An Optimality-Theoretic account of Sa-insertion in Japanese

This research investigates the recent synchronic variation of causatives in Japanese called Sa-insertion (1) from the perspective of Optimality Theory (henceforth OT; Prince and Smolensky 1993). Sa-insertion results in an extra sa in causative phrases, compared to standard causative (2) and is called literally Sa-insertion. Although the previous studies have revealed the property of Sa-insertion with respect to language-internal factors such as the length of the preceding verb and the type of the following element (Sano 2005, among others) as well as language-external factors such as gender and style and the interaction of the significant factors, there has been almost no formal account on the mechanism of the phenomenon. The aim of this research, therefore, is to characterize the phenomenon quantitatively using a corpus and to give an OT account to Sa-insertion.

The corpus used is the on-line full-text database of the minutes of the Diet (henceforth Diet database). The Diet database is characterized by its large scale: It records all the utterances of the members in any sessions and committees from the first Diet (May, 1947) to the present. The large scale of the Diet database enables us to analyze the chronological change of the phenomena. The *Sa*-insertions and standard causatives collected total 317 and 4,708, respectively, and the rate of *Sa*-insertion in all the causatives is 6.31%.

Among the previous studies, Okada (2003) points out that *Sa*-insertion is a double causative. Traditionally, double causative is not allowed in Japanese and one of the causative suffixes is suppressed in double causative construction and a single causative surfaces (Shibatani 1973, among others). As a result, double causative construction and single causative construction surface as identical form: single causative. In *Sa*-insertion, however, two causative suffixes remain intact. Based on the Okada's claim, I characterize *Sa*-insertion as double causative (innovative form) and standard causative as single causative and the variation consists of these two variants.

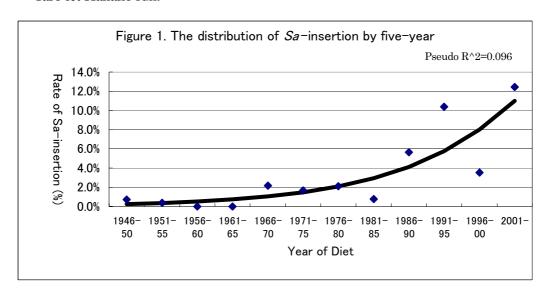
I will proceed an OT analysis assuming the partial ordering model (Anttila and Cho 1998, among others). The result shows that *Sa*-insertion is increasing more and more in recent years and shows the beginning of a language change (Figure 1). A restructuring of conjugation paradigm by analogical leveling and a demand for one to one correspondence of form and content is the driving force of the change. Among the Faithfulness and Markedness constraints, the ranking of OCP (morph) with respect to ParContrast, which requires morphs in a relation of allomorphy to be identical, and AlloCorr, which requires one to one correspondence of form and content, (Ito and Mester 2004) is crucial in the choice of the variants.

I conclude that Sa-insertion is an instance of language change occurring for the optimization of the paradigm. The demand for the optimization is reflected in the ranking and it is changing from OCP (morph) \gg ParContrast, AlloCorr to ParContrast, AlloCorr \gg OCP (morph). Furthermore, the change of Sa-insertion parallels in part that of Ra-deletion (Ito and Mester 2004). This suggests that a global change concerning paradigm optimization is underway in Voice in Japanese.

- (1) a. Taroo-ga Hanako-ni sore-o <u>yar-as-ase</u>-ru.

 Taro-Nom Hanako-Dat it-Acc do-Cause-Cause

 'Taro let Hanako do it.'
 - Taroo-ga Hanako-ni <u>hasir-as-ase</u>-ru.
 Taro-Nom Hanako-Dat run-Cause-Cause
 'Taro let Hanako run.'
- (2) a. Taroo-ga Hanako-ni sore-o <u>yar-ase</u>-ru. Taro-Nom Hanako-Dat it-Acc do-Cause-'Taro let Hanako do it.'
 - Taroo-ga Hanako-ni <u>hasir-ase</u>-ru.
 Taro-Nom Hanako-Dat run-Cause
 'Taro let Hanako run.'



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