On the V-Stranding VP Ellipsis Analysis of Missing Objects in Polish*

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Focusing on Polish, this paper discusses missing-object data in light of the analyses employing the mechanism of verb-stranding VP ellipsis. The two main empirical observations made with respect to the problem are that the availability of object drop in Polish is restricted in contexts licensing VP ellipsis cross-linguistically and that this contrasts with polarity-related contexts, where object drop is always acceptable in Polish. This suggests that verb-stranding VP ellipsis is rigidly constrained in Polish and is available only in the environments in which the polarity-related head Σ is focused. Furthermore, the results of the research imply that only a subset of the missing-object data in Polish is due to VP ellipsis and that missing-object structures both cross-linguistically and intralinguistically do not constitute a homogeneous group with respect to their derivation.

Keywords: *missing/null objects, polarity, verb-stranding VP ellipsis*

1 Introduction and theoretical problem

Missing or null objects are objects present in the semantic structure of a clause, but they are absent from its phonological realisation.[1] An example of a missing-object construction is provided in (1) from Polish:[2]

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[1] Even though the understood objects of verbs such as *read* or *eat* in sentences such as *The girl is reading/I have just eaten* fall under this informal definition, they will not be discussed in this paper, its main focus being on missing objects with antecedents present in the linguistic context.

[2] The following abbreviations are used in the glosses: l – l-participle form of the verb, INF – infinitive, PERF – perfective aspect, IMP – imperative, IMPERS – impersonal form, SE – verbal marker, NOM – nominative, ACC – accusative, GEN – genitive, DAT – dative, INSTR – instrumental, 1/2/3 – 1st/2nd/3rd person, SG – singular, PL – plural, F – feminine, M – masculine, AUX – auxiliary verb, ADJ – adjective, PRT – particle. Perfective and imperfective verb forms in Polish are unmarked in the glosses, as the feature of aspect does not have a bearing on the issues discussed here.

(1) A: *Kupiłeś truskawki?*
buy-l.2SG.M strawberries-ACC
'Did you buy strawberries?'
B: *Kupiłem* Ø.
buy-l.1SG.M
'I did.'

Several analytical options have been proposed in the literature to account for various types of missing-object constructions in different languages. For example, within the line of research assuming the projection of the object position in syntax, the object position has been taken to be occupied by *pro* (cf. (2); for proposals employing *pro* in analyses of some null-object types, cf., e.g., Cummins & Roberge 2005; Farkas 1987; Rizzi 1986) or by an NP/DP argument, elided at PF (cf. (3); cf., a.o., Duguine 2013; Oku 1998; Şener & Takahashi 2010):

(2) A: *Kupiłeś truskawki?*
buy-l.2SG.M strawberries-ACC
B: *Kupiłem pro.*
buy-l.1SG.M

(3) A: *Kupiłeś truskawki?*
buy-l.2SG.M strawberries-ACC
B: *Kupiłem* [$_{NP}$ ~~*truskawki*~~].
buy-l.1SG.M strawberries-ACC

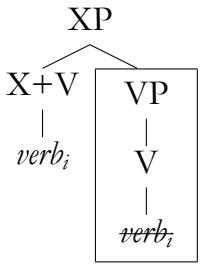
Moreover, missing-object structures can also be regarded as a consequence of VP ellipsis on condition that the deletion of VP follows the movement of the verb outside of VP, as illustrated in (4):

(4) A: *Kupiłeś truskawki?*
buy-l.2SG.M strawberries-ACC
B: *Kupiłem* [$_{VP}$ ~~*kupiłem truskawki*~~].
buy-l.1SG.M buy-l.1SG.M strawberries-ACC

This type of VP ellipsis is referred to as verb-stranding VP ellipsis and has been discussed with reference to various languages, among others, in Cyrino & Lopes (2012), Cyrino & Matos (2002), Doron (1990), Goldberg (2005), Gribanova (2013a,b), Huang (1991), Lipták (2012, 2013), McCloskey (1991), and Otani & Whitman (1991). This mechanism is theoretically possible in the languages in which the verb can be assumed to move to higher functional heads in the extended verbal projection, as schematised in (5):[3]

[3] The elided part of the representation is placed here in a box on tree diagrams.

