Voice Mismatch Tolerance in Verb Stranding Verb Phrase Ellipsis

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Abstract

Verb Phrase Ellipsis, in particular, is taken to be very rare in languages other than English. However, recent literature has pointed out that a Verb Phrase Ellipsis-like construction does in fact exist in other languages, but may be masked due to the fact that the main verb raises to INFL in such languages, a process known as Verb Stranding Verb Phrase Ellipsis (VSVPE). This paper addresses two main issues: 1) whether such a construction in Hebrew patterns with VPE in English or with Pseudogapping; via an examination of voice mismatch tolerance following Merchant (2013) 2) After establishing that Hebrew is a VSVPE language and controlling for external variables such as independent object drop, this paper tests which constituent in particular is targeted in the ellipsis process. It is concluded that VSVPE languages target vP for ellipsis, not VP, nor PP, as opposed to recent accounts. In other words, they pattern with Pseudogappig in including higher constituents (vP, not VP) in the ellipsis) more than they do with VPE. Other Verb-Raising to INFL languages are predicted to behave similarly with respect to which constituent is targeted for ellipsis.

Keywords: Verb-Stranding VP ellipsis, Hebrew, Voice mismatch tolerance

1. Introduction

This paper examines a common problem for any account of ellipsis; namely voice mismatch, but focuses on its application in languages other than English. The Auxiliary verb system of English and its lack of main verb-raising have to some extent led to the study of Verb Phrase Ellipsis (VPE) to be mainly confined to English and leading to the belief that VPE is a very rare phenomenon to which English possesses. In fact, a form of VPE has been reported in the literature for 16 languages (López 1994 for Spanish and Italian; Martins 1994, 2000 for

European Portuguese; Doron 1990, 1999 and Goldberg 2005 for Hebrew; McCloskey 1995 for Irish, to name a few). This form of VPE is known as 'Verb Stranding VPE' (VSVPE) (Goldberg 2005). It differs crucially from VPE in English in that while the Main Verb (MV) obligatorily elides in English VPE, it remains overt in VSVPE languages, whereby the Main Verb is claimed to be extracted out of the ellipsis site, moving to INFL, before an English VPE-like non-pronunciation of the VP and its internal arguments takes place. (see Doron 1990,1999; Goldberg 2005)

One problem facing a theory of ellipsis is cases of voice mismatch tolerance depending sometimes on type of ellipsis in question, i.e. "size" (VP-ellipsis, Pseudogapping, or Sluicing), or on independent factors as coherence relations, for example. While some syntactic accounts contrast VP-ellipsis and pseudogapping, others view the two to be essentially one and the same, however, not with much success in explaining a controversial "asymmetry" between the two as we will see below.

This paper sets out to examine whether the observation of voice mismatch asymmetry between different sizes of ellipsis holds in languages different from English i.e. in languages where the main verb raises to INFL. In particular, the interest is in languages which exhibit Verb-Stranding VPE (VSVPE). This particular type of languages is chosen because it is not evident that VPE exists in such languages in the first place due to the fact that the main verb is still overt in such languages even after VPE has occurred, again, due to the fact that the Main Verb raises to INFL before VPE takes place. To find behavior reminiscent of a non-Main Verb raising language in a Main Verb raising language with respect to voice matching requirement would help to shed some light on which particular portion in the syntax is actually elided in such languages i.e. is it VP just like English VPE (Doron 1990, 1999), an independent drop of the Prepositional Phrase PP (see Landau 2018) is it a higher constituent, say vP including the feature VOICE? I set out to test whether a similar asymmetry will hold for VSVPE with regards to Voice mismatch. The particular language in question is Hebrew, a language that is argued to have VSVPE constructions. The aim is to test whether ellipses does actually occur in such languages, then to test whether we can find similar behavior with respect to voice mismatch tolerance regarding different sizes of ellipsis. This paper also intends to investigate whether VSVPE patterns more closely with an English-like VPE or with Pseudogapping. Moreover, this paper intends to tackle a debated issue regarding what is targeted for ellipsis in Hebrew VSVPE constructions. Section 2 provides an overview of the framework regarding ellipsis. Section 3 will motivate an analysis of Hebrew as a good testing ground for VSVPE voice mismatch tolerance and set the framework needed for testing for voice mismatch tolerance. Section 4 will present data from Hebrew illustrating Hebrew's VSVPE intolerance to voice mismatch. Section 5 provides a discussion and section 6 concludes and summarizes the discussion.

