

## A study of the effect of discourse context on English movement rules

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### 1. Introduction

Any language is assumed to have several syntactic forms with identical propositional meaning. Yet some linguists like Bolinger (1977) argue against the synonymy of different forms of sentences and assert the difference of structure necessarily leads to a functional difference of meaning. It is one of the roles of the discourse<sup>1)</sup> study to account for the motivation of the use of different forms; namely, "When and why one syntactic form among several synonymous forms is selected by the speaker/writer" (Hatch 1981 : 207).

In the Japanese setting these lines of studies have been taken in English linguistics to account for various syntactic phenomena proposed by generative grammarians (c. f. Fukuchi 1985, Murata 1982, Oe 1984) and also the findings of discourse studies have been introduced into pedagogical grammar (e. g. Tanabe 1982, 1984). Yet the studies so far presented have been explanatory or concerned with receptive aspects like interpretation and there has been little discussion as to the value of teaching syntactic operations such as movement rules especially in writing<sup>2)</sup>. The present study will look at the results of a questionnaire conducted to investigate the effect of discourse context on the application of movement rules and consider whether it is worthwhile teaching these formal rules.

### 2. Linguistic background

#### 2.1 The place of textual study in the functional approach

Halliday (1967, 1970, 1974, 1985) takes the functional approach to language and proposes three domains of grammar: ideational, interpersonal, and textual. The first component deals with the expression of experience. The second is concerned with the interactional aspects of language use between interlocutors. The third component, which is our primary concern, plays a role in the creation of text by expressing the relation of each part of the discourse to the whole and to the setting. The third component consists of the following features:

#### (A) structural

1. thematic structure: Theme & Rheme
2. information structure and focus: Given & New

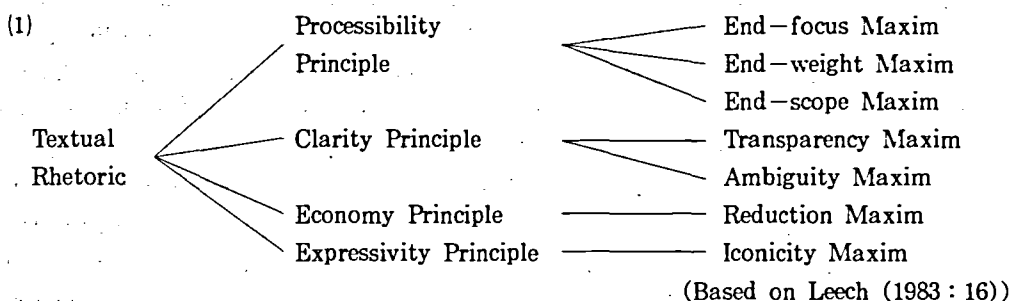
#### (B) cohesive<sup>3)</sup>

1. reference
2. ellipsis and substitution
3. conjunction
4. lexical cohesion

(Halliday 1985 : 313)

Of the features in this component the "information structure and focus" bear immediate relation to the present study.<sup>4)</sup> The central notions are given and new information. Given information is the information that is recoverable to the hearer in that it has been mentioned before. On the other hand, new information is not recoverable because it has not been mentioned. Although in spoken English the information structure is accomplished phonologically by intonation, written English utilizes word order for the purpose. That is, new information is put at the end of the sentence (Halliday 1967, 1985).

Leech (1983) presents a different interpretation for Halliday's framework : though Halliday treats the three component within the domain of grammar, Leech distinguishes between the formal (grammatical and semantic) and the functional (pragmatic) approach to linguistics. That is, ideational grammar belongs to grammar, whereas interpersonal and textual rhetoric belongs to pragmatics. The principles and maxims of textual rhetoric will be presented as (1).



The principles are also guidelines for good language use particularly in writing (Leech *et al.* 1982 : 184). The processibility principle, which guides the writer to present the text in a manner to make it easy for the hearer to decode in time, bears immediate relevance to the syntactic phenomena dealt with in this study. We will look at the two maxims under the principle : the *End-focus maxim* and the *End-weight maxim*.

