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15 VP and TP Ellipsis: sentential polarity and information structure

This paper focuses on two types of predicate ellipsis, namely Verbal Phrase Ellipsis (VPE), also known in the literature as Verb-stranding ellipsis, and Tense Phrase Ellipsis (TPE), also called Stripping or Polarity Ellipsis. It suggests that the polarity-encoding functional category ΣP is involved in the licensing of both types of predicate ellipsis, but only VPE requires that the verb be morphosyntactically associated with the Σ -head. The more restrictive licensing conditions imposed on VPE, relative to TPE, explain its more restricted distribution across languages. At the same time, it permits to account for the correlation between the availability of VPE and a particular type of (typologically rarer) answering system where the bare verb constitutes the unmarked pattern of minimal polar affirmative answer. The paper then concentrates on comparing VP and TP ellipsis in one of the few Romance languages where both types of predicate ellipsis are allowed, viz. European Portuguese, and describes their different articulation with discourse and information structure. The fact that VPE and TPE might not be in free variation in European Portuguese is shown to be a consequence of the different information structure of the elliptical clause in each type of ellipsis. VPE is an instance of single focus (that can be assigned to different constituents) and is subject to a parallelism constraint on contrastive topic structures (Kertz 2013); TPE features double focus bearing on the polarity word and the constituent preceding it.

VP ellipsis, TP ellipsis, polarity, answering system, information structure, topic, focus, Portuguese, Spanish, Catalan

1 Introduction

This chapter deals with two types of predicate ellipsis, namely VP Ellipsis (VPE) and TP Ellipsis (TPE, here restricted to what has been known in the literature as *stripping* or *polarity ellipsis*).¹ The chapter comprises five sections. In section 2, it is shown that languages that allow VPE and languages that bar it display different patterns of polar answering system. In the languages with VPE the verb by itself may express confirmation or denial, behaving as a polar word in specific pragmatic contexts. Hence, observing the role of VPE in the domain of polar answering systems brings about the interface between syntax and semantics/pragmatics. A number of empirical arguments ranging through different languages are put forth in section 2 to support the idea that VPE and the grammatical expression of

¹ I am grateful to Susann Fischer and two anonymous reviewers for their challenging and very helpful comments on a previous version of this chapter. It goes without saying that all shortcomings are mine. Research for this work was funded by FCT – *Fundação para a Ciência e a Tecnologia* within the project WOChWEL (PTDC/CLE-LIN/121707/2010).

polarity in the context of answering systems are closely related. Section 3 deals with the different distribution of VPE and TPE across languages. Goldberg (2005) has made the observation that VPE (which she calls *V-stranding VP Ellipsis*) is typologically rare. Also in the Romance area VPE is severely restricted in its distribution while TPE is widespread across the Romance languages. It is suggested that the solution to this puzzling contrast is to be found in the relation between VP/TP Ellipsis and the grammatical encoding of sentential polarity. The crosslinguistic variation with respect to the availability of VPE would depend on the interaction between clause structure and the $\pm V$ -relatedness of the polarity-encoding head Sigma (Σ) – also named Pol(arity). It will be specifically held that only languages displaying verb movement to Σ , or some alternative strategy leading to merger between Σ and the verb, license VPE. As for TPE, different authors have proposed that it is licensed by ΣP , under the condition that its Spec, its head or both be filled with polarity particles. But, crucially, licensing of TPE does not require that Σ and the verb merge together and this seems to be the reason why TPE is more widespread across languages than VPE. Section 4 focuses on a language that licenses both VPE and TPE, namely European Portuguese (EP) and describes some cases where the two types of ellipsis are not in free variation. The relevant facts have gone unnoticed in the literature and are here discussed by bringing information structure into consideration. So section 4 deals with syntax-discourse interface phenomena starting from the observation of specific grammaticality contrasts between VPE and TPE. The relevant contrasts will be explained as a consequence of the different information structure of the elliptical clause in VPE and TPE. The former is an instance of single focus (that can be assigned to different constituents); the latter features double focus bearing on the polarity word and the constituent preceding it. Section 5 concludes the paper.

Ellipsis in natural language is a tremendous and extremely complex topic. In this chapter I will be approaching only a few specific aspects of the subject and will refer to the literature that provides the information needed to contextualize the issues under discussion. In particular, I will disregard the variation in size of the ellipsis site in VPE verbal complexes, will not go through a detailed characterization of the set of syntactic contexts where VPE, on the one hand, and TPE, on the other, can occur, and will not deal with subordination structures (see, on these matters, Matos 1992; 2003; 2013). Moreover, I will implicitly assume that VPE and TPE represent fully articulated syntactic structures whose silent components arise as a result of post-syntactic phonological deletion, although this is a matter of debate in the literature. See Merchant (2004; 2013b), Craenenbroeck/Merchant (2013), Gengel (2013), for an updated thorough review of the topic and bibliography.

2 VPE and polarity: the interface between syntax and semantics/pragmatics

Farkas/Bruce (2010) develop a model of conversational update conceived to deal with different types of reactions to assertions/polar questions and concomitantly capture the interplay between pragmatics and the grammatical expression of polarity. The model distinguishes between *initiating assertions* and *responding assertions*. The former are associated with *absolute* polarity features only, the latter also bear *relative* polarity features (cf. Pope 1976 for a comparable proposal). In the system devised by Farkas/Bruce (2010), the absolute polarity features are [+] and [-], roughly corresponding to aff(irmation)/neg(ation) in current syntactic literature. The relative polarity features, on the other hand, are [*same*] and [*reverse*], giving rise to *confirmations* and *reversals/denials*. The relevant set of features is represented in Table 1. The examples in (1) and (2) below, taken from Farkas/Bruce (2010), illustrate the available combinations of relative and absolute polarity features in responding moves, which are either reactions to assertions or reactions to polar questions.

Table 1: Absolute and relative polarity features, Farkas/Bruce (2010)

Absolute polarity features:	[+]
	[-]
Relative polarity features:	[<i>same</i>]
	[<i>reverse</i>]

- (1) Anne: Sam is home. / Is Sam home?
 Ben: Yes, he is. [*same*, +] (positive confirming assertion)
 Connie: No, he isn't. [*reverse*, -] (negative reversing assertion)
- (2) Anne: Sam is not home. / Is Sam not home?
 Ben: Yes, he is. [*reverse*, +] (positive reversing assertion)
 Connie: No, he isn't. [*same*, -] (negative confirming assertion)

The model of polarity features displayed in Table 1 is particularly useful to describe the answering systems of the world's languages. When we compare the different Romance languages on this basis, it becomes clear that VPE is a central ingredient of the answering systems of the languages that license this particular type of predicate ellipsis. The relevant contrast becomes clear when we compare, for example, Portuguese and Spanish. Bare verb answers constitute the unmarked type of minimal affirmative answer in Portuguese, as illustrated in (3) but are not

allowed in Spanish, as exemplified in (4).² Spanish resorts to the affirmative polarity word *sí*, whose counterpart in Portuguese is also available as an alternative to the bare verb to express confirmations, but not to express reversals/denials as shown by the contrast between (3-B-c) and (5-B-c). Only the verb can play that role in Portuguese, as shown by (5-B-b), to be contrasted with Spanish (6-B-b). Note that in Spanish (6-B-c) the affirmative word by itself can express denial (given the right intonation). Moreover, when the verb appears in an extended answer the presence of the object clitic is obligatory, signaling that VPE is impossible.³ With respect to the facts illustrated in (3) to (6), Galician patterns with Portuguese whereas Catalan, Italian, French and Romanian pattern with Spanish. That is to say, Portuguese and Galician license VPE and centrally resort to it in order to express reactions to assertions and polar questions. Spanish, Catalan, Italian and French, on the other hand, cannot license VPE and use other strategies to organize their answering systems.

