

# Spanish (proper noun-head) pseudorelatives: a corpus-based study of frequency

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**Abstract** – Pseudorelatives (PRs) have been studied from syntactic and semantic perspectives for decades. The literature contains explanations regarding PRs internal structure, the way PRs relate to the matrix predicate, the position PRs can occupy within the matrix clause and the role the head of the PR plays within the embedded clause. PRs processing and attachment have also been studied from diverse psycholinguistic views. However, there is no corpus-based study showing the actual frequency of use of PRs or the register (i.e. written or spoken texts, genres) where these structures are more commonly found. The goal of this paper is to study the frequency of use of a subtype of PRs, namely Spanish PRs having a proper noun within the DP head and the varieties of Spanish where they appear. To do so, two different search patterns based on the most salient syntactic properties of PRs were built up and applied to CORPES XXI. The results extracted from this research process point towards three main ideas. This subtype of PRs is a very low frequency structure in Spanish, texts from the Chilean and the Mexican and Central American linguistic areas contain the highest frequency values and this subtype of PRs is only registered in written texts up to the moment.

**Keywords** – pseudorelatives, proper noun, corpus, frequency, Spanish, CORPES XXI

## 1. INTRODUCTION

Pseudorelatives (PRs), also known as predicative relatives, are constructions that superficially look like relative clauses (RCs). PRs are formed by a DP<sup>1</sup> (the head) plus an embedded clause headed by a complementizer, which in Spanish happens to be *que* ‘that’. The relation between the head and the embedded clause is a relation of predication.<sup>2</sup> A schematic representation of the PR structure is given in (1):

(1) (SUBJ) + V + a + [PR DPHEAD + QUE + V<sub>TENSED</sub> and IMPERFECTIVE ]

There is no agreement about the kind of predicates that can introduce PRs or the position where PRs can appear (see Casalicchio 2013, Moulton and Grillo 2015b and references therein). For Cinque (1995), certain predicates like *incontrare* ‘meet’, *cogliere* ‘catch’ or *sopportare* ‘stand’ can introduce PRs together with perception predicates. However, Graffi (2017: 115), who considers the “subject-object asymmetry exceptionless only after verbs of perception predicates”, concludes that “perception contexts are the only context where pseudo-relatives constructions occur”. Since the kind of properties that allow

<sup>1</sup> An important part of previous literature on PRs comes from formal syntactic studies on PRs. Thus, despite the fact that this is a corpus study, the terminology used to describe the syntactic properties of PRs has been taken from generative syntax.

<sup>2</sup> See Section 3 for some more details about PRs intended reading.



certain predicates to select a PR complement are not clear yet, this paper will focus on the subtype of PRs that appear in perception contexts that have a proper noun in their DP head.<sup>3</sup>

PRs are present in a great variety of languages, including Spanish (2a), Catalan (2b), Italian (2c), Romanian (2d), Portuguese (2e), French (2f), Galician (2g), Greek (2h), Dutch, Serbo-Croatian, Japanese (2i) or Korean, as opposed to languages like English, Basque or Chinese (Grillo and Costa 2014). The reasons accounting for this particular cross-linguistic distribution are yet unknown.

- (2) a. He vistó a Juan que corría.  
have-PRS.AUX.1SG see-PTCP DOM<sup>4</sup> Juan that run-PST.IPFV.3SG  
'I saw Juan running' (Rafel 1999: 166)
- b. He vistó en Joan que corria  
have-PRS.AUX.1SG see-PTCP - Joan that run-PST.IPFV.3SG  
'I saw Joan running' (Rafel 1999: 166)
- c. Ho vistó Gianni che correva  
have-PRS.AUX.1SG see-PTCP Gianni that run-PST.IPFV.3SG  
'I saw Gianni running' (adapted from Cinque 1995: 1)
- d. Am văzut pe Ion că fugea  
have-PRS.AUX.1SG see-PTCP DOM Ion that run-PST.IPFV.3SG  
'I saw Ion running' (Rafel 1999: 166)
- e. Vejo João que chora  
see-PRS.1SG João that cry-PRS.3SG  
'I saw João running' (Brito 1995: 40)
- f. J'ai vu Jean qui courait  
I.have-PRS.AUX.1SG see-PTCP Jean that run-PST.IPFV.3SG  
'I saw Jean running' (adapted from Guasti 1988: 35)
- g. Eu vin a Xoán que corría  
I see-PST.3SG DOM Xoán that run-PST.IPFV.3SG  
'I saw Xoán running' (Rafel 1999: 166)
- h. Idha ton Yani impe etreche  
see-PST.1SG DOM Yani that run-PST.IPFV.3SG  
'I saw Yani running' (Angelopoulos 2015: 1)
- i. Watashi-ha hashitte-iru Huan-wo mi-ta  
I-SUBJ.TOP run-DUR John-ACC see-PST  
'I saw Huan running' (Ueda, personal communication)

Previous literature has approached PRs from very different angles since the late nineteenth century (Tobler 1884, 1896; Meyer-Lübke 1890-1902). Researchers on semantics, syntax and discourse have been studying PRs for decades (Granville-Hatcher 1944; Schwarze 1974; Radford 1975; Súñer 1978; Graffi 1980, 2017; Guasti 1988, 1992; Kleiber 1988; Campos 1994; Brito 1995; Cinque 1995; Brucart 1999; Rafel 1999; Lambrecht 2000; Scarano 2002; Cecchetto and Donati 2011; Casalicchio 2013, in press; Koopman and Sportiche 2014; Rodríguez-Espíñeira 2014; Angelopoulos 2015; Moulton and Grillo 2015a, 2015b; Grillo and Moulton 2016, among others). PRs have been studied from a psycholinguistic perspective too (Grillo and Costa 2014; Grillo et al. 2015a, 2015b, 2017). However, there is no corpus-based study showing, in Biber et al.'s (1999: 6) words, "what the speakers and writers typically do" and "what they rarely do" concerning PRs. Thus, the aim of this paper is to show the frequency of use of Spanish PRs<sup>5</sup> having a proper noun within the head using CORPES XXI (RAE 2017). It is important to mention that, due to the considerable size of CORPES XXI, only subject PRs (PRs where the DP in head position is the subject of the embedded predicate) are taken into consideration for this study. So, from now on, subject PRs having a proper noun within the DP head will be simply referred as PRs.

The structure of this paper goes as follows. Section 2 presents the most salient characteristics of the target subtype of PRs regarding the construction of the search patterns. Section 3 introduces the search patterns used to find PRs, while Section 4 presents CORPES XXI. Section 5 shows procedures, statistics and results. Finally, Section 6 includes conclusions and further extensions.

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<sup>3</sup> See Section 3 for a detailed description of the contexts that have been considered to develop this study.

<sup>4</sup> Differential object marking.

<sup>5</sup> See Campos (1994), Casalicchio (2013), Angelopoulos (2015) and Aldama (2017) for more information about object PRs.

## 2. METHODOLOGY

The methodology applied to carry out this work was based on five main steps. First, the most salient syntactic properties of the target subtype of PRs were selected. Then, two different search patterns were built up to capture these syntactic properties in an abstract way. In third place, the two search patterns were independently applied to CORPES XXI. The next step was a manual review of the materials to avoid possible inconsistencies, such as repetitions. The repeated concordances were eliminated with Notepad++. Once the data was revised, every instance of PR was manually annotated together with its geographical origin and text category.

## 3. DEFINING PRS

PRs have certain special properties that tell them apart from RC or compleptive clauses. The aim of this section is to briefly present those properties that will be used to build up the search patterns that allow us to detect the target PRs among the corpus materials.<sup>6</sup>

First, PRs allow the presence of clitics (3a), common nouns (3b), proper nouns (3c) or complex DPs (3d) in head position. PRs containing common nouns have ambiguous readings: a restrictive one, as a relative clause (RC), or an eventive-situational one (as a PR).

