of orthographic paragraph without a corresponding change of subject or subject aspect" (p.103). The last two types of coherence breaks, the definition and examples of which Wikborg has provided, are 'unjustified change of or drift in topic' and 'unspecified topic.'⁴⁾ These two problems are often closely related to each other.

- 4) In order to examine the two topic-structuring problems, especially unspecified topic problem, Wikborg needed a criterion to determine whether a text has a topic. She adopted Keenan and Schieffelin's (1976) notion of 'topic,' which refers to a discourse topic consisting of a proposition, not a noun phrase, unlike a sentence topic. This definition was not, however, sufficient to determine which proposition summarizes the text and is a governing topic over other propositions. Thus, Wikborg also adopted van Dijk's (1977) definition of discourse topic in terms of a higher order of generality and his criterion of 'discourse character' in terms of the summarizability of a text:

... a concept or a conceptual structure may become a discourse topic if it hierarchically organizes the conceptual structure of the sequence ... (van Dijk, 1977: 133-134)

If a sequence of sentences cannot be summarized it is likely that it does not have a macrostructure so that the sequence does not have discourse character. (van Dijk, 1977:157)

While applying van Dijk's criterion of 'discourse character' to investigate missing or unspecified topics in student essays, Wikborg found that there are three conditions which must be satisfied for a text to have 'discourse character.' The conditions are as follows:

- 1) If there are several propositions which are all on the same level of generality, they must be perceived as subordinate to a governing topic, defined, as Brown and Yule's topic is, as a proposition (e.g. *Stockholm is beautiful*) rather than as a noun phrase (e.g. *Stockholm*) (p.117)

For example, when a gradual drift in topic is made in a text, it is not easy to identify the topic of the text, and this may make it a challenge for the reader to see how the text is organized and what the writer originally intended to express.

Following Wikborg's study, Choi (1986) has been concerned with features affecting the reader's reconstruction of the writer's intended meaning in English and Korean argumentative essays written by native speakers, respectively, and English essays of Korean ESL students. In her study four types of coherence problems were found besides those in Wikborg's (1985a and 1985b) classification. One of the four types is 'misleading lexical items' referring to the instance in which the use of a lexical item in a wrong context or the ambiguous meaning of a lexical item in the text makes it difficult for the reader to understand the text. Another type is 'a lack of adequate justification.' This is the case where the line of reasoning in the supporting arguments for the writer's claim is very difficult to follow and furthermore it is not direct enough to justify it so that the reader would fail to see how a sentence presenting the claim is coherent to the whole text. The next type of coherence problem is 'insufficient linking of the inductive statement to the preceding discussion.'⁵ It includes misleading logical reasoning between them. The fourth type of coherence break found is sentences lacking some crucial information or explanation needed in order for them to be understood.

The features affecting textual coherence judgement identified in Wikborg are text-level features. On the other hand, Choi's study shows that lexical features are sometimes a major factor causing a coherence break. In addition, the finding that the type of problems such as justification problems and a lack of contextual information downgrades the coherence of a text demonstrates that the determination of coherence involves not only linguistic knowledge but also pragmatic knowledge shared between the reader and the writer. In the present study, thus, coherence is seen as a function not only of the text (e.g., cohesive ties) but also of the reader's ability to interpret the text or to interpret the writer's intention;

2) If a text contains a series of propositions which are related to one another only by virtue of the fact that they share a topic entity ..., and they are one the same level of generality, each of these propositions must be developed to the point where it acquires independent topic character, (p.117)

3) For a given text unit to have a topic, it must be clear what its function in the larger context is. (p.120)

5) Connor (1984) also found justification and conclusion problems in ESL students' argumentative writing.

the latter depends upon various factors such as knowledge of the subject, inferencing ability, purpose, etc. (Lindeberg 1985).

Wikborg and Choi have provided valuable insights into features disturbing the reader's coherent interpretation of a text. However, the findings of both studies about English writing are questionable, because Wikborg and Choi both analyzed coherence in English texts from a Swedish and a Korean speaker's point of view, respectively, and did not consider the possibility that their analysis might be different from that of native English speakers. This weakness has motivated the present study. In this research the coherence of English essays is examined by native speakers of American English; consequently, the main concern is American readers' perspective on coherence in their native language.

3. METHOD

3.1 Data Collection

The data for the study were 27 English essays collected from three groups of writers: 11 American students in America (NSE), 9 Korean students in America (KESL), and 7 Korean students in Korea (KEFL). The writing task given to the subjects was to write a 300-to-500-word argumentative essay on 'the necessity of tests as a means of measuring a student's achievement,' and was worded as follows:⁶⁾

It is argued that tests are a necessary means of evaluating a student's achievement in an objective way, despite the problems which they may cause. If you agree with this claim, expand the argument with evidence. If you disagree, develop a counterargument claiming that tests are not the best way to measure what a student has learned, they have bad effects on students, and there would be other effective ways to test a student's achievement (e.g. class discussion).

6) The topic in the writing task was not created for the study but was adopted from the topics which had been used in other studies on argumentative text (e.g. in Connor's (1984) study). It was selected for the following reasons: 1) Korean and American students would both be familiar with the issue; 2) the topic would be interesting to students because it is an issue relevant to them; 3) the topic would not be too difficult for Korean students writing in English.

3.2 Data Analysis

The twenty-seven essays were analyzed by three native speakers of English. All three analysts were graduate students in Linguistics at the University of Illinois, Urbana-Champaign. Two of them teach a special rhetoric class for freshmen whose English score is not high enough to take a regular rhetoric class, while the third native speaker of English teaches a special ESL course for visiting businessmen from all over the world. But, the two rhetoric teachers have also taught ESL courses before.

The analysts were instructed to mark anything that would make it difficult for them to reconstruct the writer's intended meaning and categorize these problems. In order to make the categorization easier, a taxonomy based on Wikborg (1985a) and Choi (1986) were given to the analysts as reference, as below.