The End-focus Maxim is concerned with information structure of a sentence. That is, given information is put before new information "for the speaker to proceed from a starting point of information which is assumed to be 'news' to the hearer, and therefore communicatively more salient" (Leech and Short 1981 : 212). The following examples may illustrate the point :

- (2) a. Instead of quinine, the patient was given penicillin, and began to get better almost immediately. Within a week she had recovered completely.
- b. Instead of quinine, penicillin was given to the patient, who began to get better almost immediately. Within a week, she had completely recovered.

(Leech *et al.* 1982 : 188)

In the above examples (2a) is judged to be a better stretch of discourse than (2b) for two reasons : (i) by the contrast with *quinine*, *penicillin* conveys the most important new information in the first sentence, and therefore it should be placed at the end position; (ii) *recovered completely* is a better ordering than *completely recovered* because recovery has already

been mentioned, and it is the adverb *completely* which brings new information (*ibid.* : 188).

Now let us look at the second maxim, namely, the End-weight maxim. Leech and Svartvik (1975 : 175), among others, define it :

The more "weighty" part(s) of a sentence should be placed towards the end. Otherwise the sentence may sound awkward and unbalanced. The "weight" of an element can be defined in terms of length (e. g. number of syllables) or in terms of grammatical complexity (number of modifiers, etc.).

Observe (3a) and (3b).

(3) a. Keats was fascinated by the art and literature of the ancient world.

b. The art and literature of the ancient world fascinated Keats.

(Leech *et al.* 1982 : 189)

(3a) is a happier sentence than (3b) because it follows the End-weight maxim, where the subject, *Keats*, is light and the predicate is a long and heavy constituent. Usually this maxim and the maxim of end-focus are interconnected, or mutually supported, because the more complex a constituent becomes, the more information it is inclined to carry.

## 2.2. Focusing rules

This section looks at three English movement rules proposed in the area of generative grammar. In general they are divided into two sets of rules<sup>5)</sup> : *thematizing rules*<sup>6)</sup> and *focusing rules* (Murata 1982). The former move a constituent to the front of a sentence mainly to realize a smooth connection with the sentence that precedes it. On the other hand the latter move a constituent to the end of the sentence to make it focused (Creider 1979, Werth 1984, Murata 1984, Fukuchi 1985). The syntactic operations do not affect the logical meaning of a sentence and hence the motivation is not semantic. Nor is it syntactically motivated because both of the two related sentences are syntactically well-formed. Rather the motivation is pragmatic view of focusing rules is consonant with Leech's (1983) approach to rhetoric observed in the preceding section.

Here we will deal with three focusing rules : extraposition from NP (noun phrase) (4), heavy NP movement (5), and dative movement (6)<sup>7)</sup>. Observe the following :

(4) a. The press praised the man who had pitched a no-hit no-run game yesterday in this morning's edition of the Chronicle.

b. The press praised the man in this morning's edition of the Chronicle *who had pitched a no-hit, no-run game yesterday.*

(5) a. I consider the problem of keeping the house warm in the winter unsolvable.

b. I consider unsolvable *the problem of keeping the house warm in the winter.*

(6) a. I gave George the pennywhistle.

b. I gave the pennywhistle to *George.*

(Creider 1979 : 6-11)

In each (b) sentence above the italicized constituents are moved to the end position for the effect of end-focus. According to Creider (1979) the choice of the form is dependent upon the discourse context where the sentence appears.

- (7) a. When did the press praise the man who pitched the no-hit, no run game yesterday?  
 b. Who did the press praise in this morning's edition of the Chronicle?
- (8) a. How will we keep our house warm in the winter?  
 b. That will take care of getting the food in; is there anything that looks like it can't be done?
- (9) a. What did you give to George?  
 b. What did you do with the pennywhistle?

(*op. cit.*)

(4a), (5a), and (6a) answer questions (7a), (8a), and (9a), respectively. (4b), (5b), and (6b) answer questions (7b), (8b), and (9b), respectively.

Thus far we have reviewed theoretical considerations on the motivation of focusing rules. The studies so far have concluded that the discourse accounts for syntactic phenomena. That is, that the discourse context restricts the order of constituents in a sentence. This being verified, it follows that we can have the contextual norm of the application of movement rules. This will be examined by conducting a questionnaire in the form of "contextual analysis" (Celce-Murcia 1980) which investigates the choice of the form of a sentence in a given discourse context.

