Factorial Typology of Prosodic and Morphological Constraints and Distributions of English Suffixes: A Partial Ordering Analysis

Hideki Zamma
Kobe City University of Foreign Studies

Since Chomsky and Halle (1968), it has been widely assumed that English suffixes can be divided into two major categories (Siegel (1974), Allen (1978), Kiparsky (1982), Halle and Mohanan (1986), Halle and Vergnaud (1987), Benua (1997), etc.). The defining characteristics of classhood include, for example, (i) whether or not a suffix is stress-neutral and (ii) whether or not a suffix is capable of attaching to the root base. From time to time in the literature, however, it has been pointed out that some suffixes do not categorically belong to one of these classes. For example, the "dual membership" suffixes exhibit both stress-neutral and root-attaching behaviors (Aronoff (1976), Selkirk (1982), Fudge (1984), Szpyra (1989), Giegerich (1999), etc.). Moreover, it is also pointed out that another kind of "dual membership" suffix actually exists in English lexicon, showing stress-shifting and non-root-attaching behaviors (Zamma (2005)).

Zamma (2005, 2009) proposes that a proper analysis of the problem above can be given within the framework of Partial Ordering Theory (Anttila and Cho (1998), Anttila (2002)). Assuming that various groupings in the lexicon can have different constraint rankings, the dual membership suffixes can be analyzed as having the same rankings as Class 1 and 2 at the same time.

Another advantage of the POT analysis is that it can make quantitative predictions by calculating the proportion of rankings which produce a particular pattern among all the rankings that are logically possible (Anttila (1998, 2002)). Based on a research on the *SOED*, Zamma (2009) investigated how many suffixes (out of 120) actually belong to each of the four classes observed above. Zamma (2009) also made a prediction as to the proportion of each class, under an assumption that some of the possible rankings are excluded by rankings given a priori to English. The result of comparison between the observation and the prediction, however, was rather confusing and it remained unclear if the POT analysis of English suffixes is really appropriate.

The present paper proposes that the POT analysis actually succeeds in properly predicting the proportions of each class. Under a less restrictive assumption as to the a priori rankings, where MPARSE can freely interact with other constraints producing null-parses, it is properly predicted that the fourth kind of suffixes are notably small in number, while the usual "Class 2" suffixes are rather abundant. This result strongly suggests that the analysis of English classhood based on POT is more appropriate than other approaches, and further, that the enterprise of POT is on the right track.