

LEARNING SUPPORT FOR TENSE SELECTION OF ENGLISH COMPOSITION BY ASKING BACK QUESTIONS

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Abstract: There are several differences between Japanese and English expressions, such as the usage of tenses. Japanese speakers generally use the past tense in Japanese sentences whether the past actions or events have some connection with the presents. Because of the usage of the past tense in Japanese, Japanese speakers often mistakenly use the past tense in English sentences when they should use the present perfect tense. In order to select suitable tenses in English sentences, Japanese speakers should pay attention to the presence of connection between the past and the present because they are not described clearly in Japanese sentences. To solve this problem, in this paper, we propose a learning support method for English composition by using asking back questions. Our system asks users back, make them pay attention to the presence of connection between the past and the present, and help them to determine which tense is suitable, the past tense or the present perfect tense.

1 INTRODUCTION

It is difficult for Japanese students to study English writing because there are several differences between Japanese and English expressions. For example, Japanese speakers treat tenses differently from English speakers. Take the past tense and the present perfect tense for example. In English, the past tense and the present perfect tense are used to talk about the past. The past tense is used to talk about past actions and events.

(ex 1) I told him yesterday.

In (ex 1), the speaker uses the past tense of tell, *told*, and intends to show the action is the past action. On the other hand, the present perfect tense is used to show that past actions or events have some connection with the present.

(ex 2) I have already told him.

In (ex 2), the speaker uses the present perfect tense of tell, *have told*, and intends to show the action has some connection with the present. As shown, in English, it is necessary to show clearly whether past actions or events have some connection with the present. On the other hand, in Japanese, it is not necessary to show clearly whether past actions or events have some connection with the present. For example,

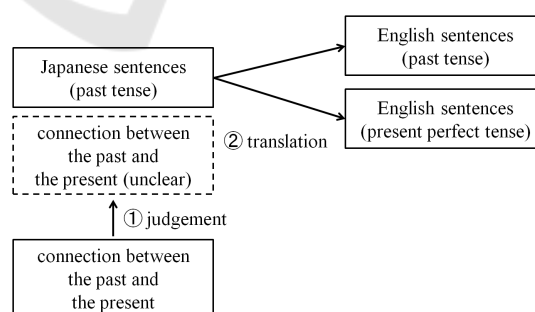


Figure 1: The translation process of Japanese sentences about the past into English: 1. judgement about the presence of connection between the past and the present, 2. translation.

(ex 3) *kinou* (yesterday), *kare ni* (him) *hanashita* (told).

(ex 4) *mou* (already) *kare ni* (him) *hanashita* (told).

(ex 3) and (ex 4) should be translated as (ex 1) and (ex 2), respectively. However, in both (ex 3) and (ex 4), the Japanese speakers use *hanashita* (told), which is the past tense of *hanasu* (tell). As shown, Japanese speakers generally use the past tense in Japanese sentences whether the past actions or events have some connection with the presents. Because of the usage of the past tense in Japanese, Japanese students often mistakenly use the past tense in English sentences

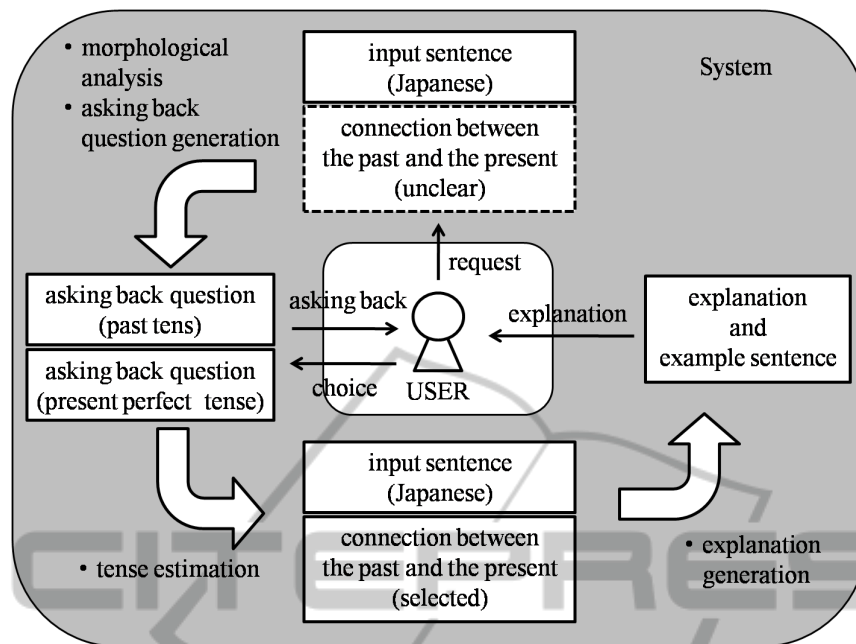


Figure 2: System overview.

when they should use the present perfect tense. In order to select suitable tenses in English sentences, Japanese students should pay attention to the presence of connection between the past and the present because they are not described clearly in Japanese sentences (Figure 1).