(2) Taxonomy of coherence problem

- 1) Topic-structuring problems: Unspecified topic
Unjustified change of/drift in topic
Misleading paragraph division
Misleading topic sentences
- 2) Cohesion problems
 - Reference: No referent/Distant referent/Too many referents
Linguistically misleading referent
 - Sentence Connection: No connective/Inappropriate use of connectives
Misleading (confusing) information structure
- 3) Miscellaneous problems
 - Inappropriate word choice
 - Lack of adequate justifying supports: No justification
Insufficient justification
Inappropriate justification
 - Inappropriate concluding statement
 - Lack of some information (background information)

As for Wikborg's six topic-structuring problems, no change was made on the two topic-change problems and the paragraphing problem (see Section 2) since it

was clear enough what kind of problems they refer to. On the other hand, no definitions or examples were provided for the other three topic-structuring problems in Wikborg (1985a and 1985b) – ‘irrelevance,’ ‘misleading disposition,’ and ‘misleading heading.’ Besides, the terms used for these problems were not transparent. In other words, it was not clear what ‘irrelevance,’ ‘disposition,’ and ‘heading’ mean, even though the irrelevance problem seems to refer to the case in which a part of the text is not relevant to the rest of the text or to the topic; the disposition problem may be the problem that a proportion of the elaboration of one aspect of a topic breaks the balance in topic development; and the misleading heading problem seems to refer to an instance where a heading does not represent the content of the text. Thus, the three categories did not seem to be relevant for the present study. While discussing these with the three American analysts, it was decided to adapt misleading heading problems by changing the focus to misleading topic sentence problems. The reason for this change was that, since the writing task given was only a three-to-five-hundred-word essay, it was not expected that subjects would often use headings or subtitles and therefore, there would not be many heading problems. On the other hand, topic sentences are considered very important in English rhetoric and well-stated topic sentences at the beginning of a text or a paragraph are always highly valued as good writing and taken as a norm. Thus, by restating this problem as a topic sentence problem it might be easier to determine to what degree topic sentences affect the decoding of a text.

A careful review of the cohesion problems listed in Wikborg (1985a) revealed that they mainly involve reference and sentence connection problems. It seemed that if reference and sentence connection problems were separated, it would be much easier to categorize these cohesion problems. Therefore, they were differentiated as subtypes under cohesion problems, as in (2). They were then further subcategorized with respect to their cause. First, reference problems were broken into four subtypes: 1) there is no identifiable referent; 2) the referent is too far from the reference item; 3) there are too many possible referents; and 4) the referent is wrong with respect to its linguistic form. Second, sentence connection problems were divided into three subcategories: ‘inappropriate use of connective,’ ‘no connective,’ and ‘misleading information structure.’ The reason for including misleading information structure under sentence connection problems lies in the fact that what is seen as given and new information, or topic and comment, in a sentence is determined by the information presented in the preceding sentence as well as by the syntactic structure. In other words, the information arrangement between sentences is one factor

affecting the information structure of the text, and thus information structure problems are considered as one subtype of sentence connection problems. Misleading information structure problems are defined thus: a wrong distribution of given and new information within a sentence or between sentences confuses the reader or does not meet the reader's expectations based on the previous sentences.

Finally, from among the four problems identified in Choi (1986) two categories were revised. First, 'misleading lexical items' was restated as 'inappropriate word choice' because it was uncertain to the analysts what 'misleading' meant as used in this way. Next, justification problems were subcategorized into three types because the analysts found them too vague since they can involve different types of problems. The three subtypes are: no justification, insufficient justification, and inappropriate justification.

While determining the type of coherence problems, when more than one problem or an overlap between the types of coherence breaks was found, the break was marked under all the categories, as in Wikborg's study (1985a), instead of choosing one over the others. In addition, when a lexical item wrongly selected for the context appeared more than once, it was counted as one occurrence of an inappropriate word choice problem because the reoccurrence of the word is not a new coherence problem, but a consequence or continuation of the wrong word choice.

4. RESULTS AND DISCUSSION

Analysis of disturbing factors of coherent interpretation revealed not only subtypes of topic-structuring, cohesion, justification, conclusion, and vocabulary problems but also new types of features such as grammar, punctuation, and stylistic problems. The features identified in the study were classified according to five levels of discourse: graphic, syntactic, lexical, textual, and contextual.⁷⁾ Graphic features are spelling, punctuation, and capitalization. Syntactic features refer to grammar problems. Lexical features include inappropriate use of vocabulary and missing word. Textual features refer to aspects of written text and cohesion that are properties of text itself. Contextual features include extra-textual factors beyond the text per se, such as stylistic features and contextual

⁷⁾ The classification of the five levels of discourse was used in Nystrand (1982), which attempted to describe how meaningful written communication comes about, focusing on all discrepancies between the writer's words and the reader's guesses.

information. Among the five categories, textual features were the major factor causing a breakdown in communication to American readers, as shown in Table 1. The second key features were contextual factors. The number of coherence problems under the three other features was much small, except that of lexical factors in the English essays of Korean students.

Table 1
Frequency of Five Types of Features

Types of Features	Groups of Writers			Total
	NSE	KESL	KEFL	
Graphic	8	5	20	33
Syntactic	9	20	18	47
Lexical	11	44	53	108
Textual	107	99	124	340
Contextual	74	61	87	222
Total	219	229	302	750

In this section the findings from each type of features are discussed with examples. The discussion presented is mainly based on the analysis of the American coders. The example texts presented have not been changed in any way.

4.1 Textual Features

The most frequent type of factors causing a coherence break were textual features such as topic or text-structure and cohesion. The subtypes of such problems, including ellipsis, were found in the English essays of the three groups of writers.

Topic-Structure and Text Structure

Four types of topic-structuring problems were included in the taxonomy used: unspecified topic, unjustified change of or drift in topic, misleading paragraph division, and misleading topic sentence. Besides these types of

problems, four other types of topic-structuring features were identified as factors affecting textual coherence judgement: irrelevant conceptual material, unnecessary or redundant information, unexpected aspect of topic, and unclear topic development. The first type is not a new category. It has been listed in Wikborg's (1985a and 1985b) taxonomy of coherence breaks. When the taxonomy of coherence problems was revised for this study, it was excluded because it was ambiguous due to a lack of definitions and examples in Wikborg's study, as mentioned in Section 3.2. Since it was marked by the American corders as the features that made it difficult for them to reconstruct the writer's meaning, it was added to topic-structuring problems.

First of all, irrelevance problems found in the study refer to cases where information irrelevant to the topic is presented. This definition is a little different from Wikborg's definition, based on van Dijk's 'overcompleteness' (van Dijk 1977, 109),⁸⁾ which has been only implicitly presented in Wikborg (1985: 95). If irrelevance problems are identified in terms of van Dijk's 'overcompleteness,' they refer to instances in which the coherence of a text is affected by redundant or unnecessary information (i.e. too specific or unnecessarily detailed descriptions of an event or a paraphrase or restatement of the same conceptual material). Irrelevance problems identified in this study were, however, different from such cases. They were instances where conceptual material was irrelevant to the topic of the essay or the paragraph, or to the topic given in the writing task; for example, "the discussion of good and bad tests" is irrelevant when the topic given is to compare tests with other evaluation methods (e.g. term papers).

