Prominence on coreference processing: weight of syntactic and order of mention information

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The choice of an antecedent for a pronoun is based on the prominence of the available entities in the discourse, but what makes an entity more prominent over another has been a matter of passionate debate. It is assumed by most that the linguistic form of an anaphoric expression signals the accessibility of its antecedent. Therefore, the more salient an antecedent is in the discourse the less marked and informative will be the anaphoric expression referring to it (Ariel, 1996). Many studies have already shown that anaphoric expressions like null pronouns are preferred to retrieve a sentential Subject as antecedent while overt pronouns are preferred to retrieve non-Subject constituents assuming that syntactic information in its own is responsible for prominence ascription (for instance, Costa et al., 1998, and Costa et al., 2004, for European Portuguese; Corrêa, 1998, and Melo & Maia, 2005, for Brazilian Portuguese; Carminatti, 2002, for Italian, Alonso-Ovalle et al., 2002, for Spanish). However, in all these studies, the Subject was also the first referred entity, and, as Gernsbacher and Hargreaves (1988) propose, first mentioned entities are very prominent, regardless of their syntactic status.

In the present study we attempt to disentangle the weight of Syntactic and Order of Mention information on prominence ascription. To do so, we developed a Visual World Paradigm experiment where 24 Portuguese native-speakers listened to sentences like (1) and (2) and viewed, simultaneously, a picture where the locative and the two referred entities were represented (for instance, with the sentence (1), participants viewed a picture with a garage, an engineer and a technician). We used complex sentences whose subordinate clause is a temporal adverbial with a pronominal Subject (a covert or an overt pronoun) that must be identified by an antecedent in the previous clause. Antecedents in main clauses may be in their canonical position, preserving the basic European Portuguese order (SVO), or not, having the Object at first place and the Subject in post verbal position (OVS). In addition to the listening/viewing task, participants had to chose, on a multiple choice questionnaire, the antecedent for the pronoun.
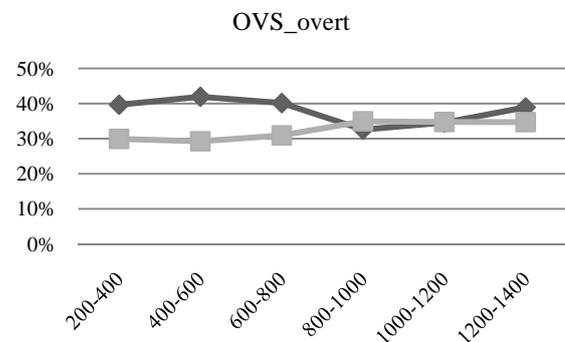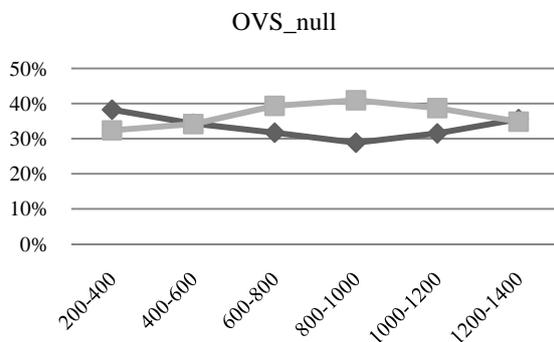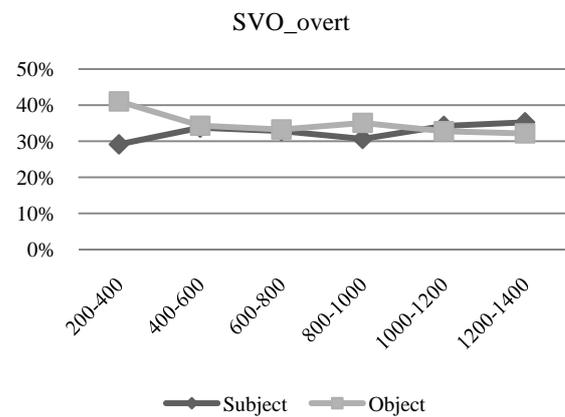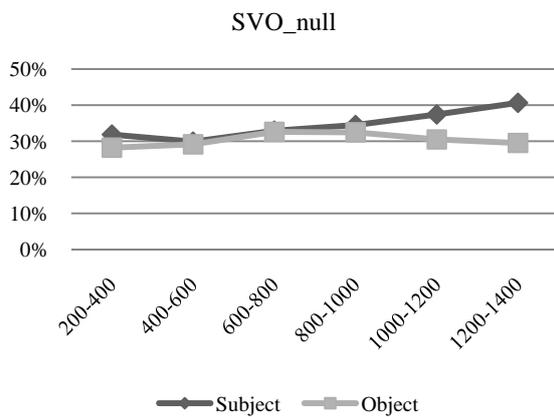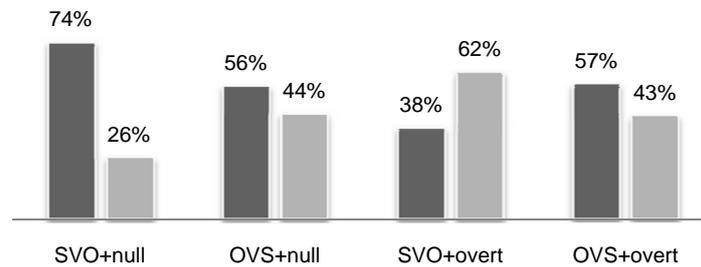
Our results show that: (i) when antecedents are in their canonical position, the expected tendency is confirmed both in the off-line and in the on-line data: the null pronoun retrieves the Subject and the overt one retrieves the Object[1]; (ii) when the Subject is post-verbal and the Object occupies the first position, there are changes in the antecedent retrieving preference. In the answers to interpretation questions, the off-line task, the Subject is preferred both for null and overt pronouns, although the difference between Subject and Object is very narrow. In the on-line task, the Object is preferred for null pronoun while the Subject is the preferred antecedent for the overt pronoun. These results suggest that during on-line processing Order of Mention information may overcome Syntactic one, contributing more to prominence ascription.

(1) *O mecânico trabalhou com o engenheiro na oficina quando Ø/ele remodelou o carro de competição.*
  The technician$_{SBJ}$ worked with the engineer$_{OBL}$ in the garage when Ø/he remodeled the competition car.
(2) *Com o engenheiro trabalhou o mecânico na oficina quando Ø/ele remodelou o carro de competição.*
  With the engineer$_{OBL}$ worked the technician$_{SBJ}$ in the garage when Ø/he remodeled the competition car.

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[1] In this study we use generically the term Object to refer to constituents that are Obliques, i.e., prepositional verb adjuncts.

Answers to questionnaire

■ Subject   ■ Object

	SVO+null	OVS+null	SVO+overt	OVS+overt
Subject	74%	56%	38%	57%
Object	26%	44%	62%	43%

SVO_null

SVO_overt

◆ Subject   ■ Object

OVS_null

OVS_overt

◆ Subject   ■ Object

(x-axis categories for all line graphs: 200-400, 400-600, 600-800, 800-1000, 1000-1200, 1200-1400; y-axis: 0%, 10%, 20%, 30%, 40%, 50%)

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