English VP ellipsis: ellipsis site, licensing condition and identity condition

A literature review

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Abstract

Verb Phrase ellipsis is the syntactic occurrence in which the elements within the verb phrase–the verb and its complements–are elided (van Craenenbroeck, 2014). Although this linguistic phenomenon can be encountered in various natural languages (Hedberg, 2015), the challenging questions it poses have located English Verb Phrase ellipsis in the spot of several researchers in the field of theoretical linguistics (Merchant, 2012).

From the beginning of Generative Grammar in the late 1950s, ellipsis has been widely researched, with specific interest in Verb Phrase ellipsis and Sluicing (Merchant, 2012). Most work on Verb Phrase ellipsis has endeavoured to provide answers to questions related to the elided information, the context, and the relationship with the antecedent (Merchant, 2012). Nonetheless, the majority of studies have presented proposals that differ from one another, yielding the aforementioned questions open for debate.

Consequently, it is the aim of the present dissertation to analyse a wide range of studies regarding this phenomenon in an attempt to review the literature on English Verb Phrase ellipsis. To be more specific, this paper explores the three principal queries on the topic: (i) the ellipsis site, (ii) the licensing condition, and (iii) the identity condition.

Firstly, the nature and the structure of the ellipsis site will be examined following the VP proform approach (Rooth, 1981; Klein, 1987; Hardt, 1993; Hardt, 1999) and the PF-deletion approach (Sato, 2013; van Craenenbroeck, 2014; Aelbrecht & Harwood, 2015). Secondly, the licensing condition will be described in terms of an overt realisation of the inflectional node (Sag, 1976; van Craenenbroeck, 2014) or the presence of the [E] feature in the licensing head (Merchant, 2005; Merchant, 2012; Hedberg, 2015). Thirdly, the identity relationship between the antecedent and the ellipsis site will be explained via a syntactic approach (Ross, 1969; Sag, 1976; Hankamer & Sag, 1976; Hankamer, 1979; Lasnik, 1995; Sato, 2013; Murphy, 2018), a semantic approach (Hardt, 1993; Fiengo & May, 1994; Hardt, 1999; Hedberg, 2015) and a hybrid approach (Chung, 2006; van Craenenbroeck, 2008; Merchant, 2013). In short, the existence of diverse approaches supported by empirical data hinders the prevalence of one approach over the rest.

Keywords: English VP ellipsis, Generative Grammar, ellipsis site, licensing condition, identity condition, recoverability condition

1. Phenomenon under discussion

Verb Phrase ellipsis (henceforth VP ellipsis[1]) is the ellipsis phenomenon where the verb phrase–usually the verb and its internal complements–are left unpronounced (van Craenenbroeck, 2014), as seen in (1):

(1) Mary has <u>eaten a slice of pizza</u> and John has not [$_{VP}$ ~~eaten a slice of pizza~~].

VP ellipsis has been debated to a great extent in the literature of Generative Grammar since the late 1950s and the early 1960s (van Craenenbroeck, 2014). Apart from being commonly used in spoken and written interactions of everyday life, VP ellipsis could be seen as one of the most researched ellipsis occurrences due to its productivity and the challenges it poses.[2] In fact, "debates (...) have formed the core of most the generative work on ellipsis over the last forty years" (Merchant, 2012, p. 2).[3]

Throughout the last sixty years, the literature on linguistics has faced several questions that concern VP ellipsis: (i) which are the environments that license VP ellipsis?; (ii) which are the conditions that constrain the connection between the antecedent and the ellipsis site?; (iii) how do we interpret the deleted VP?; (iv) what is contained in the ellipsis site?; and (v) why do some languages allow VP ellipsis whereas others do not (Valmala, 2021c)?

This paper aims to review the literature on English VP ellipsis regarding three main concerns: (i) what information is elided and what its structure is (i.e. the ellipsis site), (ii) in which contexts this information is elided (i.e. the licensing condition), and (iii) how this information is retrieved and understood if it is elided (i.e. the recoverability and the identity conditions).

To begin with, the concept of ellipsis will be defined in section 2; locating it within the Generative Grammar framework and specifying what VP ellipsis is in sections 2.1 and

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[1] It is also known as VPE in the literature.

[2] VP ellipsis can occur in contexts of coordination, subordination, relative clauses and across speakers (Sag, 1976).

[3] Merchant (2012) points out that the parallelism between VP ellipsis and Sluicing triggers quite an important discussion in the field. However, the phenomenon of Sluicing goes beyond the scope of this paper.

2.2, respectively. After that, English VP ellipsis will be scrutinised throughout section 3: firstly, the nature of the ellipsis site will be specified in section 3.1.1; perfect *have* is never included in the ellipsis site; progressive *being* is always within it; and copular or passive *be* and participle *been* are optional (Akmajian & Wasow, 1975; Sag, 1976).

In section 3.1.2, the analyses of the structure of the ellipsis site will be deeply examined chronologically. Classical authors tended to opt for the VP proform approach to explain how the ellipsis site was composed (Rooth, 1981; Klein, 1987; Hardt, 1993; Hardt, 1999),[4] whereas contemporary authors seem to agree on the ellipsis site containing a full-fledged syntactic structure that is unpronounced at the Phonological Form (PF) (Sato, 2013; van Craenenbroeck, 2014; Aelbrecht & Harwood, 2015).

Secondly, in section 3.2, the contexts where VP ellipsis can result felicitous will be described in detail with the aim of determining what licenses this phenomenon, that is, if there exists some sort of requirement that needs to be fulfiled for VP ellipsis to be licensed. Some authors seem to concur on which that specific circumstance is: the preceding auxiliary node must be filled (Sag, 1976); licensing functional categories need to have the specifier positions filled (Sato, 2013); there must be an overt realisation of the inflectional node (van Craenenbroeck, 2014). In contrast, other authors present an alternative that states that tense features must be checked with the [E] feature (i.e. the ellipsis feature) (Merchant, 2005; Merchant, 2012; Hedberg, 2015).

And thirdly, in section 3.3, the three main hypotheses on the identity relation between the antecedent and the ellipsis site will be examined, as well as the recoverability condition: while there is a clear division between the syntactic identity approach (Ross, 1969; Sag, 1976; Hankamer & Sag, 1976; Hankamer, 1979; Lasnik, 1995; Sato, 2013; Murphy, 2018) and the semantic identity approach (Hardt, 1993; Fiengo & May, 1994; Hardt, 1999; Hedberg, 2015), some authors propose hybrid theories of identity since some empirical evidence validates the semantic identity theory and other pieces of evidence confirm the syntactic identity theory (Chung, 2006; van Craenenbroeck, 2008; Merchant, 2013).

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[4] *Pro* either copied at the Logical Form (LF) or interpreted via anaphoric mechanisms (van Craenenbroeck, 2014).

2. Ellipsis

In linguistics, ellipsis could be defined as a "syntactic strategy (...) in which expected, that is, subcategorised (or syntactically relevant) syntactic elements, have been left unpronounced" (Gandón-Chapela & Pérez-Guerra, 2016, p. 445). The ellipsis phenomenon has been widely researched owing to the fact that it implies a mismatch in the mapping of the sound and the meaning (Gandón-Chapela & Pérez-Guerra, 2016). Theoretical linguists aim to explain why natural languages allow human beings to comprehend something when they have actually not heard it.