- |   |   |                       |                    |                    |                |       |                |         |             |      |                    |               |                                |  |  |  |  |  |    |    |   |          |     |       |             |     |          |      |                    |                |                                     |  |  |  |  |  |    |    |   |       |     |       |             |     |       |      |                    |                |                                  |  |  |  |  |  |    |    |   |                  |     |  |             |     |                       |  |     |  |       |  |                |  |  |  |                                  |  |  |  |  |  |   |  |  |  |  |  |                                  |
|---|---|-----------------------|--------------------|--------------------|----------------|-------|----------------|---------|-------------|------|--------------------|---------------|--------------------------------|--|--|--|--|--|----|----|---|----------|-----|-------|-------------|-----|----------|------|--------------------|----------------|-------------------------------------|--|--|--|--|--|----|----|---|-------|-----|-------|-------------|-----|-------|------|--------------------|----------------|----------------------------------|--|--|--|--|--|----|----|---|------------------|-----|--|-------------|-----|-----------------------|--|-----|--|-------|--|----------------|--|--|--|----------------------------------|--|--|--|--|--|---|--|--|--|--|--|----------------------------------|
| (3)   | <table border="0" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">a.</td> <td>La</td> <td>vi</td> <td>que</td> <td>salía</td> <td>de.la.oficina.</td> </tr> <tr> <td>her-ACC</td> <td>see-PST.1SG</td> <td>that</td> <td>leave-PST.IPFV.3SG</td> <td>of.the.office</td> </tr> <tr> <td colspan="6">'I saw her leaving the office'</td> </tr> <tr> <td>b.</td> <td>Vi</td> <td>a</td> <td>la chica</td> <td>que</td> <td>salía</td> </tr> <tr> <td>see-PST.1SG</td> <td>DOM</td> <td>the girl</td> <td>that</td> <td>leave-PST.IPFV.3SG</td> <td>de.la.oficina.</td> </tr> <tr> <td colspan="6">'I saw the girl leaving the office'</td> </tr> <tr> <td>c.</td> <td>Vi</td> <td>a</td> <td>Marta</td> <td>que</td> <td>salía</td> </tr> <tr> <td>see-PST.1SG</td> <td>DOM</td> <td>Marta</td> <td>that</td> <td>leave-PST.IPFV.3SG</td> <td>de.la.oficina.</td> </tr> <tr> <td colspan="6">'I saw Marta leaving the office'</td> </tr> <tr> <td>d.</td> <td>Vi</td> <td>a</td> <td>la.hija.de.Marta</td> <td>que</td> <td></td> </tr> <tr> <td>see-PST.1SG</td> <td>DOM</td> <td>the.daughter.of.Marta</td> <td></td> <td>que</td> <td></td> </tr> <tr> <td>salía</td> <td></td> <td>de.la.oficina.</td> <td></td> <td></td> <td></td> </tr> <tr> <td colspan="6">leave-PST.IPFV.3SG of.the.office</td> </tr> <tr> <td colspan="6">'I saw Marta's daughter leaving the office'</td> </tr> </table> | a.                    | La                 | vi                 | que            | salía | de.la.oficina. | her-ACC | see-PST.1SG | that | leave-PST.IPFV.3SG | of.the.office | 'I saw her leaving the office' |  |  |  |  |  | b. | Vi | a | la chica | que | salía | see-PST.1SG | DOM | the girl | that | leave-PST.IPFV.3SG | de.la.oficina. | 'I saw the girl leaving the office' |  |  |  |  |  | c. | Vi | a | Marta | que | salía | see-PST.1SG | DOM | Marta | that | leave-PST.IPFV.3SG | de.la.oficina. | 'I saw Marta leaving the office' |  |  |  |  |  | d. | Vi | a | la.hija.de.Marta | que |  | see-PST.1SG | DOM | the.daughter.of.Marta |  | que |  | salía |  | de.la.oficina. |  |  |  | leave-PST.IPFV.3SG of.the.office |  |  |  |  |  | 'I saw Marta's daughter leaving the office' |  |  |  |  |  | (adapted from Brucart 1999: 431) |
| a.  | La  | vi                    | que                | salía              | de.la.oficina. |       |                |         |             |      |                    |               |                                |  |  |  |  |  |    |    |   |          |     |       |             |     |          |      |                    |                |                                     |  |  |  |  |  |    |    |   |       |     |       |             |     |       |      |                    |                |                                  |  |  |  |  |  |    |    |   |                  |     |  |             |     |                       |  |     |  |       |  |                |  |  |  |                                  |  |  |  |  |  |   |  |  |  |  |  |                                  |
| her-ACC                                     | see-PST.1SG   | that                  | leave-PST.IPFV.3SG | of.the.office      |                |       |                |         |             |      |                    |               |                                |  |  |  |  |  |    |    |   |          |     |       |             |     |          |      |                    |                |                                     |  |  |  |  |  |    |    |   |       |     |       |             |     |       |      |                    |                |                                  |  |  |  |  |  |    |    |   |                  |     |  |             |     |                       |  |     |  |       |  |                |  |  |  |                                  |  |  |  |  |  |   |  |  |  |  |  |                                  |
| 'I saw her leaving the office'              |   |                       |                    |                    |                |       |                |         |             |      |                    |               |                                |  |  |  |  |  |    |    |   |          |     |       |             |     |          |      |                    |                |                                     |  |  |  |  |  |    |    |   |       |     |       |             |     |       |      |                    |                |                                  |  |  |  |  |  |    |    |   |                  |     |  |             |     |                       |  |     |  |       |  |                |  |  |  |                                  |  |  |  |  |  |   |  |  |  |  |  |                                  |
| b.  | Vi  | a                     | la chica           | que                | salía          |       |                |         |             |      |                    |               |                                |  |  |  |  |  |    |    |   |          |     |       |             |     |          |      |                    |                |                                     |  |  |  |  |  |    |    |   |       |     |       |             |     |       |      |                    |                |                                  |  |  |  |  |  |    |    |   |                  |     |  |             |     |                       |  |     |  |       |  |                |  |  |  |                                  |  |  |  |  |  |   |  |  |  |  |  |                                  |
| see-PST.1SG                                 | DOM   | the girl              | that               | leave-PST.IPFV.3SG | de.la.oficina. |       |                |         |             |      |                    |               |                                |  |  |  |  |  |    |    |   |          |     |       |             |     |          |      |                    |                |                                     |  |  |  |  |  |    |    |   |       |     |       |             |     |       |      |                    |                |                                  |  |  |  |  |  |    |    |   |                  |     |  |             |     |                       |  |     |  |       |  |                |  |  |  |                                  |  |  |  |  |  |   |  |  |  |  |  |                                  |
| 'I saw the girl leaving the office'         |   |                       |                    |                    |                |       |                |         |             |      |                    |               |                                |  |  |  |  |  |    |    |   |          |     |       |             |     |          |      |                    |                |                                     |  |  |  |  |  |    |    |   |       |     |       |             |     |       |      |                    |                |                                  |  |  |  |  |  |    |    |   |                  |     |  |             |     |                       |  |     |  |       |  |                |  |  |  |                                  |  |  |  |  |  |   |  |  |  |  |  |                                  |
| c.  | Vi  | a                     | Marta              | que                | salía          |       |                |         |             |      |                    |               |                                |  |  |  |  |  |    |    |   |          |     |       |             |     |          |      |                    |                |                                     |  |  |  |  |  |    |    |   |       |     |       |             |     |       |      |                    |                |                                  |  |  |  |  |  |    |    |   |                  |     |  |             |     |                       |  |     |  |       |  |                |  |  |  |                                  |  |  |  |  |  |   |  |  |  |  |  |                                  |
| see-PST.1SG                                 | DOM   | Marta                 | that               | leave-PST.IPFV.3SG | de.la.oficina. |       |                |         |             |      |                    |               |                                |  |  |  |  |  |    |    |   |          |     |       |             |     |          |      |                    |                |                                     |  |  |  |  |  |    |    |   |       |     |       |             |     |       |      |                    |                |                                  |  |  |  |  |  |    |    |   |                  |     |  |             |     |                       |  |     |  |       |  |                |  |  |  |                                  |  |  |  |  |  |   |  |  |  |  |  |                                  |
| 'I saw Marta leaving the office'            |   |                       |                    |                    |                |       |                |         |             |      |                    |               |                                |  |  |  |  |  |    |    |   |          |     |       |             |     |          |      |                    |                |                                     |  |  |  |  |  |    |    |   |       |     |       |             |     |       |      |                    |                |                                  |  |  |  |  |  |    |    |   |                  |     |  |             |     |                       |  |     |  |       |  |                |  |  |  |                                  |  |  |  |  |  |   |  |  |  |  |  |                                  |
| d.  | Vi  | a                     | la.hija.de.Marta   | que                |                |       |                |         |             |      |                    |               |                                |  |  |  |  |  |    |    |   |          |     |       |             |     |          |      |                    |                |                                     |  |  |  |  |  |    |    |   |       |     |       |             |     |       |      |                    |                |                                  |  |  |  |  |  |    |    |   |                  |     |  |             |     |                       |  |     |  |       |  |                |  |  |  |                                  |  |  |  |  |  |   |  |  |  |  |  |                                  |
| see-PST.1SG                                 | DOM   | the.daughter.of.Marta |                    | que                |                |       |                |         |             |      |                    |               |                                |  |  |  |  |  |    |    |   |          |     |       |             |     |          |      |                    |                |                                     |  |  |  |  |  |    |    |   |       |     |       |             |     |       |      |                    |                |                                  |  |  |  |  |  |    |    |   |                  |     |  |             |     |                       |  |     |  |       |  |                |  |  |  |                                  |  |  |  |  |  |   |  |  |  |  |  |                                  |
| salía                                       |   | de.la.oficina.        |                    |                    |                |       |                |         |             |      |                    |               |                                |  |  |  |  |  |    |    |   |          |     |       |             |     |          |      |                    |                |                                     |  |  |  |  |  |    |    |   |       |     |       |             |     |       |      |                    |                |                                  |  |  |  |  |  |    |    |   |                  |     |  |             |     |                       |  |     |  |       |  |                |  |  |  |                                  |  |  |  |  |  |   |  |  |  |  |  |                                  |
| leave-PST.IPFV.3SG of.the.office            |   |                       |                    |                    |                |       |                |         |             |      |                    |               |                                |  |  |  |  |  |    |    |   |          |     |       |             |     |          |      |                    |                |                                     |  |  |  |  |  |    |    |   |       |     |       |             |     |       |      |                    |                |                                  |  |  |  |  |  |    |    |   |                  |     |  |             |     |                       |  |     |  |       |  |                |  |  |  |                                  |  |  |  |  |  |   |  |  |  |  |  |                                  |
| 'I saw Marta's daughter leaving the office' |   |                       |                    |                    |                |       |                |         |             |      |                    |               |                                |  |  |  |  |  |    |    |   |          |     |       |             |     |          |      |                    |                |                                     |  |  |  |  |  |    |    |   |       |     |       |             |     |       |      |                    |                |                                  |  |  |  |  |  |    |    |   |                  |     |  |             |     |                       |  |     |  |       |  |                |  |  |  |                                  |  |  |  |  |  |   |  |  |  |  |  |                                  |

