Spanish Verbless Clauses and Fragments.
A corpus analysis

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Abstract

Spanish verbless utterances in the CORDE corpus have been classified in a taxonomy and annotated for distribution frequency and syntactic properties (part of speech of the head, structure and syntactic type). This work has allowed to note that Spanish verbless utterances are a non-negligible part of oral utterances: they amount to around 19% of the 63,000 utterances from the corpus, both in root and subordinate contexts. Among these verbless utterances, fragments are significantly more frequent as roots than verbless clauses, but they are both equally rare in subordination.

1 Introduction

The extensive use of multimedia tools of the last years has renewed the interest of researchers in corpus data, since these data can be used for a number of applications, from translation to foreign language teaching. At the same time, the preference for authentic data instead of constructed examples, has led to the development and use of oral speech corpora. Indeed, spontaneously produced sentences reflect actual productions of speakers and can be used as a faithful data that document language productions. They challenge the common practice in linguistics of using constructed examples, which does not allow to verify the grammaticality or rarity of the examples. By contrast, annotated corpora provide information such as the frequency of a given item, the genre where it is produced, or other metadata about it or about the speakers who produced it, like they age, sex or education. Annotated corpus are therefore interesting tools for language research.

The combination of this two factors (recent availability of digitalized corpora and interest on orality) allows to focus on some constructions which are consistently used in oral speech but had not retained great attention from scholars so far. Among these constructions, verbless utterances occupy a major role, since they seem to be used extensively in oral speech but are seldom considered in the description of the grammar.

The frequency of verbless utterances in oral corpus is attested in recent works. Cresti (2004) shows that 37% of the total number of utterances in the Spanish part of the oral corpus C- ORAL ROM contain or are composed of verbless utterances (also called non-sentential utterances or NSUs).

Further distinctions can be drawn within these NSUs. Ginzburg (2012) distinguishes between utterances with no propositional meaning, such as calls (1), interjections (2), fillers (3) and discourse markers (4), from utterances with full propositional meaning. These can be divided into verbless clauses, which are elliptical clauses with a nonverbal head (5), and fragments or elliptical verbless clauses (6):

(1) Maria, ¿Has visto mis llaves?   'Mary, have you seen my keys?'

(2) Oh, ¡qué pena!   'Oh, What a pity!'

(3) A: -Vamos a... B: -¿casa?   A: -'Let's go...' B: -'Home?'

(4) Volviste tarde, ¿no?   'You came back late, didn't you?'

(5) Preciosa tu camisa.   'Very nice your t-shirt;' (Nice t-shirt.)

(6) ¿A qué hora volvemos? B: -A las tres.   A: -'What time are we coming back?' B: -'At
     three.'   three.'

Although the expression of a call (1) do express some information (an intention such as "the speaker tries to call the attention of another participant" and the expression of a certain attitude or goal which can possibly be paraphrased as an utterance), this information does not necessarily correspond to a clausal meaning nor it can systematically be retrieved from the neighboring utterances. Calls also differ in their syntactic behavior, since they can appear inside utterances without any semantic contribution to its content. In a similar way, interjections (2) do not express lexical content, but they express some attitude or reaction. In most cases, like (2), they do not seem to add semantic content to the message of the utterance.

As for fillers (3), they are verbless utterances which complete a preceding utterance which has been interrupted. Some authors like Fernandez (2006) classify them as fragments, without taking into account the properties which distinguish them from other verbless utterances. These properties are the followings: firstly, fillers do not express a content by themselves, but only in combination with the utterance they complete. Secondly, they often take the form of a NP selected by an item in the preceding utterance, whereas verbless utterances select an argument or predicate or are co-referent to a preceding content. This properties, and the rare frequency of these items in corpora where dysfluency is annotated, like the CORLEC corpus (Marcos Marin, 1992), suggests that fillers are better analyzed as dysfluency phenomena.

Discourse markers perform a speech act but lack clausal content. In fact, the question tag "no?" in (4) is anaphoric to the whole preceding content, and this anaphoric relationship adds the speech act content of a demand of acknowledgement. Nevertheless, it does not recover the semantic content of the source (volviste tarde, ¿no volviste tarde?). Instead, it adds a question about the hearer's agreement or acknowledgement (volviste tarde, ¿no es verdad?).