- (3) [Por.] [A] a. O João {comprou / tinha comprado} um carro?
the João bought-3SG / had bought a car
‘Did João buy a car?’ / ‘Had João bought a car?’
[B] b. Comprou./ Tinha. (positive confirming assertion)
bought-3SG had-3SG
c. Sim. (positive confirming assertion)
AFF
‘Yes, {he did/he had}.’
- (4) [Sp.] [A] a. Juan se {compró / ha comprado} un coche?
Juan SE bought-3SG / has bought a car
[B] b. *Compró. / *Ha.
bought-3SG has

² The investigation of Santos (2009) on ellipsis, syntax and discourse in the acquisition of European Portuguese shows that children produce VPE as answers to yes-no questions from very early. This fact confirms that the connection between VPE and the polar answering system is a central property of the Portuguese grammar.

³ In Portuguese the counterpart of Spanish (6-B-c) displays VPE, as exemplified in (i). Although the presence of object clitics in the answer to (i-A) would not make it truly ungrammatical, it would be strongly unnatural.

- (i) [A] a. O João comprou o carro à filha?
the João bought-3SG the car to-the daughter
‘Did João buy her daughter a car?’
[B] b. Sim, comprou.
Yes bought-3SG
c. # Sim, comprou-lho.
Yes bought-3SG-her-DAT-it-ACC
‘Yes, he did.’

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- c. Sí. (positive confirming assertion)
 AFF
 ‘Yes, {he did/he had}.’
- (5) [Por.] [A] a. O João não comprou o carro, pois não?
 the João not bought-3SG the car *POIS* NEG
 ‘João didn’t buy a car (did he?)’
 [B] b. Comprou. (positive reversing assertion)
 bought-3SG
 c. *Sim.
 AFF
 ‘Yes, he did.’
- (6) [Sp.] [A] a. Juan no se compró el coche, ¿verdad?
 Juan not SE bought-3SG the car true
 [B] b. *Compró.
 bought-3SG has
 c. {Sí. / Sí, se lo compró.} (positive reversing assertion)
 AFF/ AFF SE it bought
 ‘Yes, {he did/he had}.’

In responding assertions, verb reduplication is ordinarily used in European Portuguese and Galician to express emphatic affirmation as denial (see (7-B-a)), a pattern not allowed in most Romance languages. Spanish, Catalan and Italian, on the other hand, display the *sí que* strategy that is not a grammatical option in Portuguese (see (7-B-b)). VPE is a necessary ingredient to make emphatic verb reduplication available, although it is not sufficient. In fact, European and Brazilian Portuguese both have VPE but only the former allows emphatic verb reduplication. The European Portuguese sentences with verb reduplication, like (7-B-a), display an overall rising intonation (with no prosodic break) and are monosentential structures, not repetitions involving two adjoined sentences. See Martins (2007; 2013) for the relevant facts and discussion.⁴

⁴ Martins (2013) takes the exclusive features of responding assertions, that is, relative polarity features, to be grammatically encoded in the CP domain, whereas absolute polarity features are encoded in Σ P, the topmost functional projection in the IP domain. Thus the two sets of features are independently expressed by different functional heads, and all combinations of features from different sets are available. Moreover, it is hypothesized that whenever C bears relative polarity features either C or Σ must be phonologically realized, thus have lexical content at some stage in the derivation. That is to say, relative polarity features induce, by hypothesis, a strong property (understood as a requirement for phonological realization) associated with at least one of the polarity-encoding heads, resulting in strong C or strong Σ (C* or Σ^* , in the notation of Roberts (2001; 2004); Rob-

- (7) [A] [You didn't read this book, did you?]
 [EPor.] [B] a. Li (esse livro) li. (overall rising intonation)
 read-PAST that book read-PAST
 [Sp.] b. Sí que lo leí.
 Sí that it read
 'Yes, I did read it.'

The availability of VPE is therefore closely tied to a specific type of polar answering system that supports structures with limited distribution across languages. In the Romance languages with VPE, the verb (associated with the functional head Σ) expresses the positive value of absolute polarity features both in contexts of confirmation and contexts of reversal/denial. In order to further clarify the connection between polarity and the type of ellipsis phenomena discussed in this paper, it will now be shown that language-internally the availability of VPE may be constrained in such a way that polar contrasts are clearly involved. Data from Capeverdean, Hungarian and Galician will be brought to consideration.

Capeverdean, a Portuguese-based Creole language, allows for VPE in answers to yes-no questions but disallows it in coordination environments. Thus the elliptic replies in (8) and (9) are the unmarked option for polar answers in Capeverdean, in contrast with the ungrammaticality of the sentences in (9), which display VPE under coordination (Costa/Martins/Pratas 2012). Example (9) shows the deletion of both complements of the ditransitive verb *da* 'give', making clear that we are actually dealing with VPE, not with instances of null objects.⁵ Empirically, the grammaticality contrast between (8-B)/(9-B) and (10) seems unexpected since both polar question-answer pairs and coordination structures are typical licensing contexts for VPE in the languages that allow it, like English and European Portuguese. Actually, the Capeverdean facts reveal that the distinction between *initiating assertions* and *responding assertions*, as proposed by Farakas/Bruce (2010), can be relevant for VPE and a source of variation across languages in this domain.

erts/Roussou (2003)). In minimal polar answers either C or Σ get phonologically expressed (e.g. in European Portuguese *sim* 'yes' answers lexicalize C while bare verb answers lexicalize Σ). The third logical option is attributing the strong/PF property to C and Σ , which must then be both given phonological content. On syntactic grounds, this third option can, in principle, be freely implemented but it is expected to result in pragmatically adequate utterances only when the relevant structures bear the relative polarity feature [*reverse*] and, in particular, are reversals of a previous assertion, so expressing emphatic polarity.

⁵ As shown in Pratas (2002), null objects in Capeverdean are restricted to reflexive contexts.