(5) $[_{XP}\ X + V_{verb_i}\ [_{VP}\ V_{\sout{verb_i}}]]$



With the verb moved out of VP, the ellipsis of VP creates a configuration in which the only material originating within VP which is pronounced is the verb.

In discussions on object drop, the line of research employing verb-stranding VP ellipsis has been inspired by some similarities between missing-object constructions, in which the lexical verb is overt and VP ellipsis in English. For example, it has been suggested that the function performed by the repeated verb in the verb-stranding structure is similar to the function of *do*-support in English in that both mechanisms make the expression of tense/aspect/agreement possible in the elliptical clause (cf. the discussion of Chinese in Huang 1991, 64):

(6) *John kanjian-le tade mama, Mary ye kanjian-le.*
John see-PERF his mother Mary also see-PERF
'John saw his mother, and Mary did, too.'

Furthermore, an issue that has received a significant amount of attention in the literature is the so-called strict/sloppy reading ambiguity effect, illustrated here in (7), quoted after Kim (1999, 255):

(7) Peter likes his picture, and Joan does $[_{VP}$ e] too.
a. Joan likes her (= Joan's) picture. (sloppy identity)
b. Joan likes his (= Peter's) picture. (strict identity)

Pronominal dependencies in the elliptical clause in (7) can be resolved in two ways, with the understood possessive referring either to the subject of the elliptical clause or to the subject of the antecedent clause. The interpretational possibilities found in the verb-stranding construction (cf. (6)) have been noted in the literature to parallel those observed with the VP-ellipsis structure in English (cf. (7)) (at least in some languages). Treated as a diagnostic for VP ellipsis, the strict/sloppy reading ambiguity effect has been used both to argue in favour of the VP-ellipsis analysis of missing-object data in different languages (cf. Cyrino & Lopes 2012; Huang 1991; Otani & Whitman 1991) as well as against it (cf. Bailyn 2011; Hoji 1998). However, two factors seem to render using this effect as an argument for the VP-ellipsis analysis of the relevant data problematic. Firstly, some recent anal-

yses propose to derive the strict/sloppy reading ambiguity from NP/DP ellipsis rather than the ellipsis of the entire VP (cf., e.g., Duguine 2013; Şener & Takahashi 2010; cf. also Erteschik-Shir, Ibnbari & Taube 2013 for yet another proposal aiming at deriving the strict/sloppy reading ambiguity without VP ellipsis). Additionally, some studies observe that the strict/sloppy reading ambiguity is found outside the domain of ellipsis (cf. Runić 2013 and Tancredi 1992). This is why strict and sloppy readings will not be used here as evidence in support of a VP-ellipsis analysis of the relevant data.

Focusing on the possibility of deriving missing-object data from Polish via the application of verb-stranding VP ellipsis, the present paper discusses first the issue of verb movement and VP ellipsis with modals in this language, showing in section 2.1 and 2.2 that VP ellipsis stranding the lexical verb cannot straightforwardly be assumed to be blocked by independent features of the Polish grammar. This is followed by the discussion of missing objects in Polish in comparison with facts observed in verb-stranding VP ellipsis languages in section 2.3. Section 3 is then devoted specifically to missing objects in Polish in polarity-related contexts and section 4 briefly presents some constraints on verb-stranding ellipsis in Polish. Section 5 concludes the paper.

2 Preliminaries: verb movement and VP ellipsis in neutral contexts in Polish

2.1 Verb movement

As the movement of the verb out of VP is a prerequisite for verb-stranding VP ellipsis, whether (types of) object drop in a language can be analysed as resulting from VP ellipsis depends on the assumptions made with respect to verb movement in the language. Polish is a language with a fairly free word order driven by information structure, which seems to be one of the reasons why the literature on verb movement in Polish is inconclusive. In particular, that the verb does not move to I/T in Polish is assumed, for example, in Wiland (2009) and Witkoś (1998), whereas the opposite is argued for in Borsley & Rivero (1994) and Migdalski (2006). Determining whether the verb moves to higher verbal functional heads is problematic, as the standard tests for verb movement do not seem to yield convincing results suggesting that the verb must or cannot move to T in Polish. This is shown, among others, by the ordering patterns found with manner adverbs. As illustrated in (8), given appropriate discourse context, the verb can either follow or precede a manner adverb:

(8) a. *Dziewczynka łagodnie pogłaskała kotka.*
little.girl-NOM gently stroke-l.3SG.F kitten-ACC
'A/the little girl stroked a/the kitten gently.'

b. *Dziewczynka pogłaskała łagodnie kotka* (, *a pieska*
little.girl-NOM stroke-l.3SG.F gently kitten-ACC and doggy-ACC
szorstko).
hard
'A/the little girl stroked a/the kitten gently (and a/the doggy hard).'