The same item can constitute either a verbless utterance with full clausal meaning or a discourse marker: the same negative polar adverb "no" in (4) can perform an answer (7), expressing full semantic content and constituting therefore a verbless clause. In this way, the polar adverb "no" seems to be a discourse marker when used as a tag, but a verbless clause when used as an answer.

(7) A: -¿Vienes luego? B: -No.   A: -'Are you coming back later?' B: -'I don't.'

(4) A: Volviste tarde, ¿no?   You come back later, don't you?'

In the same way, some evaluative terms such as "muy bien" 'very well' are often used as discours markers to signal that the previous utterance has been well received and understood (that is, to indicate acknowledgement), but not necessarily to indicate agreement or evaluation. In these cases, their positive content is transformed in the expression of an positive acknowledgement which signals an attentive listening. Again, a verbless utterance can have a bleached use as a discourse marker. In spite of these

difficulty to identify discourse markers, they are clearly different from other verbless utterances in their lack of clausal content.

Verbless clauses and fragments are therefore syntactic structures with clausal content. They can adopt different syntactic types (declarative (9), exclamative (8), interrogative (10), desiderative), just as sentences having a verbal head. They nevertheless differ from the latter in the part of speech of the head, which is not a tensed verb but another predicative word, such as a noun (10), an adjective (8), an adverb (9), a preposition or yet a non-tensed verb like a participle or an infinitive.

In the one hand, verbless clauses contain a predicate and the argument it selects. Therefore, they are not elliptical since their syntax expresses the full content which is interpreted, and can be organized in different structures, like head only (7), head-subject (8) or head- complement (9). Fragments, on the other hand, are elliptical, since part of the interpreted content is not expressed by the syntactic structure itself, but it is recovered from the preceding utterance (10).

(8) ¡Qué bonito tu vestido! '   'So nice, your dress!' (Nice dress!)

(9) Menos mal que has venido.   'Happily that you came.'

(10) A: - ¿Qué dices? B: -Nada.   A: -'What do you say?' B: -'Nothing'.

2   Corpus

The corpus CORLEC (Corpus Oral de Referencia de la Lengua Española Contemporánea or Oral Reference Corpus of Contemporary Spanish) (Marcos-Marín, 1992) is a suitable corpus for linguistic research for several reasons: firstly, it is available online; secondly, it is transcribed with full orthographic detail including sentences boundaries; thirdly, its size and diversity of genres and speakers furnishes a rich account of representative contemporary Spanish. Its biggest inconvenient is the lack of sound files, which does not allow us to verify the examples or analyze phonetic aspects such as prosody.

It also has the advantage of being annotated for some non-linguistic data. Firstly, the number of speakers is indicated in every section, as well as some information about them, such as their age and profession. Secondly, semantically meaningful gestures such as acceptance, refusal and doubt are indicated, since they sometimes replace oral productions. Thirdly, silences and noises are also marked, since they can be meaningful or have a role in communication. For instance, the presence of noise can account for repetitions. Foreign words and acronyms are also noted, as well as other particularities in the communication, like singing, reading, laughing or simultaneous speech.

The CORLEC corpus also takes into account dysfluency phenomena in its annotation, which guarantees that the verbless clauses and fragments taken into consideration are not consequences of dysfluency, but full syntactically independent structures instead. The cases of dysfluency considered are overlapping, self-correction, hesitation and unfinished sentence. The CORLEC corpus is composed by 1,078,780 words which form 63,291 utterances of variable size, as it can be seen in Table 1 and Image 1. The average utterance size (17.04 words per utterance) contrasts with the size of verbless utterances, which is significantly smaller (8.75 words per utterance, for verbless clauses and 4.47 for fragments). As it can be expected, verbless utterances are shorter than verbal ones, and fragments shorter than verbless clauses.
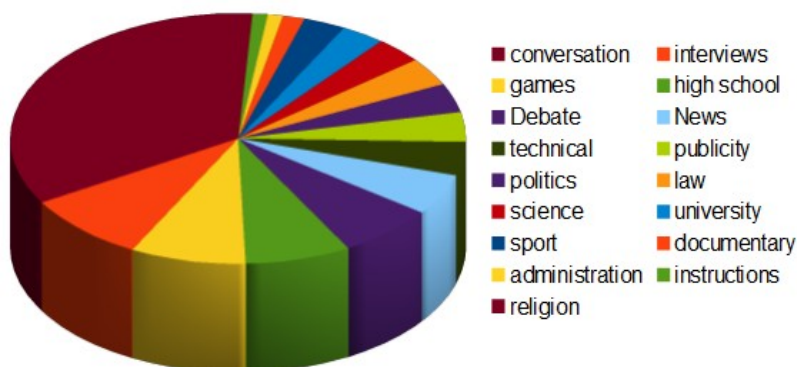
Figure 1: Distribution of genres of the CORLEC corpus

