

Lexical Inferencing on Unknown Figurative Senses of Japanese Polysemous Verbs by Chinese Learners of Japanese:
Effects of L2 Proficiency, Semantic Overlap and Contextual Richness

CUI Xiaowen

Japanese polysemous verbs are often used in everyday life and are often introduced at the initial stage of second language (L2) acquisition, making it seem like to be easy to acquire. However, since polysemous verbs generally have multiple senses, their interpretation varies depending on the context in which they are used. L2 learners often misinterpret the new figurative senses of polysemous verbs encountered in reading materials, as they tend to apply their prior understanding of the word's known senses to new contexts. Therefore, this thesis aims to examine factors affecting the accurate inferencing of unknown figurative senses of Japanese polysemous verbs where the core sense is known, as well as the use of different knowledge sources for Chinese learners of Japanese (CJL).

This thesis consists of four studies. Study 1 examined the effects of three factors, namely L2 proficiency, semantic overlap, and contextual richness on the degree of inferencing accuracy of the unknown figurative senses of polysemous verbs. As a result, it was found that CJL were more likely to succeed in lexical inferencing when they had higher L2 proficiency, when the figurative sense had a higher degree of semantic overlap to the core sense, and when contextual information was abundant in the experimental sentences.

Study 2 investigated the types and number of knowledge sources used during lexical inferencing by analyzing the speech protocols of CJL. In inferring the figurative senses of polysemous verbs, the use of 4 main knowledge sources and 16 detailed knowledge sources was observed. The most frequently used main knowledge sources were "Sentence Level" and "Word Level", while "World Knowledge" and "L1-based" were rarely used. The usage frequency of the main knowledge sources was not influenced by the three factors. The most frequently used detailed knowledge sources were "The Meaning of The Entire Sentence" and "Collocation", followed by "The Core Sense", and occasionally "Kanji of The Target Word" and "Other Figurative Senses". "Sentence Grammar", "World Knowledge", "Some Words and Phrases", "L1 Word Collocation", and "Word Form" were used to a small extent, while "Word Association", "Prior Knowledge", "Word Collocation", "Incorrect Knowledge of The Target Word Meaning", "L1 Word Form", and "Punctuation" were each used at 1% or less and were rarely used. The usage frequency of various detailed knowledge sources was influenced by the three factors.

It was also found that CJL generally preferred the use of multiple knowledge sources compared to a single knowledge source. The overall number of knowledge sources used did not vary with L2 proficiency but was influenced by semantic overlap and contextual richness. The higher the semantic overlap of the figurative sense to the core sense, the less contextual information was available, leading to a significantly greater number of knowledge sources used. However, the number of knowledge

sources used per word inferencing ranged from three to two, with a few instances of four and one, but rarely exceeding five. It was also found that the number of knowledge sources used for per word inferencing was influenced by the three factors.

In Study 3, the relationship between the types and number of knowledge sources used by CJL and the degree of inferencing accuracy was examined. Regarding the relationship between the types of knowledge sources used and the degree of inferencing accuracy, the main categories showed that the use of "World Knowledge" significantly increased the degree of inferencing accuracy, while the use of "L1-based" significantly decreased it. Further analysis of the detailed categories showed that the use of "World Knowledge" and "The Core Sense" significantly increased the degree of inferencing accuracy, while the use of "Sentence Grammar", "Other Figurative Senses", "Word Form", "Kanji of The Target Word", and " Incorrect Knowledge of The Target Word Meaning " significantly decreased it.

The overall trend showed that the degree of inferencing accuracy was not necessarily correlated with the number of knowledge sources used. However, there were differences in the degree of inferencing accuracy depending on the number of knowledge sources used per word inferencing, with the use of a single knowledge source resulting in significantly lower accuracy compared to using multiple knowledge sources. Furthermore, when multiple knowledge sources were used, increasing the number of knowledge sources used did not significantly improve the degree of inferencing accuracy.

Then, a detailed examination of the combination patterns of knowledge sources used by individuals who were successful in lexical inferencing and those who were not revealed the characteristics of each group.

Study 4 examined whether retention of inferred senses was observed immediately and two weeks after the lexical inferencing, and whether the effects of retention were influenced by the three factors. The results showed that CJL's scores were highest for the lexical inferencing activity, followed by the immediate test, the delayed test, and the pre-test. This indicated that CJL were able to acquire the new figurative senses of some polysemous verbs and retain them in the long term. Regarding the effects of the three factors on retention, the influence of L2 proficiency and semantic overlap were observed in both the immediate and delayed tests. On the other hand, the influence of contextual richness was observed only in the immediate test and had mostly disappeared in the delayed test.

This study aims to clarify the effects of three factors : L2 proficiency, semantic overlap, and contextual richness on the accuracy and retention of inferring unknown figurative senses of Japanese polysemous verbs for Chinese learners of Japanese, and by examining the use of different knowledge sources (types and number) during the lexical inferencing and their relationship with the degree of inferencing accuracy, this study sheds light on the mechanism of inferring unknown figurative senses of polysemous verbs. As there is a limited amount of research on lexical inferencing of Japanese polysemous verbs, the empirical investigation of these issues is important. Furthermore, the findings of this study are expected to provide useful insights for teaching polysemous verbs.