(3b) can have a restrictive interpretation if what the perceiver sees is *the girl who was leaving the office*, that is, *the girl who was leaving the office* out of a group of girls who were doing different things. (3b) can also have an eventive-situational<sup>7</sup> interpretation if what the perceiver sees is a situation where *the girl is actually leaving the office*. For the purposes of this study, only unambiguous PRs containing proper nouns are considered. PRs including common nouns and clitics in head position are left for future research.

PRs only allow the complementizer *que* (4a). Relative pronouns such as *el cual* or *quien* are not allowed (4b). *Que* will be the key element included in the search patterns used to determine the frequency of use of PRs.

- |                          |  |       |      |                            |               |      |           |                  |          |     |      |                         |                       |  |  |  |  |  |    |     |       |   |      |               |                  |          |     |      |                            |                          |  |  |  |  |  |
|--------------------------|--|-------|------|----------------------------|---------------|------|-----------|------------------|----------|-----|------|-------------------------|-----------------------|--|--|--|--|--|----|-----|-------|---|------|---------------|------------------|----------|-----|------|----------------------------|--------------------------|--|--|--|--|--|
| (4)                      | <table border="0" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">a.</td> <td>He</td> <td>visto</td> <td>a</td> <td>Juan</td> <td>que.reía.</td> </tr> <tr> <td>have-AUX.PRS.1SG</td> <td>see-PTCP</td> <td>DOM</td> <td>Juan</td> <td>that.laugh-PST.IPFV.3SG</td> </tr> <tr> <td colspan="6">'I saw Juan laughing'</td> </tr> <tr> <td>b.</td> <td>*He</td> <td>visto</td> <td>a</td> <td>Juan</td> <td>el.cual reía.</td> </tr> <tr> <td>have-PRS.AUX.1SG</td> <td>see-PTCP</td> <td>DOM</td> <td>Juan</td> <td>the.who laugh-PST.IPFV.3SG</td> </tr> <tr> <td colspan="6">'I saw Juan who laughed'</td> </tr> </table> | a.    | He   | visto                      | a             | Juan | que.reía. | have-AUX.PRS.1SG | see-PTCP | DOM | Juan | that.laugh-PST.IPFV.3SG | 'I saw Juan laughing' |  |  |  |  |  | b. | *He | visto | a | Juan | el.cual reía. | have-PRS.AUX.1SG | see-PTCP | DOM | Juan | the.who laugh-PST.IPFV.3SG | 'I saw Juan who laughed' |  |  |  |  |  |
| a.                       | He   | visto | a    | Juan                       | que.reía.     |      |           |                  |          |     |      |                         |                       |  |  |  |  |  |    |     |       |   |      |               |                  |          |     |      |                            |                          |  |  |  |  |  |
| have-AUX.PRS.1SG         | see-PTCP   | DOM   | Juan | that.laugh-PST.IPFV.3SG    |               |      |           |                  |          |     |      |                         |                       |  |  |  |  |  |    |     |       |   |      |               |                  |          |     |      |                            |                          |  |  |  |  |  |
| 'I saw Juan laughing'    |  |       |      |                            |               |      |           |                  |          |     |      |                         |                       |  |  |  |  |  |    |     |       |   |      |               |                  |          |     |      |                            |                          |  |  |  |  |  |
| b.                       | *He  | visto | a    | Juan                       | el.cual reía. |      |           |                  |          |     |      |                         |                       |  |  |  |  |  |    |     |       |   |      |               |                  |          |     |      |                            |                          |  |  |  |  |  |
| have-PRS.AUX.1SG         | see-PTCP   | DOM   | Juan | the.who laugh-PST.IPFV.3SG |               |      |           |                  |          |     |      |                         |                       |  |  |  |  |  |    |     |       |   |      |               |                  |          |     |      |                            |                          |  |  |  |  |  |
| 'I saw Juan who laughed' |  |       |      |                            |               |      |           |                  |          |     |      |                         |                       |  |  |  |  |  |    |     |       |   |      |               |                  |          |     |      |                            |                          |  |  |  |  |  |

PRs embedded predicates are restricted in tense and aspect terms. PR predicates must be in the same temporal window as the matrix verb, as shown by the contrast between (5a) and (5b). The embedded

<sup>6</sup> All these properties are mainly collected in Casalicchio (2013 and references therein) and Rodríguez-Espiñeira (2014 and references therein). For a further detailed explanation, see the references in Section 1.