Although found mostly in every natural language, different elliptical constructions are allowed in each language (Valmala, 2021a). For instance, VP ellipsis is perfectly grammatical in English (2), while it would result in an ungrammatical sentence in the case of Spanish (3):

(2) John has <u>bought a cake</u> and Mary has not [$_{VP}$ ~~bought a cake~~].

(3) *Juan ha <u>comprado una tarta</u> y María no ha [$_{VP}$ ~~comprado una tarta~~].

Generative Grammarians, in fact, develop hypotheses and contrast them with empirical data aiming to obtain universal principles and parameters that are able to explain different phenomena regardless of crosslinguistic variation. They focus on building theories and models precisely to comprehend how speakers' knowledge works, rather than on providing rules for a standard variety (Prescriptive Grammar) or describing natural linguistic constructions (Descriptive Grammar). In section 2.1, this paper will look at how Generative Grammar approaches ellipsis, before covering VP ellipsis in section 2.2.

2.1. Ellipsis within Generative Grammar

Generative Grammar could be described as "the study of linguistic capacity as a component of human cognition" (Chomsky et al., 2019, p. 230). Beginning in the late 1950s, Chomsky (1957) proposes that linguistic phenomena have to be studied from the perspective of Transformational Generative Grammar; grammar is seen as a complex

system of rules that uses transformations to create grammatical sentences.[5] Linguists within Generative Grammar determine a definite set of rules to explain how a given language combines words to form indefinite number of sentences. Since its early days, Generative Grammar aims to study the nature of language in the brain of native speakers, covering issues such as linguistic competence and Universal Grammar (UG). It is descriptive, fully explicit and maximally general, focusing on competence and making universal claims (Wasow, 2017).

Despite the fact that ellipsis was traditionally investigated within the fields of rhetoric, diction or discourse, Transformational Generative Grammar commenced to research the formal characteristics of elliptical phenomena with a systematic approach, being English the predominant language explored (Gandón-Chapela & Pérez-Guerra, 2016).

Taking the aforementioned literature into account, this dissertation intends to show how Generative Grammar answers what VP ellipsis is, when it happens and how we retrieve it. Accordingly, section 2.2 will tackle the concept of VP ellipsis in depth and section 3 will focus on English VP ellipsis.

2.2. VP ellipsis

VP ellipsis is the ellipsis phenomenon where the verb phrase, together with its complements, is elided and not pronounced (van Craenenbroeck, 2014). For this construction to be felicitous, the *ellipsis site*–the material that is elided–needs to have an *antecedent*–the material that helps the interpretation of the ellipsis–(Valmala, 2021c).[6] It is found in different languages across the world such as English (4) and Swedish (5):

(4) a. Who will <u>eat the apple</u>?

    b. Teddy will [_{VP} ~~eat the apple~~].

(Hedberg, 2015, p. 3)

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[5] This paper will not follow the proposal of Transformational Generative Grammar strictly. In fact, the approach taken is more general and concerns Generative Grammar, including different aspects from Transformational Generative Grammar and the Minimalist Program.

[6] The ellipsis site will be within brackets and crossed out ([–]), and the antecedent will be underlined (_).

(5) a. Vem ska <u>äta äpplet</u>?

    Who will eat apple.$_{DEF}$

    'Who will eat the apple?'

  b. Teddy ska [$_{VP}$ ~~äta äpplet~~].

    Teddy will eat apple.$_{DEF}$

    'Teddy will.'

(Hedberg, 2015, p. 4)

This phenomenon is quite productive owing to the fact that it can occur in several syntactic structures: coordination (6), embedded argument (7), and adjunct clauses (8) (Valmala, 2021c):

(6) John won't <u>solve the problem</u>, but [Mary will [$_{VP}$ ~~solve the problem~~]].

(7) Bill <u>likes leeks</u>, and I think [that Mary does [$_{VP}$ ~~like leeks~~], too].

(8) Mary will <u>meet the headmaster</u> [if Bill does [$_{VP}$ ~~meet the headmaster~~], too].

(Valmala, 2021c, p. 1)

Besides, VP ellipsis can take place across speakers; the antecedent can be contained in speaker A's sentence and the ellipsis site in speaker B's sentence (Valmala, 2021c):

(9) Speaker A: Did John <u>solve the problem</u>?

  Speaker B: He didn't [$_{VP}$ ~~solve the problem~~], but Mary will [$_{VP}$ ~~solve the problem~~].

(Adapted from Valmala, 2021c, p. 1)

Commonly, the antecedent is followed by the ellipsis site, which is called *forward VP ellipsis* (Valmala, 2021c), as in (1-9) above. Nevertheless, it is also possible that the antecedent is preceded by the ellipsis site, which is called *backward VP ellipsis* (Valmala, 2021c), as in (10):

(10) Did I [$_{VP}$ ~~talk about VP ellipsis~~] or did I not <u>talk about VP ellipsis</u>?

(Valmala, 2021c, p. 1)

3. English VP ellipsis

Having introduced VP ellipsis and some of its characteristics, this paper will concentrate on English VP ellipsis from here onwards. At the beginning of section 1, some questions about this syntactic occurrence were raised. Hence, it is the goal of this paper to review the Generative Grammar literature on (i) the nature and structure of the ellipsis site in section 3.1, (ii) the licensing condition in section 3.2, and (iii) the identity condition in section 3.3.

3.1. The ellipsis site

As far as the ellipsis site is concerned, two main challenges need to be taken into account in sections 3.1.1 and 3.1.2, respectively: (i) what the nature of the elided material is, that is, which syntactic category is being left unpronounced, and (ii) whether that information is a pro-VP element or a fully structured syntactic construction.[7]

3.1.1. The nature of the ellipsis site

As regards the *nature of the ellipsis site*,[8] the literature agrees on the fact that the finite auxiliary cannot be elided, while the lexical verb must undergo ellipsis (Sato, 2013; van Craenenbroeck, 2014; Aelbrecht & Harwood, 2015; Murphy, 2018):

(11) An elephant can't <u>fly</u>, but maybe a rhino *(could) [$_{VP}$ f̶l̶y̶].

(Aelbrecht & Harwood, 2015, p. 67)

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[7] The What You See Is What You Get (WYSIWYG) approach or direct interpretive approaches argue that the ellipsis site is empty (Valmala, 2021a). However, the WYSIWYG will not be covered in this paper due to the fact that most authors opt for either the null category analysis or the PF-deletion analysis.

[8] This paper analyses the nature of the ellipsis site, that is, the actual category of the elided material, i.e. vP$_{prog}$ (see (13b)). Nonetheless, some authors refer to it as the size of the ellipsis site, that is, the extent to which the ellipsis site would develop in the spine (i.e. in the tree-structure representation).

However, not all non-finite auxiliaries behave alike under the ellipsis of the VP. As a matter of fact, Akmajian and Wasow (1975) and Sag (1976) discovered a pattern that could be summarised as follows: "perfect *have* cannot be elided, (...) whilst *been* can be optionally elided (...). *Being*, on the other hand, is obligatorily included in the ellipsis site" (Aelbrecht & Harwood, 2015, p. 67):

(12) Betsy must have been being hassled by the police, and...

    a. *Peter must ~~have been being hassled by the police~~, too.

    b. Peter must have ~~been being hassled by the police~~, too.

    c. Peter must have been ~~being hassled by the police~~, too.

    d. *Peter must have been being ~~hassled by the police~~, too.