Tag	Genre	Utter.	Words	Wds / utt	%
conv	conversation	21,193	269,500	12.72	33.49%
ent	interviews	5,591	171,200	30.62	8.83%
lud	games	5,195	61,200	11.78	8.21%
edu	high school	4,749	58,300	12.28	7.50%
deb	Debate	4,379	93,500	21.35	6.92%
not	News	3,352	72,600	21.66	5.30%
tec	technical	2,766	43,100	15.58	4.37%
pub	publicity	2,404	30,800	12.81	3.80%
pol	politics	2,361	53,500	22.66	3.73%
jur	law	2,318	35,200	15.19	3.66%
cie	science	2,148	36,000	16.76	3.39%
hum	university	1,968	61,200	31.1	3.11%
dep	sport	1,873	58,300	31.13	2.96%
doc	documentary	995	28,600	28.74	1.57%
admin	administration	684	5,780	8.45	1.08%
ins	instructions	678	6,600	9.73	1.07%
rel	religion	637	12,100	19	1.01%
-	**TOTAL**	**63,291**	**1,078,780**	**17.04**	**100%**

Table 1: Distribution of genres of the CORLEC corpus

The corpus is composed by seventeen genres that we classify in either monologic or dialogic. Among these, almost two thirds of the total are dialogic (68% or 10,202 utterances), and around one third is monologic (40% or 4,171 utterances). The genres labeled as dialogic are the following: administration, sport (radio broadcasting), advertisement (TV broadcasting), debates (TV), high school

lessons, games (TV) and small talk. In contrast, monologic genres are distributed among these ones: religion (TV), instructions, documentary (TV), university lessons, science (TV), law (radio), politics (TV), technical and TV news. The different size of monologic and dialogic genres is explained by the size of one particular genre, small talk, which constitutes one third of the total of the corpus (33.49%).

Taking aside non-sentential utterances without propositional content such as callings or discourse markers, the corpus contains 7,434 verbless clauses or fragments, which amount to 11.75% of the whole number of utterances of the corpus. Fragments (8.15%) are much more frequent than verbless clauses (3.6%). This percentage contrasts with the 37% frequency observed in C-ORAL ROM, where all verbless utterances are taken into account. This difference suggest that verbless utterances without clausal content are much more frequent than verbless clauses or fragments. In the CORLEC corpus, fragments are more than twice as frequent as verbless clauses, the total being distributed in 69.4% vs. 30.6% (5,159 vs. 2,275 items).

3   Verbless clauses in CORLEC

We propose a taxonomy of eight types of verbless clauses which captures the whole range of cases found in the corpus. These eight types are grouped in four families: existential, polar, predicative and illocutive. First, existential verbless utterances are noun phrases with an existential interpretation (11). Second, polar verbless utterances have a polar adverb sí, no (yes, no) as their head (7). Third, the predicative family groups two types: epistemic (12) and evaluative (11) verbless utterances. Evaluatives can select either an entity (realized by a NP (8)) or a phrastic content (realized by a clause or an infinitive clause (9)). Four, illocutive types are divided into four types: presentative (13), expressive (14), directive (15) and performative (16). Each of them realizes a kind of speech act: presentatives present (the state of) a given entity, expressives express a wish, directives express an order and performatives change the state of an entity.

(11) (Seeing an old car) ¡Un rolls de los setenta! ' A roll royce from the 70s!'

(7)   A: -¿Vienes luego? B: -No.   A: -'Are you coming back later?' B: -'I don't.'

(12) Seguro que Enrique no viene al concierto.   'Sure Enrique won't come to the concert.'

(8) ¡Qué bonito tu vestido! '   'So nice, your dress!' (Nice dress!)

(9) Menos mal que has venido.   'Happily that you came.'

(13) A: -¿Vienes a la fiesta? B: -Yo, encantado.   A: 'Are you coming?' B: -Me, with pleasure.

(14) A ver si vienes pronto.   'To see if you come soon.' (Let's see if...)

(15) ¡Manos arriba!   'Hands up!'

(16) ¡Tu, castigado!   'You, punished!'