The distinction of irrelevance problems from overcompleteness problems can be more clearly presented in terms of Gricean maxims. Gricean maxims consist of four major maxims: quality, quantity, relevance, and manner. Irrelevance

8) Van Dijk discusses degrees of completeness and levels of completeness (1977:108-111).

If a discourse is to describe an event, full descriptions of the event include a large set of information; therefore, it is impracticable to provide all the information since most of it is redundant or irrelevant. Consequently, a decision must be made on the selection of information. In that sense, most of the descriptions are incomplete. The level of description depends on the topic and also on the purpose of the communicative act. If a discourse is missing crucial information for the purpose of the act, such discourse would be "undercomplete." On the other hand, if a discourse includes too specific or redundant information, it would be "over-complete." Both under-completeness and over-completeness are subject to conditions of discourse coherence, while incompleteness is natural for pragmatic reasons (p.110).

problems refer to an instance violating the maxim of relevance, while overcompleteness problems arise from the violation of the maxims of quantity (sufficiency) and manner (briefness). This distinction does not, however, imply as clear cut a distinction among the maxims (Cooper. 1982) as the universal standards for compliance with them across different societies do (Keenan 1976). Rather, the maxims provide a tool of differentiating irrelevance and overcompleteness problems.

In this study, the 'irrelevance' category is used to refer only to topic irrelevance problems, and overcompleteness problems are categorized as another of the topic-structuring problems, that is, 'redundancy.'

Irrelevance problems were identified at text level as well as sentence or paragraph level. Example (3) illustrates a case where a sentence relatively irrelevant to the topic causes a problem to an American reader in understanding the text:

(3) English essay of a native speaker

...

9) Multiple choice tests are generally very poorly designed. 10) Sometimes they call for memorizing trivia and not for achieving and understanding of the material. 11) If instructors spend more time and energy writing these exams (assuming competence) they can be OK. 12) I had one Psychology teacher who went too far. 13) He made the questions into exercises in logic rather than in Personality Psych. 14) His tests were filled with analogies and you were expected to finish the comparison: 15) I think his exams measured how close your mindset was to his, and your skill with logic, not knowledge learned in Psychology. 16) *I know a good multiple choice question when I see it.* 17) I must only ask the questions, "are all students likely to interpret this question in the same way?" and "Is it in the material studied?"

In the above paragraph, the writer attempts to show how poorly a multiple choice test is designed by instructors by citing one of the tests he has taken in his Psychology class. S16 is used to criticize the test by implying that: "In my opinion, the Psychology test was not a good one at all." However, some of the readers failed to see its evidential function for the writer's criticism and marked it as irrelevant to the paragraph topic.

Irrelevance problems were also identified in sentences which function as thesis statements of the essays. In such cases the problem is related not only to the specific sentence but also to the whole essay due to the function of the sentence. In the following extract, S3 is a part of the thesis statement of the essay.

(4) English essay of a native speaker

1) I agree that tests can be an objective way of evaluating student achievement, but I disagree that tests usually do so. 2) The problem is that most tests are inadequately written. 3) *A well-designed test can be an accurate measure of achievement, but a poorly-designed test is useless.*

This thesis statement is about "good and bad tests," but not about "tests as an objective measure of evaluating a student's achievement." As implied by the function of the sentence, the whole essay is irrelevant to the topic given in the writing task.

Since readers' expectations are developed from the moment of reading the topic given or the title of a text, a whole essay whose contents do not match with the expectations is seen as irrelevant; and it would not be clear to the reader how the main part of the text is coherent with the topic or with the title.

If the information presented by the writer goes beyond the degree of sufficiency assumed necessary by the reader, the text is seen as overcomplete. Such overcompleteness problems were found in the three groups of argumentative writing in English. In Example (5), for instance, the thesis statement in the first paragraph states that "even though tests have some problems, they are better than other methods of evaluation because the latter cause greater problems."

(5) English essay of a native speaker

P1 1) Students often object to tests for several reasons. 2) Some students claim that they cannot be adequately evaluated by tests because "test anxiety" makes them unable to perform well. 3) Others claim that tests benefit not those who know the subject matter, but those who are just good at taking tests. 4) And some have suggested that tests encourage students to cram to pass the test instead of studying so as to retain the information afterwards. 5) *No doubt these are*

all true to some extent, but as we shall see, other methods of evaluation cause even greater problems.

P2 6) Radicals go even further, saying that evaluation of students is unnecessary or even counter-productive. 7) Their reason goes that if instructors show their students trust, then will learn, whereas testing to see how much they have learned shows mistrust, promoting an attitude of "getting away with" not studying. 8) As usual, the radicals are wrong. 9) If education is to signify anything there must be standards and ways of determining if those standards are met. 10) At small, exclusive schools with high faculty/student ratios and excellent students where there is a lot of student-faculty interaction (like the "great books curriculum" schools which are becoming more common, or certain graduate programs) this may be possible without tests. 11) But at most schools, tests are necessary to evaluate students.

P3 12) While there are several evaluation tools available, test have certain advantages over the others . . .

After reading P1, the reader anticipates the beginning of the body of the text elaborating and justifying the writer's assertion. In contrast to this expectation, the second paragraph continues the presentation of the criticism by opponents. This paragraph seems unnecessary or misplaced. Two of the American readers marked it as the former. They found that the counterarguments to tests presented in the previous paragraph were sufficient as background information. Consequently, even if P2 becomes part of P1 (before S5), the information presented in this paragraph will not increase the coherence of the text to a high extent. According to the coders, rather, if the second paragraph is omitted and the third paragraph immediately follows the first paragraph, the degree of coherence increases.

Another feature of topic structure that breaks textual coherence was the introduction of unexpected topic aspect. When the presentation of topic aspects are relevant to the topic but different from the reader's inference about the topic development, the coders identified this coherence problem as a change in topic aspects. This topic structuring problem is related not only to unnecessary information but also to irrelevant information. In some cases, a lack of sentence connective causes such problems. An instance of an unexpected topic aspect which does not contribute to the topic development is illustrated in the second paragraph of Example (5), which has been discussed above. Since the presenta-

tion of the radical's point of view in the second paragraph was not expected from reading the first paragraph, the coders stopped their reading in order to see in what way such information is relevant to the topic.