- (8) [A] Bu kunpra kel livru li?
you buy that book here
‘Did you buy this book?’
- [B] a. Sin, N kunpra.
yes I buy
‘Yes, I did.’
b. Nau, N ka kunpra.
No I NEG buy
‘No, I didn’t.’
- (9) [A] Bu da Manel livrus?
you give Manel books
‘Did you give Manel the books?’
- [B] a. Sin, N da.
yes, I give
‘Yes, I did.’
b. Nau, N ka da.
no I NEG give
‘No, I didn’t.’
- (10) a. *Bu kunpra un livru nobu y Maria tanbé kunpra.
you buy one book new and Maria also buy
‘You bought a new book and Maria did too.’
b. *Juau ka odja Manel y Maria tanbé ka odja.
Juau NEG see Manel and Maria also NEG see
‘Juau didn’t see Manel and Maria didn’t either.’
c. *Bu ka kunpra un libru nobu mas Maria kunpra.
you NEG buy one book new but Maria buy
‘You didn’t buy a new book but Mary did.’

Hungarian is genetically and typologically unrelated to Capeverdean. Nevertheless, a variety of Hungarian described by Lipták (2013) displays exactly the same type of contrast that can be observed in Capeverdean. In the relevant Hungarian dialect, the polar answers in (11)-(12),⁶ a typical polarity-focus context, license VPE but the asyndetic coordination contexts in (13) do not. As shown by Lipták (2013), two different dialects are actually found in Hungarian, of which one behaves like Portuguese in licensing VPE under polar answers or coordination whereas the other behaves like Capeverdean in licensing VPE in a similarly restricted manner. The author analyzes Hungarian “V-stranding in polarity contexts” as “vP ellipsis, licensed at a distance by Pol⁰” (cf. Aelbrecht 2010). An

⁶ Examples taken from Lipták (2013; 73, 85).

analysis of the same kind can account for VPE in Portuguese and other languages (cf. section 3).⁷

- (11) [A] János 'meg hívta a szomszédokat (?)
 János VM invited the neighbours.ACC
 'János invited the neighbours. / Did János invite the neighbours?'
 [B] Igen, 'meg hívta.
 yes VM invited
 'Yes, he did.'
- (12) [A] János 'nem hívta meg a szomszédokat (?)
 János not invited VM the neighbours.ACC
 'János did not invite the neighbours. Did János not invite the neighbours?'
 [B] De, 'meg hívta.
 DE VM invited
 'He did.'
- (13) a. (*) János meg hívta a szomszédokat. Mari is meg hívta.
 János VM invited the neighbours.ACC Mari also VM invited
 'János invited the neighbours. Mari also did.'
 b. (*) János meg evett egy banánt. Mari is meg evett.
 János VM ate a banana.ACC Mari also VM ate.
 'János ate a banana. Mari also did.'
 c. (*) Tegnap találkozott János és Mari. Ma is találkozott.
 yesterday met.3SG János and Mari today also met.3SG
 'Yesterday János and Mari met. Today they also did.'

Finally, Galician seems to display a pattern similar to Capeverdean and the relevant dialect of Hungarian for some speakers, whereas other speakers show the symmetric pattern also found in Portuguese (with coordination and question-answer contexts behaving similarly).

For all speakers of Galician, bare verb answers to yes-no questions constitute an unmarked option for positive confirmations and reversals, just like in Portuguese. However, in coordination contexts, younger Galician speakers disfavor VPE, so even if (14a) is considered possible, it is classified as unusual and (14b), with the verbal complement realized by the third person accusative clitic, is preferred. Seemingly, there is a change in progress in Galician, with younger speak-

⁷ In examples (11)-(13), the abbreviation VM stands for *verbal modifier*. The examples are taken from Lipták (2013).

ers restricting the licensing of VPE to polar answers⁸ Hence, Portuguese and Galician may behave in exactly opposite ways relative to the preference for (14a) or (14b), depending on the Galician dialect under consideration. In fact, the counterpart of (14b) in Portuguese is possible but quite odd.

- (14) [Gal.] a. (#) Eu ainda non vira ese filme, pero Xoán xa vira / pero Xoán víra.
I yet not saw that movie but Xoán already saw / but Xoán saw
b. Eu ainda non vira ese filme, pero Xoán xa **o** vira / pero Xoán víra**o**.
I yet not saw that movie but Xoán already **it** saw / but Xoán saw-**it**
'I didn't see that movie yet, but Xoán (already) did.'

As a general conclusion to this section, it is relevant to underline that there seems to be a correlation across languages between the availability of VPE and a particular configuration of the polar answering system, which can be observed well beyond the Romance area (see Jones (1999) for Welsh, Holmberg (2001; 2003a; 2003b; 2007) for Finnish, Vennemann (2009) and Holmberg (2013) for English). In the languages with VPE – a syntactic pattern involving silent constituents – both the semantics of positive polarity and the pragmatics of confirmation and denial can be expressed by the verb in articulation with the functional architecture of the clause.⁹ This observation opens an avenue for future investigations exploring in a detailed way the polar answering systems of particular languages or groups of languages and its relation to certain types of ellipsis, as well as other properties of grammatical systems. Because saying 'yes' and 'no' arises very early in language acquisition, all that it implies with respect to mastering the functional structure of the clause and other dimensions of grammar may well have a decisive influence on the subsequent acquisition of other linguistic capabilities.

3 An integrated analysis for VPE and TPE: why is VPE typologically rarer?

The key assumption in this section is that the functional category Σ (Laka 1990), which encodes polarity, lies behind linguistic variation across languages and grammatical structures in what concerns VPE (Martins 1994; 2006; 2013; Cos-

⁸ I am indebted to Rosario Álvarez, Henrique Monteagudo and Marta Negro for their input on the Galician data, although I am unable to do justice here to all their valuable insights.

⁹ Polar verbal answers may involve TP ellipsis, but still verbal answers seem to arise as an unmarked option only in languages that also allow VP ellipsis. See Holmberg (2001; 2003a; 2003b) for Finnish; Kato (2012) and Costa/Pratas/Martins (2012) for Brazilian Portuguese.

ta/Martins/Pratas 2012). It is also assumed that beyond the configurations that obligatorily involve Σ , the presence/absence of Σ in clause structure, its lower or higher position and its $\pm V$ -relatedness are matters of parametric variation across languages and across structures within a single language.¹⁰ The term ‘V-relatedness’ is used in a descriptive pre-theoretical vein to refer to the occurrence/absence of V-movement with respect to a particular functional category.¹¹ As it happens with V-relatedness in other functional categories, this is subject to parametric variation. As such, V is attracted to Σ in Portuguese (moving there or merging with it under adjacency), but not in Spanish or Catalan, for example.

Bearing these ingredients in mind, Table 2 (adapted from Costa/Martins/Pratas 2012) illustrates how the restricted availability of VPE across languages may be derived. The central idea is that only merger between V and Σ (be it syntactic or post-syntactic) can license VPE.