Works focusing in the study of fragments like Ginzburg (2012) consider polar structures as fragments instead of verbless clauses. The classification proposed here distinguishes elliptical (fragments) from non-elliptical structures (verbless clauses). In this way, utterances having a polar adverb as a head are not considered elliptical, since their syntactic structure is saturated (that is, no selected argument or head is left unexpressed). The content of polar utterances is not elliptical, but recovered by anaphora from a preceding or following clause. Polar adverbs are therefore considered as

prophrases, syntactically saturated heads which are anaphoric to a clausal content and can select it as a complement, as in "¡Pues sí que hace frio! 'So yes that it is cold'.

Every verbless clause in the CORLEC corpus can be account for by this taxonomy (Table 2 and Image 2). Some types are very frequent, like existentials, which account for more of half of the total number (1,226 items, 53.89%) and polar ones (641 items, 28.18%). In contrast, most illocutive types are rare, like presentatives (39 items or 1.71%), directives (5 items or 0.22%) or performatives, with no examples found in the corpus. The rest, expressives and evaluatives, have a frequency of around 150 items, which amounts to 6.6% of the total number of verbless clauses.

Type	Item	Total %
Existential	1226	53.89%
Polar	641	28.18%
Expressive	152	6.68%
Epistemic	150	6.59%
Evaluative	62	2.73%
Presentative	39	1.71%
Directive	5	0.22%
Performative	0	0.00%
TOTAL	**2,275**	**100%**

Table 2: Distribution of verbless clauses

Therefore, half of the 3.6% of verbal clauses from the corpus are composed by existential NPs, and more than a quarter by polar clauses. The rest of verbless clauses are distributed in the 18% remaining, which shows that these utterances are very little frequent and some of them even rare.
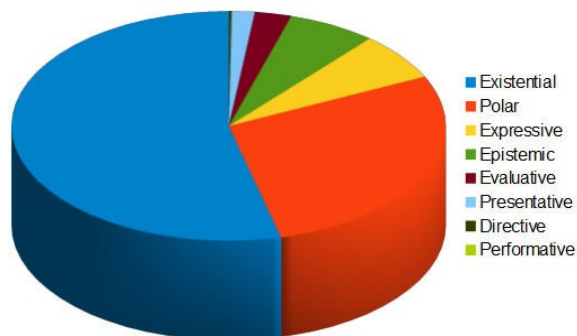

Figure 2: Distribution of verbless clauses

The distribution of verbless clauses in the different genres is also very irregular: most of them are found in dialogic genres (78.02 %), and particularly in small talk (30.02%) although the monologic genre instructions also contains an important part (8%). It seems therefore that, except for the genre instructions, verbless clauses are more frequent in dialogic (1,775 items) than in monologic genres (500 items), as it can be seen in Image 3 and Table 3.

Genre	Item	% of	% of
Dialogic			
administration	132	19.30%	1.08%
games	488	9.39%	8.21%
publicity	240	9.98%	3.80%
small talk	2,094	9.88%	33.49%
interviews	470	8.41%	8.83%
debate	359	8.20%	6.92%
high school	363	7.64%	7.50%
sports	127	6.78%	2.69%
subtotal	**4,273**	**-**	**72.79%**
average	**610.4**	**9.28%**	**10.40%**
Monologic			
instructions	70	10.32**%**	1.07%
technical	200	7.23**%**	4.37**%**
science	143	6.66**%**	3.39**%**
religion	36	5.65**%**	1.01**%**
law	122	5.26**%**	3.66**%**
documentary	48	4.82**%**	1.57**%**
politics	87	3.68**%**	3.73**%**
university	72	3.66**%**	3.11**%**
news	108	3.22**%**	5.30**%**
subtotal	**886**	**-**	**27.21%**
average	**110.7**	**5.14%**	**3.40%**
TOTAL	**5,159**	**8.15%**	**100.00**