2. The Framework

2.1 Ellipsis Requirements

Lobeck (1995) suggests that for a phrase XP to be elided, it must satisfy two requirements; licensing and identification requirements, as follows.

1) *Licensing and Identification of pro:* (Lobeck 1995: 20)

   An empty, non-arbitrary pronominal must be properly head-governed, and governed by an X specified for strong agreement.

Accordingly, it is the local strong agreement idiosyncratic syntactic feature located on X which licenses ellipsis. For the various types of ellipsis (discussed below), this licensing head is different. Provided that certain discourse relations hold (which I leave aside in this article; see Kehler 2002 for further discussion), the sentences in (2-3) below are very well known in the literature as examples of licit or tolerated voice mismatch between verb phrase ellipsis (VPE)and its antecedent. (see Fiengo and May 1994; Kehler 2002; Sag 2006; Frazier and Clifton 2006; Merchant 2008a; Kertz 2010; Kim et al. 2011)

2) *Passive antecedent, active ellipsis*

   a. This problem was to have been looked into, but obviously nobody did. <look into this problem>

   b. The system can be used by anyone who wants to. <use it>

3) *Active antecedent, passive ellipsis*

   c. Actually, I have implemented it [= a computer system] with a manager, but it doesn't have to be. <implemented with a manager>

   d. The janitor must remove the trash whenever it is apparent that it should be. <removed>

   Merchant (2008a: 169)

Another form of Ellipsis known as Pseudogapping is argued to involve an extraction of a VP-internal argument before ellipsis takes place. The following data on Pseudogapping as cited in Merchant (2008a) illustrate that although Pseudogapping is generally taken to be a form of VP-Ellipsis in the literature, voice mismatch is acceptable for VP-ellipsis, but the same does not hold for Pseudogapping. As the following examples of Pseudogapping show, there is a clear asymmetry in the tolerance of voice mismatch between VPE in English and Pseudogapping in English.

4) *Passive antecedent, active ellipsis*   *Merchant (2008a: 170)*

   a. *Roses were brought by some, and others did lilies. <bring>

   b. *Klimt is admired by Abby more than anyone does Klee. <admire>

5) *Active antecedent, passive ellipsis*   *Merchant (2008a: 170)*

   a. *Some brought roses, and lilies were by others. <brought>

   b. *Abby admires Klimt more than he is by anyone else. <admired>

Based on what is targeted for ellipsis i.e. the size of the elided constituent, (as we will see shortly) Merchant refers to VPE as cases of 'Small' ellipsis and to Pseudogapping as 'Big'

ellipsis. Another form of 'Big' ellipsis is *Sluicing*, whereby IP is targeted for ellipsis. Sluicing also demonstrates the intolerance to voice mismatch between ellipsis and antecedent (Note 1).
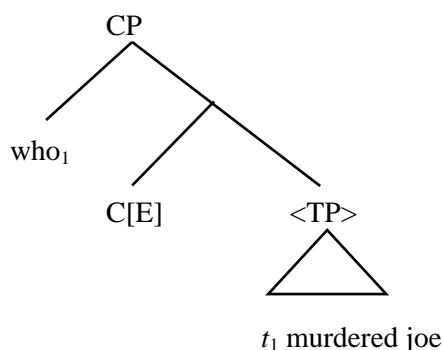
6) *English*

    a.   *Joe was murdered, but we don't know who.

    b.   *Someone murdered Joe, but we don't know who by.

Merchant (2013: 81-82)

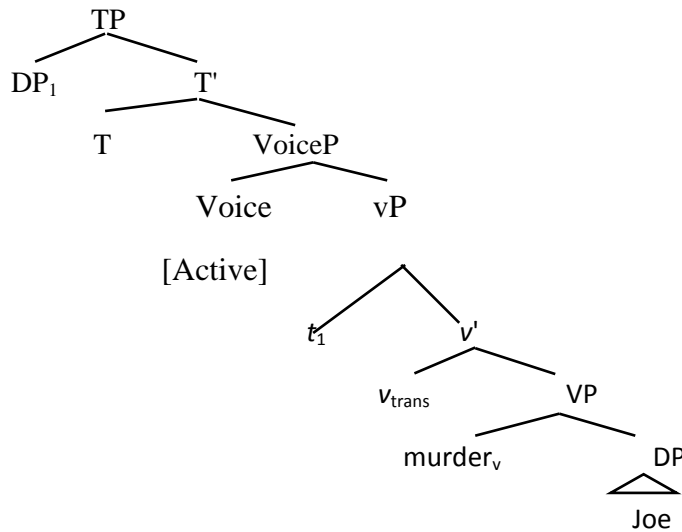### 2.2 Merchant's (2008a) Voice Mismatch Analysis