Table 2: VPE in Portuguese, Spanish, Catalan, Capeverdean and English

	Portuguese	Spanish, Catalan	Capeverdean	English
VPE is licensed?	Yes	No	Yes but restricted to polar answers	Yes but restricted to AUX verbs
Σ P is projected?	Yes	Yes	Yes in polar answers only	Yes
Position of Σ P	above TP	above TP	below TP	below TP
V merges with Σ ? (verb movement or morphological merger under adjacency)	Yes	No	Yes in polar answers only	Yes with AUX verbs only

Some clarifications with respect to Table 2 are in order. As for the structural position of Σ P in English, I am following Laka (1990) in placing Σ P below TP, whereas in Romance Σ P dominates TP (on Capeverdean, see Costa/Martins/Pratas (2012)). What should become clear from the comparison offered in Table 2 is that the absence or restricted allowance of VPE correlates with the absence or limited availability of merger between V and Σ (resulting from V-movement to Σ or some alternative strategy). So, in Capeverdean, for example, VPE is not licensed when Σ is not projected, thus there is no place for merger between the verb and Σ . In English, on the other hand, the availability of merger

¹⁰ But note that Laka (1990) takes the presence of Σ P in answers to yes/no questions as an invariant feature of natural language.

¹¹ It will not be discussed in this paper how to deal with crosslinguistic variation with respect to V-movement under a theoretical perspective.

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between a verbal head and Σ is limited to AUX verbs.¹² It is crucial, in this context, that Portuguese, Spanish and Catalan all display verb movement to T, which shows that T(ense) is not the functional category behind the variation exhibited by these languages relative to VPE (but see Cyrino/Matos (2005) and Rouveret (2012) for a different view).¹³

As for the licensing of TP Ellipsis, it has been proposed by different authors that TPE in Romance languages is licensed by Σ P, under the condition that its Spec, its head or both be filled with polarity particles (cf.: Matos (1992), for Portuguese; López (1999), Vicente (2006; 2010), for Spanish; Busquet (2006), for Catalan; Amanda (2009), for French, among others).¹⁴ Also Lipták (2013) makes a similar proposal to account for TPE in Hungarian. The representation in (15)

¹² English and Capeverdean differ as for the strategy implemented to license the V-related Σ -head: Capeverdean has V-to- Σ , English has Σ -to-T with the modal auxiliaries and V-to- Σ -to-T with the auxiliaries *have* and *be* (respectively, perfective and progressive/passive). The difference might be a consequence of the distinct nature of English auxiliaries and Capeverdean TMA markers. VPE is restricted to auxiliaries in English, because only these move out (or are merged out) of the VP domain. Cf. Lobeck (1995), Merchant (2001), among others.

¹³ Cyrino/Matos (2005) take the Licensing Condition of VPE to be (i) below, and the relevant functional heads to be T(ense) and Asp(ect). Differences between languages depend on the nature of Asp, which may be a licenser or not and may or may not block licensing by T.

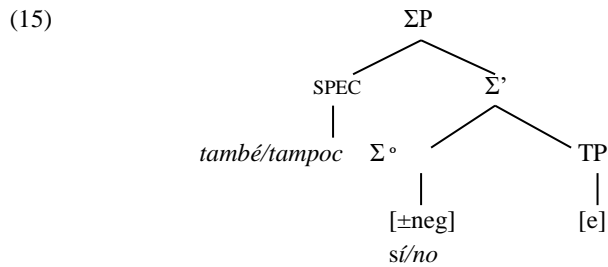
- (i) *In VP ellipsis the elliptical verbal predicate is licensed under local c-command by the lexically filled functional head with V-features that merges with it.*

In English and Portuguese, Asp is [+predicative] and an extension of vP (i.e. an *extended vP projection*). Therefore AspP does not count as an intervener between T and vP and VPE is allowed:

Rouveret's (2012) account of VPE relies on Chomsky's theory of phases. The author proposes that only phase heads can license VPE and specifically takes *v* to be the licenser. As for the contrast between the languages that display VPE and those that do not, Rouveret (2012) defends that in the former the uninterpretable [tense] feature of the phase head *v* is valued phase-internally, at the *v*-level, whereas in the latter it is not. This is because Tense is featurally represented on the *v* head only in the languages that license VPE (a morphosyntactic factor underlying language diversity). The effect of the presence of [tense] on *v* is that (finite) inflected forms are morphologically/featurally complete when the vP phase is completed. Rouveret (2012) concludes that the morphosyntactic dimension must be part of any account of VPE. See also Rouveret (1989) and Johnson (2013).

¹⁴ For a different type of TP ellipsis, referred to as *Modal Ellipsis* or *Null Complement Anaphora* (NCA), see Dagnac (2010) for French, Spanish and Italian, Brucart (1999) for Spanish, Depiante (2000; 2001) for Spanish and Italian, Cyrino/Matos (2006) and Gonçalves/Matos (2009), for Portuguese. See also Saab (2008; 2010) for a thorough discussion of TPE and references.

below is taken from Busquets (2006) and illustrates the intended licensing configuration for TPE.¹⁵ The different polarity particles usually exclude each other.¹⁶



Because TP Ellipsis, in opposition to VPE, does not depend on the V-relatedness of Σ in a particular language, it displays more relaxed licensing requirements and a broader availability across languages. Examples (16) and (17) below illustrate the contrast between Portuguese, a language that displays both types of predicate ellipsis and Catalan, which disallows VPE but permits TPE. In both languages (as more generally in Romance) the verb moves to T, therefore the verb is deleted under TP Ellipsis but realized under VP Ellipsis, which allows us to clearly distinguish between the manifestations of the two types of predicate ellipsis. In the examples below, Portuguese in contrast to Catalan permits the ellipsis site in the second member of the coordination structure to include or exclude the verb, because it allows both TP Ellipsis (where the verb in T is deleted) and VP Ellipsis (where the verb in T is phonologically realized). Spanish patterns with Catalan, so that the contrast exemplified below between Catalan and Portuguese also holds between Spanish and Portuguese.

- (16) [Por.] a. Bach é difícil de interpretar e Mozart também. (TPE ok)
 Bach is hard to play, andMozart also.
 b. Bach é difícil de interpretar e Mozart também é. (VPE ok)
 Bach is hard to play andMozart also is.
 ‘Bach is hard to play, and Mozart (is) too.’

- (17) [Cat.] a. Bach és difícil d’interpretar, i Mozart també. (TPE ok)
 Bach is hard to play, and Mozart also
 ‘Bach is hard to play, and Mozart (is) too.’

¹⁵ In the languages where ΣP is low in the functional architecture of the clause, being projected below TP, like in English and Capeverdean, TP Ellipsis is of course not licensed by the Σ -head, but instead presumably by C (see Aelbrecht (2010) for references and discussion).