Unexpected topic aspect problems are also found in a case in which the connection between two sentences is not explicitly stated on the surface; in that sense, the problems overlap with cohesion problems, which is discussed in the next section. They are demonstrated in S23-24 in Example (6):

(6) English essay of a Korean ESL student

... 22) Another source that is often overlooked is the students and fellow teachers. 23) Ask students how they felt about the last test they took from you or from the similar course. 24) *Cooperation among teachers are always recommended.*

At a first reading of S24, the readers found it unclear how this sentence was related to S23 and to the rest of the paragraph. The uncertainty is due to an absence of linguistic markers expressing the relation between S23 and S24 and also to the difference between sentence types: S23 is an imperative sentence, while S24 is a statement. If one reads, one may realize that S23-24 function as an elaboration of S22: enumerating two types of sources often overlooked. Still, some effort is required to see the coherence of the sentences in this paragraph. If S23 and S24 are restated with the same type of sentence (e.g., a statement with an If-clause—S23 "If teachers ask their students about ... they will obtain valuable information ... " and S24 "Similarly, cooperation ..."), the coherence problem marked by the coders in the study can be avoided.

The last topic-structuring problem identified in the study is 'unclear topic development,' which refers to the case in which the discussion of the main points of the topic is mingled. An example is from an English essay written by a native speaker, as in (7):

(7) English essay of a native speaker

17) Test-giving aids the instructor in *two ways*. 18) *First*, s/he is able to evaluate the students objectively, using the same criteria. 19) A well-constructed and richly varied instrument can provide many insights into the student's ways of thinking about the material. 20) With this information the instructor is able to diagnose individual and group needs and reteach if necessary. 21) S/he is *also* able to determine which

students are keeping up with the work and which are not. 22) Not only does the teacher analyze student responses and diagnose their needs, but s/he *also* learns where his/her instruction has been weak or where the test directions or items are unclear. 23) The test can thus be a measure of *instructional effectiveness* as well as *student preparedness* ...

In the example, the topic provided in S17, "two ways that tests aid the teacher," is elaborated in the rest of the paragraph. The writer used linguistic features such as *first* and *also* to mark the beginning of each benefit. By contrast, the two benefits driven by teachers as a result of giving a test do not stand out clearly. An American reader pointed out that there are actually three benefits presented: evaluation of students, student preparation, and teaching.

Besides topic-structuring problems, text-structure problems, such as inappropriate thesis statement and conclusion problems, affected textual coherence judgement. The latter category include lack of conclusion and inexplicit conclusion. First, there were essays missing a concluding statement or a conclusion unit. In some of the essays, the readers felt that the writer stopped writing in the middle, in other words, that the writing had not been completed. This problem is illustrated in Example (8):

(8) English essay of a Korean EFL student

P1 1) In general, the function of evaluation is to determine the extent to which various significant educational objectives are actually being attained. ... 3) But, too frequently, educational objectives are not clearly or explicitly formulated in advance. 4) Thus, it is small wonder that neither the instructional program nor the learning outcomes that are being evaluated bear much relation to the goals that are professed.

P2 5) So, the system of evaluating a educational achievement with tests or a educational outcomes with some papers and any other formular methods would bring false educational feedback.

P3 6) The educational outcomes are particular state of each students who passed educational process. 7) The outcomes are not the things to which some scales are used and measured and evaluated. 8) The outcomes of each student are the state to be appreciated. 9) Appreciation does not mean measuring, scoring, and comparing. 10) It means to understand the meaning of what has been seen.

In this essay, the writer doubts the function of the student evaluation system itself. By pointing out the mismatch between educational goals and the negative effects of evaluation, he neglects to discuss the topic given—"argument or counterargument for the use of tests as an evaluation means of a student's achievement." Consequently, his whole argument is irrelevant to the topic. The essay ends with an argument about a new definition of educational outcomes and evaluation. All the coders were disturbed not only by his argument which is irrelevant to the given topic but also by the lack of a conclusion. Some of the readers asked: "What is the writer's point?" or "Where is the rest of his essay?" This example shows that a concluding part or a statement giving a definite sense of closure is required for the text to be coherent.

In some of the essays, the presence of a concluding statement for the whole argument was not clear. In Example (9), for example, P4 is organized as a top-down structure. The function of the concluding sentences, S25-26, is uncertain.

(9) English essay of a native speaker

P1 1) Students often object to tests for several reasons. 2) Some students claim that they cannot be adequately evaluated by tests because "test anxiety" makes them unable to perform well. ...

5) No doubt these are all true to some extent, but as we shall see, *other methods of evaluation cause even greater problems.*

...

P3 12) *While there are several evaluation tools available, tests have certain advantages over the others.* 13) The biggest strength of tests is that they treat all students equally... 14) No other type of evaluation provides such identical conditions for all students. 15) Tests also possess the advantage of being efficient for supervisors to administer to large groups. ... 17) *So tests can be both fair and efficient.*

P4 18) *Other evaluation methods may be useful but they have weaknesses that, in most courses, make them inappropriate as sole assessment tools.* 19) *Papers* may force students to think about their topics over longer time periods and put their ideas in a legible, coherent form, but it is easy to cheat on papers since they outside class, without instructor observation. 20) *Papers* may be inappropriate for some classes, such as calculus. ... 22) *Homework*, like papers, is easy to cheat on ... 23) *Class participation* favors ... 24) Finally, *pop quizzes*, while

they may be an effective incentive to prepare for class, are not good for evaluations because different students will be at different stages of preparation if they are surprised. 25) *All these methods are inferior to tests because they may not treat all students equally.* 26) *Fairness remains the salient advantage of tests.*

Whereas some of the coders considered these sentences as a conclusion of the whole essay as well as that of the paragraph, others viewed them as the latter only and marked the necessity for a concluding unit. This discrepancy arises from the following: the two sentences are the concluding statements of the paragraph on the surface in terms of organizational structure, but, with respect to the conceptual structure, they can also be that of the whole essay. The uncertainty of the function of S25-26 makes it difficult to reconstruct the writer's intended text structure.

Cohesion

Cohesion problems in the taxonomy used include two major categories: reference problems and sentence connection problems. Each of the two categories is divided into subtypes. A new subtype of reference was found in the study.