(Sag, 1976, p. 31)

The English auxiliary system seems to be an excellent tool for proving what is included in the ellipsis site. The pattern Akmajian and Wasow (1975) and Sag (1976) exhibit is comprised in Table 1:

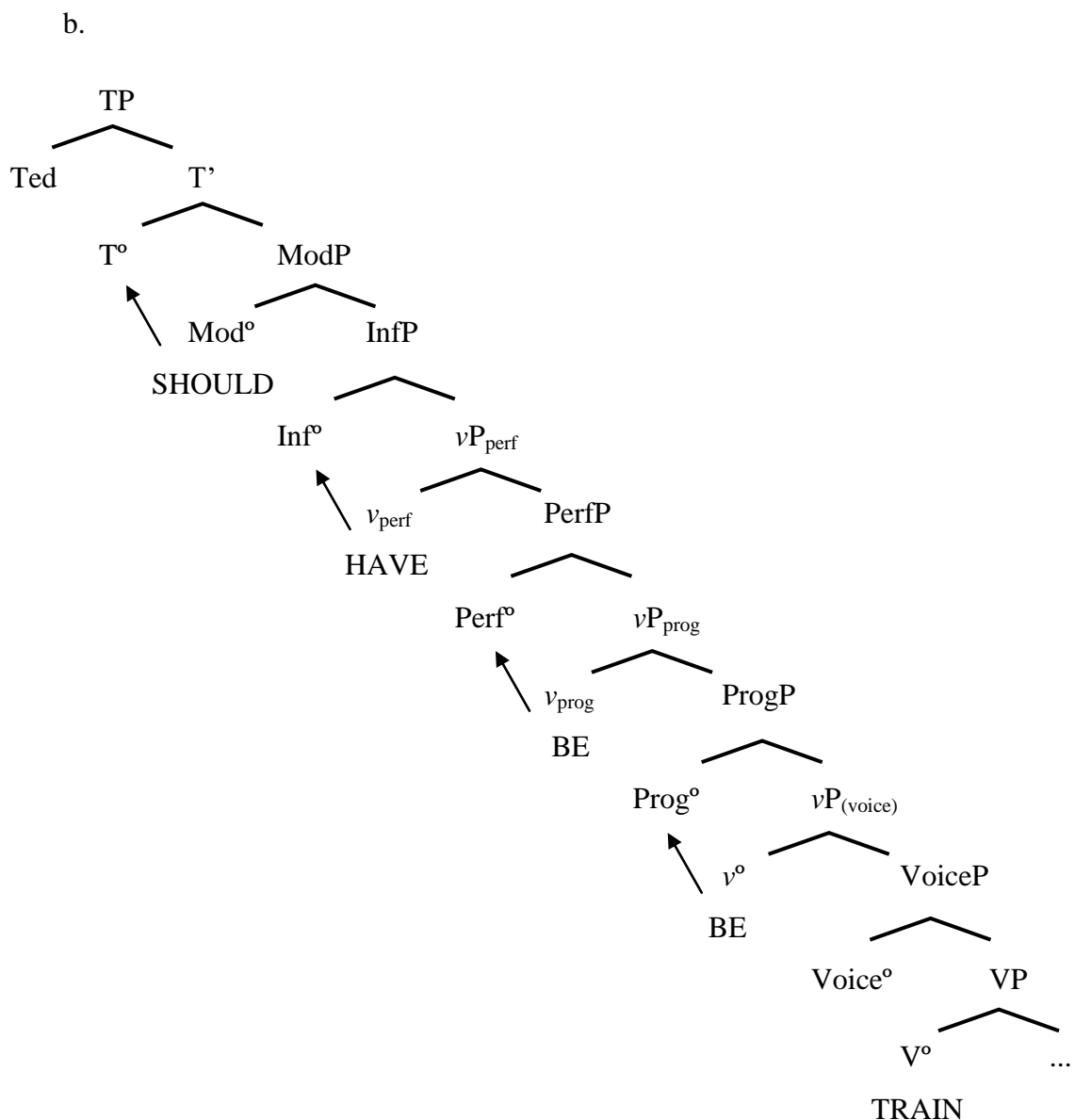|	modal/finite aux	Have	Be	Been	being	lexical verb
elided	*	*	√	√	√	√
remaining	√	√	√	√	*	*

Table 1. Deletion of verbal elements in VP ellipsis (adapted from Aelbrecht & Harwood, 2015, p. 67).

Taking into consideration the logical order of English auxiliaries, it could be assumed that the functional projection of the verbal element remaining always outside dominates the projection that VP ellipsis targets, namely, the ellipsis site. On the contrary, the projection occupied by the element that is always elided is dominated by the target of the VP ellipsis (van Craenenbroeck, 2014).

Following the assumption above, it could be stated that VP ellipsis "targets the progressive aspectual layer (when present)" (Aelbrecht & Harwood, 2015, p. 68), that is, $v\text{P}_{prog}$, which is the functional projection of the verbal element *being*. Moreover, Aelbrecht and Harwood (2015) also argue that the reason for *have* to be outside the

ellipsis site is that it is base-generated in the head position of vP$_{perf}$. In the third place, *be* and *been* are optionally deleted due to the fact that they "are base-generated in the ellipsis site and raise out to get their inflectional features checked" (Aelbrecht & Harwood, 2015, p. 66). This information is represented in the tree-structure representation in (13b) for sentence (13a) (taken from Aelbrecht & Harwood, 2015, pp. 68-70):

(13) a. Ted should have been being trained by a lion tamer.

b.