¹⁶ But a double filled ΣP is not excluded, as shown by the availability of *também não* (‘also not’) in Portuguese, for example.

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- b. *Bach és difícil d'interpretar, i Mozart també es. (VPE *)
 Bach is hard to.play and Mozart too is

For VPE to be licensed in (16b), the verb must merge with Σ (the V-relatedness property), which is the case in Portuguese but not in Catalan and most Romance languages. Thus (16b) is a well-formed sentence in Portuguese, but (17b) is ungrammatical in Catalan.

4 Some contrasts between VPE and TPE in European Portuguese: the interface between syntax and discourse

The current section will be focused on a language that allows both VPE and TPE, concretely European Portuguese. The analysis proposed in the previous section, linking the licensing of both types of predicate ellipsis to the functional projection ΣP , might lead us to think that VPE in European Portuguese is just a particular instance of TPE where the verb escapes the ellipsis site by moving to Σ (a grammatical option excluded in most Romance languages). However, it will now be shown that VPE and TPE do not always alternate freely, as soon as coordination contexts are carefully observed. The facts to be described will be derived from the proposal that VPE and TPE do not share the same properties relative to information structure. So while in (16), repeated below as (18), both VPE and TPE are possible, pairs like (19)-(20) illustrate those cases where only one of the constructions is used. The contrasts can be accounted for building on work by Kertz (2010) and Matos (1992).

- (18) [Por.] a. Bach é difícil de interpretar e Mozart também. (TPE ok)
 Bach is hard to play, and Mozart also
 b. Bach é difícil de interpretar e Mozart também é. (VPE ok)
 Bach is hard to play and Mozart also is
 'Bach is hard to play, and Mozart (is) too.'

- (19) a. Gosto de molhar a cabeça mas o guarda-chuva não.¹⁷ (TPE ok)
 like-1SG to wet the head but the umbrella not
 b. *Gosto de molhar a cabeça mas o guarda-chuva não gosto. (VPE *)¹⁸
 like-1SG to wet the head but the umbrella not like
 'I do not mind to wet my hair, but I don't want to wet my umbrella.'

¹⁷ The sentence was heard to an EP speaker in a situation where it was lightly raining and she had an umbrella but would not open it.

¹⁸ See, below, example (31) and the comment on the possible marginal interpretation for that sentence.

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- (20) a. Nada se sabe do João, mas a Maria sabe. (VPE ok)
 nothing SE knows of-the João but the Maria knows
 b. *Nada se sabe do João, mas a Maria sim. (TPE *)
 nothing SE knows of-the João but the Maria AFF
 ‘People don’t know anything about João, but Maria does.’

4.1 VP Ellipsis: A topic-comment parallelism constraint on contrastive topic structures

Kertz (2013) shows that antecedent mismatch effects found in VPE can be predicted based on the information structure of the clause containing the ellipsis. Specifically, she proposes the information-structural constraint in (21) in order to solve the puzzle posed by the paradigm in (22). While the contrast between (22a) and (22b) suggests that voice mismatch is behind the difference in acceptability between the two sentences, the full acceptability of (22c) undermines this line of reasoning.¹⁹

- (21) The contrasting arguments which ‘anchor’ a contrastive topic relation must be realized as sentence-level topics.
- (22) a. The driver reported the incident,
 and the pedestrian did too. [report the incident]
 b. #The incident was reported by the driver,
 and the pedestrian did too. [report the incident]
 c. The incident was reported by the driver,
 although he didn’t really need too. [report the incident]

Positing a constraint that enforces topic-comment parallelism on contrastive topic structures, Kertz’ analysis goes as follows.²⁰ Sentence (22a) satisfies the constraint in (21) since the contrasting arguments “the driver” and “the pedestrians” are each the topic of its own clause. In (22b), on the other hand, although “the driver” and “the pedestrians” are still in a contrasting relation, “the driver” in the antecedent clause is not a topic, so that the relevant information-structural constraint is violated. What about (22c)? Here you have a structure without con-

¹⁹ On the issue of voice-mismatch in VPE, see Sag (1976) and Merchant (2013a).

²⁰ Kertz (2013) takes (21) to be a soft constraint subject to variation (e.g. among speakers) in the extent that its application is enforced or violable.

The intuition underlying (21) and the discussion of the relevant cases is already found in earlier works such as Kehler (2000), Kim/Runner (2009; 2011), Konietzko/Winkler (2010), Tanaka (2011).

trasting arguments (which is typically the case in VPE structures with coreferential subjects). So there is no contrastive topic in the clause displaying ellipsis, with the result that the constraint in (21) is irrelevant (i.e. it applies vacuously) and the sentence is well-formed.

Kertz (2013) also shows that when there is a contrastive topic in the VPE-clause it bears focus stress while otherwise focus stress falls on the auxiliary verb, as exemplified in (23).

- (23) a. The driver reported the incident, and [the pedestrian]_F did too.
b. The incident was reported by the driver, although he didn't really [need]_F too.

Bearing in mind the insights of Kertz (2013), who dealt with VPE in English, I will now observe VPE structures in European Portuguese and show that they fully confirm the workings of the constraint devised by Kertz.²¹ Hence, information structure gives us the conceptual tools to understand why VPE is sometimes excluded and contributes to clarify the role played by ellipsis at the interface between syntax and discourse.

When the required parallelism between the topic-comment configurations of the two conjuncts of coordination structures is fulfilled, structures with VPE are well-formed no matter whether the topic is the subject or a dislocated object, as shown respectively in (24) and (25). Otherwise, ill-formed structures may arise, as in (26), whose ungrammaticality is to be compared with the grammaticality of (25). In the well-formed sentences shown in (24) and (25), focus stress is assigned to the contrastive topic, which is semantically an aboutness topic but informationally, due to contrastiveness, the most prominent constituent in its clause.

- (24) a. As roseiras têm sido regadas todos os dias e [as árvores]_F também têm.
the rose-bushes have been watered all the days and the trees also have
'The rose bushes have been watered everyday, and the fruit trees have too.'
b. O marido tinha oferecido flores à Maria e [a mãe]_F também tinha.
the husband had offered flowers to-the Maria and the mother also had
'Her husband had offered flowers to Maria, and her mother had too.'
c. O João leva sempre os filhos à escola e [o Pedro]_F também leva.
the João takes always the kids to-the school and the Pedro also takes
'The João always drives his kids to school, and Pedro also does.'

²¹ All the Portuguese data offered in this section are based on my own judgments. Since Kertz' constraint in (21) is considered to be violable, it is conceivable that the sharp grammaticality contrasts that I will be discussing here may not be shared in the same way by all Portuguese speakers.