Reference problems were classified into four subcategories with respect to their causes: no referent, too much distance between referents and reference items, too many possible referents, and linguistically misleading referents. This classification was based on two factors, distance and ambiguity, like Givon's (1983) study. However, unlike Givon's research (Fox 1987), the present study does not assume that the relation between the reference item and the referent can be presented mainly on the linear nature of texts, while ignoring their textual functions and the influence of hierarchical text structure.

In addition to the four types of reference problems, another problem was identified in the analysis: 'uncertain referent.' This refers to cases where the existence of the referent within the text is doubtful and the cause of the reference problem is ambiguous. In other words, there were cases where the coders found some reference problems, but it was not clear whether the referent had been presented in the text. Moreover, if there were a possible referent, what made its recovery difficult was not obvious. More than one factor may have been involved in the problem.

An example demonstrating such problems is the reference of "these three evaluative measures" in S21 in the following essay written by a Korean ESL

student:

(10) English essay of a Korean ESL student

P2 8) *Test* is undoubtedly a good measure in judging students' academic achievements, even if it is not the best way. 9) There are, however, much to be desired. 10) *Two supplementary evaluation techniques* in addition to tests are in order.

P3 11) I believe students will be better off by doing *group discussions* rather than studying alone. 12) The effect of group dynamics is quite amazing. 13) *Critical and/or fresh perspectives* are flourishing and one is able to alter or reconsider his own ideas throughout the debate. 14) By assigning a group project in stead of an individual project, we may expect these effects to occur. 15) But the drawback of this method lies in difficulty of judging each student's excellence one by one. 16) We may deal with this problem by *having students participate aggressively in class*. 17) By judging the quality of his feedback or responses an instructor can tell how a student is doing.

P4 18) What I propose here is clearly a mixed method of evaluation a student's academic excellence. 19) This approach is very popular in the United States. 20) It seems that this practice must be based on some notions discussed above. 21) In executing this practice, relative weights of *these three evaluative measures* are solely dependent upon an instructor's judgements and upon characteristics of the course.

In the second paragraph, the writer mentions three methods of evaluation: tests and two supplementary techniques; however, the two supplementary techniques are not clearly introduced in the third paragraph. There are no linguistic markers such as *first*, *second* or *another* which can facilitate the identification of the two methods. Because of the unexplicit presentation of the two methods, the referent of the three methods in S21 is ambiguous. A possible referent is "group discussions" and "class discussion." If this is the case, the reference problem seems to be the distance between the referent and the reference. But not all the coders came to such a conclusion. Two of the American readers agreed that the distance from the referent caused a reference problem.

Besides reference and cohesion, another cohesion problem was identified

in the study, that is, ellipsis problems which arise from the unrecoverability of the reference in the text. This type of problem was included in cohesion problems, following Halliday and Hasan's approach (1976). According to Halliday and Hasan, cohesion refers to the instance where the interpretation of a linguistic item in the text is dependent on that of another (p.4). They include five types of cohesive ties: reference, substitution, ellipsis, connection, and lexical cohesion. Ellipsis, which is one of the five cohesive devices, shares with reference and substitution the feature that it is a device for identifying something by referring to something that is already there—known to, or at least recoverable by, the reader (pp.144-145). In the English essays analyzed, when ellipsis did not fulfill its function as a cohesive device a coherent interpretation was implausible.⁹⁾

Ellipsis problems were identified in the instance where the referent of the 'substitution by zero' (Halliday and Hasan, 1976, 142-144) was not recoverable by the reader. They are illustrated by the zero substitution in S4 of Example (11):

(11) English essay of a native speaker

1) The argument that tests are necessary means of evaluating a student's achievement in a objective way, I think, is wrong. 2) In most of educational settings, the evaluation of a student's achievement is required. 3) And then, the main means are tests. 4) *But, test alone is not.* 5) In fact, tests have many problems.

In the essay, what the writer intentionally has omitted in S4 is not recoverable by the reader. The writer may have assumed that the previous sentences provide

- 9) In the identification of ellipsis problems a criterion was needed to differentiate this type of problem from some other kinds of omission problems: i.e., words missing due to negligence or lack of grammatical knowledge. The criteria presented by Quirk and his colleagues (1985: 884-888) provide the principles distinguishing ellipsis from the latter, as follows:
- a) The ellipted words are precisely recoverable.
 - b) The elliptical construction is grammatically 'defective.'
 - c) The insertion of the missing words results in a grammatical sentence (with the same meaning as the original sentence).
 - d) The missing word(s) are textually recoverable.
 - e) The missing word(s) are present in the text in exactly the same form.

sufficient clues for the referent of the ellipsis; however, this is not true. The only guess the reader can make is that an evaluative adjective has been left unstated. This type of problem indicates that for effective communication the writer must be conscious of the reader's capacity to grasp his intended meaning.

4.2 Contextual Features

A variety of types of problems which were not contained in the original taxonomy were found in the analysis: lack of examples or elaboration; register-specific vocabulary or information; missing links that were too implicit to be inferred by logical reasoning; incomprehensible or inappropriate logical reasoning; and incomprehensible, nonsensical, or false statements. Such problems arise mainly from a lack of shared pragmatic knowledge between the writer and the reader. They are thus classified as contextual features interrupting the reader's coherent interpretation of a text. This category also includes justification and stylistic problems since both of them are problems beyond the text.

When a statement was presented without the necessary elaboration or examples required to be coherent, a coherence problem was marked by the readers. This type of problem is illustrated by S12 in Example (12) and S15 in Example (13):

(12) English essay of a native speaker

12) While there are *several evaluation tools available*, tests have certain advantages over the others. 13) The biggest strength of tests is that they treat all students equally: all students must work within the same groundrules and answer the same questions in the same timespan and the same environment. 14) *No other type of evaluation* provides such identical conditions for all students. 15) Tests also possess the advantage of being efficient for supervisors to administer to large groups. 16) This, in turn, makes it easy for supervisors to monitor test-takers to prevent cheating. 17) So tests can be both fair and efficient.

In Example (12), no instances of "several evaluation tools" are given in the text. Since the argument presented in the paragraph is based on the comparison of tests with such methods, one of the coders noted that examples of these methods are crucial for understanding the sentence and also for convincing the reader of the writer's argument. The referents are not inferable from the text,

but can only be inferred by the reader himself. The range of possible referents is large. If one or two examples which could help the reader narrow down a possible range of referents were provided, a more coherent interpretation could be made.

Similarly, S15 in Example (13) points out the existence of other weaknesses of tests; however, these disadvantages are not identified in the text.