<sup>7</sup> See Drestske (1969), Barwise (1981), Carrasco and González (2011), Maienborn (2011), Moulton and Grillo (2015a), Grillo and Moulton (2016) and Kratzer (2016 and references therein) for more information about event semantics and situational readings.

predicate must show imperfective aspect (5c). If the embedded predicate is not in the same temporal window as the matrix verb or it does not show imperfective aspect, the situational reading that characterizes PRs does not come up.

- (5) a. He visto a Juan que sonreía.  
     have-AUX.PRS.1SG see-PTCP DOM Juan that smile-PST.IPFV.3SG  
     b. \*He visto a Juan que sonreirá.  
         have-AUX.PRS.1SG see-PTCP DOM Juan that smile-FUT.3SG  
             'I saw Juan that will smile'  
     c. \*He visto a Juan que sonrió.  
         have-AUX.PRS.1SG see-PTCP DOM Juan that smile-PST.PFV.3SG  
             'I saw Juan that smiled'

Besides, previous literature (see footnote 6) points that stage-level predicates and states<sup>8</sup> are allowed within the PR predicate (6a), but statives are not (6b).

- (6) a. Vi a Juan que nadaba /  
     see-PST.1SG DOM Juan that swim-PST.IPFV.3SG /  
         esperaba el autobús.  
         wait.for-PST.IPFV.3SG the bus  
             'I saw Juan swimming / waiting for the bus'  
     b. \*Vi a Juan que tenía 15.años.  
         see-PST.1SG DOM Juan that have-PST.IPFV.3SG 15.years  
             'I saw Juan being 15 years old'

Last, there is no agreement about the semantic or syntactic properties that allow a predicate to introduce a PR. For this reason, this work considers PRs that are introduced by a perception predicate (7a), predicates that imply perception (7b) or PRs that appear within perception contexts (7c).

- (7) a. [...] miraba a Kiria que limpiaba  
     [...] look-PST.IPFV.3SG DOM Kiria that clean-PST.IPFV.3SG  
         la table.  
         the platter  
             'He looked at Kiria cleaning the platter'  
     b. Ubicó a González que gritaba  
         locate-PST.3SG DOM González that shout-PST.IPFV  
         como un loco en la cabina.  
         as a mad in the cockpit  
             'He/she found González shouting like a mad person in the cockpit'  
     c. [...] estábamos en mi.departamento,  
         [...] be-PST.IPFV.1PL in my.department  
         cuando sonó el.teléfono. Era Carlos  
         when ring-PST.PFV.3SG the.phone be-PST.IPFV.3SG Carlos  
         que preguntaba por.Alexandra.  
         that ask-PST.IPFV.3SG for.Alexandra  
             '[...] we were in my office, when the phone rang. It was Carlos asking for Alexandra'

In (7a) the main predicate *miraba* introduces the PR. Other instances of perception predicates introducing PRs found in CORPES XXI include the predicates *ver* ‘see’, *observar* ‘observe’, *oir* ‘hear’ or *escuchar* ‘listen’. The contexts that include predicates that imply perception or the creation of an image (7b) encompass verbs such as *encontrar* ‘catch’, *pillar* ‘catch’, *cruzarse con* ‘bump into’ or *soñar* ‘dream’. The last perception context that has been considered contains two sentences: a first sentence introducing a predicate indirectly related to perception, *sonó* ‘sounded’, that creates a situation where the PR can be framed, and a second clause, the PR *Era Carlos que preguntaba por Alejandra*. Notice that there is no pause after *Carlos* (a pause would turn the structure into an explicative RC) and that if the first sentence is not present, the PR cannot be framed or introduced.<sup>9</sup>

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<sup>8</sup> See Carlson (1977) for a discussion about stage-level predicates and individual-level predicates.

<sup>9</sup> See Casalicchio (2013) and Moulton and Grillo (2015a, 2015b) for an explanation about the contexts where PRs may appear including subject position.

#### 4. FINDING PRs: TWO SEARCH PATTERNS

The objective of this section is to build up two different search patterns based on the syntactic and morphological characteristics presented in the previous section. From now on the search patterns will be referred to as Search Pattern 1 (SP1) and Search Pattern 2 (SP2). The main function of SP1 and SP2 was to replicate the structure of a PR but in an abstract way, that is to say, to replicate the structure of a PR in terms of POS and morphological values.

SP1 included *que* as the key word and the starting point from which the rest of the elements were added. *Que* was specified as original script, that is, without any POS tag restriction, either relative pronoun or conjunction, to avoid the loss of wrong POS annotated data in the corpus. Secondly, SP1 included a proper noun placed in a range of 1 to the left of *que*. In third place, SP1 contained an embedded predicate in a range of 1 to the right of *que*. This embedded predicate was specified in terms of mood (indicative) and aspect (imperfective). Last, SP1 included a second predicate in a range of 3 to the left of *que*. This predicate is the one in charge of introducing the PR. Figure 1 sums up all the parameters included in SP1.

```

FORMA (form) = {que} (that)
[Grafía original] (original script)

Proximidad (proximity)
[IZQUIERDA] [INTERVALO = 1] (gap to the left = 1)
CLASE DE PALABRA (POS) = {sustantivo} (noun)
    Tipo (type) = {propio} (proper)
[DERECHA] [INTERVALO = 1] (gap to the right = 1)
CLASE DE PALABRA (POS) = {verbo} (verb)
    Modo (mood) = indicativo (indicative)
    Tiempo (tense/aspect) = imperfecto (imperfective)
[IZQUIERDA] [INTERVALO = 3] (gap to the left = 3)
CLASE DE PALABRA = {verbo} (verb)

```

Figure 1: SP1 parameters for CORPES XXI

SP2 shared most of the parameters displayed by SP1. SP2 included *que* as the key word and the starting point from which the rest of the elements were added. *Que* was again specified as original script, but it was not specified for word class for the same reasons above. Secondly, SP2 included a proper noun placed in a range of 1 to the left of *que*. In third place, SP2 contained a personal pronoun. The main reason to include this personal pronoun was to cover all the possible occurrences containing a pronominal predicate as the embedded predicate. This personal pronoun was placed in a range of 1 to the right of *que* and it was unspecified in number, person, gender and case to avoid wrong annotated data loss. The last parameter included in SP2 was an embedded predicate specified in terms of mood (indicative) and aspect (imperfective). Figure 2 sums up all the parameters included in SP2.

```

FORMA (form) = {que} (that)
[Grafía original] (original script)

Proximidad (proximity)
[IZQUIERDA] [INTERVALO = 1] (gap to the left = 1)
CLASE DE PALABRA (POS) = {sustantivo} (noun)
    Tipo (type) = {propio} (proper)
[DERECHA] [INTERVALO = 1] (gap to the right = 1)
CLASE DE PALABRA (POS) = {pronombre personal} (personal pronoun)
[DERECHA] [INTERVALO = 2] (gap to the right = 2)
CLASE DE PALABRA (POS) = {verbo} (verb)
    Modo (mood) = {indicativo} (indicative)
    Tiempo (tense / aspect) = {imperfecto} (imperfective)

```

Figure 2: SP2 parameters for CORPES XXI

## 5. CORPES XXI<sup>10</sup>

CORPES XXI (Corpus del Español del Siglo XXI) is a reference corpus created by the Real Academia Española (RAE). It is the biggest balanced annotated corpus available for Spanish. It contains 222,377,133 orthographic forms, that is, strings of characters placed within two white spaces, a white space and a punctuation mark, two punctuation marks or a punctuation mark and a white space. These orthographic forms belong to 237,678 documents. The current public online version contains 11,638,168 sentences, which are automatically segmented. This automatic segmentation defines sentences as the strings of words contained between final punctuation marks (J. Porta, personal communication).