Merchant (2008a) provides a syntactic analysis to account for the asymmetry observed between 'small' ellipsis and 'big' ellipsis with regards to voice mismatch tolerance. Merchant (2013) takes these requirements to extend from a lexicalist approach under ontologically restrictive theories under a minimalist umbrella, viewing the source of all variation in the lexicon. Merchant (2001) posits a lexical feature encoding such requirements; namely the feature [E] which must be merged with an appropriate head. For the ellipsis of NP, it is D, for VP it is Infl, and for Sluicing it is C head. For example, in Sluicing, the [E] feature joined with C will trigger the ellipsis of whatever is sister to the head marked with the [E] feature (in this case IP (TP in Merchant 2008a)), as in (7).
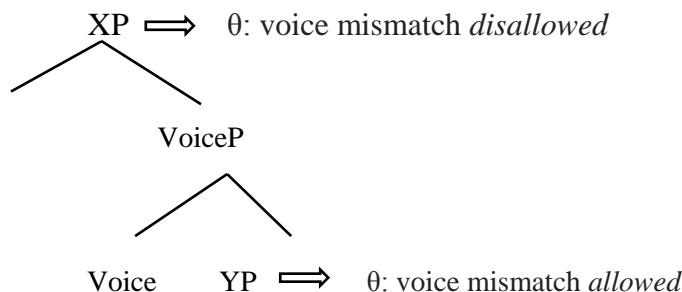
7) Sluicing (Merchant 2013: 86)

$$
\begin{array}{c}
\text{CP} \\
\diagup \quad \diagdown \\
\text{who}_1 \quad \\
\diagup \quad \diagdown \\
\text{C[E]} \quad \text{<TP>} \\
\triangle \\
t_1 \text{ murdered joe}
\end{array}
$$

As is clear from the examples of VPE on the one hand and other 'higher' forms of ellipsis on the other, Merchant notes that the uneven distribution of voice mismatch is not accidental and can best be accounted for following Kratzer (1996) taking voice morphology on the verb to be a 'morphological reflex of a syntactic agreement relation with a separate head that asymmetrically c-commands the verbal head V'. This schematic is illustrated for (6a) in (8) below.

8)   *Someone murdered Joe.* (Merchant 2013: 86)

```
                    TP
              ┌──────┴──────┐
           DP₁             T'
                      ┌─────┴─────┐
                      T         VoiceP
                             ┌─────┴─────┐
                          Voice          vP
                                    ┌─────┴─────┐
                       [Active]    t₁          v'
                                         ┌──────┴──────┐
                                      vtrans           VP
                                              ┌─────────┴────────┐
                                           murderᵥ              DP
                                                              ┌──┴──┐
                                                                Joe
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According to Merchant (2008a, 2013), the distinction between what he calls 'small' and 'big' ellipsis, referring to VPE and higher forms of ellipsis (such as Pseudogapping and Sluicing), respectively, is that in VPE, VoiceP must not be included in the ellipsis so as for the ellipsis and antecedent not to violate the elliptical identity requirement, which requires that the ellipsis and antecedent share the same value for the feature of Voice. In 'big' ellipsis, on the other hand, such as sluicing, the [E] feature on C will target its sister namely IP for deletion, which includes VoiceP, and thus would require the elliptical identity requirement to be respected. The feature of Voice, therefore must be identical in the ellipsis and the antecedent clauses. Merchant (2013) posits that in VP-Ellipsis, the complement to Voice is what is elided, so as not to include the feature Voice and thus produce the syntactic isomorphism required by the elliptical identity condition, while in cases of Sluicing, for example, what is necessary is that the node targeted for ellipsis must be higher, thus including Voice, thus banning unmatched feature of voice included in the ellipsis and the antecedent. This difference between what is targeted for deletion in 'big' and 'small' ellipsis is represented in (9) below.

9)   Voice Mismatch Schematic (Merchant 2013: 86, 2008a)

```
          XP  ⟹   θ: voice mismatch disallowed
        ┌───┴───┐
             VoiceP
           ┌────┴────┐
        Voice    YP  ⟹   θ: voice mismatch allowed
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For VP ellipsis (VPE), according to the licensing and identification requirements above, and a proposition by Lobeck that the type of agreement feature needed for VPE is [+tense] located on a sub-head of Infl, the main insight here, according to Goldberg (2005), is that, regardless of the various minimalist reconceptions of the licensing constraint, which might

avoid government and thus proper government, it is still the case that VPE is licensed in the presence of a local, tense-inflected head. In (10) below, this head is the Auxiliary verb.