### 3. The Questionnaire

#### 3.1. Purposes

The questionnaire aimed to investigate the influence of the discourse context on the choice of a sentence of a particular form from the point of view of the information structure and focus. At the same time it aimed to discover the tendency of Japanese FEL learners' preference for the form of a sentence and compare it with that of the native speakers<sup>8)</sup>.

#### 3.2. Participants

The native speakers were 20 college-graduate adults of various nationalities and ages. The Japanese EFL learners were 48 sophomore and junior students majoring in English education at a national university in Japan.

#### 3.3. Instruments

The original instruments included 21 test items of different kinds of structure which were constructed by this author on the basis of linguistic literature. Although the examples given in 2.2 take the form of dialogs, the test items were monologs because the style was assumed to be more typical in written language, which is the mode we are concerned with in the study. The instruments used in the present study are given in Section 4.

#### 3.4. Procedures

The participants were required to select the sentence among the choices which they thought to be appropriate for the discourse context. The choices were given below each test item. The native speakers completed the questionnaire at home and sent it back while the Japanese students filled it out during their regular class. There was no time constraint and they

were allowed to work at their own pace. The questionnaire was carried out in December 1986.

#### 4. Results

Table 1 is the results of 6 test items concerning focusing rules among the 21 test items originally examines. The order of the test items has been changed for clarity. Also the order of choices different from the original : each *b* sentence is the form derived by movement rules. The circled letter in each histogram is the expected answer. The length of the histograms are the proportions of each answer against the total number of responses.

Table 1. The results of the questionnaire

|  |    |     |     |
|--|----|-----|-----|
| 1.1. Test Item 1 (extraposition from NP)   |    |     |     |
| The Honolulu Marathon is going to be held tomorrow. Usually famous runners do not take part in this race. But we have invited a great runner to this race. |    |     |     |
| _____  |    |     |     |
| a. A man who has broken the world record twice in the last two years is running tomorrow.  |    |     |     |
| b. A man is running tomorrow who has broken the world record twice in the last two years.  |    |     |     |
| c. Both a and b.   |    |     |     |
| a  | 10 | ⓑ   | 8   |
|  |    |     | c 2 |
| a  | 32 | ⓑ   | 15  |
|  |    |     | c 1 |
| Native speakers of English   |    |     |     |
| Japanese EFL learners  |    |     |     |
| 1.2. Test Item 2 (extraposition from NP)   |    |     |     |
| Mary never thought that the secret of her brother with the Mafia would be known to others. _____   |    |     |     |
| a. But the rumor that he was secretly engaged to the Mafia circulated all over the town.   |    |     |     |
| b. But the rumor circulated all over the town that he was secretly engaged to the Mafia.   |    |     |     |
| c. Both a and b.   |    |     |     |
| ⓐ  | 13 | b 3 | c 5 |
| ⓐ  | 18 | b   | 29  |
|  |    |     | c 1 |
| Native speakers of English   |    |     |     |
| Japanese EFL learners  |    |     |     |

1.3. Test Item 3 (heavy NP movement)

Only some of the suspects were supposed to be guilty in the case. \_\_\_\_\_

- a. But the judge found every one of the accused of the murder of the movie star guilty.
- b. But the judge found guilty every one of the accused of the murder of the movie star.
- c. Both a and b.

|   |    |   |    |   |   |   |
|---|----|---|----|---|---|---|
| a | 13 | ⓑ | 6  | c | 1 | Native speakers<br>of English<br>Japanese EFL<br>learners |
| a | 25 | ⓑ | 21 | c | 2 |   |

1.4. Test Item 4 (heavy NP movement)

The next thing we have to consider is the means to keep our house comfortable in the cold season. \_\_\_\_\_

- a. But I consider the problem of keeping our house warm in the winter unsolvable.
- b. But I consider unsolvable the problem of keeping our house warm in the winter.
- c. Both a and b.

|   |    |   |    |   |   |   |   |
|---|----|---|----|---|---|---|---|
| ⓐ | 17 |   | b  | 1 | c | 2 | Native speakers<br>of English<br>Japanese EFL<br>learners |
| ⓐ | 17 | b | 30 |   | c | 1 |   |

