Individual variation and the prosody of Spanish Clitic Left-Dislocations

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This paper deals with individual differences in the prosodic phrasing of clitic left-dislocations (CLLDs) in embedded and non-embedded clauses of Spanish. It proposes an optimality-theoretic analysis of the attested inter-speaker variation. This variation, which previously has been typically ignored or attributed to performance, is considered to be a part of the linguistic competence.

Background: Although it is well known that prosodic aspects such as (a) intonational phrasing, (b) boundary realization, and (c) pitch accent realization differ between languages (Jun 2005), a growing amount of evidence questions whether these aspects are used homogenously within a given language (e.g. Féry 2004, Feldhausen 2010, 2011, Myrberg 2010, Niebuhr et al. 2011). Most of these studies apply the Stochastic Optimality Theory (SOT, Boersma & Hayes 2001) to account for frequency-dependent variation and, as a consequence, constitute an improvement over the categorical, non-probabilistic analyses of different prosodic aspects which are typically proposed. In SOT, free variation arises due to overlapping constraints, as these can generate multiple output forms from a single underlying form. SOT differs from classical OT (Prince & Smolensky 1993/2004) by assuming a continuous ranking scale (↤↦ in Fig.1) and a stochastic candidate evaluation: Constraints have a certain ranking value (e.g. 88, 86, 75 in Fig.1), and the distance between the constraints may vary; constraints are not single points, but rather act as if they are associated with ranges of values (grey boxes in Fig.1). As a consequence, when the ranges of two close constraints overlap (Fig.1a), it is possible that – instead of a 'normal' ranking' – a reverse ranking results and another candidate wins. The distance between the constraints is determined for a given language by SOT. Despite this progress, the SOT approaches suffer a certain shortcoming: They ignore variation between speakers by proposing a "grammar of the average speaker" (see, e.g., the pattern in Fig.1a for all speakers). According to Pierrehumbert (2001:201), variation is an intrinsic part of linguistic competence; the frequency with which a given unit appears is an important factor in how it behaves in the system. If this assumption is correct, a grammar should not abstract away systematic individual differences.

Experiment: Based on data from a production experiment (scripted speech) in which a homogenous group of four native speakers of Peninsular Spanish uttered 144 sentences with non-embedded (***El águila**, la vendió mi hermano* 'The eagle, my brother sold.') and embedded CLLDs (*Bárbara supone que **el águila**, la vendió su hermano* 'Barbara assumes that the eagle, his brother sold'), it is shown here that CLLDs have an obligatory right boundary. In addition, the embedded clause is obligatorily separated from the matrix clause. Inter-speaker variation appears in the phrasing of the matrix clause: the boundary separating the matrix subject (here: *Bárbara*) from the matrix verb (here: *supone*) is optional, and clear frequency-dependent variation exists across the speakers (Realizations of (SV) groupings: Speaker A, 100%; Speaker B, 66%; Speaker C, 72%; Speaker D, 61%).

Proposal: In order to account for individual differences, I propose that the distance between two constraints is not fixed for the grammar of a given language G_L, but rather differs between individual speakers of a given language. The constraint hierarchy remains the same for all speakers. Differences in the frequency of output forms between speakers thus arise due to the different degrees of overlap of the given constraints between these speakers (Fig.1a vs. Fig.1b).

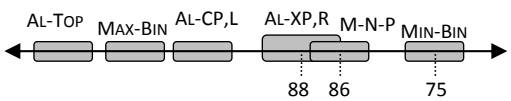

Fig.1a: Overlapping constraints (e.g. speaker D)

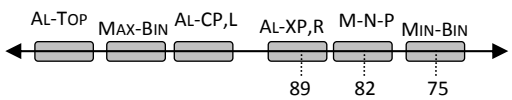

Fig.1b: Non-overlapping constraints (e.g. speaker A)

To account for the findings, I propose the constraint hierarchy ALIGN-TOP >> MAX-BIN$_{(IP\ HEAD)}$ >> ALIGN-CP,L >> ALIGN-XP,R >> MIN-N-PHRASES >> MIN-BIN, in which the two constraints ALIGN-XP,R and MIN-N-PHRASES overlap, thus guaranteeing a reverse ranking in order to account for the variation found in the data. The two constraints ALIGN-TOP and ALIGN-CP,L (Feldhausen 2010) are added to the already established constraints for prosodic phrasing in Spanish (see Prieto 2006 for the other constraints). ALIGN-TOP guarantees the boundary at the right edge of CLLD constituents, while ALIGN-CP,L secures the boundary preceding the embedded clause. Based on the modification of the SOT, I propose that speaker A shows no overlap between MIN-N-PHRASES and ALIGN-XP,R, (since he does not utter any (S)(V) groupings), while speaker D has the highest degree of overlap (with (S)(V) amounting to 39%). Speakers B and C exhibit intermediate degrees of overlap.

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