Using CPA to represent Spanish pronominal verbs in a learner's dictionary¹

Irene Renau & Paz Battaner

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Abstract

In this paper, we deal with different aspects of Spanish pronominal verbs, which can be classified in various types that are often confused and mixed up in real usage. The question is considered a major linguistic problem because this particle has equivalences in the rest of the Romance languages, in spite of their differences. In particular, we will discuss the way in which *se* can be analysed from a corpus-driven approach for lexicographical use, and for this purpose we chose CPA (Hanks, 2004a) as a model of analysis. Our aim is to raise the question of whether CPA is an appropriate model to deal with pronominal verbs and if it is useful to represent them in a dictionary of Spanish as a foreign language. Finally, we also formulate a lexicographical proposal to represent this kind of constructions in the verb entries of a learner's dictionary.

1. Introduction

This study is a proposal for the analysis and lexicographical representation of pronominal verbs. This kind of verbs is very common in Romance languages and their typology is rich and varied. Borders between types are fuzzy and, moreover, the way in which they are used in the different languages, dialects or even registers adds further diversity and complexity, making it very difficult at times to distinguish among them and develop a satisfactory description. For the analysis of corpus data, we used Corpus Pattern Analysis, CPA (Hanks 2004a, 2004b, and in press), a procedure devised to systematically analyse lexico-syntactic patterns in order to establish a relationship between the different meanings of words and the linguistic context in which they appear. In the following sections, we will focus on two main problems: the first one is to determine whether CPA can be an appropriate technique to analyse pronominal verbs, because this structure does not exist in English, which is the language for which CPA was first conceived; and the second one concerns whether CPA can be useful to represent pronominal verbs in a Spanish learner's dictionary. Finally, we will contribute with a first attempt at a lexicographical proposal for the representation of these verbs.

2. State of the art

2.1. Pronominal verbs

In the present article we use the general denomination of 'pronominal verb' to refer to verbs in Spanish and other Romance languages which are used with a pronoun that, being either mandatory or optional, follows the paradigm shown in Table 1. Alternatively, in Spanish, it can be used with only the form *se*, which is derived from this paradigm, with a wide range of functions.

Person	Number	
	Singular	Plural
First	me / me / mi / me	nos / nous / ci,ce / nos
Second	te / te / ti / lhe,te,se	os / vous / vi,ve / vôces,lhes
Third	se / se / si / se	se / se / si / se

Table 1. Morphological paradigm of the Spanish pronoun *se* (see e.g. Bel 1992: 33 for a more
detailed description) and its equivalents in French, Italian and Portuguese.

The Spanish *se* (as well as the rest of the forms of the paradigm which, for the sake of concision, will be referred to as *se*) is used in a large number of structures (Sánchez López 2002, De Miguel 1999, Mendikoetxea 1999a and 1999b, Otero 1999, RAE 2010: 3037-3111, among others). Among them, those shown in Table 2 are the most basic and representative.

Table 2. Frequent complex structures in Spanish associated with the paradigm in Table 1.²

	Type of struct	1 1 1	Example
	(a) Reflexive	Se in DO function refers to the subject.	Ahora me cepillo 7 veces al día. 'Now I am brushing [my teeth] 7 times a day'. Ahora me cepillo los dientes 7 veces al día.
Ра		Se in IO function refers to the subject and DO is an inalienable part of the subject.	'Now I am brushing my teeth 7 times a day'.
	(b) Reciprocal	Se is in DO and the different components of the plural subject address the action to the other ones. Se is in IO, and the different components of the plural subject address what is indicated by DO to the others.	Con mi prima nos escribimos durante diez años. 'My cousin and I exchanged [letters] for ten years'. Con mi prima nos escribimos cartas durante diez años. 'My cousin and I exchanged letters for ten years'.
ra di g m ati	(c) Inchoative or middle	Used to turn a transitive causative sentence into an intransitive and inchoative one.	<i>¡Plof! La moto se apaga Me he quedado sin gasolina.</i> <i>`¡Plof! The motorcycle engine stops I run out of gasoline'.</i>
ati c <i>se</i>	(d) Expletive <i>se</i>	An optional <i>se</i> . The same structure can be used with and without this component.	La mayoría de estas revistas (se) inventan las historias. 'The majority of these magazines make up their stories'.
	(e) Semantically independent se	A change of meaning connected to a pronominal use.	 Hay momentos difíciles en los que te juegas la vida. 'There are difficult moments in which you risk your life'. (In contrast with the non-pronominal verb jugar 'to play').
	(f) Strictly pronominal verbs	Verbs that can only be used with the pronoun.	Se jactó de lo que él solito y sus camaradas habían conseguido. 'He boasted of what he alone and his colleagues had got'. (The verb *jactar does not exist).
N on -	(g) Passive	Used for making a passive structure.	¿Qué pasará si se inventa el teletransporte? 'What will happen if teletransportation is invented'?
pa ra di g m ati	(h) Impersonal	No subject. Used for intransitive verbs and for transitive verbs with the direct object denoting a person.	<i>Tras una investigación se detuvo a veinte personas.</i> 'After an investigation, twenty people were arrested'.