CORPES XXI includes texts from 2001 to 2015. 70% of the texts are taken from American Spanish sources and 30% from European Spanish ones. The American Spanish materials are also classified into different linguistic areas.<sup>11</sup> CORPES XXI also includes texts from Equatorial Guinea and the Philippines. 90% of the texts correspond to written language,<sup>12</sup> coming from books (40%), journals and periodicals (40%), internet materials (7.5%) and diverse materials (2.5%). The remaining 10% correspond to spoken language.<sup>13</sup>

CORPES XXI texts are also classified according to registers.<sup>14</sup> These registers include fiction and non-fiction. Topical issues, leisure and daily life, art, culture, social science, beliefs and thoughts, technology, politics, economy, law, health are collected within the non-fiction group. Other subject areas such as scripts, novels, short stories or plays are included under the label of fiction. Besides, each text is classified according to different textual genres (novel, short story, news, article, report, review, column, interview, conversation). All this taxonomic information is available on the statistics provided by the web service.

Its size, the varieties of Spanish it encompasses, the text typology and the possibility of working with search patterns were the main reasons to choose CORPES XXI as data source for this work. In addition to CORPES XXI, some other written and spoken corpora such as C-ORAL-ROM-ES (Moreno et al. 2005) or MAVIR (Moreno and Campillos Llanos 2012) have been looked into through the LYNEAL tool (Ueda 2017). The main difficulty that these smaller corpora presented was that, due to their size, no concordance was obtained from the search procedure. The lack of results was understood as an indicator of low frequency of use of PRs. This issue will be explained in depth in the next section.

## 6. STATISTICS AND RESULTS<sup>15</sup>

The results of SP1 searching process yielded 1,792 concordances distributed in 1,119 documents.<sup>16</sup> During the review of SP1 results, it was noticed that an important part of the occurrences was repeated: 628 out of the 1,792 results were duplicated. The percentage of noise produced by the CORPES XXI retrieval system concerning SP1 amounts to 35%. After a second manual review, the number of occurrences matching SP1 was reduced to 1,164. The average normalized frequency of the occurrences matching SP1 once the repeated data was removed was 5.23 cases per million of words. 372 out of the 1,164 occurrences came from European Spanish, 789 from American Spanish, 2 from Equatorial Spanish and 1 occurrence from Philippine Spanish.

The results of SP2 searching process yielded 2,556 concordances distributed in 1,463 documents.<sup>17</sup> Again, a significant part of the occurrences was repeated: 915 out of the 2,556 occurrences matching SP2 were duplicated. The percentage of noise produced by the CORPES XXI retrieval system concerning SP2 amounts to 35% After a second manual review, the number of occurrences matching SP2 was 1,641. The

<sup>10</sup> See <http://web.frl.es/CORPES/org/publico/pages/ayuda/descripcion.view> for a detailed description of CORPES XXI (accessed 25 November 2017).

<sup>11</sup> American linguistic areas: Andean (Bolivia, Ecuador, Peru), Antilles (Cuba, Puerto Rico, Dominican Republic), Continental Caribbean (Colombia, Venezuela), Chilean (Chile), Mexican and Central American (Costa Rica, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama) and Rio de la Plata (Argentina, Paraguay, Uruguay).

<sup>12</sup> Written texts include academic texts, biographies or memoires, blogs, letters to the director, circular letters, letters, criticisms, chronicles, general interest texts, red tapes, editorials, interviews, digital interviews, legal administrative texts, textbooks, instructions, e-mails, social network messages, news, opinion articles, other, propaganda and ads, leaflets, web-pages, reports, various.

<sup>13</sup> Spoken texts include discussions, discourses, interviews, magazines and variety programs, other, sport transmissions, game shows and raffles, chat shows.

<sup>14</sup> We use the term *register* following Biber et al. (1999: 24–26) and McEnery et al. (2006: 87).

<sup>15</sup> The output of SP1 and SP2 can be found in Appendix I.

<sup>16</sup> Collected 11<sup>th</sup> December 2017.

<sup>17</sup> Collected 13<sup>th</sup> December 2017.

average normalized frequency of the occurrences matching SP2 then was 7.38 cases per million of words. 540 occurrences came from European Spanish, 1,086 from American Spanish, 7 from Equatorial Guinean Spanish and 8 occurrences from Philippines Spanish.

Among the occurrences matching SP1 and SP2, there were PRs (8), RC (9) and other structures including double object constructions where the direct object is an embedded clause (10), comparatives (11) or compleative clauses with subject inversion (12).

- (8) Al.cabo.de.un.rato vimos a Clara que  
to.the.end.of.a.while see-PST.PFV.1PL DOM Clara that  
subía el cerro hacia.la.cabaña.  
go.up-PST.IPFV.3SG the hill towards.the.hut  
'After a while we saw Clara going up the hill towards the hut'
- (9) Siguió saliendo con.Antonio que  
keep.on-PST.PFV.3SG go.out-ING with.Antonio that  
era ya auxiliar.administrativo.  
be-PST.IPFV.3SG already assistant.administrative  
'She kept on going out with Antonio who already worked as an administrative assistant'
- (10) Pedía a Roque que viniera conmigo  
ask-PST.PFV.1SG DOM Roque that come-PST.IPFV.3SG with.me  
pero no quiso, tenía miedo.  
but not want-PST.PFV.3SG have.PST.IPFV.3SG fear  
'I asked Roque to come with me, but he didn't want to, he was scared'
- (11) Por muy.parecido a.Paul.Newman que fuese  
for very.similar to.Paul.Newman that be-PST.IPFV.3SG  
aquel.novio renuente [...].  
that.boyfriend reluctant [...]  
'No matter how similar to Paul Newman that reluctant boyfriend was'
- (12) Me ha dicho Mónica que  
to.me have-PRS.AUX.3SG say-PTCP Mónica that  
estabas haciendo un.trabajo sobre.Velázquez.  
be-PST.IPFV.3SG do-ING an.essay about.Velázquez  
'Mónica told me that you were doing an essay about Velázquez'

In order to simplify the searching procedure, the syntactic structures (8)–(12) were classified into three groups: PRs, RCs and Other.

Figure 3 shows the distribution of the output of SP1. Out of the 1,164 occurrences matching SP1, only 2.84% (33 cases) are PR. 24.83% (289) of the results are RC and 72.34% (842) are double object constructions, compleatives and comparatives. The precision of SP1, that is the number of PRs found through SP1 divided into the total number of SP1 (leaving aside the repeated occurrences) results, is 2.8%.

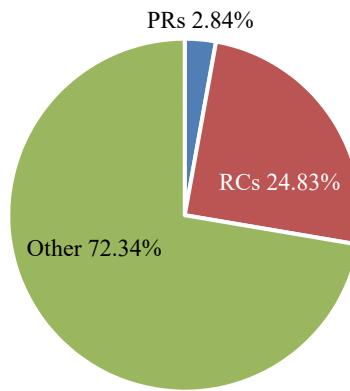


Figure 3: SP1 output distribution

Table 1 shows the geographical distribution of the output of SP1. The first column contains Spanish linguistic areas, the second one the raw frequencies of PRs for each linguistic area, while the third column collects the percentage corresponding to PRs out of the total amount of results matching SP1 for each linguistic area. That is, for the case of Spain, there are 372 occurrences matching SP1 and eight of them are PRs. That is 2.15% of the total occurrences matching SP1 are PRs.

Linguistic area	PR (raw freq)	PR (cases %)	SP1 (raw freq)
Spain	8	2.15	372
Andean	1	1.75	57
Antilles	2	2.60	77
Continental Caribbean	5	2.62	191
Chilean	5	6.25	80
Mexican and Central American	5	2.40	208
Río de la Plata	7	4.21	166
United States	0	0	10
Philippines	0	0	1
Equatorial Guinea	0	0	2

Table 1: SP1 output and linguistic areas

Figure 4 is the representation of the geographic distribution of PRs cases per cent.