A considerable number of studies have been made on English composition support by extracting English expressions from Web documents (Oshika 05) (Takeda 94) (Yamamoto 99) (EDP 07). In these studies, however, little attention has been given to the differences between Japanese and English expressions. Suppose that a Japanese student wants to translate (ex 4), and then, (ex 1) and (ex 2) are given as the translation examples of (ex 4) to the student. If the user does not know that the presence of connection between the past and the present is the key to distinguish the past tense and the present perfect tense, it is difficult to determine which example sentence is proper. As a result, it is important to make students pay attention to the presence of connection between the past and the present.

To solve this problem, we propose a learning support method for tense selection of English composition by asking back questions. Our system asks users back, make them pay attention to the presence of connection between the past and the present, and help them to determine which tense is suitable, the past tense or the present perfect tense.

2 ASKING BACK QUESTIONS ABOUT CONNECTION BETWEEN THE PAST AND THE PRESENT

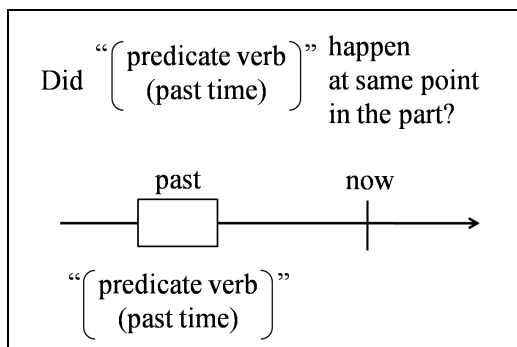
In this study, we deal with two types of tenses to talk about the past.

past tense we use this tense to talk about the past: short, quickly finished actions and happenings. For example, this tense is used in (ex 1).

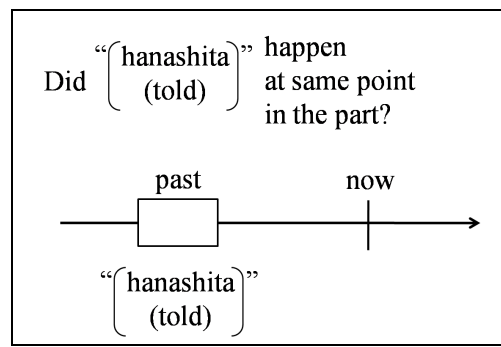
present perfect tense we use this tense to say that something in the past is connected with the present in some way. For example, this tense is used in (ex 2).

As mentioned, because of the usage of the past tense in Japanese, Japanese students often mistakenly use the past tense in English sentences when they should use the present perfect tense. The key to determining which tense is suitable is to pay attention to the presence of connection between the past and the present.

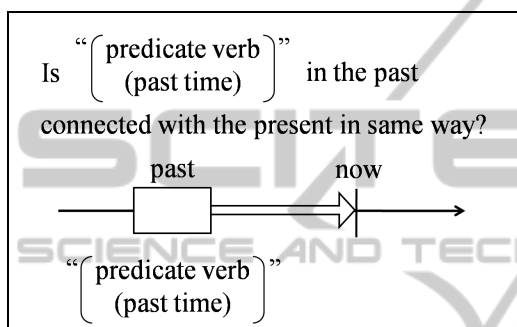
To solve this problem, our system asks users back and make them pay attention to the presence of connection between the past and the present. Figure 2 shows the overview of our system. Our system applies morphological analysis(Kurohashi 05) to an input sentence, extracts a predicate verb in the past tense from it, generates two types of asking back questions according to the rules in Figure 3, and gives them to



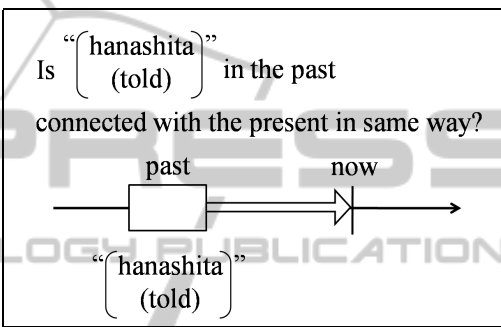
(a) Generation rules of asking back questions for the past tense



(a) An example of asking back questions for the past tense



(b) Generation rules of asking back questions for the present perfect tense



(b) An example of asking back questions for the present perfect tense

Figure 3: Generation rules of asking back questions for the past tense and present perfect tense

Figure 4: Examples of asking back questions for the past tense and present perfect tense

the user. As shown in Figure 3, asking back questions consist of questions and time relation charts. Take (ex 5) for example.