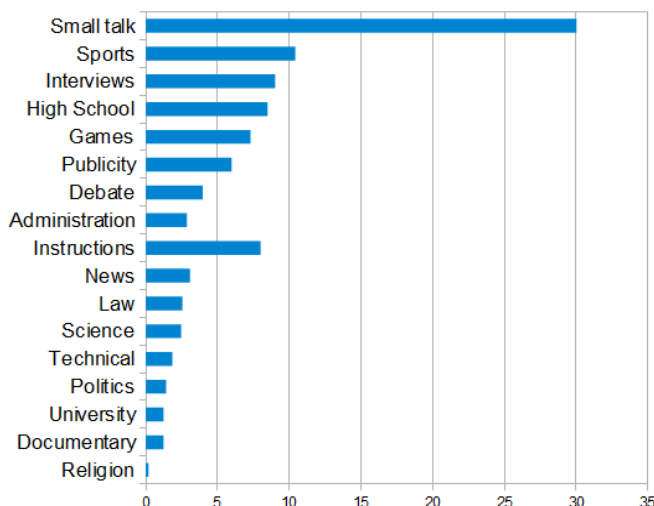**Table 3**: Genre distribution of Verbless clauses

Figure 3: Genre distribution of Verbless clauses

Despite these great contrasts in the use of verbless clauses among genres, we note that some genres contain a higher frequency of verbless clauses: among the monologic genres, *news*, *science* and *law* are more frequent, whereas among the dialogic ones we find a higher frequency in *small talk*, *sports broadcasting* and interviews. In contrast, the genres with lesser frequency of verbless clauses are *administration* and *debate* (within the dialogic genres) and *religion*, *documentary*, *university lessons* among the monologic ones.

In conclusion, we find four types of verbless clauses: firstly, existential NPs; secondly, polar clauses, where a polar adverb can be constructed alone, with a phrase, or selecting a clause; thirdly, predicative ones, expressing an epistemic or an evaluative content, and fourthly, illocutive ones, which are interpreted as speech acts. Verbless clauses are generally more frequent in dialogic than in monologic genres. Furthermore, existential and polar types are the most frequent in corpus, whereas illocutives are rare.

4   Fragments in CORLEC

The relationship between verbless clauses and fragments seems evident from the contrast in examples (5), (17) and has been pointed out by Laurens (2008): verbless clauses correspond to fragments which express overtly the argument they select. Verbless clauses are therefore headed structures with no elliptical content that can have a subject or a complement. In contrast, fragments do not express the whole content which is interpreted and are therefore elliptic. The elliptic content can correspond to the elliptic head, as in (6) or to the elliptic argument, as in (5). This distinction allows to consider two types of fragments: in the one hand, fragments can correspond to elliptical verbless clauses (17), and in the other hand, they can be equivalent to clauses with a verbal head (6):

(5) Preciosa tu camisa   'Very nice your t-shirt' (Nice t-shirt)

(17) Preciosa   'Very nice'

(6) ¿A qué hora volvemos? B: -A las tres.   A: -'What time are we coming back?' B: -'At three.'

Fragments with elliptic complement are therefore equivalent to verbless clauses that do not express their argument. These fragments correspond therefore to the same types of verbless clauses, except for existential NPs and polars. In this way we find epistemic (18) and evaluative fragments (19), but also illocutive ones (presentatives (19), expressives (20), directives (22) and performatives (23). We also find a new type of illocutive fragment, "promissive" (24), which performs an act of offer. This fifth type, which completes Austin's (1956) characterization of speech act types, is realized by declarative questioning NPs and cannot therefore be predicative like the rest of illocutive fragments:

(18) Por supuesto   'Of course'

(19) Precioso   'Very beautiful'

(20) Encantado   'Delighted' (Nice to meet you)

(21) A ver   'To see' (Let's see)

(22) A comer   'To eat' (Let's eat)

(23) Castigado   'Punished'

(24) ¿Una cerveza?   'A beer?'

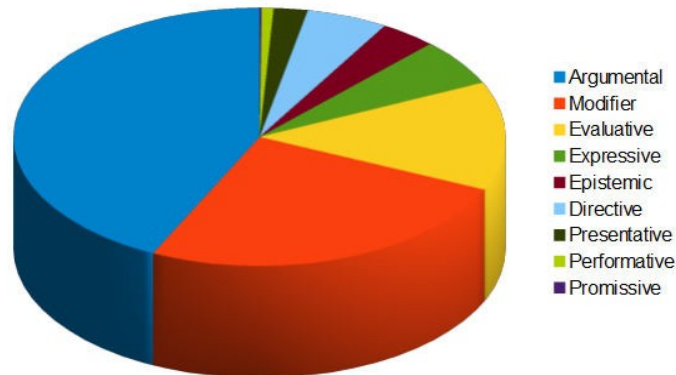| Type	Ite	%
Argumental	2,21	42.88
Modifier	1,31	25.45
Evaluative	702	13.61
Expressive	303	5.87%
Epistemic	191	3.70%
Directive	276	5.35%
Presentative	115	2.23%
Performative	40	0.78%
Promissive	7	0.14%
TOTAL	**5,15**	**100%**