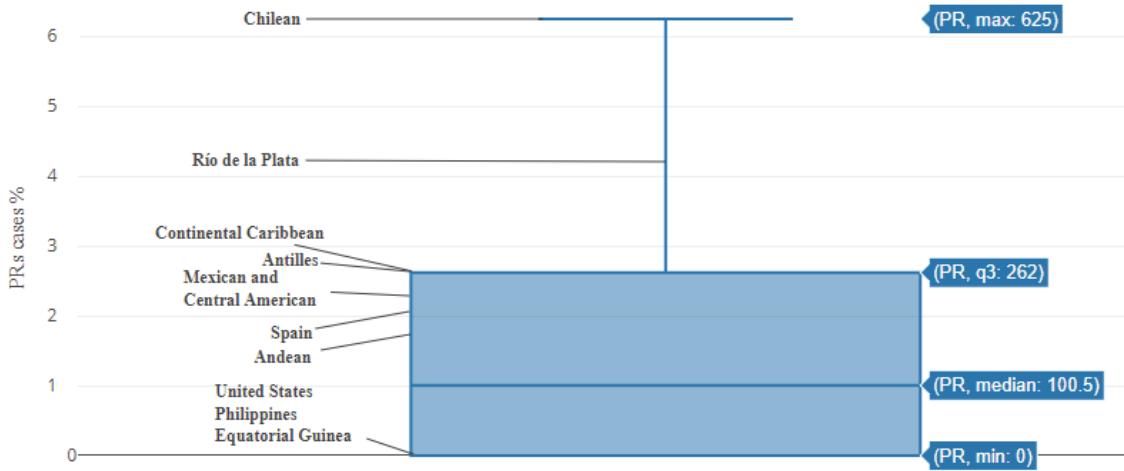


Figure 4: PRs % in SP1

According to these pieces of data, it can be said that PR constitute a very small percentage of the results yielded by SP1 searching process. Although the European Spanish variety contains a higher raw frequency of PRs, the Chilean variety is the one where PRs are more frequent. It is important to mention that there are not any instances of PRs in the linguistic varieties of the United States, the Philippines and Equatorial Guinea.

Figure 5 shows the distribution of the output of SP2. Out of the 1,641 occurrences matching SP2, 3.10% (51 cases) are PRs, 44.85% (736 cases) are RCs and the remaining 52.04% (854 cases) belong to the category ‘Other’, which contains double object constructions, completives and comparatives, presented above (10)–(12). The precision of SP2 is 3.1%.

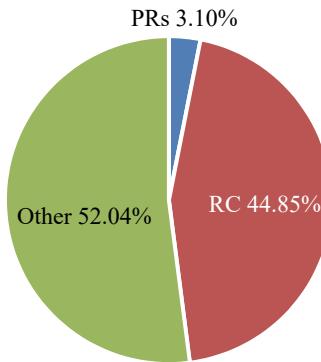


Figure 5. SP2 output distribution

Table 2 collects the geographical distribution of the output of SP2. The first column contains Spanish linguistic areas and the second one the raw frequencies of PRs for each linguistic area. Again, the third column collects the percentage corresponding to PRs out of the total amount of results matching SP2 for each linguistic area. That is, for the case of Spain, there are 540 occurrences matching SP2 and 10 of them are PRs. That is 1.85% of the total occurrences matching SP2 are PRs for the Spanish European variety.

Linguistic area	PR (raw freq)	PR (cases %)	SP2 (raw freq)
Spain	10	1.85	540
Andean	3	3.22	93
Antilles	3	2.16	139
Continental Caribbean	4	1.60	249
Chilean	5	4.63	108
Mexican and Central American	17	5.88	289
Rio de la Plata	9	4.52	199
United States	0	0	9
Philippines	0	0	7
Equatorial Guinea	0	0	8

Table 2: Raw frequencies SP2 output and linguistic areas

Figure 6 shows the representation of the geographical distribution of the PRs found through SP2.

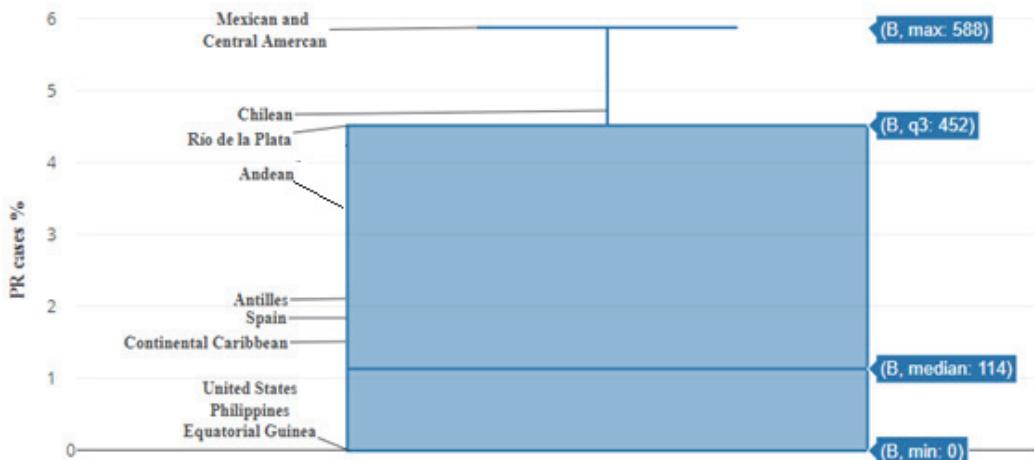


Figure 6: PRs % in SP2

Bearing in mind the data here presented, it can be said that, again, PRs constitute a small part of the output generated by SP2. Unlike SP1 output, SP2 results show that the variety where PRs are more frequent is the Mexican and Central American variety, which is also the one which contains a higher raw number of PRs. As in the case of SP1, there are not any instances of PRs in the linguistic varieties of the United States, the Philippines and Equatorial Guinea.

Besides the frequency and the geographical distribution of PRs, CORPES XXI provides information regarding context (register, text typology) where these structures can be found. Texts are first sieved depending on whether they are written or spoken texts. Each and every one of the 84 PRs that were found through SP1 and SP2 appear in written contexts. Interestingly, and contrary to what was stated in previous works<sup>18</sup> (Brucart 1999; Aldama 2017), PRs concentrate in the written categories of press, blogs, novels, short story and general interest texts. It is important to mention that the 84 instances of proper

<sup>18</sup> In Aldama (2017), a test was conducted to check the grammaticality judgements of subject PRs (PRs where the DP preceding the *que*-clause is the subject of the embedded predicate) and object PRs (those where the DP preceding the *que*-clause is the direct object or indirect object of the embedded predicate). The tests included subject, direct object and indirect object PRs as well as control questions in order to avoid and discard possible random answers. A test invitation was sent to ask for participation together with the link provided by Google Forms. Answers were collected by the same platform anonymously. There were 22 male and female participants from 18 to 65 years old. The participants were native speakers from central and northern varieties of European Spanish. The participants showed that direct object PRs were more acceptable than indirect object PRs. Subject PRs were more acceptable when the alternative gerund construction was not available. The overall impression collected through the participants' comments was that participants would use PRs in spoken and informal contexts but never in formal written contexts.

noun head PRs come from 68 different authors (see Appendix 2). This, together with the typology of registers covered, ensures both representativeness and distribution. Figure 7 shows the distribution of PRs regarding genre. 1.23% of the total amount of PRs belong to general interest texts, 1.19% to blogs, 8.34% to articles about topical, leisure or everyday life issues or science and technology, 21.43% are part of short stories and 65.48% belong to novels.<sup>19</sup> Novels and short stories are categorized under the tag fiction, whereas blogs, general interest texts and articles are categorized as non-fiction texts in CORPES XXI.