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              TP
           /      \
        Ted        T'
                /      \
              T°        ModP
              ↖      /      \
               Mod°        InfP
              SHOULD      /    \
                       Inf°     vP_perf
                       ↖     /      \
                        v_perf      PerfP
                       HAVE      /      \
                             Perf°      vP_prog
                             ↖      /      \
                              v_prog      ProgP
                             BE       /      \
                                   Prog°     vP_(voice)
                                   ↖     /      \
                                    v°         VoiceP
                                   BE       /      \
                                       Voice°      VP
                                              /      \
                                            V°        ...
                                          TRAIN
```

As Aelbrecht and Harwood (2015) state, "English auxiliaries carry uninterpretable features which force the auxiliary to raise to the relevant inflectional head for feature checking at PF" (p. 66). Consequently, BE [Prog] moves to Prog head becoming *being*;

BE [Perf] moves to Perf head becoming *been*; HAVE [Inf] moves to Inf head becoming *have*; and SHOULD [T] moves to T head becoming *should*. This explains why some elements are left outside the ellipsis site–*have*–, some are always within–*being*–and others are optional–*be* and *been*–. Taking this analysis into account, according to Aelbrecht and Harwood (2015), VP ellipsis would target $v\text{P}_{\text{prog}}$.

Aside from that, van Craenenbroeck, (2014) and Murphy (2018) propose two more means to specify the nature of the VP ellipsis site: (i) the adverb *again* allows for different readings due to the two possible positions that it can occupy (Johnson, 2004); and (ii) *voice mismatches* can occur under VP ellipsis because the antecedent and the ellipsis site are semantically identical, but also syntactically identical (Merchant, 2013).

On the one hand, the adverb *again* can be understood with a repetitive reading when there is a prior action (14) or a restitutive reading which assumes the previous state (15):

(14) Jane closed the door, and then Maribel closed it again.

(15) The wind blew the door open, and no one closed it. Finally, Maribel closed it
     again.

(Johnson, 2004, as cited in van Craenenbroeck, 2014, p. 10)

Restitutive *again* adjoins to VP; while repetitive *again* adjoins at least as high as *v*P. Therefore, notice that only the repetitive interpretation is possible under the context of VP ellipsis (Johnson, 2004):

(16) Jane <u>closed the door</u>, and then Maribel did [$_{\text{VP}}$ ~~close the door~~] again.

(17) The window blew the door open, and no one <u>closed it</u>.

     #Finally, Maribel did [$_{\text{VP}}$ ~~close it~~] again.

(Johnson, 2004, as cited in van Craenenbroeck, 2014, p. 11)

This fact suggests that VP must be inside the ellipsis site and *v*P cannot. Hence, the ellipsis site is at least as large as *v*P (Johnson, 2004).

On the other hand, voice mismatch cannot be felicitous under VP ellipsis since the antecedent and the ellipsis site must be semantically and syntactically identical for recoverability (Merchant, 2013). However, (18) and (19) seem to show otherwise:

(18) The janitor must <u>remove the trash</u> whenever it is apparent that it should be [$_{VP}$ ~~removed~~].

(19) The system can be <u>used</u> by anyone who wants to [$_{VP}$ ~~use it~~].

(Merchant, 2013, pp. 78-79)

In front of this evidence, Merchant (2013) claims that the ellipsis site is smaller than VoiceP, leaving the voice mismatch phenomenon outside the target of VP ellipsis. This way, the ellipsis site and the antecedent are identical and the meaning can be recoverable.

To summarise, "the precise identification of the cut-off point remains an open question" (van Craenenbroeck, 2014, p. 11). In fact, there exists data that support diverse answers: it could be argued that the ellipsis site is at least vP (Johnson, 2004) and consists of vP$_{prog}$ (Aelbrecht & Harwood, 2015), or conversely, that it is smaller than VoiceP (Merchant, 2013).

3.1.2. The structure of the ellipsis site

Once tackled the issue of the nature of the ellipsis site, there is another challenge left: determining which the *structure of the ellipsis site* is. More classical authors attempt to resolve this structural matter advocating the VP proform approach (Rooth, 1981; Klein, 1987; Hardt, 1993; Hardt, 1999).[9] Instead, contemporary authors defend that the elided material contains a full-fledged syntactic structure that is deleted at PF (Sato, 2013; van Craenenbroeck, 2014; Aelbrecht & Harwood, 2015).[10]

So as to analyse what the VP proform or pro-VP approach proposes, it is essential to revise the distinction between surface anaphora and deep anaphora by Hankamer and Sag (1976): the former "requires superficial syntactic identity of structure between the

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[9] This approach is also widely known as the null anaphor approach in the literature.

[10] Both proposals (VP proform and PF-deletion) are structural approaches which place "the burden on the syntax, and (…) the meanings are derived by (ideally all and only) the mechanisms at play in other contexts" (Merchant, 2012, p. 5). This dissertation leaves non-structural approaches aside since they are less mentioned in the literature.

antecedent segment and the segment to be anaphorized" (Hankamer & Sag, 1976, p. 421); while the latter requires that the anaphor "represent[s] a coherent semantic unit" (Hankamer & Sag, 1976, p. 422). VP ellipsis would be regarded as surface anaphora as in (20) and *do it* as deep anaphora as in (21):

(20) [Context: Hankamer attempts to stuff a 9-inch ball through a 6-inch hoop]

    Sag: #It's not clear that you'll be able to.

(21) [Same context]

    Sag: It's not clear that you'll be able to do it.

(Hankamer & Sag, 1976, p. 392)

Since VP ellipsis is regarded as surface anaphora, it needs a superficial syntactic structure that works as the antecedent for the ellipsis site, that is, it needs to be syntactically controlled (Hankamer & Sag, 1976). In (20) the antecedent is not linguistic, but pragmatic, and the anaphorised segment lacks an antecedent element. VP ellipsis would, thus, become pragmatically deviant. Nevertheless, *do it* anaphora needs the anaphor to correspond to an appropriate semantic unit, that is, to be pragmatically controlled (Hankamer & Sag, 1976). As a consequence, (21) is pragmatically accurate for the given context.

The proform explanation for VP ellipsis consists of inserting "an empty place-holder node in the structure, which acts like a null anaphor and which must be replaced at LF by full structure (on LF copy approaches) or otherwise filled in or interpreted" (Merchant, 2012, p. 22). In this case, the ellipsis site is a proverb which is syntactically full but phonetically null.

The *sloppy ellipsis puzzle* seems to provide the strongest evidence in favour of the pro-VP approach (Hardt, 1999), as shown in (22):

(22) I'll help you if you want me to. I'll kiss you even if you don't [].

    a. [] = [want me to help you] (STRICT)

    b. [] = [want me to kiss you] (SLOPPY)

(Hardt, 1999, p. 207)

In (22a) the antecedent embedded VP and the elided embedded VP have the same meaning, leading to a strict interpretation. Contrarily, in (22b) the deleted embedded VP takes its meaning from both antecedents: *want me to* from the first antecedent and *kiss you* from the antecedent that is more local, yielding a sloppy interpretation.

For the sentence to obtain a sloppy reading, it is essential that the antecedent VP is elided as shown in (23):

(23) I'll help you if you want me to help you. I'll kiss you even if you don't [].

    a. [] = [want me to help you] (STRICT)

    b. [] ≠ [want me to kiss you] (*SLOPPY)

(Hardt, 1999, p. 207)

As a consequence, Hardt (1999) suggests that there should not be a syntactic or structural representation of the most embedded VP. Instead, it should be represented as a semantic variable and constituted in the syntax by a null proform.