(13) English essay of a Korean EFL student

12) Third, Education which should serve as a place of exchange of knowledges, incentives and insights could be a one way traffic from teacher to students by tests. 13) Students should not be the subjects of tests, but equal participants in a stage called education. ... 15) There are *some other demerits of tests* as means to evaluate a student's achievement.

The reason why the writer mentions them at the end of the paragraph is questionable and S13 does not at all help strengthen his argument. Instead, it not only causes a pragmatic problem but also a topic-structuring problem since it follows the third supporting argument presented in the same paragraph.

Register-specific information was found as one of the features interrupting the reader's decoding process. This includes the use of a technical word, such as "a discrete-point test" or "operative knowledge." An instance of register-specific vocabulary is "word problem" in S5 in Example (14):

(14) English essay of a native speaker

4) Particular types of tests are more appropriate for some courses than for others. 5) For example, a *word problem*, accurately and unambiguously states, is a good way to test a student's ability in introductory statistics. 6) The question is only good if students can all understand it in the same way; it must be explicitly clear what the instructor wants. 7) It becomes the students job to get to that finishing point on her own. 8) When I talk to students after such a test, they usually agree it was fair.

Unless the reader has taken a statistics course at a college, the meaning of such a phrase is not transparent and the text does not provide an explicit clue to it, either. The writer's unawareness of the fact that it could be unknown to the reader resulted in a break in coherence for two of the American readers.

The problem related to logical reasoning was found in a statement whose communicative act, as intended by the writer, was to provide background information. One type of this problem relates to the unrecoverability of missing links in logical reasoning. The writer is not required to show all the steps of his logical reasoning because, if he does, the text may be too specific, or over-complete. However, if links left unstated cannot be inferred from other propositions, the coherence of the text is questioned (van Dijk, 1977:108). For instance, the writer's logical reasoning relating S2 and S3 in Example (15) is not easily understood by the reader.

(15) English essay of a Korean EFL student

1) To begin with, I would, say it is said that there is no criterion to measure the human ability in any way. 2) But *those who want to evaluate the human ability, must have a choice of the best way.* 3) *So the teacher or professor is often disturbed.* 4) But, there is alternative way to do that, that is tests.

A link explaining why instructors are in trouble is lacking. The missing link seems to be: "there is no best method available." Some effort is needed to grasp such a missing link, making a coherent interpretation difficult. Because of the missing link, all the American readers marked the connective 'so' in Sentence 3 inappropriate to the context.

Other contextual problems were found in incomprehensible, nonsensical, or false statements. The first type refers to sentences which are incomprehensible to the reader because of the lack of shared knowledge. The second is the case where sentences do not make sense according to the reader's pragmatic knowledge. The last one is a sentence whose proposition is false, at least from the reader's point of view.

The English essay of a Korean speaker in Korea, which was discussed above, illustrates these three types of problems. In Example (16), first, S1 is too strong a statement to be accepted. The writer states that no criterion of evaluating a human's ability exists in the world. If this is true, how have people been evaluating each other? In daily life, not only in the education system, we evaluate ourselves and other people all the time regardless of the type of criteria we use. Consequently, when one says there is no way to evaluate human ability, like the writer of Example (16), the truth of such a statement is doubted.

(16) English essay of a Korean EFL student

1) To begin with, I would, say it is said that there is *no criterion* to measure the human ability in any way. 2) But those who want to evaluate the human ability, must have a choice of the best way

9) Human ability is not to be defined. 10) If there is a man who say that he can evaluate human ability (or achievemen), he must be *mad but sane*. 11) *he have something wrong to behave in his life ...*

13) The other objective way to measure do not exist. 14) Why? 15) *term paper, class discussion and so on are the only change to do that, and chance is not good criterion to evaluate a student's achievement*. 16) Chance is equal to being luck- term paper needs the open materials to write, class discussion needs the innate ability to speak well open material and innate ability is not objective way to measure a student's achievement in school.

In addition, the main clause of S10 does not make sense to the reader: how can a person be mad and sane at the same time? This statement was found to be nonsensical, causing the American readers to fail to understand the writer's meaning and the function of such a sentence. S11 is also nonsensical and cannot be easily comprehended by the reader. Finally, S15 is an example of an incomprehensible sentence. The problem with this sentence could be related to vocabulary choice or spelling mistakes concerning the meaning of "change" and "chance" in the text. Because of these words, it is not easy to see the function of the additive connector *and* between the two clauses, either. Some of the readers stated that the writer's meaning in S15 could not be reconstructed. In this sense, the writer's words failed to encode his intended meaning.

Stylistic problems were found in the study. One of the problems is 'inappropriate choice of sentence type.' When a type of sentence the reader did not expect was chosen, a coherence problem occurred. An example is an English essay written by a Korean ESL student. In Example (17), the writer presents a suggestion for student evaluation in imperative sentences after S14:

(17) English essay of a Korean ESL student

11) There are advantages and drawbacks in the use of test as a measure of academic achievement. 12) Efforts should be directed toward increasing the advantages and overcoming the drawbacks.

13) The following has been suggested by recent research on the use of test (DDD, 19dd: EEE, 19ee) to that effect.

14) Firstly, if test is to be used, *plan to use* it on regular bases rather than once or twice a semester. 15) Try to test the students' entry behaviour so that comparison can be made with terminal one....

17) Secondly, *do not give* full credit to the results of tests. 18) Use them along with other techniques of evaluation. 19) Try to include at least one technique, which has quite different properties from test

20) Lastly, *consult* references

Such sentences decrease the effectiveness of the writer's communication with the reader, because the typical type of sentence used to present a suggestion in English argumentative writing is a sentence with the modal verb, such as *should* or *must*, rather than a direct imperative sentence. The unexpected choice of sentence type was marked as a coherence problem by all the American coders.

Unlike the conclusion problem discussed in Section 4.1, a conclusion problem was found that is not a matter of the presence or absence of an explicitly stated concluding statement, but the degree to which this statement is adequate. The major cause is logical problems. For example, a contradictory inductive statement in the conclusion unit was identified as a coherence problem. An example is the concluding unit of an English essay written by a Korean speaker in Korea, as in (18):

(18) English essay of a Korean EFL student

P1 1) *The argument that tests are necessary means of evaluating a student's achievement in a objective way, I think, is wrong.* 2) In most of educational settings, the evaluation of a student's achievement is required. 3) And then, the main means are tests. 4) But, test alone is not. 5) In fact, tests have many problems.