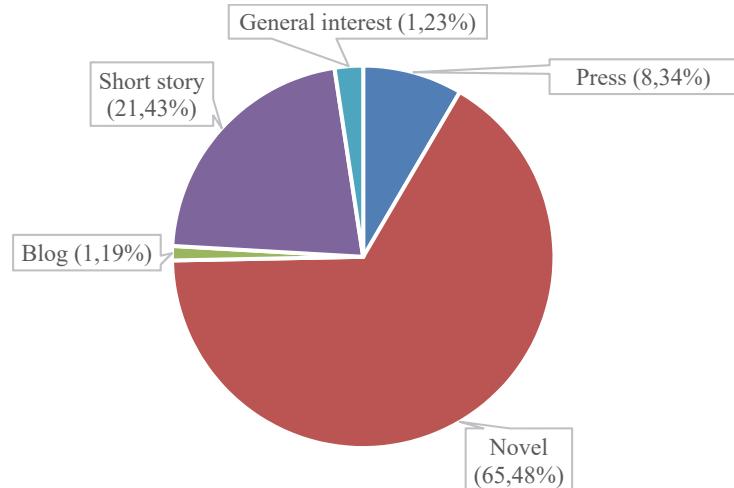


Figure 7: PRs and text genres

## 7. CONCLUSIONS

The aim of this paper was to show the frequency of use of the subtype of Spanish PRs having a proper noun within the head and, thus, outline the contexts (registers and texts typologies) where they appear. There are three main conclusions that can be extracted from the data collected for this study.

First, having a look to the overall numbers, proper noun-head PRs can be considered low frequency structures in Spanish. As presented above, CORPES XXI includes 11,638,168 sentences, out of which only 84 of the occurrences that fitted the search patterns (SP1, SP2) were the target PRs. In other words, only 0.0007% of the sentences collected in CORPES XXI are subject PRs having a proper noun within the head, compared to 58.02%<sup>20</sup> of structures containing *que*, which is the third most frequent word in Spanish in the CREA corpus.

Secondly, the PRs discussed in this article appear in written texts, contrary to what was previously thought (Brucart 1999; Aldama 2017). None of the examples matching SP1 or SP2 belonged to any of the spoken text categories, which amount to 1,165,107 words. The PRs at issue here are only found in novels, articles, blogs short stories and general interest texts. Future research in a larger spoken corpus needs to be done to check the existence of these PRs in spoken contexts.

Finally, as regards geographic distribution, subject PRs having a proper noun within the DP head are more frequent in the Chilean (SP1) and Mexican and Central American (SP2) linguistic areas. It is important to underline that neither SP1 nor SP2 gave PRs results in the United States, Equatorial Guinea and the Philippines varieties. Further research would be needed to answer the questions about whether subject PRs containing a proper noun within the DP exist in these Spanish varieties or to determine the frequency of use of PRs headed by clitics or common nouns.

<sup>19</sup> According to Biber et al. (1999), fiction and press texts are the written texts that share more properties with oral texts. Specialized texts, such as academic or legal ones, are the most distant registers to orality.

<sup>20</sup> In CORPES XXI, there are 6,752,841 occurrences of *que* distributed in 246,621 documents (18 December 2017). These 6,752,841 occurrences include relative pronouns, conjunctions and discourse markers.

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## Appendix I

	SP1	
1	Al cabo de un rato vimos a Clara	que subía el cerro hacia la cabaña.
2	da -señaló observando a Sophie	que dormía bajo el reflejo de su
3	ndo sonó el teléfono. Era Carlos	que preguntaba por Alexandra.
4	rboso pecado. Miraba a Kiria	que limpiaba la tabla comedera, veía
5	del servicio. Debía ser Silvina	que volvía, finalmente, de la parra
6	Hugo mientras miraba a María	que musitaba sus elucubraciones.
7	y se giró para mirar a Víctor	que permanecía al resguardo de la
8	silla cuando vio a Frederic	que subía por la misma acera.
9	a su casa alcanzó a ver a Alvin	que caminaba hacia la escuela.
10	Al entrar, vio a Heriberta	que tomaba mate, mientras daba de
11	Una larga risotada siguió a este comentario, era doña Bárbara	que aparecía por uno de los largos
12	hubiera mostrado a Héctor	que iba saltando por la calle camino
13	el helicóptero. Ubicó a González	que gritaba como un loco en la cabina
14	Sebastián oyó a Marta	que hablaba y lloraba a la vez:
15	Desde allí vi a Lola	que regaba su plantación de marihuana
16	Yo miraba a Oscar	que hacía unos movimientos muy
17	y me crucé con Judith	que venía al trote.
18	mirando asustado a Carlos Luis	que observaba a su alrededor ahora
19	No vio un Ford Galaxy	que iba a gran velocidad. El auto lo
20	puerta pude ver a Ada Neira	que montaba guardia en el pasillo,
21	Cuando entró vio a Marina	que tomaba ginebra sobre una de las
22	realidad escuchó hablar a Ada	que parecía estar contestando
23	y miró de reojo hacia donde estaba Antonio Nero	que seguía la escena en éxtasis unos
24	Me di la vuelta y vi a Marcos	que sacaba su cara de sueño por la
25	Desperté con el sonido de la puerta que se abría y Severina	que anunciaba con voz argentina:
26	aproximadamente, vi a Rafa	que llegaba del campo tres.
27	Vio a Walter Hamiton	que abusaba de la fusta sobre Red
28	cuando se cruzó con Carlitos	que volvía muy apresurado a la oficina
29	, se cruzó con Venancio	que bajaba con su petate liado pues le
30	, una vez le oí a Ferran Adrià	que proponía tomarlo como el tomate
31	(demasiado), y vio a Jack	que caminaba hacia ellos en la
32	Vi a Cora	que lloraba, y se disculpaba por llorar
33	llegué, me encontré a Isabel	que bajaba de su cuarto y se dirigía

	SP2	
34	la cámara captó la imagen de la Mars Odyssey	que se aproximaba a una distancia de
35	creyó ver la sonrisa, entre burlona y encomiástica, de Yamila Yané	que se desdibujaba en la penumbra
36	entreabierta, vi a Rosario	que se acercaba a la estufa. Tengo antojo
37	Caí durante minutos interminables, acompañado por la imagen de Florencia	que se despedía de mí con un gesto de la
38	escuché las frases sueltas del Gigi	que me describía el desasosiego de su
39	, se encontró adentro a Enrique	que lo esperaba enfurecido mientras
40	durmío soñando con Constantino	que la abrazaba entre sus fuertes músculos
41	pero el timbre lo detuvo. Eran Paco y Milton	que se unían al festejo. La reunión se mudó
42	los ojos para ver al padre Andrés	que le colocaba el mechón de pelo detrás
43	hermano vio al viejo Abu Feraz	que los miraba y los saludó inclinando la
44	añora -cómo no- los días de fútbol	que lo animaba a seguir, desde el borde
45	con Alvin y los gritos de Josué	que me llamaba para el café.
46	Escuchó la voz de Víctor	que me estaba esperando. Y por ahí, en los
47	me encontraba sólo con Gloria	que se movía despacio. La miró ir hacia la
48	arteson de la casa, miré a Angela	que se sobreponía al techo de calamina.
49	Miraba implacable la cara arrebata da de Florián	que se acercaba por el zaguán.
50	, abrió el portal y vio a Charo	que le hablaba pero la voz le recordaba a
	un día vamos a volar juntos, esto es	
	muy fuerte para los dos. Podía ser	
	Vanessa	
51	Distraída, se sobresaltó al escuchar el sonido de su teléfono. Era Joaquín	que la reclamaba en su casa. Sin dejar de
52	tontas volteaban a ver a Ismenia	que les respondía con su mirada enconada
53	Contempló con semblante impasible el Mercedes	que se detenía ante ella interrumpiendo