Nonetheless, there are some problems with this argumentation. In fact, the claim that the PF-deletion analysis is not able to explain this phenomenon is not utterly accurate owing to the fact that the mapping from syntax to semantics can be integrated within the PF-deletion approach (Merchant, 2012). So as to deepen on how this integration is achieved, first, how the PF-deletion approach works needs to be explicated.

Many modern experts concur on the idea that the ellipsis site in the VP ellipsis phenomenon is composed by a complete syntactic structure that is not pronounced at PF (Sato, 2013; van Craenenbroeck, 2014; Aelbrecht & Harwood, 2015). In this analysis, "a missing constituent begins its life in the derivation with fully represented structure, which will be deleted in the phonological component but remain intact at LF" (Partee, 2008, p. 7).

Authors in the decades of the 1960s and 1970s mainly opted for the deletion transformation approach. This proposal suggested that there exists a specific type of syntactic rule in ellipsis phenomena that is responsible for the removal of a syntactic structure, which is previously built following phrase structure rules (Ross, 1969; Hankamer, 1979). Nonetheless, current scholars suggest that the [E] feature on the

licensing head triggers deletion at PF (Merchant, 2005; Merchant, 2012; Hedberg, 2015).[11]

Going back to the challenge that sloppy puzzles pose, it could be argued (in favour of a PF-deletion analysis) that there cannot be a sloppy reading in (23) because the ellipsis site is a semantic variable, but not a syntactic one (Merchant, 2012).

In conclusion, the PF-deletion analysis can account for the sloppy-reading phenomenon: "a structure-based ('deletion') account of ellipsis is consistent with the sloppy ellipsis puzzle: the ellipsis site behaves like a variable in the semantics, but need not in the syntax" (Merchant, 2012, p. 27). So, even if the proform approach is supported by the sloppy interpretation argument, the PF-deletion analysis is also able to account for it (Merchant, 2012). Thus, it could be generally assumed that the ellipsis site comprises a full-fledged syntactic structure which is elided at PF (Sato, 2013; van Craenenbroeck, 2014; Aelbrecht & Harwood, 2015).

Once looked into the nature of the ellipsis site in section 3.1.1 and into the structure of the ellipsis site in 3.1.2, section 3.2 will deepen on what permits the VP to be actually elided, that is, what requirements need to be fulfiled for VP ellipsis to be felicitous.

3.2. The licensing condition

What allows sentences to remain grammatical even when material is elided in contexts of VP ellipsis? In compliance with the *licensing condition*, there must be some sort of element preceding the ellipsis site to execute the deletion. Throughout the last five decades, theoretical linguists have made an attempt to determine which that element is (Sag, 1976; Merchant, 2005; Merchant, 2012; Sato, 2013; van Craenenbroeck, 2014; Hedberg, 2015).

In the first place, there seems to be a common widespread hypothesis in the literature which states that the functional node of the previous category–auxiliary or inflection–must be filled (Sag, 1976; van Craenenbroeck, 2014). Sag (1976) and van Craenenbroeck (2014) claim that the inflectional node must be overtly realised:

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[11] The idea of an [E] feature licensing PF-deletion will be developed in section 3.2.

(24) a. Madame Spanella would <u>eat rutabagas</u>, but Holly wouldn't [$_{VP}$ ~~eat rutabagas~~].

    b. Madame Spanella has <u>eaten rutabagas</u>, but Holly hasn't [$_{VP}$ ~~eat rutabagas~~].

    c. Madame Spanella is <u>eating rutabagas</u>, but Holly isn't [$_{VP}$ ~~eating rutabagas~~].

    d. *Madame Spanella hasn't <u>eaten rutabagas</u>, but Holly ~~has~~ [$_{VP}$ ~~eaten rutabagas~~].

 (Adapted from van Craenenbroeck, 2014, p. 20)

Sentences (24a-c) exhibit felicitous deletion because the VP ellipsis site is preceded by *would*, *has* and *is*, which fill in the prior inflectional node.[12] Conversely, in (24d) the NP *Holly* cannot license VP ellipsis, and the sentence results in ungrammaticality.

Sato (2013) enlarges his theory extending the licensing condition to the functional category *v* since he differentiates two kinds of VP ellipsis: *v*P-deletion, which is licensed in TP, and VP-deletion, which is licensed in *v*P, as in (25) and (26), respectively:
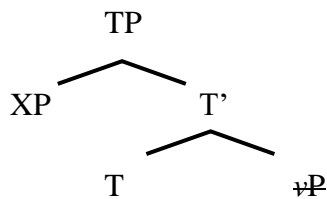
(25)   *v*P-deletion   (26) VP-deletion
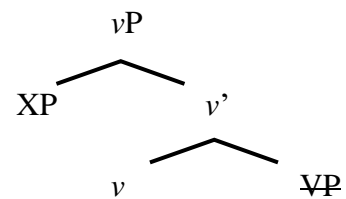
(Adapted from Sato, 2013, p. 611)

Specifically, Sato (2013) argues that in (25) *v*P-deletion is possible when the specifier position of TP is filled by a subject, and in (26) VP-deletion is appropriate whenever the specifier position of the *v*P is occupied by a subject. He points out that due to the fact that the lexical verb moves from V to *v* at PF,[13] ellipsis might take place prior that movement. Apart from that, VP is not able to delete V as it is a lexical category rather

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[12] For the sake of the explanation regarding inflectional categories as licensors of VP ellipsis, negation is left aside.

[13] Head movement consists of main verbs moving from the head position of V to occupy the head position *v*. The ellipsis site deletion happens before head movement, so in VP ellipsis there is no V-to-*v* movement. This phenomenon explicates why lexical verbs do not survive VP ellipsis (Sato, 2013).

than a functional one. It must be taken into account that, together with Sag (1976) and van Craenenbroeck (2014), Sato (2013) also defends that lexical elements cannot license VP ellipsis, being always functional elements responsible for that.

Other authors go beyond in their analysis and consider that the licensing head must be filled indeed and must check its features against the [E] feature (Merchant, 2005; Merchant, 2012; Hedberg, 2015). Merchant (2012) describes the [E] feature as follows:

> Such a feature (...) should, ideally, be the sole repository of all information about the ellipsis. That is, it should have a syntax, a semantics, and a phonology. The syntax of this feature should serve to delimit what heads can host it (the 'licensing' question), the semantics could be used to impose an identity condition, and the phonology would be a trigger for a rule or constraint syncopating the phrase's phonological value. (Merchant, 2012, p. 21)

Furthermore, if a head bears an [E] feature, it instructs PF to leave its complement unpronounced; in other words, "[E] instructs the post-PF phonological interpretative component not to parse its complement" (Merchant, 2005, p. 671), as represented in (27):

(27) $_\phi IP \rightarrow \emptyset / [E]\_$

(Adapted from Merchant, 2005, p. 671)

The phonological rule for Sluicing in (27) is translated for a VP projection as in (28):[14]

(28) $_\phi VP \rightarrow \emptyset / [E]\_$

This would be what the phonology of [E] is concerned about. Nonetheless, it is the syntax of this feature that is responsible for selecting which heads are able to hold the [E] feature, i.e. which heads license the deletion of the complement vP/VP. The rule for Sluicing is shown in (29):
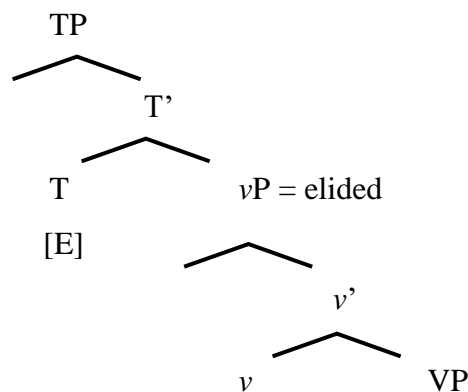
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[14] Merchant (2005) proposes the phonological and syntactic rules of the [E] feature for Sluicing, but they have been adapted in this paper for a VP ellipsis analysis. It is important to highlight the relevance of the parallelism between Sluicing and VP ellipsis; the former elides an IP introduced by a wh-phrase, which implicates that a VP is also elided within those constituents. This is the reason why this work looks into this evidence as well. However, VP ellipsis requires the licensing head to be fulfiled, while Sluicing does not.

(29) E$_S$ [*u*wh∗, *u*Q∗]

(Merchant, 2005, p. 670)

In fact, the functional head that contains the features [*u*wh∗, *u*Q∗] could host the [E] feature, and thus, license the deletion of IP in Sluicing. However, there are not specific uninterpretable features for the licensing head of VP ellipsis, just the interpretable [E] feature as depicted in the tree representation in (30):

(30)