с		
se		

From the lexicographical perspective, this variability raises questions on how to represent these units in dictionaries with sufficient grammatical information, as this has been considered an essential part of the microstructure since the work of Sinclair, Hanks et al. with COBUILD project (1987) at least. In the case of dictionaries for foreign learners – which are the specific object of interest in this paper – students frequently show difficulties in trying to use them correctly (Martín Peris 2006, Orea Alfaro 2008, Bernal and Renau 2010) as a consequence of having another Romance language as L1 in which paradigms work in a different way or because their L1 does not have these uses at all, as is the case of English. In Battaner and Renau (2008), Bernal and Renau (2010) and Renau (in preparation), we studied errors committed by students of Spanish as a second language. See for instance the following examples taken from assignments, the majority of them written by students with English as their first language:

- (1) *Levantó de mi cama a las 10 (correct option: Me levanté)
 'I got up at 10'.
- (2) *Mi amigo Javier *cortaba un dedo* (correct option: *se cortó*) 'My friend Javier cut his finger'.
- (3) **Me sentía una gran felicidad* (correct option: *Sentía*) 'I felt really happy'.
- (4) *La satisfacción debe *reflejar en mi expresión* (correct option: *reflejarse*) 'Satisfaction must show in my expression'.

Leaving aside mistakes in the morphology of the verbs which are not relevant to our discussion, in these sentences we observe that the pronoun was omitted in (1), (2) and (4), and added incorrectly in (3). In (1), *levantarse* is an example of reflexive verb (a) used to describe movements (such as *esconderse* 'to hide', *inclinarse* 'to bend down', *marcharse* 'to leave', etc.). Sentence (2) is an example of a 'mutilation verb'³, a subtype of the reflexive (a), in which the subject cannot be considered exactly the agent of the event, but rather the patient. In (3), *sentir* ('to feel') is an experience verb which, when used with this meaning, cannot appear with the pronoun – the student probably confused it with type (c). Finally, in (4) the opposite situation to (3) takes place: the inchoative non-pronominal option is wrongly selected. Thus, from a contrastive perspective, pronominal verbs are difficult and a clear and extended lexicographical representation would be of great help for learners.

Some studies (Fontenelle 2004, Battaner and Renau 2008, Marello 2010) have shown the difficulties of representing this kind of verbs in dictionaries and report on a variety of proposals and approaches. In Battaner and Renau (2008), we analysed more than 30 Spanish pronominal verbs in two dictionaries of Spanish as a foreign language and their equivalences in Catalan, French and Italian dictionaries, and reached the following conclusions: a) there is a large variation in the microstructure of this kind of verbs, not only between the dictionaries but within the actual dictionaries themselves; b) some type of pronominal uses (like the 'middle' one, e.g. *Ce livre se vend bien*) are under-represented or plainly unrepresented, neither as specific meanings nor in the examples; and c) typographical resources like bold, parenthesis, etc., are also underexploited or disregarded. In addition, Marello (2010) points out that dictionaries do not usually achieve a successful representation of transitive, intransitive and pronominal structures in the entry.