10) VPE Construction (non-final version) (Merchant 2013: 86)
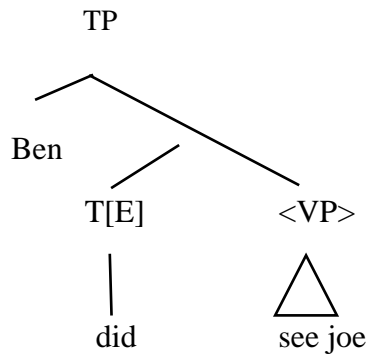
3. Motivating Hebrew as VSVPE Voice Mismatch Candidate

The Auxiliary verb system of English and its lack of main verb-raising have to some extent led to the study of VPE to be mainly confined to English and leading to the belief that VPE is a very rare phenomenon to which English possesses. Researchers have noticed since the 1980s that VPE is not so confined to English as previously thought; while verb raising languages differ in the fact that the main verb is not included in the ellipsis process, the phenomenon itself shares several characteristics with an English-like VPE (Note 2). (Landau 2018) The main proposal is thus that the Main Verb is claimed to be extracted out of the ellipsis site, moving to INFL, before an English VPE-like non-pronunciation of the VP and its internal arguments takes place. (see Doron 1990,1999; Goldberg 2005)

Hebrew is a Verb-Stranding language (see Doron 1990, 1999; Goldberg 2005). Hebrew Main Verbs bear clausal inflection and it is argued in works like Doron (1990, 1999), Shlonsky (1991, 1997) and Goldberg (2001), that Hebrew has V-to-Infl raising, as follows.

11) $[_{IP} [NP][I'[I+\{MainVerb\}][_{vP} [v\{VOICE\} [_{VP} [t][NP]]]]]]$

The following sentences illustrate this difference between English and Hebrew with respect to verb stranding.

12) English VPE with MV obligatorily null

Arthur brought a present to Hall, and Julia did [~~bring a present to Hall~~], too.

<*and Julia brought, too; *and Julia will bring too.>

13) Hebrew VPE with MV obligatorily Overt (Doron 1990: ex. 9)

Q: Šalaxt etmol et ha-yeladim le-beit-ha-sefer?

Send[past2Fsg] yesterday ACC the-children to-house-the-book

'(Did you) send [yesterday the children to school]?'

A: Šalaxti.

Send[Past1sg]

'(I) sent [yesterday the children to school].'

 (cf. English '…I did [send the children to school].')

Given that the VSVPE example above is a form of ellipsis (see Doron 1990, 1999; Goldberg, 2005), this paper sets out to analyze whether such form of ellipsis would pattern with 'big' ellipsis or 'small' ellipsis on par with Merchant's analysis. This of course depends on what is targeted for ellipsis i.e. vP or VP, in VSVPE constructions. Employing Merchant's (2008a) analysis of voice mismatch in ellipsis as a diagnosis for 'size' of ellipsis, we can analyze the Hebrew VSVPE constructions in a similar fashion. Accordingly, if a Hebrew VSVPE construction allows for licit voice mismatch between ellipsis and antecedent, then following Merchant's (2008a) analysis, we can conclude that what is targeted for ellipsis must be VP i.e. patterning with 'small' ellipsis. If, on the other hand, voice mismatch produces an illicit sentence, then we can conclude that what is elided must necessarily include [VOICE] head (vP), and thus pattern with Merchant's 'Big' ellipsis, as Sluicing and Pseudogapping (see (9) above).

One crucial issue, though, is that in VSVPE constructions, since the Main Verb remains overt, it is not always clear whether it is a case of VSVPE or simply independent Object drop, meaning it could be the case that an argument is independently elided, without the ellipsis of VP or vP and everything under it, as follows (Note 3).