```
              TP
             /  \
                T'
               /  \
              T     vP = elided
             [E]       \
                        v'
                       /  \
                      v    VP
```

(Hedberg, 2015, p. 14)

To sum up, most of the linguists that tackle the licensing on VP ellipsis concur that the previous inflectional node must be filled (Sag, 1976; van Craenenbroeck, 2014), while others expand that requirement to the specifier position being occupied by the subject (Sato, 2013). Another relevant requisite for licensing seems to be that the licensor can host the [E] feature (Merchant, 2005; Merchant, 2012; Hedberg, 2015).

Section 3.2 has covered the different requirements regarding the licensing condition on VP ellipsis. Next, section 3.3 will be concerned with the relationship between the antecedent and the ellipsis site, analysing the attempts to describe in which way they are identical.

3.3. The identity condition

How can human beings comprehend something that is not uttered? As a matter of fact, elliptical constructions, VP ellipsis in this case, display a mismatch between the mapping of the form and the meaning, that is, the mapping is absent (Merchant, 2012). That information can be retrieved owing to the fact that the elided VP seems to be identical to its antecedent in some way, which would comply with the *identity condition*. Nevertheless, grammarians propose different arguments so as to explicate this identity relationship: "syntax, semantics, morphology, information structure, discourse structure, or a combination of two or more of these" (van Craenenbroeck, 2014, p. 12).

First and foremost, so as to be deleted felicitously, the content of elliptical structures must be recoverable; according to the *recoverability condition* on deletion, an element can be elided only if there is an explicit antecedent to it (Katz & Postal, 1964).

Once the ellipsis has taken place, there are different accounts that endeavour to offer an explanation about which the identity between the antecedent and the ellipsis site is: syntactic identity, semantic identity or hybrid identity.

According to Merchant (2012), throughout the first years of Generative Grammar, that is, from the 1960s up until the 1990s, most of the researchers opted for a syntactic identity approach (Ross, 1969; Sag, 1976; Hankamer & Sag, 1976; Hankamer, 1979; Lasnik, 1995; Sato, 2013; Murphy, 2018). However, the focus on the semantic identity approach has risen ever since (Hardt, 1993; Fiengo & May, 1994; Hardt, 1999; Hedberg, 2015). The third option that will be described in this work is the proposal of combining both syntactic and semantic identities creating hybrid theories (Chung, 2006; van Craenenbroeck, 2008; Merchant, 2013).

Firstly, the syntactic identity approach and the semantic identity approach will be developed in sections 3.3.1 and 3.3.2, respectively. Then, the hybrid identity approach will be explained in section 3.3.3, which comprises the previous approaches.

3.3.1. Syntactic identity

As far as the *syntactic identity* is concerned, several authors agree on the fact that there needs to be a syntactic identity shared by both the antecedent and the ellipsis site for VP ellipsis to result felicitous. In spite of the fact that their postulations differ slightly, quite a lot of works can account for the syntactic identity approach, from those by classical authors (Ross, 1969; Sag, 1976; Hankamer & Sag, 1979; Hankamer, 1979; Lasnik, 1995) to those by contemporary authors (Sato, 2013; Murphy, 2018).

Among the traditional suggestions, Sag (1976) draws some conclusions that could work as an illustration of what level of syntactic similarity is assumed to be shared between the antecedent and the elided VP: "overt syntactic identity between two VP's is neither a necessary nor a sufficient condition for VP-deletability" (Sag, 1976, p. 74); "to require identity of semantic representation (...) is too strong a requirement" (Sag, 1976, p. 95); "identity of logical form (...) is not only a necessary condition for deletion, but a sufficient one as well" (Sag, 1976, p. 178).

In fact, Hankamer and Sag (1976) put forward that it is the surface anaphora the one that "requires superficial syntactic identity of structure between the antecedent segment and the segment to be anaphorized; it does not require that the anaphor represent a coherent semantic unit" (Hankamer & Sag, 1976, p. 421). Oppositely, they propose that "deep anaphora does not require that the anaphor be related to a superficially coherent syntactic entity, but it does require it represent a coherent semantic unit" (Hankamer & Sag, 1976, pp. 421-422). In this case, since VP ellipsis is considered surface anaphora, it would be in need of superficial syntactic identity.

Besides, among modern authors, Sato (2013) presumes that the deletion at PF needs to fulfil the syntactic identity condition. As a consequence, if the ellipsis site does not have the same syntactic structure as the antecedent, the construction will not be able to be deleted when it reaches PF.

Last but not least, another requirement proposed would be that the verb forms of the antecedent and the ellipsis site are identical at PF before deletion (Lasnik, 1995; Murphy, 2018). Lasnik (1995) assumes that "English main verbs are inserted into structure as bare forms (roots). (...) English auxiliaries are inserted into structures fully

inflected" (Murphy, 2018, p. 7). Consequently, the verbs in both the antecedent and the ellipsis site should be identical at PF, as in (31). First, VP ellipsis would occur, as in (31b), and later on, the merge of verbal roots and affixes would happen, as in (31c):

(31) a. John <u>walked to London</u> and Mary did [$_{VP}$ ~~walk to London~~], too.

    b. [$_{TP}$ John -ed [$_{VP}$ <u>walk to London</u>]] and [$_{TP}$ Mary -ed [$_{VP}$ ~~walk to London~~], too].

    c. [$_{TP}$ John [$_{VP}$ <u>walk-ed to London</u>]] and [$_{TP}$ Mary do-ed [$_{VP}$ ~~walk to London~~], too].
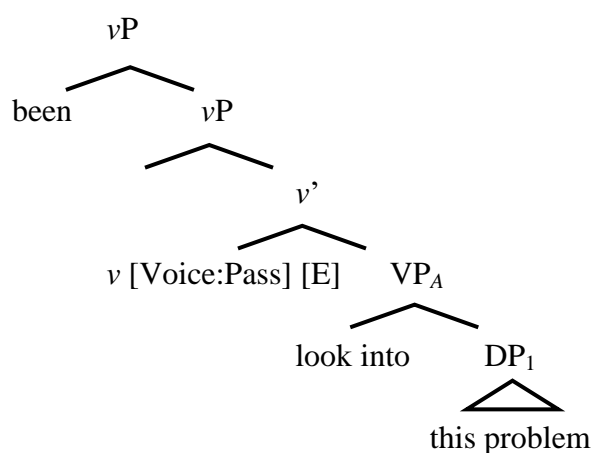
(Murphy, 2018, p. 7)

So, the requirement for VP ellipsis to success is that the verb in the antecedent and the verb in the ellipsis site share their form at PF (Lasnik, 1995; Murphy, 2018).

This side of the literature presents some data that reinforce their view on the syntactic identity condition. For instance, although strong evidence in opposition to a strict syntactic hypothesis has been found (van Craenenbroeck, 2014), there are some phenomena that suggest that a certain level of syntactic identity is defendable: *voice mismatch* and *auxiliary form matching* (Merchant, 2012).
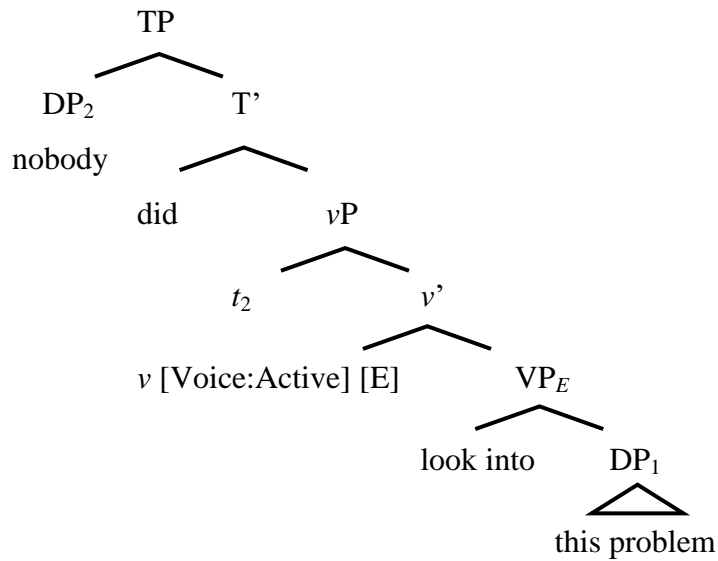
First and foremost, the phenomenon of VP ellipsis allows voice mismatch, that is, it is perfectly grammatical that the antecedent VP has passive voice and the ellipsis site VP active voice, or vice versa, as shown in (32):

(32) a. This problem was to have been <u>looked into</u>, but obviously nobody did [$_{VP}$ ~~look into~~].

    b. [$_{DP}$ This problem]$_1$ was to have

c.

$$TP$$

DP$_2$ T'

nobody

did vP

t_2 v'

v [Voice:Active] [E]   VP$_E$

look into   DP$_1$

this problem

(Adapted from Merchant, 2012, p. 32)

This occurrence of the mismatch is possible due to the fact that Voice head remains outside the VP that is targeted by ellipsis.[15]

Secondly, auxiliary *be* behaves in an exceptional way in elliptical environments. Unlike lexical verbs, *be* requires morphological identity (Merchant, 2012):

(33) Emily <u>played beautifully at the recital</u> and her sister will [$_{VP}$ ~~play beautifully at the recital~~], too.

