

2021 年度『日本語教育』論文賞受賞論文—概要—
**Research Paper Summary for the 2021 Best Paper Award
of the Society for Teaching Japanese as a Foreign Language**

**Does *moshi* Facilitate the Comprehension of Japanese Conditionals?:
An Examination of Sentence Processing Using a Self-Paced Reading
Experiment**

ICHIE Ai

This study focuses on the characteristics of Japanese conditional sentences and the nature of the adverb *moshi*, and examines the influence of *moshi* on the understanding of conditional sentences based on an analysis of real-time sentence processing.

A noteworthy characteristic of Japanese conditional sentences is that they are able to express both hypothetical (1) and factual (2) situations. Furthermore, subordinate clauses are marked by a conjunctive expression placed at their end, so in the course of reading the clause it is not immediately obvious whether it is a subordinate clause, not to mention whether it is a conditional clause. Thus to understand a conditional sentence in Japanese it is necessary to distinguish between the concepts of hypothesis and fact, as well as to identify the subordinate clause syntactically. The forms in which such hypothetical and factual conditions are expressed differ from language to language. For example, in English, *if* is used for a hypothetical condition (1) and *when* for a generic condition (2), while in German, a single expression *wenn* is used for both (1) and (2), the same form used for marking temporal clauses. In addition to these differences in the linguistic forms expressing hypothesis and fact, there is also a cross-linguistic difference in word order, i.e., whether the conjunctive form is placed at the beginning or at the end of the clause. For example, Korean uses a post-positional form, as does Japanese, while English and German use pre-positional forms.

- (1) 100万円があつたら、車を買おう。

Hyaku-man-en ga attara, kuruma o kaō.

‘If we have a million yen, let’s buy a car.’ (hypothetical condition)

- (2) 日本では、春になったら桜が咲く。

Nihon de wa, haru ni nattara sakura ga saku.

‘In Japan, the cherry blossoms bloom when spring comes.’ (generic condition)

There is also, on the other hand, the adverb *moshi*, which is often used in Japanese conditional sentences. It is not syntactically involved in the formation of conditional sentences, but it always

precedes the clause-final conjunctive form, and clearly indicates that the sentence is a hypothetical conditional sentence. Sentence processing is said to proceed incrementally, and in Japanese, where conditional subordinate clauses are not marked as such until their ending, the appearance of *moshi* may allow the reader to foresee that the sentence in question is a hypothetical conditional sentence, thus facilitating understanding. For L1 learners of languages such as English and German, where the conjunctive expression indicating a hypothetical conditional is pre-positional, the presence of the adverb *moshi* might particularly facilitate sentence processing.

Based on these considerations, the research questions for this study are as follows. Does *moshi* allow one to foresee that a clause is hypothetical, thus facilitating the understanding of a conditional sentence? Also, does this benefit differ between speakers of Japanese and learners of Japanese? Furthermore, is there a crosslinguistic influence that depends on the L1 of Japanese language learners? We will examine these questions by looking at the influence of *moshi* on sentence processing.

The experimental method used was a self-paced reading experiment. Participants in the experiment were native Japanese speakers and learners of Japanese who had four different languages as their L1. The L1s, Korean, Chinese, English, and German, were selected so as to provide different combinations of two factors: whether there is a distinction between the linguistic forms for hypothetical and generic conditions, and the position of the linguistic forms that mark conditions within their clauses. Learners' proficiency was controlled at the intermediate level with an objective test. For the experiment, I predicted that learners would read the following sentences faster and more accurately if *moshi* helped them process the sentences. I measured and analyzed the reading time for the conditional-form part, and the response time to the sentence-content verification task, and the percentage of correct responses. Three types of stimulus sentences were prepared: ones in which *moshi* occurs at the beginning of the sentence (3), or immediately before the verb (4), and sentences in which *moshi* did not occur (5). In all of these sentences, the conditional clause is marked by the conditional form *futtara* of the verb *furu* 'fall from the sky':

- (3) もし 今日 雨が たくさん ふったら, サッカーの試合を 延期しよう。
Moshi kyō ame ga takusan futtara, sakkā no shiai o enki shiyō.
- (4) 今日 雨が もし たくさん ふったら, サッカーの試合を 延期しよう。
Kyō ame ga moshi takusan futtara, sakkā no shiai o enki shiyō.
- (5) 今日 雨が たくさん ふったら, サッカーの試合を 延期しよう。
Kyō ame ga takusan futtara, sakkā no shiai o enki shiyō.
'If it rains a lot today, let's postpone the soccer match.'

Statistical analysis was conducted on the results for native speakers of Japanese and learners of Japanese, with the dependent variables of reading time, correct response rate, and response time, and the significance level set at 5%. First, a one-factor analysis of variance was conducted for the native Japanese speakers: 1 (language: Japanese) × 3 (position of *moshi*: sentence-initial, before verb, without *moshi*). The results showed that reading time, correct response rate, and response time were

all non-significant, indicating that for native Japanese speakers, neither the presence or absence of *moshi*, nor its location, affect the real-time sentence processing process.

Next, a two-factor analysis of variance was conducted for Japanese learners: 4 (language: Korean, Chinese, English, German) × 3 (position of *moshi*: sentence-initial, before verb, without *moshi*). The results, unlike those for the native Japanese speakers, showed that although the position of *moshi* did not matter, the presence of *moshi* significantly shortened the reading time and significantly increased the percentage of correct responses. Response time was not affected by *moshi*. Further, none of these results were related to learners' L1.

These results indicate that for native speakers of Japanese, *moshi* has no effect on the comprehension of Japanese hypothetical conditional sentences, but for learners of Japanese, the presence of *moshi* facilitates the comprehension of Japanese conditional sentences, an effect common for all learners, without any apparent crosslinguistic effect from the learners' L1.

This finding not only contributes to the clarification of the comprehension process in second language acquisition research, but also provides a concrete benefit to Japanese society. Conditional expressions in Japanese are one of the most difficult items to acquire because of the need to master distinctions among the diverse usages of several different linguistic forms. In fact, hypothetical concepts themselves are considered cognitively demanding, and are probably more burdensome for L2 learners. If the presence of *moshi* facilitates understanding, however, its use in conditional clauses such as *Moshi jishin ga attara ...* 'If there is an earthquake ...' may make it easier for foreigners to understand public announcements about disasters. Applying the results of second language acquisition research to Japanese language pedagogy, may add to the store of useful knowledge for Japanese society in its endeavours to promote multicultural coexistence.

(Tokyo Metropolitan University)

(published in the April 2021 edition of the Association's *Journal of Japanese Language Teaching*)