1.5. Test Item 5(dative movement)

John released his new album on September 21. \_\_\_\_\_

- a. He gave Bruce the album.
- b. He gave the album to Bruce.
- c. Both a and b.

|   |    |   |    |   |   |   |
|---|----|---|----|---|---|---|
| a | 4  | ⓑ | 9  | c | 7 | Native speakers<br>of English<br>Japanese EFL<br>learners |
| a | 14 | ⓑ | 31 | c | 2 |   |

1.6. Test Item 6(dative movement)

Next Monday is John's birthday. Paul was looking in the display of the shop wondering what to buy for him. Finally he decided. \_\_\_\_\_

- a. to buy John a new bag.
- b. to buy a new bag for John.
- c. Both a and b.

|     |    |    |     |   |
|-----|----|----|-----|---|
| Ⓐ   | 15 | b  | c 4 | Native speakers<br>of English<br>Japanese EFL<br>learners |
| Ⓑ 8 | b  | 39 | c 1 |   |

## 5. Discussion of the Results

### 5.1. Discussion of each test item

In Test Item 1, the preceding discourse is about the runner specially invited to the race and hence the focus of the following sentence is the information on the runner. Thus the relative clause which contains the information is separated from the noun phrase and placed at the focal end position: The choice should be *b*. Contrary to expectation, more than half of the native speakers chose *a* which has the relative clause in the mid-position. Similarly Japanese students showed a preference for *a*. This could be accounted for by the intention to avoid the separation between the antecedent and the relative clause. To appropriate Leech's (1983) concept, this tendency is judged to be an example of the realization of the Transparency Maxim (see (1) in 2.1) which encourages semantically adjacent items to be syntactically adjacent.

The discourse context of Test Item 2 requires as a focus of information the unexpected fact that the secret was widely known. The responses of native speakers were consonant with the hypothesis: The preferred choice was *a* where *circulated all over the town* is placed at the end position. However, it may be possible to infer that this is mostly because they were, as seen in Test Item 1, reluctant to divide the noun phrase. It is not immediately clear whether this Transparency maxim or the End-focus maxim was the cause of the choice in the case. As for the Japanese students, more of their choices were on *b*, where extraposition is applied. This may be due to the fact that the heavy subject was judged to be inappropriate. This is not consistent with the result of Test Item 1 where they avoided the extraposition, though the sentence *b* contained a heavy subject. The difference between these two test items is that the former has the relativized NP subject and the latter the appositive NP subject. The Japanese students may have assumed the constraint of the positioning was stronger between the relative clause and its antecedent than between the appositive clause and its head.

Test Item 3 and 4 were on heavy NP movement. The sentence which follows the discourse context in Test Item 3 ought to focus the number of the accused who were judged to be guilty. Thus *b* is more appropriate than *a* because the former places the constituent to be focused on at the focal end position by heavy NP movement while *a* has the heavy object bearing new information in the mid position. The results of the native speakers' responses were contrary to expectation. This may be attributable to *a*'s violation of the order SVOC for SVCO. As Rutherford (1987) points out, English typologically belongs to the language group of grammatical word order and has the characteristics of maintaining the SVO order. The test item is a case of conflict between grammatical word order and pragmatic word order. Presumably syntactic typological characteristics overrode discourse demand in this case. Thus it can be said that the ordering cannot be accounted for solely

by discourse principles. The Japanese students showed no particular preference between the two sentences.

It was assumed that Test Item 4 would favor *a* on the ground that the most important information in the sentence that follows is the fact that the problem is unsolvable. The native speakers' responses confirmed this prediction. In this case the strong preference for *a* is due to the fact that the information structure conformed to the syntactic order of SVOC and two ordering principles mutually supported this sequence of constituents. On the other hand the Japanese students readily chose *b* more than *a* probably because they were too conscious of the heavy object.

Test Item 5 and 6 were concerned with dative movement. In Test Item 5 the album is already mentioned in the discourse context and is thought to be given information. Thus the person to whom the album was given is the focus and is placed at the final position. As predicted the native speakers' choice of *b* was dominant, though a considerable number of choice *c* was observed. Japanese students also chose more *b* than *a*.