14) [IP [NP][I'[I+{MainVerb}][vP [v{VOICE} [VP [t] e$_{pro}$]]]]]

As originally noted in Cole (1976), Hebrew obligatorily makes use of resumptive pronouns in the construction of relative clauses when the position relativized on is a PP. Cole (1976: ex. 52a and 52c) noticed the following examples where the resumptive pronoun may be missing only when the matrix verb is identical to the embedded verb (Note 4):

15) (Cole 1976: ex. 52a and 52c)

a.	yaSavta	al kol	kise	Se-	ben-gurion	yaSav
	you-sat	on every	chair	that	Ben-Gurion	sat
b.	*ra'ita	kol	kise	Se-	ben-gurion	yaSav
	you-saw	every	chair	that	Ben-Gurion	sat

In fact, a recent article (Landau 2018) argues against the original claims of Doron (1990, 1999) that what is targeted for ellipsis is VP and instead argues that it is the Prepositional Phrase itself that is targeted for ellipsis. The second aim of this paper is, thus, to counter both claims and, as we will see, suggest that it is neither VP nor PP that is targeted for ellipsis, but rather a higher constituent which includes VOICE; namely, vP.

Landau (2018) depicts the two opposing views below. (English words used for convenience).

16) (Landau, 2018: 28)

Logical Form of VSVPE + ACD:

[the chair that Ben Gurion sat-T [$_{VP}$~~tV[PPon x]~~]]$_x$ [you **sat on x**]

Logical Form of PP ellipsis + ACD:

[the chair that Ben Gurion sat-T [$_{VP}$ t$_V$ [~~PPon x~~]]]$_x$ [you sat **on x**]

This paper offers a third view with respect to what is targeted for ellipsis. One method around this relates to the structure of relative clauses in Hebrew. Hebrew does not allow for preposition stranding. The following examples from Doron (1990: 29) show that a Preposition + Resumptive pronoun (P+RP) may appear in-situ or fronted, but that it cannot be omitted- neither by stranding the preposition (17c) nor by omitting both the preposition and the pronoun (17d).

17)

a. Ha-kise Se- yaSavti alav

The-chair that I-sat on-it

'The chair on which I sat'

b. ha-kise (Se-) alav yaSavti

the-chair (that) on-it I-sat

c. *ha-kise Se- yaSavti al

The-chair that I-sat on

d. *ha-kise Se- yaSavti

The-chair that I-sat

Since resumptive pronouns are obligatory in this construction, (15a) above is puzzling and should be ungrammatical as is (15b) (Note 5). Doron (1990) analyzes such a construction as (15a) above to be a case of Antecedent Contained Deletion (ACD) and so the translation should be 'you sat on every chair that Ben-Gurion did'. Doron suggests that the reason the resumptive pronoun is missing is that the whole VP is null in these constructions.

18)

[yaSavta [$_{VP}$ t$_v$ al kol kise Se- ben-Gurion [$_I$ yaSav] [$_{VP}$ e]

you-sat onevery chair that Ben-Gurion sat

While I agree that these are cases of Antecedent Contained Deletion, I differ with Doron (1990, 1999) and Landau (2018) in what exactly is targeted for ellipsis. Accordingly, if a Hebrew relative clause is grammatical even when a resumptive pronoun or a Preposition + resumptive pronoun construction is not present where we would expect it to be, then we have

evidence for Ellipsis rather than Object Drop. (Note 6) Now, since the main verb is raised to INFL, two main possibilities of what is targeted for ellipsis under INFL remain to be examined. The two possibilities are ellipsis of [vP] (which would include the feature [VOICE]), or [VP] (which would not include [VOICE]), as illustrated below respectively.

19)

    a. [$_{IP}$ [NP][I'[I+{MainVerb}][~~$_{vP}$ [v{VOICE} [$_{VP}$ [t][$_{PP}$[P NP]]]~~]]]]   *vP/'big' ellipsis*

    b. [$_{IP}$ [NP][I'[I+{MainVerb}][$_{vP}$ [v{VOICE} [~~$_{VP}$ [t][$_{PP}$[P NP]]~~]]]]] *VP/'small' ellipsis*

In her work on Hebrew, and basing his work on the syntactic licensing requirements on ellipsis and the requirement for a licensing head that is fully inflected (see Lobeck 1995), and the fact that main verbs raise to INFL in Hebrew, Goldberg (2005) suggests that whatever is sister to that head (where main verbs raise i.e. INFL) must be what is licensed to be elided, as illustrated below. (Note 7)

20)