(34) Emily <u>took a break from her studies</u>, and her sister will [$_{VP}$ ~~take a break from her studies~~], too.

(35) Emily will <u>be beautiful at the recital</u>, and her sister will [$_{VP}$ ~~be beautiful at the recital~~], too.

(36) *Emily <u>was beautiful at the recital</u> and her sister will [$_{VP}$ ~~be beautiful at the recital~~], too.

(Adapted from Merchant, 2012, pp. 35-36)

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[15] Alternatively, acceptability judgments have revealed that the more similar it is the voice, the higher it is the acceptability rate (Frazier & Clifton, 2005).

(33) and (34) show that, for instance, in the past simple tense, regardless of the verb pattern–regular or irregular–, lexical verbs do not need to share morphological identity. Conversely, (35) and (36) exhibit that *be* has to be morphologically identical or the sentence would result ungrammatical. As advanced above, lexical verbs obtain their respective inflections throughout the process of derivation, whereas forms of *be* are already inflected when they enter derivation. Thus, lexical verbs are syntactically identical before the verb merges with the inflectional affix, but forms of *be* are not identical before the inflectional affix intervenes (Lasnik, 1995).

To conclude with, voice mismatch and auxiliary form matching phenomena suggest that in VP ellipsis the antecedent and the ellipsis site need to be syntactically identical. Some authors believe that this condition is fulfiled by sharing the identity of logical forms (Sag, 1976) or verb forms (Lasnik, 1995; Murphy, 2018). Others, nevertheless, opt for sharing the identity of the whole structure (Hankamer & Sag, 1976).

3.3.2. Semantic identity

In regard to the second identity theory, other authors propose that the *semantic identity* of the representations of the antecedent and the ellipsis site is an essential condition for VP ellipsis (Hardt, 1993; Fiengo & May, 1994; Hardt, 1999; Hedberg, 2015). According to Merchant (2012), there has been a greater amount of proposals that are based on this requisite since the early 1990s.

More classical studies rely on the assumption that there is an ellipsis site which is a proverb and it is governed by the semantic identity condition (Hardt, 1993; Hardt, 1999). In fact, Hardt (1993) understands VP ellipsis as a variable to be interpreted semantically, since this phenomenon does not respect the syntactic constraints in variables.[16]

The main supposition by current authors who defend the semantic identity condition is that the recoverability condition is fulfiled via semantic identity (Hedberg, 2015). To be

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[16] Hardt (1993) provides several variables (reflexives, reciprocals, negative polarity items) to support his theory. However, this paper will instead cover the *vehicle change effects* by Fiengo and May (1994), which is one of "the best arguments in favour of semantic identity theories" (Merchant, 2012, p. 29).

more precise, they expand on the semantic condition stating that a constituent needs to be *e-given* in order to be elided. In (37-39) Merchant (2012) describes what *e-givenness* consists of:

(37) A constituent α can be elided if α is e-given.

(38) e-givenness:

An expression *X* is e-given iff *X* has a salient antecedent *A* and, modulo existential type-shifting,

(i) *A* entails E-clo(*X*), and

(ii) *X* entails E-clo(*A*).

(39) E-closure:

The E-closure of α (E-clo(α)) is the result of replacing all E-marked subelements of α with variables of the appropriate type.

 (Adapted from Merchant, 2012, p. 25)

In a simpler way, to be e-given, an expression *X* necessitates a salient antecedent *A* with an existential type-shifting; both expressions entail each other's E-closure, which means that the variables they represent are mutually entailed, leading to semantic identity.

Once explained the most relevant concept for modern advocates of the semantic identity condition, the most significant data in favour of the semantic identity approach will be presented; the case in point is *vehicle change effects*.

Dubbed by Fiengo and May (1994) as vehicle change effects, the "mismatch between the syntactic structure of the antecedent and that of the purported elided phrase" (Merchant, 2012, p. 26) seem to be the strongest evidence on the side of the semantic identity approach.

Merchant (2012) simplifies the large phenomena that Fiengo and May (1994) comprise in regard to vehicle change effects. In line with Merchant (2012), this paper will present the equivalences, on the one hand, between pronouns and names as in (40), and on the other hand, between polarity and non-polarity items as in (41-42):

(40) a. They <u>arrested Alex</u>_i, though he_i thought they wouldn't [$_{VP}$ ~~arrest him~~_i].

    b. *He_i thought they wouldn't arrest Alex_i.

(Adapted from Merchant, 2012, p. 29)

In (40a) the coreference between the R-expression *Alex* and the pronoun *he* is possible because both Principle B and C of the Binding Theory are respected. In fact, there is a vehicle change from the R-expression *Alex* in the antecedent to the pronoun *him* in the ellipsis site in order to avoid violating Principle C of the Binding Theory. In contrast, in (40b), *Alex* cannot refer to *he* since the R-expression is c-commanded by the pronoun, which makes it not free, violating, thus, Principle C of the Binding Theory.[17]

(41) John didn't <u>see anyone</u>, but Mary did.

    a. ... but Mary did [$_{VP}$ ~~see someone~~].

    b. ... *but Mary did [$_{VP}$ ~~see anyone~~].

    c. $\exists x.see(Mary, x)$

(42) John <u>saw someone</u>, but Mary didn't.

    a. $\neq$ ... but Mary didn't [$_{VP}$ ~~see someone~~].

    b. ... but Mary didn't [$_{VP}$ ~~see anyone~~].

    c. $\neg\exists x.see(Mary, x)$

(Adapted from Sag, 1976, pp. 157-158)

In (41) there is a vehicle change from *anyone* to *someone* because of a change in the polarity from negative to positive. That is, the elided VP would be *see someone* because the polarity is positive and using *anyone* as in the antecedent VP would result in ungrammaticality. In (42) the case is inverted. Besides, the semantics shows that in (42) *Mary didn't* means that she *didn't see anyone* (no person at all), not that she did not see a specific person (*didn't see someone*).

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[17] The Binding Theory is summarised as follows: Principle A states that anaphors need to be bound in their governing category; Principle B states that pronouns need to be free in their governing category; and Principle C states that R-expressions need to be free everywhere (Haegeman, 1994).

So, both phenomena concerning the semantics of pronouns and names, and polarity and non-polarity elements exhibit equivalence, meaning that they hold the same truth-conditions (Merchant, 2012).

In closing, classical proposals already opt for the semantic identity condition (Hardt, 1993; Fiengo & May, 1994; Hardt, 1999), but it is the more recent ones that present the requirement of the e-givenness (Merchant, 2012; Hedberg, 2015). Moreover, the most consistent evidence backing the semantic identity approach is vehicle change effects in two pairs of elements–pronouns and names and polarity and non-polarity items–, which expose equivalence through their semantics.

3.3.3. Hybrid identity