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- (25) a. As roseiras, o jardineiro tinha regado e [as árvores]_F também tinha.
the rose-bushes the gardener had watered and the trees also had
'The rose bushes, the gardener watered them, and the fruit trees, he did too.'
- b. Livros, o Pedro tem oferecido à Maria mas [romances/flores]_F não tem.
books the Pedro has offered to-the Maria but novels/flowers not has
'Books, Pedro has been offering to Maria, but novels/flowers, he has not.'
- c. À escola, ele leva sempre os filhos e [à natação]_F também leva.
to-the school he takes always the kids and to-the swimming also takes
'To school, he always drives his kids, and to swimming, he does too.'
- (26) a. *?O jardineiro tinha regado as roseiras e as árvores também tinha.
the gardener had watered the rose-bushes and the trees also had
'The gardener had watered the rose bushes and also the fruit trees.'
- b. *O Pedro tem oferecido livros à Maria mas romances/flores não tem.
the Pedro has offered books to-the Maria but novels/flowers not has
'Pedro has been offering books to Maria, but not novels/flowers.'
- c. *?O João leva sempre os filhos à escola e à natação também leva.
the João takes always the kids to-the school and to-the swimming also takes
'João always drives his kids to school and to swimming too.'

A further example of the relevant contrast is given in (27). The only interpretation marginally available for (27a) is the schizophrenic one where my liking for movies disappears on Sundays.²² Such interpretative oddity is not found in (27b), where the information-structural constraint enunciated in (21) above is satisfied.

- (27) a. #Gosto de ir ao cinema mas ao domingo não gosto.
like-1SG of going to the cinema but on Sunday not like-1SG
'I love the movies but not on Sundays.'
- b. Ao sábado, gosto de ir ao cinema mas ao domingo não gosto.
on Saturday like-1SG of going to-the cinema but on Sunday not like-1SG
'I like going to the movies on Saturdays but not on Sundays.'

VPE structures are instances of single (prosodic) focus. When the subjects of the two conjoined clauses are referentially disjoint, they are interpreted as contrastive topics that bear focus prominence. When the subjects of the two conjoined clauses are coreferential and there is no topicalized object or modifier, the structures do not form a contrastive topic. In such cases, focus prominence falls on a (non-repeated) auxiliary or modifier, as exemplified respectively in (28) and

²² Under the 'schizophrenic' interpretation, the sentence is presumably a case of Null Complement Anaphora, not VPE. (See Hankamer/Sag 1976; Brucart 1999; Depiante 2000; 2001; Cyrino/Matos 2006; Gonçalves/Matos 2008).

(29). In the absence of a contrastive topic, Kertz' condition enunciated in (21) above applies vacuously and VPE is available, as the good-formation of the sentences in (28) and (29) shows.²³

- (28) a. Ele está sempre a dar-lhe chocolates, mas [não pode]_F dar.
 he is always to give-him chocolates but not can give
 'He is always buying him chocolates, but he should not.'
- b. Ela não tem tomado o xarope todos os dias, mas [deveria]_F tomar.
 she not has taken the medicine all the days but should take
 'She is not taking her medicine every day, but she should.'
- c. Ele rega as roseiras todos os dias e [tem]_F de regar.
 he waters the rose-bushes all the days and has to water
 'He waters the rose bushes every day, and he has to.'
- d. Ainda não vendemos a casa nem o carro, mas [vamos]_F vender.
 yet not sell-1PL the house nor the car but go-1PL sell
 'We haven't sold our apartment and car yet, but we will.'
- (29) a. Tenho estado em casa do meu filho, mas [amanhã]_F não estou.
 have-1SG been in house of-the my son but tomorrow not am
 'I've been staying with my son, but tomorrow I will not.'
- b. Ele leva o filho à escola mas não leva [sempre]_F.
 he takes the son to-the school but not takes always
 'He usually drives his son to school, but he doesn't always.'

That TPE is not constrained by similar information-structural conditions as VPE is shown in (31) to (32). The examples demonstrate that TPE is possible (see examples (b)) where VPE is excluded or marginal (see examples (a), repeated from above). In the next subsection it will be proposed that TPE creates a double-focus structure, with both the polar word and the constituent preceding it (in the clause containing the ellipsis) being assigned focus. Because TPE is not associated with a topic-comment structure, it always escapes the topic-comment parallelism constraint on contrastive topic structures, as formulated by Kertz (2013).

- (30) a. *?O jardineiro tinha regado as roseiras e as árvores também tinha. (VPE)
 the gardener had watered the rose bushes and the trees also had
- b. O jardineiro tinha regado as roseiras e as árvores também. (TPE)
 the gardener had watered the rose bushes and the trees also
 'The gardener had watered the rose bushes and also the fruit trees.'

²³ In verbal answers to yes/no questions there are no cases of mismatched ellipsis because in the context of polar question-answer pairs there are no contrastive topics to which the topic-comment parallelism constraint would apply.

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- (31) a. *O Pedro tem oferecido livros à Maria mas romances/flores não tem. (VPE)
 the Pedro has offered books to-the Maria but novels/flowers not has
 b. O Pedro tem oferecido livros à Maria mas romances/flores não. (TPE)
 the Pedro has offered books to-the Maria but novels/flowers NEG
 ‘Pedro has been giving Mary books, but not novels/flowers.’
- (32) a. *?O João leva sempre os filhos à escola e à natação também leva. (VPE)
 the João takes always the kids to-the school and to-the swimming also takes
 b. O João leva sempre os filhos à escola e à natação também. (TPE)
 the João takes always the kids to-the school and to-the swimming also
 ‘João always drives his kids to school and to swimming too.’

4.2 TP Ellipsis: the disjoint reference condition on contrasted constituents

Let us start by observing some pairs of sentences showing exclusion of TPE in contrast with the availability of VPE. The common denominator to all the examples seems to be that there is some referential overlapping between the non-polar constituents contrasted in the relevant structures, namely: the universal quantifier or generic impersonal subject and *Maria* in (33)-(34), the first person plural subject and *Pedro* in (35)-(36), the compound subject *Maria and Afonso* and *Maria* in (37).