In sequences with an auxiliary, a verb, and a manner adverb, the adverb can be placed in all positions available:

(9) a. *Dziewczynka będzie łagodnie głaskała kotka.*
little.girl-NOM will gently stroke-l.3SG.F kitten-ACC
'A/the little girl will stroke a/the kitten gently.'

b. *Dziewczynka będzie głaskała łagodnie kotka* (, *a*
little.girl-NOM will stroke-l.3SG.F gently kitten-ACC and
pieska szorstko).
doggy-ACC hard
'A/the little girl will stroke a/the kitten gently (and a/the doggy hard).'

c. *Dziewczynka łagodnie będzie głaskała kotka* (, *a*
little.girl-NOM gently will stroke-l.3SG.F kitten-ACC and
pieska szorstko).
doggy-ACC hard

Furthermore, floating a quantifier does not seem to provide a reliable diagnostic either, as the floated quantifier can precede the verb as well as follow it (in colloquial speech):

(10) a. *Wszyscy politycy boją się dziennikarzy.*
all-NOM politicians-NOM be.afraid.of-3PL SE journalists-GEN
'All politicians are afraid of journalists.'

b. *Politycy boją się wszyscy dziennikarzy.*
politicians-NOM be.afraid.of-3PL SE all-NOM journalists-GEN

c. *Politycy się wszyscy boją dziennikarzy.*
politicians-NOM SE all-NOM be.afraid.of-3PL journalists-GEN

Similarly to what has been noted with respect to manner adverbs, the addition of an auxiliary verb to the structure does not constrain the placement possibilities of the verb with respect to the quantifier:

(11) a. *Wszyscy politycy będą się bali*
all-NOM politicians-NOM will SE be.afraid.of-I.3PL
dziennikarzy.
journalists-GEN
'All politicians will be afraid of journalists.'

b. *Politycy będą się wszyscy bali*
politicians-NOM will SE all-NOM be.afraid.of-I.3PL
dziennikarzy.
journalists-GEN

c. *Politycy będą się bali wszyscy*
politicians-NOM will SE be.afraid.of-I.3PL all-NOM
dziennikarzy.
journalists-GEN

d. *Politycy się wszyscy będą bali*
politicians-NOM SE all-NOM will be.afraid.of-I.3PL
dziennikarzy.
journalists-GEN

In principle, it could perhaps be speculated that only the basic, informationally-unmarked word orders should be taken into account in determining the position of the verb in syntax. In this case, with (8a) and (9a) being the neutral variants, the verb could be taken not to move beyond VP in Polish. However, this line of reasoning does not seem sufficiently convincing, as it is hard to provide evidence showing that verb displacement in the non-neutral variants is a post-syntactic rather than a syntactic operation.

Another point which needs to be taken into account when the possibility of analysing (some) missing-object facts in terms of VP ellipsis is considered is that verb movement only as high as the Asp head has been argued to be enough to license verb-stranding VP ellipsis (cf. Gribanova 2013a,b for Russian). Significantly, that the verb moves to Asp in Polish has been suggested in Witkoś (1998). Hence, even though verb movement to a higher functional head in Polish is a debatable issue, verb movement may still be available in the grammar of Polish and cannot safely be assumed to be a factor making verb-stranding VP ellipsis impossible.

2.2 VP ellipsis with modals

Apart from the lack of verb movement in a language, a factor disfavouring postulating verb-stranding VP ellipsis with respect to missing-object data in a language could be constituted by the finding that VP ellipsis is not found in the grammar of the language in other contexts. However, this is not what is observed for Polish,

which has VP ellipsis licensed by modal verbs:

(12) A: *Mama powiedziała, że powinnyśmy* [VP *odrobić lekcje*].
mom-NOM say-l.3SG.F that should-1PL do-INF homework-ACC
'Mom said we should do the homework.'
B: *Ale nie powiedziała, że musimy* [VP ~~*odrobić lekcje*~~].
but not say-l.3SG.F that must-1PL do-INF homework-ACC
'But she didn't say we must.'