P2 6) First, tests always are not reliable. ...

P5 12) *What can we do in order that we complement these faults of tests?* 13) Various complementary methods can be used. 14) For example, term paper, self-evaluation, observations, etc. 15) These methods may help a teacher to evaluate more objectively his students.

P6 16) In summary, *tests are not necessary means of evaluating a student's achievement in a objective way.* 17) Therefore it is necessary that we invent more reliable, valid and complementary evaluating methods and use carefully these methods in a evaluating setting.

Starting with the presentation of problems of tests, the writer proposes using other means of evaluation to compensate for the weaknesses of tests. Contrariwise, his concluding statement rejects the necessity of tests at all. Such inconsistency in the writer's assertion caused a problem for the readers. Some of the American readers made the comment that since the writer was not fluent in English, his words did not accurately express what he really intended to argue.

Another type of problems under the contextual category is justification problems. In the taxonomy of coherence problems they were classified into three subtypes with respect to their cause: lack of justification, insufficient justification, and inappropriate justification. Justification problems are caused by a discrepancy between the purpose of the communicative act performed by the writer's expression and the reader's interpretation. For example, the writer makes a statement to provide some information which is assumed to be knowledge shared with the reader, but if the validity of the statement is challenged by the reader, the writer will fail to achieve his/her intended goal of the communicative act ('convincing'). Some adequate justification will be required.

No other new type of justification problems was identified in the analysis; however, variations in insufficient and inappropriate justification problems were noted. They derived from a diversity of causes. As for inappropriate justification problems, for example, supporting evidence may be false or nonsensical; the choice of evidence may not be appropriate; or logical reasoning may be false or incomprehensible. The cases of inappropriate justification problems are due to a violation of the Gricean maxim of quality. In other words, the writer makes an assertion, but his assertion is based on faulty evidence from the reader's point of view. The excerpt in Example (19) illustrates a justification problem arising from a choice of inadequate supporting reasons:

(19) English essay of a native speaker

7) Not only are tests a good measure of the student's progress against himself, but *they also provide a more objective measure of comparison with other students.* 8) Some argue that the American

norm of grading on a curve produces individual, non-productive competition. 9) On the other side, it is a more fair practice because the student is not graded against some set standard, but against overall class performance. 10) The teacher needs this overall view of class performance both to judge how well his/her teaching methods are communicating with the students, and to judge the average level of his/her class. 11) *If tests were not given, the student would not need to interact with other students as much.* 12) *With testing the student must communicate with others to know how they understand the material.* 13) If a student tests poorly against others, then it indicates a failure on his own part. ...

In the above example, S7 presents one of the advantages that tests have – “an evaluation of a student’s progress, compared to others” – and the rest of the paragraph attempts to provide supporting arguments. However, the information presented in S11-12 seems irrelevant to the topic, as discussed before. The coders found that such irrelevance downgrades the degree of coherence as well as the level of adequacy of the justifying argument.

Because of the nature of the text type, coherence problems related to logical reasoning were often noted by the readers. An example is S8-9 in Example (20):

(20) English essay of a Korean EFL student

7) First, tests are only for teacher’s convenience in that he makes questions of his own interest and allots time for each question as he please. 8) *If some questions which student A doesn’t excel and student B does excel are made, the objectivity of such tests can be strongly doubted.* 9) *Because tests can only measure teacher’s ability to transmit his knowledges in a given time but not student’s ability and achievements to understand and apply such knowledges.*

S8 states that if a test favors only a certain type of student, it is not objective. This statement is based on the proposition presented in S9, according to the writer’s words. However, it is not clear how these two sentences are related. The logical reasoning involved between them is questionable. Furthermore, the reasoning expressed in each sentence is also doubtful. The incomprehensible logical reasoning in each of the two sentences as well as the vague logical connection between them makes it difficult for the reader to grasp the writer’s intention.

4.3 Lexical Features

In discourse analysis textual coherence is considered irrelevant to sentence-level features. In contrast, lexical items inappropriately used were sometimes one of the key features disturbing the American readers' coherent interpretation of the writing of not only Korean students but also native speakers.

One type of lexical problems refers to the instance in which the meaning of a word shifts in the same sentence or in the same clause, disturbing a coherent interpretation. In Example (21), for instance, the meaning of the word *tested* is 'to test' when it first occurs in S10, but shifts to 'to evaluate' in the second occurrence. This shift in meaning made some of the coders read again to grasp the writer's meaning.

(21) English essay of a Korean ESL student

9) However, what is often at stake with the test is its validity as a means of evaluating the students' achievement. 10) It is frequently criticized that test measures the students' intelligence rather than the academic achievement (AAA, 19aa:35), that the total of the items *tested* is always less than the whole of what is being *tested* (BBB, 19bb: 121) and that there are certain academic skills, which are difficult to measure with a test (CCC, 19cc: 12).

Another type of vocabulary problem identified in the study was related to lexical ambiguity. In other words, there were instances in which more than one interpretation of a linguistic expression was possible. An example is the phrase "over a longer period of time" in S3 of Example (22):

(22) English essay of a native speaker

... 2) Tests merely measure an individual's ability to recall and integrate information in a short period of time. 3) Many individuals do not function efficiently in test situations, whereas these same persons may perform far better under less stressful conditions and *over a longer period of time*. 4) Test anxiety and ability to perform under a severe time constraint affect test scores as much, if not more than, actually comprehension of material covered in an exam....

In the text, this phrase can have the following meanings: "over a longer period

of time” or “over a longer period of testing time.” Because of the ambiguity, one of the American readers found it difficult to interpret the writer’s intended meaning. This type of problem illustrates a violation of the Gricean maxim of manner.

There were cases in which words missing due to the writer’s carelessness made it difficult to understand the text. These instances were distinguished from grammatical mistakes as well as ellipsis problems. In Example (23), for example, it seems that the word “material” has been left out after the word “open” in S17:

(23) English essay of a Korean EFL student

P4 13) The other objective way to measure do not exist. 14) Why? 15) term paper class discussion and so on are the only change to do that, and chance is not good criterion to evaluate a student’s achievement. 16) Chance is equal to being luck-term paper needs the *open materials* to write, class discussion needs the innate ability to speak well *open material* and innate ability is not objective way to measure a student’s achievement in school.

P5 17) but, test is not *open* and does not need anything innate test needs only measures of reading numbers of repeating, and attention to books and lectures, that is to say efforts. 18) Teacher, professor, must evaluate a student’s effort. 19) The best and objective way to evaluate a student’s effort is a test, there is no other way but testing.