    [IP [NP][I'[I+{MainVerb}][~~vP [v{VOICE} [VP [t][PP]~~]]]]]

Summary

After having established that Hebrew has a form of VPE which strands the verb, this section also sought out to control for VSVPE constructions that are unambiguously not instances of object drop. One crucial factor motivating a VSVPE analysis was Hebrew's use of the Preposition + Resumptive pronoun construction. Hebrew is a particularly good testing ground for VSVPE voice mismatch tolerability since it employs Resumptive Pronouns (RP) in relative clause constructions and bans preposition stranding, meaning that if Prepositon+RP are not pronounced where we would expect them to be, then we have a clear indication that either [VP] or [vP] Ellipsis has necessarily taken place (as opposed to Object pro) as below.

21)

    a. [IP [NP][I'[I+{MainVerb}][~~vP [v{VOICE} [VP [t][PP]~~]]]]

    Or

    b. [IP [NP][I'[I+{MainVerb}][vP [v{VOICE} [~~VP [t][PP]~~]]]]

Returning to the cases of Voice mismatch tolerance, it is to the best of my knowledge that investigating voice mismatch between ellipsis and antecedent in Hebrew is a topic novel to the Hebrew literature. It remains to investigate whether such a construction would pattern with English VPE in allowing voice mismatch, or more like the 'big' forms of ellipsis, that include the Voice feature and thus disallow voice mismatch. Based on Merchant's analysis for 'Big' and 'Small' ellipsis voice mismatch asymmetries, along with Goldberg's (2005) analysis of 'sister to INFL' to be targeted for deletion, we will find, in the next section, that Hebrew VSVPE patterns with 'Big' ellipsis in not tolerating Voice mismatch, as [vP] would necessarily be included if 'sister to INFL' is elided.

4. The Hebrew Data Tested

Based on the developed framework above, ellipsis (indicated by the optional pronunciation of the Preposition + resumptive pronoun) is predicted to be licit when there is no voice mismatch between ellipsis and antecedent, but illicit (indicated by the *obligatory* pronunciation of the preposition + resumptive pronoun i.e. ellipsis is blocked) if there is a voice mismatch between ellipsis and antecedent.

The following data paradigm (Note 8) testing for voice mismatch tolerance (Note 9). In (22-24) below, the ellipsis and antecedent both share that same feature for Voice. Ellipsis is grammatical, as indicated by the optional pronunciation of the Preposition + resumptive pronoun. The preposition + resumptive pronoun (b-o) 'in-it' are optional in both sentences, and this is exactly what is predicted given the framework developed in the previous section.

Hebrew Data

Ellipsis and Antecedent <u>*Match*</u> in Voice

22)   Dani axal et   ha-karix   ba-ota   misa'da   she-rina axle (b-a).

   Dani ate   OM the-sandwich   in the same   restaurant   that rina [ate]   (in-it).

   'Dani ate the sandwich in the same restaurant that Rina did.'

23)   Haisha   nisgera   ba-oto mekarer   she hayeladim   nisgeru   (b-o)

   The woman was locked in-same refrigerator that   the children   were locked (in-it)

   'The woman was locked in the same refrigerator that the children were.'

24)   Ha-shir hukdash   le-oto ha-adam   she ha-sefer hukdash   (l-o)

   The song was dedicated to the   same person that the novel was [dedicated] (to him)

    'The song was dedicated to the same person that the novel was.'

Accordingly, this is in line with Merchant's analysis whereby ellipsis with matching voice should be grammatical. In sentences (25-27), the antecedent and the ellipsis have different values for [VOICE]. Given that they have voice mismatch and according to the framework adopted here, these sentences are, as predicted, illicit forms of ellipsis. In fact, ellipsis is blocked all together, as indicated by the obligatory pronunciation of the preposition + resumptive pronoun.

Ellipsis and Antecedent <u>*Mismatch*</u> in Voice

25)   Dani axal et-hakarix ba-ota   mis'ada she-ha-burger ne'exal   *(ba).

   Dani ate   the-sandwich in-the-same restaurant that-the-burger was [eaten] *(in it)

   'Dani ate the sandwich in the same restaurant that the burger was.'

26)   Ha-isha   sagra et -ha-oxel ba-oto   mekarer   she ha-yeladim nisgeru *(b-o)

The woman locked the-food in-the-same refrigerator that the-children were locked (*in-it)

'The woman locked the food in the same refrigerator that the children were.'