(13) *Mama nie musi* [VP *zmienić pracy*], *ale chyba powinna* [VP ~~*zmienić pracę*~~].
mom-NOM not must-3SG change-INF job-GEN but probably should-3SG.F change-INF job-ACC
'Mom doesn't have to change her job but she probably should.'

(14) A: *Dawniej* [VP *polowano na jelenie*].
formerly hunt-IMPERS on deer
'Formerly, people hunted deer.'
B: *Teraz też można* [VP ~~*polować na jelenie*~~].
now also may-IMPERS hunt-INF on deer
'One may do it now as well.'

The above examples show that the grammar of Polish does not block VP ellipsis as such, as VPs following a modal can be elided, on condition that there is an appropriate antecedent for the elliptical VP in the linguistic context. These data again suggest that VP ellipsis cannot be dismissed out of hand as a mechanism suitable to derive null-object data in Polish. Accordingly, the goal here is to investigate different constructions with missing objects in Polish to see whether it is tenable to analyse any null-object data in this language in terms of verb-stranding VP ellipsis.

2.3 Missing objects in Polish in comparison with verb-stranding VP ellipsis languages

Considering missing-object data, it should be noted that Polish has object drop independent of VP ellipsis, as illustrated in (15)–(16):

(15) [*Context*: Something falls, A and B notice this.]
A: *Podniesiesz Ø/ to?*
pick.up-2SG this-ACC
'Will you pick it up?'

(16) A: *Co zrobimy z warzywami?*
what do-2PL with vegatables-INSTR
'What will we do with the vegerables?'
B: *Upieczemy Ø według nowego przepisu/ na patelni.*
roast-2PL according.to new recipe on pan
'We will roast them according to the new recipe/in a pan.'

On the assumption that VP ellipsis requires a linguistic antecedent, (15)–(16) cannot be taken to result from VP ellipsis. Hence, if VP ellipsis can be employed to derive some missing-object data in Polish, as is argued in section 3, this shows that a single language can make available various ways of generating sentences with missing objects.

One of the conclusions which can be drawn from investigating missing objects in Polish in contexts which seem to fulfil the general requirements for VP ellipsis to apply is that, in contrast to the verb-stranding VP ellipsis languages discussed in the literature, verb-stranding VP ellipsis is rigidly constrained in Polish, if possible at all. VP ellipsis has been observed to be acceptable not only in simple sentences, but also with various configurations of embedding. Accordingly, VP ellipsis is available when the ellipsis antecedent but not the target is embedded and, conversely, when the target but not the antecedent is embedded, and when both are embedded (cf. Goldberg 2005). None of the contexts licenses verb-stranding VP ellipsis/missing objects in Polish in its own right, as shown in (17)–(20), respectively:

- no embedding

(17) A: *To lokaj otruł dziedziczkę fortuny.*
PRT butler-NOM poison-l.3SG.M heiress-ACC fortune-GEN
'It is the butler who poisoned the heiress to the fortune.'
B: *Nieprawda. To jej młodszy brat *(ją) otruł.*
wrong PRT her-GEN younger brother-NOM her-ACC poison-l.3SG.M
'Not true. It is her younger brother who did.'

- antecedent but not target embedded

(18) A: *Columbo mówi, że to lokaj otruł*
Columbo-NOM say-3SG that PRT butler-NOM poison-l.3SG.M
dziedziczkę fortuny.
heiress-ACC fortune-GEN
'Columbo says that it is the butler who poisoned the heiress to the fortune.'
B: *Nieprawda. To jej młodszy brat *(ją)*
wrong PRT her-GEN younger brother-NOM her-ACC
otruł.
poison-l.3SG.M

- target but not antecedent embedded

(19) A: *Lokaj znienawidził dziedziczkę fortuny.*
butler-NOM start.to.hate-l.3SG.M heiress-ACC fortune-GEN
'The butler started to hate the heiress to the fortune.'
B: *Nieprawda. Myślę, że to jej młodszy brat*
wrong think-1SG that PRT her-GEN younger brother-NOM
**(ją) znienawidził.*
her-ACC start.to.hate-l.3SG.M
'Not true. I think that it is her younger brother who did.'