Table 4: Distribution of fragment types

Figure 4: Distribution of fragment types

Fragments that correspond to clauses with a verbal head do not have a verbless clause equivalent but are related to verbal clauses with an elliptic verb. We can distinguish two types: those which add content to the recovered elliptic content (25), and those which contain a segment coreferent with a segment of the source (26), (27). These types are not different by themselves, but are distinguished by the relationship they hold with the elliptic content. The first ones, that we call modifiers following Ginzburg (2012), complete their content with the content they recover from a precedent utterance (25). The second ones, by contrast, build their content in a more complex way: they do not recover the whole content of the source, but they leave aside the coreferent segment (26), (27). In this way they only recover the content of non-coreferent segments in the source.

(25) A: Maria se acaba de ir. B: -Con Pedro.   A:-'Maria just left.' B: -With Pedro.
(26) A: -Se fue con Maria. B: -Con Pedro.   A:-'He left with Maria.' B: -With Pedro.
(27) A: -Se fue con Maria. B: -¿Con Maria?   A:-'He left with Maria.' B: -With Maria?
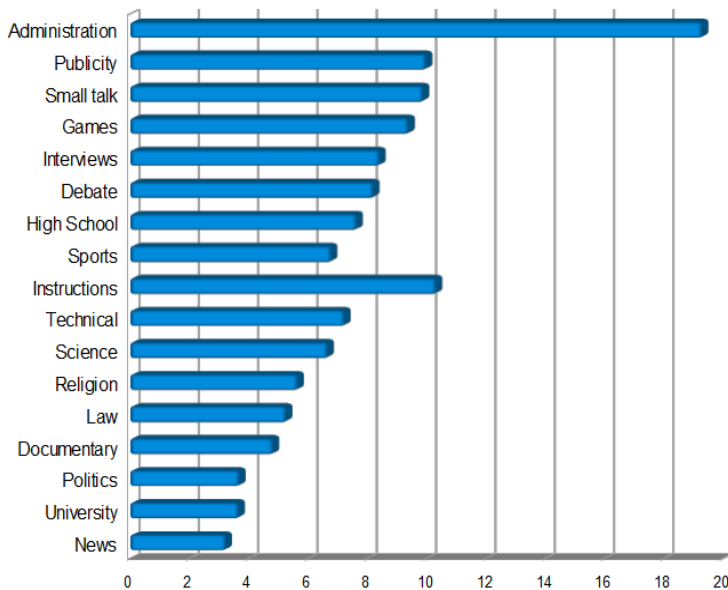

Figure 5: Distribution of fragment per genre

This property of coreference allows them to express a variety of speech acts, depending on the relationship between the source and the target. For instance, if the source and the target denote a different referent, the fragment is interpreted as a correction (26), whereas if the source and target denote the same referent and the target has a questioning value, it constitutes a verification question.

Similarly to verbless clauses, where existential NPs and polars account for roughly three quarts of the total number of items, among fragments, two types account for the majority of cases (argumentals, 42.88% and modifiers, 25.45% respectively). Evaluative fragments are also frequent (13.61%), and expressives and directives roughly constitute 5% of the total of fragments each. The rest of illocutive fragments are rare; if the number of performatives is low (40 items, 0.78%), the frequency of promissives is even lower (7 items, 0.14%). Fragments are significantly frequent in oral Spanish, since they constitute 8.15% of the total number of utterances from the corpus. Table 4 shows their distribution and Image 4 illustrates it.

Fragments, like verbless clauses, are also more frequent in dialogic than in monologic genres (72.79% vs. 27.21%), although they are also quite frequent in the monologic genre instructions, as it is shown in Table 5 and Image 5. Among the dialogic types, fragments are particularly frequent in the genre sport, specially argumentals, modifiers and evaluatives. Among monologic types, they are more frequent in the genres law and university. It is interesting to note that epistemics and evaluatives have reversed frequencies: epistemics are more frequent than evaluatives as verbless clauses, but less frequent as fragments.

The genres with the highest frequency of fragments are, among the dialogic genres, sports, debates, interviews and high school lessons. Among the monologic ones, they are mainly found in law and university lessons. In contrast, the genres with less fragments are administration and debate (among dialogic genres) and instructions (as monologic ones).