As seen in sections 3.3.1 and 3.3.2, respectively, some authors demonstrate with empirical evidence that the identity condition between the antecedent and the ellipsis site is syntactic (Ross, 1969; Sag, 1976; Hankamer & Sag, 1979; Hankamer, 1979; Lasnik, 1995; Sato, 2013; Murphy, 2018), while others offer different data that favour the semantic identity condition (Hardt, 1993; Fiengo & May, 1994; Hardt, 1999; Hedberg, 2015). In between, combining the data that account for both approaches on identity, there are researchers that advocate for a *hybrid identity* theory between the non-elided and the elided VP (Chung, 2006; van Craenenbroeck, 2008; Merchant, 2013). Nevertheless, these authors combine both theories "under differing conditions or selectively" (Merchant, 2012, p. 36).

Firstly, Chung (2006) concentrates on the phenomenon of Sluicing and argues that less structures than predicted are possible.[18] Nonetheless, what is actually relevant for the analysis on ellipsis of this dissertation is that the patterns she proposes "argue that semantics alone does not suffice to guarantee the recoverability of deletion in this ellipsis construction (...) [;] the lexicon and perhaps the syntax play active roles as well" (Chung, 2006, p. 74). In short, Chung (2006) comes up with a lexico-syntactic

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[18] As clarified in footnote 14, "Sluicing is the ellipsis phenomenon (…) in which the ellipsis site is introduced by a wh-phrase" (Valmala, 2021b, p. 1).

requirement that fits in with the previously presented semantic condition. It is described in (43) and shown in (44-46):

(43) Every lexical item in the numeration of the sluice that ends up (only) in the elided IP must be identical to an item in the numeration of the antecedent CP.

(Chung, 2006, p. 83)

(44) <u>They're jealous</u>, but it's unclear [of who$_1$ [$_{IP}$ ~~they're jealous~~ t_1]].

(45) *<u>They're jealous</u>, but it's unclear [who$_1$ [$_{IP}$ ~~they're jealous of~~ t_1]].

(46) a. They're jealous of someone, but it's unclear who.

   b. <u>They're jealous of someone</u>, but it's unclear [who$_1$ [$_{IP}$ ~~they're jealous of~~ t_1]].

(Adapted from Chung, 2006, p. 84)

In (44), three of the elements of the sluice–*they*, *be* and *jealous*–remain inside the deleted IP and they are identical to the items in the antecedent CP, which is regarded in (43). Contrarily, (45) is ungrammatical because there is an element–*of*–within the elided IP which is not contained in the antecedent CP. (46) is perfectly grammatical because the lexico-syntactic requirement works only in one direction, namely the constraints are imposed just in the elided IP (Chung, 2006).

Secondly, Merchant (2013) focuses on voice mismatches to support the hybrid identity theory; he argues that voice mismatching facts "appear to indicate that the identity relation in ellipsis is sensitive to syntactic form, not merely semantic form" (Merchant, 2013, p. 77). The antecedent is active and the ellipsis site passive in (47), repeated from (18), while the antecedent is passive and the ellipsis site active in (48), repeated from (19):

(47) The janitor must <u>remove the trash</u> whenever it is apparent that it should be [$_{VP}$ ~~removed~~].

(48) The system can be <u>used</u> by anyone who wants to [$_{VP}$ ~~use it~~].

(Merchant, 2013, pp. 77-78)

As explained in section 3.1.1, voice remains outside the ellipsis site and voice mismatches are therefore allowed in VP ellipsis. The elided material and the antecedent are identical both semantically and syntactically in these cases.

In short, there is consistent evidence to assume that the relation between the antecedent and the ellipsis site can be explained by means of a hybrid identity analysis. Both Chung (2006) and Merchant (2013) expose data that shed light on the hybrid identity approach: the former suggests a lexico-syntactic requisite in line with the semantic condition; whereas the latter exhibits the necessity of syntactic identity between the antecedent VP and the deleted VP.

4. Conclusions

As exhibited throughout the paper, English VP ellipsis poses several challenges for theoretical linguists. The main aim of this dissertation has been to undertake a literature review on English VP ellipsis focusing on (i) the nature and the structure of the ellipsis site, (ii) the licensing condition, and (iii) the identity condition.

Firstly, as far as the ellipsis site is concerned, its nature is still a matter of debate; some authors argue that it is as large as vP (Johnson, 2004) and targets vP$_{prog}$ (Aelbrecht & Harwood, 2015), but an alternative supported by empirical data would be to assume that the ellipsis site is smaller than VoiceP (Merchant, 2013). Besides, the literature seems to be divided as regards the structure of the elided VP; some defend a VP proform approach (Rooth, 1981; Klein, 1987; Hardt, 1993; Hardt, 1999), whereas others opt for a full-fledged syntactic structure that is deleted at PF (Sato, 2013; van Craenenbroeck, 2014; Aelbrecht & Harwood, 2015).

Secondly, so as to determine what the licensing condition for English VP ellipsis is, some authors agree on the fact that only functional elements can license it, but they differ on the condition to be fulfiled; the inflectional node must be overtly realised (Sag, 1976; van Craenenbroeck, 2014) or the specifier position of the TP needs to be filled with a subject (Sato, 2013). Another proposal for the licensing condition assumes that not only needs the licensing head to be filled, but it also needs to be able to check its features against the [E] feature (Merchant, 2005; Merchant, 2012; Hedberg, 2015).

Thirdly, the relationship between the antecedent and the ellipsis site has been explored. According to the recoverability condition, a deleted element is grammatical in the sentence if it has an overt antecedent (Katz & Postal, 1964). Regarding the identity condition, some authors believe that the identity relationship between the antecedent and the elided VP must be syntactic (Ross, 1969; Sag, 1976; Hankamer & Sag, 1976; Hankamer, 1979; Lasnik, 1995; Sato, 2013; Murphy, 2018), others defend that it is semantic (Hardt, 1993; Fiengo & May, 1994; Hardt, 1999; Hedberg, 2015), and others combine both approaches (Chung, 2006; van Craenenbroeck, 2008; Merchant, 2013).

This work has not deepened on non-structural approaches to VP ellipsis such as the direct interpretive or WYSIWYG approach (What You See Is What You Get approach, footnote 7). Besides, the main focus of this dissertation has only been English VP ellipsis due to its length, but any work with a broader scope could cover the parallelism between English Sluicing and VP ellipsis, which is utterly interesting.

Last but not least, it has to be mentioned that there are a few gaps in the English VP ellipsis literature; there are few authors developing the non-structural approach; moreover, there is not a specifically defined [E] feature for VP ellipsis; besides, the existence of the [E] feature seems to be theoretically supported within the feature-checking theory, but it needs to be proven empirically.

Consequently, further research could focus on how non-structural approaches work, as well as on finding empirical data in support of the [E] feature, which is already a valid theoretical piece of evidence for the PF-deletion approach to English VP ellipsis. Apart from that, taking into account the sociolinguistic context of the Basque Country where Spanish and Basque are official languages, future studies could investigate how VP ellipsis works in these languages. In fact, although this linguistic phenomenon is not possible in Spanish (see (3)), there is a similar construction in Basque that has not been widely researched, namely V-stranding VP ellipsis (Takahashi, 2014).

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