27)   Rina hikdasha   et ha-shir   le-oto ha-adam   she-ha-sefer   hukdash   *(l-o)

Rina dedicated   the-song   to-the same person   that-the novel dedicated *(to- him).

'Rina dedicated the song to the same person that the novel was.'

5. Discussion

In line with Merchant's analysis, then, it seems that what is targeted for deletion in VSVPE structures must necessarily include Voice internal to the ellipsis. Since the Prep+resumptive pronoun is optional in the voice matched sentences, this suggests that ellipsis, eliding all VP content left after stranding the verb (Prep+Resumptive pronoun), is permitted since the ellipsis and antecedent both share the same feature for voice, and a syntactically isomorphic structure can be parallel to the antecedent. Given that the Prep+Resumptive pronoun is obligatory in (25-27), where there is a voice mismatch between ellipsis and antecedent, this suggests that ellipsis is illicit and would render the sentence ungrammatical. Having the Prep+Resumptive pronoun be obligatory and the only option for grammaticality of the sentence also suggests that it is the identity requirements on ellipsis, enforcing isomorphic syntactic structure and similar Voice feature that are causing the ungrammaticality and not just a general ban on voice mismatch even if ellipsis did not take place.

From this data, we provide evidence that Hebrew VSVPE does not allow for Voice mismatch between ellipsis and antecedent, thus patterning with Merchant's 'big' ellipsis, and that what is targeted for deletion in VSVPE structures must necessarily include Voice internal to the ellipsis. Accordingly, in line with Merchant's (2008a, 2013) and Goldberg's (2005) analysis, I take it that the [E] feature is in INFL, and that, independently, the MV raises to INFL, and that what is necessarily elided is the complement of INFL that must include Voice head. This shows that [VOICE] is included in the ellipsis and thus should have matching VOICE values between ellipsis and antecedent for a licit ellipsis to be possible (following the elliptical identity condition requiring syntactic isomorphism between ellipsis and antecedent (see Merchant 2013). (28) illustrates the schematics, whereby vP is targeted for ellipsis, not VP.

28) Proposed ellipsis site for Hebrew VSVPE constructions
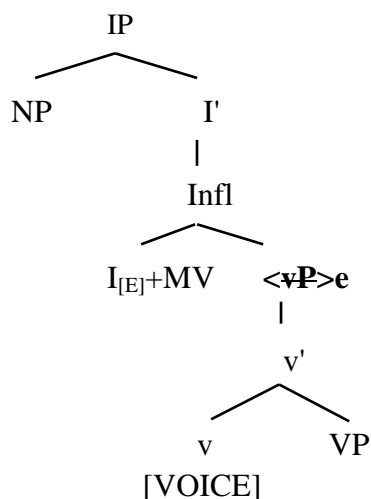
6. Conclusion

Merchant (2008a, 2013) outlines a syntactic analysis accounting for the difference in voice mismatch tolerance between different 'sizes' of ellipsis i.e. Ellipsis of vP (giving rise to Pseudogapping) called "big" ellipsis, or ellipsis of VP (giving rise to Verb Phrase Ellipsis (VPE)) called "small" ellipsis; whereby, in both cases, syntactic isomorphism between Ellipsis and Antecedent is required. Ellipsis of vP would include the [VOICE] feature, thus requiring isomorphism between ellipsis and antecedent with regards to [VOICE] i.e. "big" ellipsis is banned in cases where there is an Active antecedent and Passive ellipsis, or vice versa. Merchant (2008a) provides the following examples.

1) The janitor must remove the trash whenever it is apparent that it should be. <removed> *VPE*

2) *Roses were brought by some and others did lilies. <bring> *Pseudogapping*

Recent literature argues for the existence of a VPE-like construction in 16 languages other than English. This type of Ellipsis is called Verb-Stranding VPE (VSVPE), whereby the Main Verb is claimed to be extracted out of the ellipsis site (raising to INFL (see Doron 1990, 1999)) before a subsequent VPE deleting the VP and all of its internal arguments takes place. (See Doron 1990, 1999; Goldberg 2005) Given that the main verb raises to INFL, Goldberg (2005) suggests that, based on syntactic licensing requirements on ellipsis and the requirement for a licensing head that is fully inflected (See Lobeck 1995), that whatever is sister to that head must be what is licensed to be elided. With regards to VSVPE constructions (where the main verb is extracted to INFL), I will argue that it is vP (as sister to the fully inflected head INFL) that is targeted for ellipsis.