(ex 5) *sakuban* (last night), *kare ni* (him) *hanashita* (tell).

From (ex 5), our system extracts “*hanashita* (told)” as a predicate verb in the past tense. Then, according to the rules in Figure 3, our system generates two types of asking back questions:

- asking back question for the past tense (Figure 4 (a))
- asking back question for the present perfect tense (Figure 4 (b))

Then, the user answers the asking back questions while he/she pays attention to the presence of connection between the past and the present. According to the answer, our system generates an explanation and an example sentence. By using the explanation and example sentence, the user can translate (ex 5) into English. Figure 5 (a) shows the explanation and example sentence which our system gives to the user when he/she determines that there is no connection between the past and the present. On the other hand,

Figure 5 (b) shows the explanation and example sentence which our system gives to the user when he/she determines that there is some connection between the past and the present.

3 EXPERIMENTAL RESULTS

To evaluate our method, we examined whether eight Japanese students could select suitable tenses for the given sentences. In this experiments, we gave the following Japanese sentences to the students.

(problem 1) *kinou* (yesterday), *kare ha* (he) *koko ni* (here) *tsuita* (arrived).

(problem 2) *2 jikan mae* (two hours ago), *sono hikouki ha* (the airplane) *ririku shita* (took off).

(problem 3) *watashi ha* (I) *kagi wo* (key) *nakushita* (lost). *dakara* (as a result) *ima* (now) *ie ni* (home) *hairennai* (cannot enter).

(problem 4) *dareka ga* (someone) *watashi no* (my) *credit card wo* (credit card) *nusunda* (stole). *dakara* (as a result), *ima* (now) *nani mo* (anything) *kaenai* (cannot buy).

Table 1: Experimental Results.

	first test (no asking back questions)		second test (asking back questions)	
	past tense	present perfect tense	past tense	present perfect tense
(problem 1)	<u>8</u>	0	<u>7</u>	1
(problem 2)	<u>8</u>	0	<u>7</u>	1
(problem 3)	7	<u>1</u>	0	<u>8</u>
(problem 4)	7	<u>1</u>	1	<u>7</u>

explanation “predicate verb (past tense)” is the past action or event. Please use the verb in the past tense when you translate this sentence into English.

example *kinou* (yesterday), *shukudai ga* (homework) *owatta* (finished).
I finished my homework yesterday.

- (a) The explanation and example which our system gives to the user when he/she determines that there is no connection between the past and the present.

explanation “predicate verb (past tense)” is the past action or event which is connected with the present in some way. Please use the verb in the present perfect tense when you translate this sentence into English. However, you do not use the present perfect tense when the sentence includes adverbs of finishing time (like yesterday, last week, in 1990, etc).

example *mou* (already) *shukudai ha* (homework) *owatta* (finished).
I have already finished my homework.

- (b) The explanation and example which our system gives to the user when he/she determines that there is some connection between the past and the present.

Figure 5: Examples of explanations and example sentences generated according to user’s determination of the presence of connection between the past and the present. In fact, explanations are written in Japanese and “predicate verb (past tense)” is replaced by a predicate verb (past tense) extracted from an input sentence.

In (problem 1) and (problem 2), the suitable tenses were past tenses. On the other hand, in (problem 3) and (problem 4), the suitable tenses were present perfect tenses. In this experiment, we conducted two tests. In the first test, our system did not give asking back questions to the students. We examined whether the students could select suitable tenses without the support of our system. In the second test, our system gave asking back questions to the students. We examined whether the students could select suitable tenses by using asking back questions. Table 1 shows the experimental results. In Table 1, underlined num-

bers show the numbers of students who select the suitable tense. As shown in Table 1, in the first test, the students mainly used past tenses. The result of the first test shows that Japanese speakers often mistakenly use the past tense in English sentences when they should use the present perfect tense. On the other hand, the result of the second test shows our method is useful to help users to select suitable tenses in English sentences. However, two students mistakenly determined that present perfect tenses were suitable for (problem 1) and (problem 2) in the second test. In the first test, they correctly determined that past tenses were suitable for (problem 1) and (problem 2). We interviewed these two students and found that they did not know we do not use the present perfect tense with adverbs of finished time. To reduce these failures, we are considering adding new explanation to asking back questions: we do not use the present perfect tense with adverbs of finished time (yesterday, two hours ago, etc.).

In order to talk about the past, we use six different tenses in English sentences:

- past tense (I worked),
- past progressive tense (I was working),
- present perfect tense (I have worked),
- present perfect progressive tense (I have been working),
- past perfect tense (I had worked), and
- past perfect progressive tense (I had been working).

In this study, we dealt with only two of them: the past tense and the present perfect tense. We will examine whether our asking back method is useful when other kinds of tenses are suitable for the given sentences.

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