Genre	Items	% of genre	% of corpus
Dialogic			
small talk	683	30.02%	33.49%
sports	237	10.42%	2.96%
interviews	205	9.01%	8.83%
high school	193	8.48%	7.50%
games	166	7.30%	8.21%
publicity	136	5.98%	3.80%
debate	90	3.96%	6.92%
administration	65	2.86%	1.08%
subtotal	**1,775**	**78.02%**	**72.79%**
average	**221.88**	**9.75%**	**9.1%**
Monologic			
instructions	182	8.00%	1.07%
news	70	3.08%	5.30%
law	58	2.55%	3.66%
science	56	2.46%	3.39%
technical	42	1.85%	4.37%
politics	32	1.41%	3.73%
university	28	1.23%	3.11%
documentary	28	1.23%	1.57%
religion	4	0.18%	1.01%
subtotal	**500**	**21.98%**	**27.21%**
average	**55.56**	**2.44%**	**3.02%**
TOTAL	**2,275**	**100%**	**100%**

Table 5: Distribution of fragment per genre

5 Database

The research of verbless utterances in the COREC corpus has produced 7,434 examples, classified according to several criteria. Firstly they have been classified as verbless clause or fragment. Secondly, they have been sorted as one of the types of the taxonomy and thirdly, they have been classified by the genre where they have been produced. In addition, each type has been annotated for the following syntactic properties: part of speech of the head, syntactic type, illocutory value and syntactic structure.

This annotated sub-corpus of examples has been organized in a database, which allow to manage the data.

This database, which constitutes the first corpus of Spanish verbless utterances with annotation about corpus frequency and syntactic properties, represents an interesting tool for the study of oral Spanish. An interface allows to access this database and exploit the data. In every utterance entry, the example is followed by the description of its syntactic properties and genre of origin. This interface also permits the quick extraction of all the examples having a given property, such as a head-complement structure or a declarative type, or an adverbial head, as shown in Image 6.

The examples have also been separated according to whether they are root verbless utterances are or subordinate ones. This distinction has allowed to note an important particularity: differently from other roman languages like French or Italian, Spanish fragments can be easily subordinated. In this way, this database of Spanish verbless utterances constitutes a major resource for the research of oral Spanish.

ID	2
Corpus sample	porque menos mal que tengo buen humor
Genre	small talk
Type of verbless clause	evaluative
Structure	Hd-compl
Part-of-Speech	Adv
Syntactic type	declarative assertion

Figure 6: Database Interface for subordinate verbless clauses in the CORLEC corpus

6 Conclusions

The results of this study shows that fragments and verbless clauses (with and without ellipsis respectively) are frequent in contemporary oral Spanish. The size and variety of the corpus used for this study (the CORLEC corpus, with more than 63 000 utterances) is high enough to consider these result as representatives of the spoken language. They seem to be more frequent in dialogic genres than in monologic ones.

The most frequent verbless clauses are existential NPs and polar structures (54% and 28% respectively). Also, epistemic and expressives are less frequent (around 6,6%), but other illocutive types are rare. As for fragments, the most frequent types are the ones with an elliptical verbal head, argumental and modifiers (42% and 25% respectively). Epistemic and presentative fragments are less frequent, and some illocutionary types are rare, like performatives and promissives (0.14 and 0.7% respectively). In general we find twice as much fragments than verbless clauses in root position. Both are more frequent in dialogic than in monologic contexts although verbless clauses are notably more frequent (four times more) than fragments (less than twice as frequent).

Fragments and verbless clauses are syntactically related: some verbless clauses are different from fragments and have different properties, like existential and polar verbless clauses. In the same way, some fragments are different from verbless clauses because they display an ellipsis of the head, like argumental and modifier fragments. Nevertheless, there are some verbless clauses which are similar to fragments: fragments with a predicative head and an elliptical argument are equivalent to verbless clauses which express this argument. Fragments with ellipsis of a selected argument are therefore in complementary distribution with verbless clauses, which form head- subject, head-complement or head-peripheric structures where the head is saturated by its argument.

This explains why fragments and verbless clauses share a number of types: verbless clauses (except for polar and existentials) are fragments that express their argument, which results in a particular syntactic configuration. This distribution also accounts for the frequency data: fragments with ellipsis of the selected argument are much more frequent than verbless clauses.

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