2.2. Models for corpus analysis

Sentences 1-4 in the previous section are only a sample of how unpredictable and lexically dependent pronominal uses can be. For instance, if we take (4), the meaning '[satisfaction] shows in...' is represented by the inchoative pronominal verb *reflejarse* (c), in contrast with many other cases in which a non-pronominal verb is used for inchoativisation, such as *florecer* 'to blossom'. The question becomes even more suggesting and difficult when one observes that, in many cases, the same verb can select both structures, i.e. pronominal and non-pronominal, to express inchoativity: thus, for example, *florecer* has the variant *florecerse*, meaning 'to rot'. Hence, it seems there is no syntactic or semantic rule to predict the selection of a pronominal verb. The situation is similar in the majority of the other types of *se*: expletive (d), semantically independent *se* (e) and strictly pronominal verbs (f) are unpredictable, and we could establish lexical restrictions to reflexive (a) and reciprocal (b) as well, because not all verbs can be used with these structures despite the fact that they are grammatically regular. Passive (g) and impersonal *se* (h) are the most grammatically regular types.

Thus, structures with *se* seem to be strongly associated to the lexical unit, and they often imply changes in semantics or in the arguments of the verbs. For this reason, the lexico-centric approach seems to be the most appropriate, because it allows for a verb-by-verb analysis. That is the reason why we choose CPA as the method for analysing pronominal verbs, among other reasons that will become clear in this and the next section.

CPA is part of a series of methodologies emerging from the need for systematic corpus analysis and the belief that only by observing the word in context can we establish its semantic behaviour (Firth 1957, Halliday [Kress 1976], Sinclair 1998, 2004 and 2010). An approach such as Hanks' can be considered a continuation and extension of this approach, also influenced by Pustejovsky's (1995) model. In Hanks (2008), different treatments of lexical patterns in dictionaries are described. The author points out that part of speech and basic clause roles summarised in the acronym SPOCA (subject, predicator, object, complement, adverbial) are not enough to differentiate patterns or meanings. In contrast, CPA can 'capture the meaning of the lexical pattern and [contrast] it with other meanings activated by other patterns of the same verb' (Hanks 2008: 111). Pronominal verbs can be taken as a case in point of this situation. Consider, for instance, the verb *llenar* ('to fill'), in which different patterns (pronominal and non-pronominal) can be built:

- (5) Las viviendas se llenan de agua cuando hay inundaciones. 'Houses become full of water when there are floods'.
- (6) Me sentí excluido y me llené de rabia.
 - 'I felt excluded and I filled with anger'.

In examples (5) and (6), the grammatical pattern is the same: S V(se) de N. Nevertheless, the meaning is completely different, which demonstrates that grammatical description cannot be enough for our purposes.

2.3. Corpus Pattern Analysis (CPA) and Theory of Norms and Exploitations (TNE)

As explained in the introduction, CPA is a technique for the systematic analysis of normal patterns of usage of words in context. It is based on TNE (Hanks 2004b and in press), which postulates that words are either used in normal lexico-syntactic patterns, each of which is associated with a specific meaning that is activated in context, or exploited in metaphors,

metonymies, paronomasias, etc., for rhetorical effect. Thus, grammatical and semantic features of the context in which each word appears are essential to understand its meaning in conventional use. CPA as well as TNE have been described in a large number of papers from different points of view (Hanks, in press, is the compilation and unification of all the theoretical reflections), so for the sake of brevity we will not explain them in detail here. The idea has its roots in Sinclair's conception of meaning and the lexicon (Sinclair 1998, 2004), but has been extended by Hanks and put into practice through CPA, which at the moment is being applied for English, Italian, Spanish and Czech. Current associated projects are the Pattern Dictionary of English Verbs, PDEV (Hanks, in progress), which has about 700 verbs completed, and the pattern dictionary of Spanish verbs, not freely available for the time being, with approximately 150 entries (the first results of this latter work have been detailed in Renau and Alonso, forthcoming). At the same time, DAELE, Diccionario de aprendizaje del español como lengua extranjera (Renau and Battaner 2011), a pedagogical dictionary project currently in progress, is using CPA as a method for corpus analysis. Both projects are testing the adequacy of CPA for a Romance language such as Spanish, and DAELE is trying to find out if the system can be applied to a pedagogical dictionary. Thus, in what follows, we describe how different types of Spanish pronominal verbs can be analysed with CPA and try to derive some conclusions about its adequacy for lexicographical tasks involving pronominal verbs in Romance languages.