- (33) a. *Ninguém* gosta do João, mas *a Maria* gosta. (VPE)
 nobody likes of the João but the Maria likes
 b. *?*Ninguém* gosta do João, mas *a Maria* sim. (TPE)
 nobody likes of the João but the Maria AFF
 ‘Nobody likes João, but Maria does.’
- (34) a. Nada *se* sabe do João, mas *a Maria* sabe. (VPE)
 nothing *SE* knows of-the João but the Maria knows
 (*SE* = impersonal clitic)
 b. *Nada *se* sabe do João, mas *a Maria* sim. (TPE)
 nothing *SE* knows of-the João but the Maria AFF
 (*SE* = impersonal clitic)
 ‘People don’t know anything about João, but Maria does.’
- (35) a. *A gente* gosta do João na nossa turma, mas *o Pedro* não gosta. (TPE)
 we like of-the João in-the our class but the Pedro not likes
 b. *?*A gente* gosta do João na nossa turma, mas *o Pedro* não. (VPE)
 we like of-the João in-the our class but the Pedro not
 ‘We (do) like João in our class, but Pedro does not.’ (Pedro is one of us)

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- (36) a. *A gente* gosta do João na nossa turma, e *o Pedro* também gosta. (VPE)
 we like of-the João in-the our class and the Pedro also likes
 b. **A gente* gosta do João na nossa turma, e *o Pedro* também. (TPE)
 we like of-the João in-the our class and the Pedro also
 ‘We (do) like João in our class and Pedro does too.’ (Pedro is one of us)
- (37) a. *A Maria_i e o Afonso* não tiveram um filho, mas *a Maria_i* teve. (VPE)
 the Maria and the Afonso not had a child but the Maria had
 b. **A Maria_i e o Afonso* não tiveram um filho, mas *a Maria_i* sim. (TPE)
 the Maria and the Afonso not had a child but the Maria AFF
 ‘Maria and Afonso didn’t have a child (with each other) but Maria did.’

As soon as the referential overlapping is undone, the TPE structures become acceptable, as illustrated in (38).

- (38) a. *Ninguém* gosta do João, mas *os gatos* sim.
 nobody likes of the João but the cats AFF
 ‘Nobody likes João, but cats do.’
 b. *A gente* gosta do João na nossa turma, e *o professor* também.
 we like of-the João in-the our class and the professor also
 ‘We (do) like João in our class and the professor does too.’
 c. *A Maria e o Afonso* não tiveram um filho, mas *a Joana* sim.
 the Maria and the Afonso not had a child but the Joana AFF
 ‘Maria and Afonso didn’t have a child but Joana did.’

We can thus formulate the following descriptive generalization (which does not apply to VPE, as the examples (a) in (33) to (37) above demonstrate):

- (39) *Disjoint reference constraint*
 The (non-polar) constituents contrasted in TPE structures cannot display overlapping reference in a set-subset relation.

Matos (1992, and subsequent work) defends that in TPE the initial constituent of the elliptic clause is a contrastive focus, not a contrastive topic. The distinct information structure of VPE and TPE may thus lie behind the empirical contrasts described in the current section. It may in turn account for the fact that while VPE must obey the topic-comment parallelism constraint enunciated in (21) above, TPE must instead obey a condition on disjoint reference between the two contrasted (non-polar) constituents, of which the one in the ellipsis clause is a contrastive focus. Therefore, it can be hypothesized that the (non-polar) contrastive focus in TPE has the property of requiring maximal contrast/distinctiveness in the

sense that it cannot be a subset of the denotation of its correlate in the antecedent clause. This is so even when the contrasting terms are not arguments, like in (40) and (41) below, where disjoint temporal reference between the temporal modifiers is required in order to obtain legitimate TPE structures. Example (41) also shows, once more, the different behavior of TPE and VPE in this respect.

- (40) a. *Ouço *sempre* as notícias mas *hoje* não.
 heard-1SG always the news but today not
 ‘I always listen to the news but today I did not.’
 b. Ouvi *ontem* as notícias, mas *hoje* não.
 heard yesterday the news but today not
 ‘I listened to the news yesterday but not today.’
- (41) Temos ouvido as notícias *todos os dias* mas *hoje/ontem* não *(ouvimos).
 have-1PL heard the news all the days but today/yesterday not *(heard)
 ‘We have been listening to the news every day, but today/yesterday we did not.’

Since the polarity particle in TPE also establishes a contrastive relation with the correlate polar features of the antecedent clause (be it under polar sameness or polar reversal), the information structure of TPE appears to be an instance of double focus, differently from the single focus structure of VPE (where, moreover, the constituent bearing focal stress is an aboutness contrastive topic):

- (42) a. Eu não tenho regado as árvores e [o jardineiro]_{T-F} também não tem.
 I not have watered the trees and the gardener also not has
 b. Eu não tenho regado as árvores e [o jardineiro]_F [também não]_F.
 I not has watered the trees and the gardener also NEG
 ‘I haven’t watered the fruit trees and the gardener hasn’t either.’

In the double-focus structure displayed by TPE, as exemplified in (44b), the initial focus constituent has moved to a dedicated focus position in the left-periphery of the clause containing the ellipsis, while the polarity constituent is focalized in situ, i.e. in the domain of ΣP where it is externally merged (see (15) above). So, although sentential polarity is a central ingredient of both VPE and TPE structures, only in the latter focal stress falls on the polarity constituent. Moreover, although both VPE and TPE display leftward movement of a constituent that in this way escapes ellipsis, becomes contrastive and attracts focus stress, only in VPE this contrastive constituent is a topic. Last but not least, VPE structures can be built without a contrastive topic (see (23b), (28) and (29) above) whereas in TPE the contrastive (non-polar) focus is an obligatory part of the construction.

A syntactic test can be used to confirm that the left-peripheral constituent in VPE is a topic whereas in TPE it is a focus. The test consists in forcing into the relevant position a constituent that resists left-dislocation/topicalization but can undergo focus-movement, such as the negative quantifier *nunca* ‘never’ in (43) or the adverb *sempre* ‘always’ in (44).²⁴ As expected the sentences displaying TPE are perfectly fine but the sentences displaying VPE are excluded or marginal.²⁵ Sentence (44b) is marginally acceptable maybe because it can be interpreted as equivalent to (44c). Recall that the configuration topic-comment is not obligatory for VPE (cf. (28)-(29) above). Anyway, the marginality of (44b) indicates that the focus constituent in VPE sentences like (28)-(29) above and (44c) below does not normally undergo focus-movement to the sentential left-periphery.

- (43) a. Algumas vezes não faz os trabalhos de casa, mas NUNCA não. (TPE)
 some times not does the works of home but never not
 b. *Algumas vezes não faz os trabalhos de casa, mas NUNCA não faz. (VPE)
 some times not does the works of home but never not does
 ‘Sometimes she doesn’t do her homework, but it is not the case that she never does.’
- (44) a. Normalmente cozinho, mas sempre não.
 usually cook-1SG but always not
 b. ??Normalmente cozinho, mas sempre não cozinho.
 usually cook-1SG but always not cook-1SG
 c. Normalmente cozinho, mas não cozinho sempre.
 usually cook-1SG but not cook-1SG always
 ‘I usually cook, but not always.’

Gapping is another type of predicate ellipsis where the two constituents that escape the ellipsis site bear focus stress (but polarity is not under focus). It can be analyzed as an instance of IP deletion, after extraction from the ellipsis site of the two constituents that will be assigned focus stress, the leftmost being a contrastive topic, the other a contrastive focus (see Gengel 2013, and references therein). As expected under the analysis of gapping as IP ellipsis, it is available across the Romance languages like TPE, not restricted in its distribution like VPE (see

²⁴ That *nunca* ‘never’ and *sempre* ‘always’ cannot be topics is confirmed by the way they interact with clitic placement in European Portuguese. The words *nunca* and *sempre* obligatorily trigger proclisis in finite clauses, while topics are only compatible with enclisis

²⁵ On the distinction between English-type Topicalization and Focus-movement in European Portuguese, see Costa/Martins (2011).