In the previous paragraph the writer has used that word more than once in the same position; thus, it is likely that he accidentally left it unstated. In most of the cases of this type of problem, missing words were identifiable from the context; nevertheless, they caused confusion for the readers.

4.4 Syntactic Features

When the research was originally designed, not many coherence problems due to grammar were expected since coherence is normally related to a level higher than the sentence level, that is, the text level. In contrast, some grammatical problems disturbing a coherent interpretation were found in the English essays of Korean students as well as those of native speakers. These problems

included sentence structure problems, wrong prepositions, wrong word forms, verb agreement, comparative constructions, word order, etc.

In this study, the category of grammatical problems was not broken into its subtypes in terms of causes; rather, all of the problems were included under the grammar problem. In this section, some of these problems are illustrated in order to show what kind of grammar problem was identified as a coherence problem by the American readers.

In an English essay written by a Korean ESL student, in (24), several grammatical problems were noted: subject-verb agreement in S1 and S3, the wrong pronoun form *it* for “tests” in S3, the use of a superlative construction instead of a comparative construction in S2, the preposition *of* missing before *evaluating* in S1, the wrong word form of *retard* in S9, inappropriate use of the verb *save* in S9, and an incorrect plural form after “another” in S3 and S9. Among the grammatical problems, the one that some of the readers found not significantly affected the degree of coherence was the superlative construction in S2.

(24) English essay of a Korean ESL student

1) Tests *is* one of the ways *evaluating* student’s achievement objectively. 2) It is *the most appropriate* in the evaluation of the students *than another ways*. 3) In this writing I will attempt to argue that tests *is* the best way with three reasons even though *it* has been criticized because of some problems.

9) Secondly, *tests can save the students who are retard comparing with another students ...*

In this sentence, the writer intends to express that tests are the most appropriate means or that tests are a more appropriate method than any other, as he states that tests are the best way in the third sentence. Two of the American readers found that the writer’s wording, which grammatically inaccurately expresses his intention, was one of the factors disturbing their reading.

4.5 Graphic Features

Punctuation, capitalization, and spelling problems are usually considered as mechanical problems which do not interfere much with the reader’s coherent interpretation. However, they are sometimes a key feature affecting the reader’s

decoding process, as Cooper (1982) notes in regard to the role of punctuation marks in such processes:

Punctuation marks signal meaning relationships and thus specify that certain clauses should be related. The colon, for example, "indicates that the next clause to come will clarify, expand, or illustrate the idea just mentioned [Glorfeld, Lauerman and Stegeberg 1977, 31]." When the clause following the colon does not seem to be related to the clause preceding the colon, the writer may evoke the maxim of relation. (p.125)

In the present study, some instances were found where these were crucial features causing coherence breaks.

In Example (25), for example, S16 and S17 are incomprehensible at a first reading because of the omission of some punctuation marks and the violation of capitalization conventions.

(25) English essay of a Korean EFL student

... 16) Chance is equal to being luck-term paper needs the open materials to write, class discussion needs the innate ability to speak well open material and innate ability is not objective way to measure a student's achievement in school.

P5 17) but, test is not open and does not need anything innate test needs only measures of reading numbers of repeating, and attention to books and lectures, that is to say efforts. 18) Teacher, professor, must evaluate a student's effort. ...

Such punctuation and capitalization problems result in the two incomprehensible run-on sentences. In order to reconstruct the writer's meaning, the reader needs to read the text again and find the missing sentence-end markers and the first word of the following sentence. If punctuation and spelling mistakes are corrected, the two sentences can be rewritten as follows:

16) Chance is equal to being luck-term paper needs the open materials to write, class discussion needs the innate ability to speak well. *Open material and innate ability is not objective way to measure a student's achievement in school.*

P5 17) but, test is not open and does not need anything innate. *Test*

needs only measures of reading numbers of repeating, and attention to books and lectures, that is to say, efforts.

On the other hand, if the context provided sufficient clues to the identification of a misspelled word (e.g. 'is not good criterion to *evaluate* a student's achievement'), it did not lead to ambiguity. In some cases, however, a misspelled word was not recognizable by the reader and, consequently, it was an impediment to the reader's comprehension. One example of such cases is the word *vices* in S2 of Example (26).

(26) English essay of a Korean EFL student

1) I disagree with that claim. 2) The reason why tests are widely applied is because they are minimum *vices* to every case, but is not because they are the best device to each case.. 3) That is, the reason why we use 'tests' as the most universal means is because of the universality that anyone can understand those results ...

The word *vices* does not make sense in the context. The word *device*, which is very similar in spelling, is used in the same sentence. Consequently, there is a chance that the writer intended to write *devices* but accidentally misspelled it as *vices*. If this is the case, the decoding of the text becomes a little easier; however, the writer's intended meaning is still uncertain. All the American readers considered the word *vices* as misspelled.

5. CONCLUSION

The features that affect American readers' textual coherence judgement in English argumentative writing were classified into five categories. They are not only textual and contextual features but also sentence-level features. As in Wikborg (1985a), textual features were the most frequent factors disturbing the coherent interpretation. Contextual features beyond the text itself also played a vital role in the reader's coherent interpretation of English argumentative writing.

Low-level features (e.g., grammar, vocabulary, or mechanical problems) are often ignored in the study of coherence. The present study found that they

sometimes were a key factor in the breakdown in communication, especially in the text of a linguistically incompetent writer. However, not all grammatical, lexical, or mechanical problems caused a coherence problem; consequently, more descriptive studies are needed to find out when they cause coherence problems.

Some of the coherence problems identified in this research were related to the structure of language, for example, reference problems. The present study did not, however, investigate specifically the impact of the structure of English on the analysis of coherence problems. It suggests further research on such an issue.

Pedagogical suggestions of the study for the teaching of writing effective argumentative texts in English for its native speakers are about topic-structuring and the awareness of the reader. First, the study found that the crucial factor making a text coherent in English writing is the clear topic development without irrelevant information and too much information than required. To improve his/her skill for the clear topic development the writer can practice making an outline of topic aspects and then see whether those aspects are necessary and relevant to the topic of the writing. Secondly, the high frequency of contextual problems demonstrates that a writer must be aware of the importance of his/her readers in order to successfully deliver his/her message to them. The writer may practice writing a text with the same topic for different readers so that he/she can find out what they have to change in their writing in order to take the audience into account.

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