54	la explanada y vi a Marcelo	que	la cruzaba en solitario hacia nosotros.
55	mientras oía la voz de Yavé	que	me decía: "Son gentes que han
56	escuchar por entre la cortina de	que	le marcaba el alto al cochero.
57	cuero de la diligencia la voz potente de Jesús	que	le decía orgullosamente papá, que
58	Se vio llegando con Gerardo para visitarlos, Gerardo de casi	que	le decía:
59	siete años, Gerardo	que	le hacía un tímido gesto de adiós con
60	puerta escuchó la voz de Yolanda	que	les saludaba a él y a Laucirica que
61	de calle y vio de reojo a Leonor	que	le señalaban y se reían como a cámara
62	tarde había visto asomarse a Fanny	que	me esperaba con la codorniz cobrada
63	vio en lo alto de las escaleras a Chavis y a Fanny	que	le reclamaba, de pie sobre el techo
64	cargada y al volverme vi a Paris	que	
65	pero él oyó el silbido sordo del chico	que	
66	de la sauna de Montauban	que	
67	de aviones, oyó a Ted	que	
68	suena mi celular, era Gonzalo	que	
69	, y vi a don Benito	que	
70	lejos me pareció ver a don Benito	que	
71	Y varias veces vieron a Yoshio	que	
72	Antes, le señaló a Saga y a Kevin	que	
73	timbre del teléfono interrumpió sus	que	
74	profundos pensamientos. Era Lulú	que	
75	Tomé el teléfono y era Ruperto	que	
76	mi cerebro escuchaba como en off la voz de Jorge	que	me urgía para que nos viéramos a más
77	rotunda y subió sin oír a Carlitos	que	se refería a Edson, que era el chico
78	no vio venir el puño de Felipe	que	le gritaba ¡suerte, Joaco, reviéntalos!
79	cuando sonó el teléfono. Era	que	se descargaba sobre su nariz,
80	Pierce Brussel	que	nos invitaba a cenar. Había preparado
81	pudo distinguir en el espejo retrovisor el auto de Bob	que	
82	reconocer el cuerpo de Bob	que	
83	Vi a los Chagas	que	
84	creyó escuchar la voz de Violette Renaud	que	
85	y se sorprendió al ver a Cornelius	que	
86	escuché la voz de Violette Renaud	que	
87	y vio al hermano Anton Turpen	que	
88	escuchó la voz de Gertrud Bösch	que	
89	ojos sobresaltada y vio a	que	
90	Cornelius	que	
91		que	la seguía y que quedó atrás, como una ilusión óptica, en la vuelta del camino
92		que	la abrazaba y besaba de arriba abajo,
93		que	se iban, apurados, sin mirar otra cosa
94		que	se dirigía a ella. No estaba segura
95		que	la observaba. Él le hizo una señal
96		que	se acercaba. No quise hacerme notar.
97		que	le sonreía.
98		que	le anunciaba que Reto Weber llamaría
99		que	se inclinaba a besarla. Se sentó en

#### Appendix 2. Author variability

#	Author	Sentence found by SP1 and SP2	Sentence in CORPES XXI	Text typology
1	Guelfenbein, Carla	1 2	36 38	Fiction (novel)
2	Riveros, Jaime	3	49	Fiction (novel)
3	Abascal Andrade, Jorge A.	4	129	Fiction (short story)
4	Gautier, Manuel Salvador	5	135	Fiction (novel)
5	González Safstrand, Cristian	6	140	Fiction (novel)
6	Cotrina, José Antonio	7	158	Fiction (novel)
7	Castro, Luisa	8	182	Fiction (novel)
8	Benjamín, Ana Teresa	9	194	Non Fiction (press)
9	Kostianovsky, Pepa	10	241	Fiction (novel)
10	Abad Herrera, Patricio	11	253	Fiction (novel)
11	Banda Zúñiga, Hernani	12	284	Fiction (novel)
12	Mejía, Juan Diego	13	425	Fiction (novel)
13	Garriga Vela, José Antonio	14	467	Fiction (novel)
14	Zarraluki, Pedro	15 53 54	491 651 652	Fiction (novel)
15	García Huidobro, Marisol	16	520	Non Fiction (press)
16	Bandini, Roni	17	573	Fiction (novel)
17	Dobles, Isa	18	599	Fiction (novel)
18	<<Lo atropellaron y, ya malherido, le robaron>> Clarín.com	19	676	Non Fiction (press)
19	Ungar, Antonio	20	733	Fiction (novel)

20	Zuleta Ortiz, José	21	736	Fiction (short story)
		66	1,042	Fiction (short story)
		67	1,043	Fiction (short story)
21	Piglia, Ricardo	22	744	Fiction (novel)
22	Havilio, Losi	23	752	Fiction (novel)
23	Llienas, Gemma	24	816	Fiction (novel)
24	Rey Rosa, Rodrigo	25	909	Fiction (novel)
25	Ruiz, Juan Pablo	26	914	Non Fiction (general interest)
26	Garcia-Galiano, Javier	27	915	Non Fiction (press)
27	Tristante, Jerónimo	28	994	Fiction (novel)
		29	997	Fiction (novel)
28	López Iturriaga, Mikel	30	1,037	Non Fiction (blog)
29	Montes Huidobro, Matías	31	1,038	Fiction (novel)
			1,456	Fiction (novel)
30	Garcés, Gonzalo	32	1,045	Fiction (novel)
31	Noroña Franco, Eva	33	1,075	Fiction (novel)
		79	1,490	Fiction (novel)
		80	1,491	Fiction (novel)
		81	1,492	Fiction (novel)
		82	1,495	Fiction (novel)
		83	1,496	Fiction (novel)
		84	1,498	Fiction (novel)
32	<<Tomadas por la Mars Global Surveyor>>. <i>Elmundo.es</i>	34	19	Non Fiction (press)
33	Dovalpage, Teresa	35	34	Fiction (novel)
34	Miguel Muñoz, Elías	36	49	Fiction (novel)
35	Jacobs, Bárbara	37	62	Fiction (novel)
36	Ojeda, David	38	69	Fiction (novel)
37	Martinez Alfaro, Mario	39	81	Fiction (novel)
38	Uribe, Luz Magnolia	40	119	Fiction (short story)
39	Lobos Cosp, Andrés	41	125	Fiction (short story)
40	Pedrozo, Mabel	42	127	Fiction (short story)
41	Aranguren, Teresa	43	165	Fiction (short story)
42	Benjamín, Ana Teresa	44	217	Non Fiction (press)
43	Yauri Montero, Marcos	45	325	Fiction (novel)
44	Toledo, Alejandro	46	331	Fiction (short story)
45	Ortega, José	47	340	Fiction (short story)
46	Bartet, Leyla	48	356	Fiction (short story)
47	Rosenberg, Sara	49	468	Fiction (novel)
48	Olguín, Sergio	50	504	Fiction (novel)
49	Dosio, María Celia	51	532	Fiction (novel)
50	Coll, Armando	52	561	Fiction (novel)
51	Sánchez Ferlosio, Rafael	55	660	Non Fiction (general interest)
52	Esquivel, Manuel	56	721	Fiction (novel)
53	Kúsulas, Alexandra	57	781	Fiction (novel)
		58	789	
54	Varas, José Miguel	59	814	Fiction (short story)
55	Lazcano, Asís	60	878	Fiction (short story)
		61	879	Fiction (short story)
56	García Simón, Agustín	62	914	Fiction (short story)
57	Vidal-Folch, Ignacio	63	916	Fiction (short story)
58	Fortes, Susana	64	922	Fiction (novel)
59	Rodríguez, Juan Pablo	65	945	Non Fiction (press)
60	Piglia, Ricardo	68	1,053	Fiction (novel)
61	Havilio, Iosi	69	1,069	Fiction (novel)
62	Sandoval, Ana María	70	1,076	Fiction (novel)
63	Martínez, Juan Ramón	71	1,101	Fiction (short story)
64	Velasco Blake, Luis	72	1,252	Fiction (novel)
65	Poblete, María José	73	1,306	Fiction (novel)
		74	1,307	Fiction (novel)
66	Aristizábal Gáfaro, Jorge	75	1,341	Fiction (short story)
67	Montes Huidobro, Matías	76	1,451	Fiction (novel)
		77	1,452	Fiction (novel)
68	Brizuela, Leopoldo	78	1,472	Fiction (novel)