

## **Clitics as Calcified Processing Strategies: The Case Study of Spanish Clitic Placement and the PCC as a Tree-Logic Restriction**

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In this paper, we shall discuss different clitic phenomena within the Dynamic Syntax framework (Kempson et al. 2001, Cann et al. 2005). Firstly, we shall discuss the syntactic changes that occurred in Spanish clitic placement. Secondly, we shall examine the so-called Person Case Constraint (PCC) within various languages.

As for the first part, the historic development of Spanish clitic placement from the 13<sup>th</sup> till the 20<sup>th</sup> century will be traced (Bouzouita 2008). Not only the positioning of the clitic pronouns with respect to the finite verb will be examined but also related phenomena such as interpolation. Generally speaking, two kinds of theoretical explanations can be found in the literature for the diachrony and synchrony of Spanish clitic placement: the formalist explanations (e.g. Martins 2002, 2005; Fontana 1993, 1996) and the functionalist ones (e.g. Nieuwenhuijsen 1999, 2002, 2006; Enrique-Arias 1997, 2005). Whereas the former approach concentrates on the changes in the grammar as they are regarded to be the source of any morpho-syntactic change, the latter focuses on language in use in order to determine how this leads to language change. Despite these two theoretical schools not being internally homogeneous, the formal generativist model can thus be regarded as a top-down approach whereas the functional grammaticalisation framework employs a bottom-up methodology (Fischer 2006). In this paper, on the contrary, we shall argue that the two approaches need to be combined in order to obtain a more complete understanding of morpho-syntactic change. More specifically, we shall show that the synchronic and diachronic facts presented by the Spanish clitic phenomena should be explained within a model that brings together grammatical knowledge and real-time structure building, such as for instance the Dynamic Syntax framework. We shall show that for the morpho-syntactic phenomena under discussion a processing explanation seems more apposite than an account in purely formal theoretical terms as processing/performance factors play an important role in both the diachrony and the synchrony of Spanish clitic placement. More specifically, processing strategies i.e., the different ways of building up semantic content are shown to contribute not only to syntactic intra-speaker variation (e.g. following left-peripheral subjects in Medieval Spanish) but also to syntactic change (e.g. from Medieval to Renaissance Spanish). Another important performance factor in the various syntactic changes is routinisation i.e., the cognitive process whereby expressions get fixed to a relatively great extent in order to create a processing short-cut (Pickering & Garrod 2004). We conclude that it is essential in the study of syntactic micro-variation and change to take into account (i) performance factors (and thus the inherent time-linear processing (parsing/producing) aspect of language) and, more generally, (ii) the interdependency of syntax, semantics and pragmatics.

In the second part of this talk we shall examine how tree-logic constraints can impose morphological restrictions. It has been argued (Ana-Maria Martins 2002, Cann et al 2008, Bouzouita 2008) that clitics constitute calcified processing strategies of free scrambling effects, with Cann et al and Bouzouita modelling clitic distributions within the framework of Dynamic Syntax in which growth of structure is defined in direct reflection of incremental language processing. In this paper, we extend these analyses by arguing that limitations on clitic cluster combinations (the Person Case Constraint (PCC)) can find a straightforward explanation in these

processing-oriented terms. Current structural analyses of the PCC (Anagnostopoulou (2003), Adger and Harbour (2007), Rezac (2008)) ground it in feature-checking failure, with Rezac (2008) in addition invoking a repair strategy in which clitic pronouns can become unstressed strong pronouns during the course of the derivation, an explicitly adopted transderivational constraint. At best, these analyses involve stipulatory decisions as to which clitics have which features, leading to proposed feature assignments which largely lack independent empirical grounding. The alternative, e.g. optimality-theoretic accounts (Bonet 2004, Heap 2005) see the PCC and attendant puzzle of clitic template behaviour as evidence of a morphology component, independent of both syntax and phonology, equally a weakening of the overall theory. Replacing such claims, we argue that the PCC is a restriction on structural underspecification, a hard structural constraint of Dynamic Syntax banning any co-occurrence of two unfixed nodes with the same underspecified address. By definition, nodes in a tree are uniquely identified by their relation to other such nodes; and any node introduced into a tree solely in terms of a weak domination relation cannot be differentiated from any other such node. Clitics are claimed to be lexically-stored tree-growth actions inducing argument relations prior to predicate-argument structure projected by the verb, the range of types of action severally displayed by clitics and clitic clusters matching in full the range of actions determining (local) scrambling effects (reflecting Martins 2002 observation). Included amongst these are that induce structurally underspecified relations. Assuming that dative and 1st/2nd person clitics project locally unfixed nodes (the former in virtue of ranging over adjunct and argument functions, the latter, whenever syncretic, equally reflecting an underspecified argument relation), combinations of dative and 1st/2nd person clitics will be predicted to be impossible by the unfixed node constraint. The constraint is not violated by clitic combinations where one of the clitics induces and decorates a fixed node (accusative). Co-presence of 1st/2nd person pronouns are equally predicted to be precluded, unless the language has developed homonymous forms involving adjunct structure (e.g. Spanish ethical datives). Furthermore, syncretism is not necessary to PCC conformity, since a clitic pair, despite non-syncretism, may constitute output filter case specifications, the core DS case concept (Greek). The PCC is thus explained by wholly general properties of syntax, without reference to feature stipulation, added framework machinery, or principles necessitating an independent morphological component, strongly confirming both the account of the syntactic properties of pronominal clitics as lexicalized reflections of parsing actions (Bouzouita 2008), and, more generally, the grounding of natural-language syntax in the very same tree-growth principles that underpin natural-language processing.