Abeillé/Bilbáie/Mouret 2014, Matos 1992; Brucart 1999).²⁶ On the other hand, if the initial constituent of the gapped clause is a topic, the approach to VPE and TPE explored in this paper makes us expect that it is not subject to the disjoint reference condition on contrasted constituents that applies to TPE (see (42) above). The examples of gapping offered in (46) seem to confirm this prediction (as the contrasted subjects have overlapping reference). The gapping structures in (46) are to be compared with the TPE structures in (41) above.

- (46) a. A gente detesta o professor de biologia e o Pedro não só o
 we hate the professor of biology and the Pedro not only the
 professor de biologia mas também o de inglês.
 professor of biology but also the of English
 ‘We hate the biology professor and Pedro hates not only the biology professor
 but also the English professor.’ (Pedro is one of us)
- b. A gente gosta do professor de biologia mas o Pedro só do
 we like of the professor of biology but the Pedro only of-the
 professor de inglês.
 professor of English
 ‘We like the biology professor but Pedro only likes the English professor.’
 (Pedro is one of us)
- c. O João e a Maria não têm filhos, nem a Maria sobrinhos.
 the João and the Maria not have children nor the Maria nephews
 ‘João and Maria don’t have children and Maria doesn’t have nephews either.’

The disjoint reference condition on contrasted constituents might thus help to distinguish between different positions within the clausal left-periphery targeted by constituents extracted from the domain to which ellipsis applies.²⁷

²⁶ It has been observed within other language families as well that gapping is found in languages that do not permit VP Ellipsis. See Farudi (2013) on Farsi.

²⁷ Data such as (i) below suggest that gapping may exceptionally allow two foci (recall that *nunca* ‘never’ cannot be a topic). This possibility only arises when the focus constituent surfacing in second position is associated with a focus-marker, like *só* ‘only’ in (ia). In the absence of the focus-marker the sentence becomes ungrammatical, as shown in (ib).

- (i) a. Algumas vezes não fazem os trabalhos de casa, mas NUNCA só o Pedro.
 some times not do-3PL the works of home but never only the Pedro
- b. *Algumas vezes não fazem os trabalhos de casa, mas NUNCA o Pedro.
 some times not do-3PL the works of home but never the Pedro
 ‘Sometimes they don’t do their homework, but it is only Pedro that never does.’

4.3 A brief note on Spanish and Catalan

Laka (1990) analyzes the leftward constituent in Spanish TP ellipsis as a contrastive focus. López (1995; 2000) and López/Winkler (2000), however, put forward empirical evidence supporting the claim that in Spanish the remnant of TPE is always a contrastive topic, not a focus. If their analysis is right and Matos' (1992) analysis of the remnant of TPE in Portuguese as a contrastive focus is also right, then the interface between syntax and discourse varies across languages when TPE is concerned. A hypothesis comes to mind with respect to this discernible contrast between Spanish and Portuguese. The fact that two closely related types of predicate ellipsis coexist in Portuguese, i.e. VPE and TPE, may have led to a 'specialization' of the ways each type of elliptic structure interfaces with discourse. Since Spanish only has TPE, a different configuration of the interplay between syntax and discourse arises in the relevant cases. This is of course pure speculation, but identifies an issue that deserves to be explored.²⁸

The difference between Portuguese and Spanish relative to the information status of the remnant of TPE (whatever accounts for it) might explain an additional contrast between the two languages, for which Catalan aligns with Spanish. One of the reviewers points out that the disjoint reference constraint formulated in (39) above does not apply to Catalan and Spanish, as the examples in (47) and (48) below indicate. My tentative suggestion is that the disjoint reference constraint only applies to double-focus structures, such as Portuguese TPE.²⁹ Example (49) shows once more the contrast that arises in Portuguese between VPE and TPE because only the former escapes the disjoint reference constraint. So, (49) is fine when the verb surfaces in the elliptical clause, which corresponds to an instance of VPE. But the presence of the affirmative word *sim* leads instead to ungrammaticality because it instantiates TPE, which must respect the disjoint reference constraint.

- (47) [Cat.] Aquí tothom treballa vuit hores I, per tant, tu també.
here everybody works eight hours and hence you also
'Here everybody works eight hours, so do you.'

²⁸ The relevant contrast between Portuguese and Spanish may as well be a consequence of the fact that left-peripheral topics and foci display partially different grammatical properties in the two languages (cf. Costa/Martins 2011).

²⁹ A note of caution is needed in this respect, though. It might as well be the case that the disjoint reference constraint, like the topic-comment constraint (Kertz 2013), is a soft constraint subject to inter-speaker variation in Spanish/Catalan and Portuguese as well. This possibility cannot be discarded at this point because all the data discussed in this section are based on one speaker's intuitions (including the Catalan and Spanish data offered by the anonymous reviewer).

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- (48) [Sp.] Nadie se creyó su historia, pero María sí.
nobody SE believed his/her story but María yes
'Nobody believed his/her story, but Mary did.'
- (49) [Por.] Ninguém acreditou na história dele, mas a Maria {acreditou/*sim}.
Nobody believed in-the story of-he, but the Maria believed/*yes
'Nobody believed his story, but Mary did.'

The contrast between (48) and (49) indicates that the interface between syntax and discourse in regard to TPE is not similarly activated in Portuguese and Spanish. If this is a consequence of Portuguese having both VPE and TPE whereas Spanish has only TPE, as suggested above, it is expected that Catalan patterns with Spanish, not with Portuguese. Example (47) points precisely in that direction.

5 Conclusion

This paper points out the existence of non trivial correlations between the licensing of predicate ellipsis, in particular VP and TP ellipsis, and the polarity-encoding system of language-particular grammars, motivating in this way the observed cross-linguistic variation with respect to the availability of VP ellipsis. Languages that license VP ellipsis display polar answering systems where the verb plays an important role. In Portuguese and Galician bare-verb answers express positive confirmation or denial and constitute an unmarked, pervasive and very early acquired manifestation of the interfaces syntax-semantics and syntax-pragmatics/discourse.

Besides, the paper shows that when TP ellipsis and VP ellipsis are both licensed within the same language, they implement different discourse strategies in regard to information structure. The paper points to some empirical contrasts that had gone unnoticed in previous work on ellipsis in European Portuguese and seeks to provide a rationale for them. Comparing pairs of sentences displaying minimally contrasting ellipsis structures seems to be a productive direction to further pursue. The type of descriptive generalizations that can be achieved in this way may then support investigation on naturally occurring ellipsis in discourse, which must however be pursued in a constrained way that clearly identifies and controls the factors under observation.

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