In Test Item 6 the discourse context is concerned with John's birthday present. Thus the information of the present should be focused on in the sentence that follows. The result was as expected: A greater number of native speakers preferred *a*, where the focused constituent, namely, *a new bag* is placed at the end of the sentence. Interestingly the Japanese strongly favored *b*, which has the identical word order as the preceding sentence. It is possible that they chose *b* to maintain the word order *to buy something for somebody*.

## 5.2. Discussion of the problematic points

As observed in 5.1, the results of the native speakers' in Test Item 1 and 3 were inconsistent with our predictions. This seems to lead us to the conclusion that the influence of context on movement rules is not decisive. Before we draw this conclusion let us conduct a closer pairwise inspection between Test Item 1 and 2; and that of Test Item 3 and 4. We will pay attention to the number of the choice *b*, where extraposition from NP and heavy NP movement were applied in each pair. The number of *b* choices in Test Item 1 and 2 were 8 and 3, and in Test Item 3 and 4 were 6 and 1, respectively. The differences in number seem to suggest that there is some influence, even if is not decisive, of discourse context on the adoption of the movement rules.

The results of Test Item 2 and 4 are also of our interest because they suggest that the Japanese students paid too much attention to the End-weight maxim. That is, though the discourse context of the two Test Items did not require the sentence where the constituent was moved, Japanese students strongly preferred such sentence probably because they were conscious of the End-weight maxim. This in turn implies that they did not attend to the End-focus maxim which is inferred by the information contained in the discourse context because the moved constituent was heavy but did not bear new information.

## 6. Conclusions

From these results it can be concluded that Japanese students seemed to notice the End-weight maxim. It was especially remarkable in the case of heavy object and they



were inclined to overuse it regardless of the information contained in the heavy constituent, which means they ignored the maxim of End-focus. On the other hand they were refrained from keeping it for the relativized NP and the appositive NP in case they separate the head and the clause.

Native speakers did not show a uniform preference in the choice of the or of a sentence. This result at least did not strongly support the constraint of discourse context in the choice. Rather the use of a particular form would be dependent on the internal pragmatic intention of the writer and for that reason it was unsuccessful to elicit the information from the linguistic contextual analysis taken up in this study. Thus it would be impossible to formulate the absolute external discourse restrictions on the form of a sentence. However, discourse restrictions aside, since the internal pragmatic intention of the writer is in its nature singularly dependent upon the writer himself, it will not be meaningless to teach movement rules to help EFL learners achieve the pragmatic motivation on condition that they have mastered various constraints of the movement rules (cf. Araki (ed.) 1986). The acquisition of the constraints, which is the prerequisite to prevent overgeneralized use, will be subject to future research.

Finally, the instruments used in the questionnaires were highly artificial and in that sense they may not have represented the kind of sentence Japanese students would write. To solve the problem instruments should be designed on the basis of sentences taken from compositions written by Japanese EFL students themselves.

## Notes

1. I will not make a distinction between *text* and *discourse* in the sense of Widdowson (1978) and will use each term according to the original use of the authors.
2. Tabé's (1985) Study aims to explore English grammar from the perspective of production and addresses discourse grammar for the purpose.
3. Halliday and Hasan (1976) is a detailed descriptive study of cohesive features, i. e., *cohesion*.
4. We are not concerned with thematic structure because this feature is associated with the beginning part of the sentence. Taglicht (1984) points out the negligence of the end position in Halliday's (1967) thematization and proposes the concept of *marked rheme* for the integrated treatment of constituent ordering.
5. For comprehensive examples, see Quirk *et al.* (1985), Chapter 18.
6. Different terms are used for these rules : *topicalization* (Creider 1979) or *fronting* (Quirk *et al.* (1985)).
7. Creider (1979) regards dative movement as topicalizing rules ; namely, (6a) is derived from (6b) rather than the other way around. Murata (1982 : 248), however, deems this to be a focusing rule. It is not my intention to discuss which sentence is the derived form.
8. This line of study includes Kaplan (1983) which investigates the choice of a sentence by native and non-native speakers of English with regard to topic and focus of discourse.

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