

Complexity-Based Ordering in Italian: some new data

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There are two approaches to affix ordering in Italian: the first one, presented in Scalise 1994, denies the existence of universal restrictions, claiming the exclusive role of selectional restrictions in the combination of affixes; the second one, as discussed in Gaeta 2005, deals with the application of the Complexity-Based Ordering (CBO) (among others: Hay 2002, Hay and Plag 2004, Plag and Baayen 2009).

According to Gaeta 2005, this application is successful: considering the combinations yielded by a 16 suffixes set, this author finds 17 exceptions to a suffix hierarchy; these exceptions are justified by their high semantic and morphotactic opacity or motivated by an internal assumption of the CBO theory i.e. the high degree of relative frequency showed by their types. However, Gaeta 2008, still recognizing the advantage of an approach based on processing, seriously questions a hierarchy of combinability.

The aim of this paper is testing CBO hypothesis against larger data: for this purpose, I considered 33 Italian derivational suffixes and I checked their combinations in the largest Italian dictionary available (GRADIT: 260,000 lemmas). Starting from this data, I built two matrices, one for the 166 combinations in adjacency (e.g. *-izzare+/-bile: realizzabile* 'realizable') and one for the 77 combinations in non-adjacency (e.g. *-ale+[...]+/(z)ione: commercializzazione* 'marketing'); finally, I managed to obtain a suffix hierarchy, re-ordering the largest matrix 'by trial-and-error' i.e. without the use of a computer (see Manova 2010 and Gaeta 2005). I found 39 combinations under the adjacency matrix's diagonal and 30 combinations under the non-adjacency one: 18 out of 39 and 18 out of 30 are mirror-image combinations (BASE-A-B vs. BASE-B-A), including some cases of recursiveness in both groups (BASE-A-A and BASE-A-B-A).

Focusing on mirror-image combinations, I checked these exceptions in two large Italian corpora: La Repubblica (330 millions of *tokens*) and itWaC (1.5 billion of *tokens*); several of these combinations are challenging CBO theory because (a) they show low rates of semantic and morphotactic opacity and/or, probably most important, (b) they show low values of relative frequency. Testing competing/complementary hypothesis, some of these combinations are ruled out by selectional restrictions: nevertheless, this kind of restriction predicts only a small number of combinations (one third, as for my 166 combinations).

Against the previous findings by Gaeta 2005 but according to Gaeta 2008, I therefore claim the incompatibility of CBO with Italian: the processing of complex forms can motivate a formal order (hierarchy) of suffixes only partially; according to Plag and Baayen 2009, this is probably due to the dual nature of processing, which in Italian is more oriented to the parsing of complex forms (decomposition route) rather than the storage/retrieval of them from the mental lexicon (whole-word route).

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