Accordingly, this paper examines whether VSVPE constructions in Hebrew patterns with 'big' ellipsis or 'small' ellipsis. Following Merchant (2008a), I take [VOICE] morphology and a [VOICE] head under [vP] to be a crucial part of the analysis. Given Merchant's (2008a) analysis of the asymmetry of voice mismatch tolerance between 'big' and 'small' ellipsis, together with Goldberg's (2005) analysis whereby it is the sister node to INFL that is targeted for ellipsis in VSVPE constructions of Hebrew, I predict that Hebrew VSVPE constructions will pattern with 'big' ellipsis given that whatever is sister to INFL must necessarily include [VOICE] i.e. that what is targeted for ellipsis is [vP], including [VOICE]. This means that VSVPE constructions in Hebrew will not tolerate voice mismatch between ellipsis and antecedent. This prediction bears out in test sentences from Hebrew relative clause constructions that clearly show that VSVPE has necessarily occurred (given VSVPE diagnosis set up in Doron 1999 and Goldberg 2005), and that they do not tolerate voice mismatch between ellipsis and antecedent on par with Merchant's analysis of 'big' ellipsis.

3) [$_{IP}$ [NP][I'[I+{MainVerb}][$_{vP}$ [v{VOICE} [$_{VP}$ [t][PP]]]]]]

One line of development is to investigate whether the same facts hold for other VSVPE languages. In this article we attempted to test for voice mismatch tolerance in Hebrew, since it is a particularly good testing ground due to its use of resumptive pronouns and its ban on preposition stranding. For further research, however, it is important to note that this

investigation focused not only on a main verb raising language, but a language that also strands the verb with VSVPE. According to Doron (1990), French sometimes has main verb raising, but this occurs at surface structure and thus VSVPE does not exist in French. If the Hebrew data are representative of a larger conclusion, that generalization (left to be tested), would be that a VSVPE language does not tolerate voice mismatch between ellipsis and antecedent, functioning thus along the line of 'Big' ellipsis, that includes voice head.

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Notes

Note 1. See Clifton et al. (2019) for more in-depth grammaticality judgments regarding voice mismatch.

Note 2. Two options emerged at the time: either the main verb raises to INFL (or T), or is base generated there.

Note 3. Following Ross (1967) and Huang (1984), Doron (1990) demonstrates how VPE can be controlled for i.e. distinguished from object drop in Hebrew. Ross (1976) observes that VPE is not sensitive to island constraints on movement, while Huang (1984) argues that null object constructions are sensitive to island constraints on movement. Based on these notions VPE can be distinguished from cases of Object drop. Rather than repeating the full paradigm here, I refer the reader to the original sources as Doron (1990, 1999) and Goldberg (2005).

Note 4. According to Doron (1990: 8) a VSVPE construction in Hebrew is only licit if the stranded verb of the null VP and that of the antecedent VP are identical. Particularly, they must match in their root and derivational morphology, but like English, the inflection of the two verbs may vary. Goldberg (2005). Goldberg suggests a Verbal Identity Requirement on VPE whereby '…strict identity in root and derivational morphology between the antecedent- and target-clause main Vs' is respected. She takes this requirement to stem from requirement that elided phrases express semantically Given information and so '…that the head of an elided phrase must itself express Given information—whether or not the head surfaces as phonologically null'.

Note 5. 12(b) violates the 'Verbal Identity Requirement' requiring the verb in the ellipsis and antecedent to match in root and derivational morphology. (see Goldberg 2005)

Note 6. This paper focuses on relative clause constructions, leaving aside question/answer pairs. For a more extensive diagnosis of VSVPE as opposed to object drop, including question/answer pairs, see Goldberg (2005).

Note 7. Goldberg does not address whether it is vP or VP that is elided. For her, vP may not be a part of the underlying structure in the first place. Accordingly, she leaves it open whether it is vP or VP that is elided and instead claims it to be 'whatever is sister to IP'. With voice mismatch tolerability, however, this distinction can be made, as this paper sets out to determine.

Note 8. The data I bring to bear here is novel to the literature in that it focuses on voice mismatch tolerance in VSVPE constructions of Hebrew. This is an addition to the extensive works of Doron (1990, 1999) and Goldberg (2005).

Note 9. The 'Verbal identity requirement' (see Goldberg 2005) has been taken into consideration in the constructing the data paradigm.

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