

Clause order effects on subject pronoun resolution in European Portuguese

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Since Carminati (2002), it has been proposed that subject pronoun resolution in null subject Romance languages (NSRL) is guided by a parsing strategy known as the position of antecedent strategy (PAS), according to which, in intrasentential contexts, “the null pronoun prefers an antecedent which is in the SpecIP position, while the overt pronoun prefers an antecedent which is not in the SpecIP position” (Carminati, 2002, p.57). However, recent research has shown that PAS is less categorical than initially assumed, as there is crosslinguistic (Fiéis et al., 2022; Filiaci et al., 2014) and intralinguistic (Chamorro, 2018; Rocafiguera & Bel, 2022) variation in the interpretation of null and pronominal subjects.

One of the factors that has been proposed to lead to language-internal variation in subject pronoun resolution is clause order. Studies on Spanish have found that the PAS is adopted when the order is subordinate-matrix, but not when it is matrix-subordinate, in which case the null pronoun may recover either a subject or an object antecedent (Chamorro, 2018; Rocafiguera & Bel, 2022). Crucially, overt pronouns are not affected by clause order. These findings have led Martín-Villena et al. (2025) to propose that null and overt pronouns are subject to different processing mechanisms and that only null subjects are malleable to language internal factors such as clause order. To date, no study has investigated the effect of clause order in European Portuguese (EP). One of the few factors that has been considered in previous research on EP is the animacy of the antecedent. The studies have produced mixed results, with some suggesting that the PAS only applies to overt pronouns when the object is animate (Morgado et al., 2018) and others indicating that animacy does not play a role in overt pronoun resolution (Fiéis et al., 2022).

The present study investigates the effects of clause order on the interpretation of third-person subject pronouns in globally ambiguous intrasentential contexts by 30 native speakers of EP, considering the role of animacy. We conducted two multiple-choice interpretation tasks: one with the order (adverbial) subordinate-matrix and the other with the order matrix-subordinate. The tasks crossed the variables *animacy of the object antecedent* (+ human vs. - human) and *type of pronominal subject* (overt vs. null) (see Figures 1 and 2).

In both tasks, the overt subject pronoun tends to recover the object antecedent, regardless of animacy (*contra* Morgado et al., 2018), while the null subject is interpreted as coreferential with the subject antecedent. There is, however, an effect of clause order, but only in the interpretation of overt subject pronouns: the preference for the object is stronger with the order matrix-subordinate than with subordinate-matrix. These results indicate that the overt pronoun is more likely to recover an object antecedent when it is c-commanded by the object (as in matrix-subordinate contexts) and, hence, this antecedent is more salient. Overall, our findings contradict previous research on Spanish, showing that overt pronouns are also sensitive to language-internal constraints.

Figure 1. Sample sentences from the task with the order subordinate-matrix

	<i>[+ human] object</i>	<i>[- human] object</i>
Overt subject	<i>Quando o pai limpou o filho, ele foi para a sala.</i> when the father cleaned the son, he went to the living room	<i>Quando o artista limpou o quadro, ele foi para a exposição.</i> when the artist cleaned the picture, he/it went to the exhibition
Null subject	<i>Quando o pai limpou o filho, [-] foi para a sala.</i> when the father cleaned the son, [-] went to the living room	<i>Quando o artista limpou o quadro, [-] foi para a exposição.</i> when the artist cleaned the picture, [-] went to the exhibition

Figure 2. Sample sentences from the task with the order matrix-subordinate

	<i>[+ human] object</i>	<i>[- human] object</i>
Overt subject	<i>O professor limpou o sobrinho quando ele veio da escola.</i> the teacher cleaned the nephew when he came back from school	<i>O artista limpou o quadro quando ele veio da exposição.</i> the artist cleaned the picture when he/it came back from the exhibition
Null subject	<i>O professor limpou o sobrinho quando [-] veio da escola.</i> the teacher cleaned the nephew when [-] came back from school	<i>O artista limpou o quadro quando [-] veio da exposição.</i> the artist cleaned the picture when [-] came back from the exhibition

Example of test item: Overt subject + human object

Quando o pai limpou o filho, ele foi para a sala.

when the father cleaned the son, he went to the living room

_____ foi para a sala.

_____ went to the living room

o pai, o filho, nem o pai nem o filho (options presented randomly)

the father, the son, neither the father nor the son

References: Carminati, M. N. (2002). *The processing of Italian subject pronouns*. PhD thesis, University of Massachusetts at Amherst. | Chamorro, G. (2018). Offline interpretation of subject pronouns by native speakers of Spanish. *Glossa: A Journal of General Linguistics*, 3(1), 27. | Fiéis, A., Madeira, A., & Teixeira, J. (2022). Microvariation in the resolution of pronominal subjects in Romance: European Portuguese vs. Italian. *Isogloss. Open Journal of Romance Linguistics*, 8(5), 1-20. | Filiaci, F., Sorace, A., & Carreiras, M. (2014). Anaphoric biases of null and overt subjects in Italian and Spanish: a cross-linguistic comparison. *Language, Cognition and Neuroscience*, 29(7), 825-843. | Martín-Villena, F., Sorace, A., & Lozano, C. (2025). The role of subordinating conjunctions in the interpretation of null and overt subjects in native Peninsular Spanish. *Applied Psycholinguistics*, 46, Article e6. | Morgado, S., Luegi, P., & Lobo, M. (2018). Efeitos de animacidade do antecedente na resolução de pronomes sujeito. *Revista da Associação Portuguesa de Linguística*, 4, pp. 190-205. | Rocafiguera, N., & Bel, A. (2022). On the Impact of Clause Order on Pronoun Resolution: Evidence from Spanish. *Folia Linguistica*, 56(1), 1-24.