3. Analysis of Spanish pronominal verbs with CPA

In this section, we present the way in which pronominal verbs are treated in Spanish CPA and we also give some examples. We divide the analysis into the inchoative use (c), expletive *se* (d), semantically independent *se* (e), uses following regular grammatical rules (a, b, g and h), and the strictly pronominal verbs (f).

3.1. Inchoative use

In the case of inchoative (or zero causative) structures, in which *se* is used to turn a transitive or causative verb into an intransitive or inchoative one, we follow Hanks' criteria in separating both structures into two different patterns (see, for example, PDEV, s.v. *calm, shine* or *smell*), because this is needed to reflect the change of semantic roles in the argument structure. In the case of the pronominal pattern, re-lemmatisation is used to indicate in the pattern that the pronoun is obligatory:

Pattern 1 ⁴ : Implicature ⁵ : Example:	[[Human 1 Event]] entusiasmar ([[a Human 2]]) [[Human 2]] is enthusiastic or excited about [[Human 1 Event]] <i>El proyecto entusiasmó a la actriz catalana</i> ('The project caused
I I	excitement in the Catalan actress')
Pattern 2:	[[Human]] entusiasmarse {(con [[Event]])}
Implicature:	[[Human]] is enthusiastic or excited about [[Event]]
Example:	Antonio se entusiasmó con esa noticia ('Antonio got enthusiastic
1	about that piece of news')

3.2. Expletive 'se'

In the case of an optional *se* such as the expletive, no fundamental difference in meaning can be found, yet both options must be reflected in the pattern. To reflect this, we simply relemmatise the verb using a slash to indicate that the pronoun is optional.

Pattern:	[[Living Being]] morir/se [NO OBJ]
Implicature:	[[Living Being]] cease living
Examples:	<i>Ingirió una seta venenosa y se murió</i> ('He/she ate a poisonous mushroom and died ')
	Murió en Buenos Aires el 24 de agosto de 1943 ('He/she died in
	Buenos Aires on August 24 1943')

3.3. Separate meanings linked to pronominal uses

When the meaning of a verb can only be expressed with the pronoun, this must be reflected in the pattern. A grammatical approach would probably put this kind of verb in the same group as the reflexive ones, as this type was historically the origin of the rest of the uses. However, this cannot be done in a lexico-centric approach in which the distinction of meaning is fundamental. Consider the following example, in which *jugar* and *jugarse* have a complete different meaning (as seen in Table 2):

Pattern 1:	[[Human]] jugar [NO OBJ]
Implicature:	[[Human]] participates in an activity with the purpose of amusement
Example:	La niña está fuera jugando ('The girl is playing outside')
Pattern 2:	[[Human]] jugarse [[Entity = Good]]
Implicature:	[[Human]] risks [[Entity = Good]]
Example:	(Los inmigrantes) se juegan la vida saltando una valla ('(Immigrants) risk
	their lives jumping over a fence')

3.4. Grammar-controlled uses: reflexive, reciprocal, reflexive passive and impersonal

Among the uses described in Table 2, there is one group which is regulated by grammar rules and, in theory, can appear with all transitive verbs. Reflexive and reciprocal uses usually have a direct or indirect object function and, in the case of the reflexive passive and impersonal structures, they are particles regularly used to transform the active transitive sentence into a passive or impersonal mode. We argue that any of these types of *se* constitute an independent pattern: in the case of reflexive and reciprocal structures, the pronoun can be substituted by any other DO or IO: instead of finding *María se lava* ('María washes –herself–') or *María se lava el pelo* ('María washes her hair'), we can find *María lava a su hija* ('María washes her daughter') or *María lava el pelo a su hija* ('María washes her daughter's hair'). Reflexive passive and impersonal are also systematic ways of creating a new structure, and they establish an alternation with its active pairs, in which no semantic differences can be found. See, for example, the case of *lavar/se*:

Pattern:	[[Human]] lavar a [[Animate Artifact]]
Implicature:	[[Human]] cleans [[Animate Artifact]] using water and soap
Examples:	(Él) ayuda a lavar a los enfermos ('(He) helps to wash the patients')
	Luis se lava a conciencia ('Luis washes himself conscientiously')

In spite of what has been said before, there are cases in which reflexive structures must be considered separate patterns: when the meaning they activate can be considered different from the non-reflexive one, as in the example of *cortarse* mentioned above (2). Thus, we consider that this pattern could be expressed as follows:

Pattern:	[[Human]] cortarse [[Body Part = of Human]]	
Implicature:	[[Human]] gets hurt with a cut in some of his/her [[Body Part]]	
Examples:	ples: Algunos trabajan con maquinaria pesada y muchos se cortan las man	
	o los dedos con las máquinas ('Some of them work with heavy	
	machinery and lots of them cut their hands or fingers with the	
	machines').	

The semantic type [[Body Part]] must be identified as belonging to the subject's body.

3.5. Strictly pronominal verbs

Finally, there is a group of verbs which can only be used with a pronoun, no matter what kind of pronoun it is. They are treated with the corresponding pattern and the pronoun is added to the lemma, as in 3.1 and 3.3.

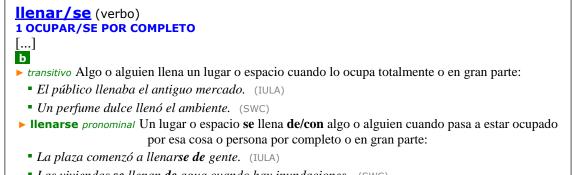
Pattern:	[[Human]] resfriarse [NO OBJ]
Implicature:	[[Human]] catches a cold
Example:	El chico se había resfriado ('The boy had caught a cold')

4. Lexicographical representation of pronominal verbs in a learner's dictionary

In the previous section, we have seen how pronominal verbs can be analysed and represented by lexical patterns. In this section, we will explain a proposal for how these patterns can be reflected in a pedagogical way in a learner's dictionary. A first general proposal was already shown in Renau and Alonso (forthcoming) and the majority of the features explained below can be observed in *Diccionario de enseñanza del español como lengua extranjera*, DAELE (Battaner, in progress).

We consider that causative and inchoative uses must be reflected in two different definitions, following CPA, but the definitions must be linked to help the user to understand that the meaning of both structures is, in fact, the same, and that it is only the arguments which change their position. Thus, for example, in the entry *llenar* ('to fill') in DAELE (Figure 1), meaning (b) is divided in two full-sentence definitions and exemplified separately. The pronominal pattern is labelled by re-lemmatisation (*llenarse*).

Related to expletive *se*, we consider that it must be systematically reflected in the entry when it appears in the corpus, and in a simple way that students can easily understand. As shown in Figure 2 with the verb *morir/se* (meaning 1a), the simplest way seems to be to offer examples with and without *se* in the same meaning.



• Las viviendas se llenan de agua cuando hav inundaciones. (SWC)

Figure 1. Treatment of causative and inchoative pattern for one of the uses of the verb *llenar* 'to fill' in DAELE.⁶

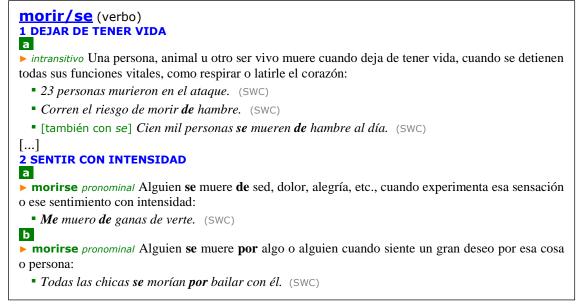


Figure 2. Treatment of expletive *se* in the verb *morir/se* ('to die') in DAELE (meaning 1a), and of semantically independent *se* (meanings 2a and 2b).

