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# Study on sense-making process in word-formation of Japanese compound verbs

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The purpose of this study is to clarify the mechanism of the sense-making process for creating new word. The sense-making process includes two parts: the formation of meaning and understanding of meaning. Infinite words could be created and then understood by us human beings. In order to understand the mechanism of human capability of creating and understanding new words, this study aims to investigate the mechanism for Japanese native speakers to create new compound verbs and to make sense of the new compound verbs.

Compound verbs play an important role in the verb system in Japanese, with various combining patterns and thus various meanings. Compound verbs have different meanings, some of them keep the same meaning of primitive words, some gain new meaning. The formation of compound verbs is constrained by many rules. The previous researches have studied the constraint of the formation of compound verbs and the semantic description of them, but the mechanism of making sense of them has not been clear enough. This study focused on the formation and understanding of the meaning of compound verbs by observing the formation process of new compound verbs. Taking experimental approach is one of the characteristics of this research. Analyzing the existing compound verbs is not enough to understand the process and mechanism of meaning formation.

The study tried to clarify three concrete problems in the formation process of new compound verbs. The first is what kinds of the compound verbs can be created in this

process. The second is what kinds of meaning have been made. The third is how other people understand the meaning of the new compound verbs.

We carried out experiment in this research. The experiment includes two parts: the first part deals with the formation of new compound verbs, the second part deals with the understanding of new compound verbs. In the first part, a group of participants, Japanese native speakers, were asked to create 3 new compound verbs freely using 8 primitive verbs. We named first group of people creators. In the second part, another group of participants were asked to read the new compound verbs made by the first group and write down their understandings. We named the second group of people readers. We also asked the readers to make an evaluation of the similarity between their understanding and the primitive sense made by the creators using an 11- point scale questionnaire.

In the first part of the experiment, the first group participants created 45 new compound verbs and explained the meanings of them. We divided the 45 new compound verbs into two types: syntactic compounds and lexical compounds (Kageyama, 1993). The data shows that 36 new compound verbs are lexical compounds. While it is thought that most existing lexical compounds conform to the transitivity harmony principle, we found that 52% of 36 new lexical compounds conform to this principle. This implies that the principle of compound verbs does not exist in the mind of creators, but new compound verbs which do not conform to the principle are not likely to survive in language due to difficulty of understanding of their meanings or difficulty of using the words. Among 8 primitive verbs, there are 3 verbs were chosen in a relatively higher frequency: Aruku (17.8%), Nozomu (16.7%) and Kurusimu (16.7%). Each primitive verb has more than one frame semantics.

According to construction grammar, the meanings of Japanese compound verbs can be divided into 13 kinds of constructional meanings (Noda, 2011). Among 45 new compound verbs created by the creator, the meanings of 39 compound verbs can be assigned to 9 kinds constructional meanings among all these 13 types. The meanings of the rest 6 new compound verbs formed new types of constructional meanings which are created by the participants.

The meanings written by the readers in the second part of the experiment can be divided into 8 kinds of constructional meanings. The understanding of the readers is not all the same with the meanings made by the creators. To make a better understanding of the differences between the creators and the readers, we analyzed the similarity evaluation made by the readers. The data shows that 22 of the new compound verbs got points higher than 6. All of which can be assigned to the existing types of the

constructional meanings in Japanese compound words. And 17 of the compound verbs got points lower than 4. Among the verbs that got lower points in the similarity evaluation, 29% of them have new types of constructional meanings. The data indicates that if a new compound verb cannot be assigned to the existing types of the constructional meanings in a given language, the native speakers using the language might meet some difficulties when they attempt to understand.