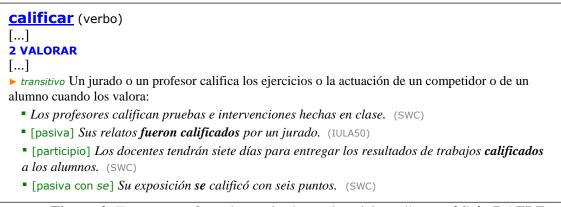


Figure 3. Treatment of passive se in the verb calificar ('to mark') in DAELE.

Meanings linked to a pronominal pattern, without alternation, are offered separately, following the CPA criteria, as shown in Figure 2 (meanings 2a and 2b). In this example, the expletive *se* was the origin of two different metaphorical meanings, both semantically well

differentiated from the original one. In these cases, it cannot be said *Muero de ganas de verte ('I am dying to see you') or Todas las chicas *morían por bailar con él ('All the girls were dying to dance with him'), because the particle se is mandatory.

For grammatical-rule structures, a note in the examples, such as the one shown for the expletive *se* (Figure 2) is the option we offer the user. In Figure 3, different grammatical notes (in green) are put before the examples.

Finally, as a general aspect, entries with inchoative, expletive or semantically differentiated *se* have the particle included in the entry, as shown, for example, in Figure 1 with *llenar/se*. If the verb can only be used with the pronoun (as in the example of *jactarse* in Table 2), the lemma appears, of course, only with a pronominal form.

5. Conclusions

To conclude, we consider CPA an appropriate tool for the analysis of pronominal verbs, and also as a coherent, systematic way of treating these varied and complex types of structures. On the one hand, it is crucial to distinguish whether the pronominal use that is analysed constitutes an independent, separate meaning or not. As the objective of CPA (and TNE) is to explain how people use words to build meanings, any syntactical distinction not connected to meaning cannot be of relevance. On the other hand, in all the decisions shown in the previous section, we have taken the need for coherence with the English CPA into account, that is to say, in the Spanish CPA we have tried to reflect equivalent linguistic phenomena as in the English version of CPA. This is not only because of the practical use of the data (for instance, for a connection of the different versions of CPA), but also due to theoretical reasons related to the concept of grammar or semantic feature, alternation or meaning. Thus, in English CPA, passive, reciprocal or reflexive structures do not constitute a separate pattern. Instead, the inchoative ones are put in a specific pattern, and so forth. In short, all decisions taken for the Spanish CPA.

Related to the lexicographical representation of structures with *se*, all decisions shown previously are different, in many cases, from other Spanish learner's dictionaries (Battaner and Renau 2008). One of the most important features is that it takes into account the fact that online format versus paper format is a very relevant aspect. Another significant question is that the majority of the dictionaries show the types of *se* we analysed above, but not in a consistent and coherent way: they are given in some entries and forgotten in others, and this is very common in reflexive, reciprocal, passive and impersonal uses. If these structures are possible in real usage (and, in fact, in some cases they are more common than the non-pronominal ones), they must be reflected in the verb entries. Grammatical structures, even when not connected to differences in meaning, must have a place in the new conception of the dictionary entry. Grammar-centred approaches such as those by Hunston and Francis (2000) or Levin (1993) can be of great help to address this problem.

In summary, a very frequent, difficult and diverse aspect of Romance languages such as pronominal verbs must be treated with high precision and accuracy in learner's dictionaries. This must involve performing a systematic corpus analysis and observing when empirical data make these different structures emerge, which are otherwise often left behind because of the lack of space or the lack of systematisation. This is our particular lexicographic dream (De Schryver 2003) for the new conception of the dictionary entry.

Notes

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 2 All the corpus examples used in the article are taken from Spanish Web Corpus, provided by Sketch Engine (Kilgarriff et al. 2004).

³ We use the terminology of Fontenelle (2002) to refer to 'mutilation verbs' such as *cortarse un dedo* ('to cut one's finger') or 'grooming verbs' such as *peinarse* ('to comb one's hair'). Both can be considered particular subtypes of reflexive use (a).

⁴ In CPA, semantic types are given within double square brackets and taken from a shallow ontology created by Hanks for that purpose.

⁵ The implicature is the paraphrase of the pattern and indicates its meaning.

⁶ Number of examples and other data are abbreviated for concision in all DAELE examples.

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