- both target and antecedent embedded

(20) A: *Columbo myśli, że to lokaj otruł*
Columbo-NOM think-3SG that PRT butler-NOM poison-l.3SG.M
dziedziczkę fortuny.
heiress-ACC fortune-GEN
'Columbo thinks that it is the butler who poisoned the heiress to the fortune.'
B: *Nieprawda. Na pewno uważa, że to jej młodszy*
wrong on sure think-3SG that PRT her-GEN younger
*brat *(ją) otruł.*
brother-NOM her-ACC poison-l.3SG.M
'Not true. He definitely thinks that it is her younger brother who did.'

Additionally, contexts in which VP ellipsis is forced in some languages could be considered as potentially able to license verb-stranding VP ellipsis in Polish as well. Such contexts are provided by configurations which favour ellipsis but in which other types of ellipsis in the verbal/clausal domain are blocked. Consider

stripping, that is cases in which the entire clause is deleted except for one argument (and a negation marker or an intensifier):

(21) a. *Zapiszę się na kurs spadochronowy i mój brat też.*
enrol-1SG SE on course skydiving and my brother-NOM also
'I will enrol in a skydiving course and my brother too.'
b. *Zapisałam się na kurs spadochronowy, a mój brat nie.*
enrol-l.1SG.F SE on course skydiving and my brother-NOM not
'I have enrolled in a skydiving course but my brother hasn't.'

Stripping has been observed to be ungrammatical in islands (cf., e.g., Cyrino & Matos 2002 for Portuguese) and this holds of Polish as well, as shown in (22):

(22) a. **Zapisałam się na kurs spadochronowy, bo mój brat też.*
enrol-l.1SG.F SE on course skydiving because my brother-NOM also
'I have enrolled in a skydiving course because my brother has.'
b. **Zapiszę się na kurs spadochronowy, bo mój brat nie.*
enrol-1SG SE on course skydiving because my brother-NOM not
'I will enrol in a skydiving course because my brother won't.'

On the other hand, VP ellipsis is insensitive to islands and as such can potentially be a strategy used in environments blocking stripping. This hypothesis has been argued for in relation to data from Brazilian Portuguese, exemplified in (23) (cf. Cyrino & Matos 2002, 4):

(23) *A Ana não leva o computador para as aulas, porque os amigos também não levam.*
the Ana not brings the computer to the classes, because the friends too not bring
'Ana does not bring her computer to the classes because her friends do not either.'

The example in (23) has been argued to involve verb-stranding VP ellipsis in Cyrino & Matos (2002). Similar facts are not found in Polish. Even though stripping is ungrammatical in islands in Polish just as is the case in Brazilian Portuguese, verb-stranding VP ellipsis cannot be used to save structures for which stripping is blocked:

(24) **Anna opuściła ostatni wykład, bo jej znajomi też*
Anna-NOM skip-l.3SG.F last lecture because her friends also
opuścili.
skip-l.3PL.M
Intended: 'Anna skipped the last lecture because her friends also did it.'

The Polish examples in (17)–(20) and (24) do not pattern with verb-stranding VP ellipsis data in other languages (e.g. Hebrew and Brazilian Portuguese as discussed in Goldberg 2005 and Cyrino & Matos 2002, respectively). Furthermore, these examples show that the acceptability of missing-object structures is constrained in Polish.[4] This observation suggests that analysing missing objects in run-of-the-mill declarative sentences as resulting from verb-stranding VP ellipsis is untenable for Polish, as it would require introducing a language-specific mechanism blocking VP ellipsis in sentences such as (17)–(20) and (24). However, there is a type of contexts in which verb-stranding VP ellipsis seems to be employed in Polish, namely cases of licensing of VP ellipsis by focused polarity.

3 Missing objects in Polish: polarity focus-related contexts

Missing-object structures are widely acceptable in Polish in contexts in which polarity is focused (for discussions of verb-stranding VP ellipsis in polarity-related contexts in Capeverdean cf. Costa, Martins & Pratas 2012; in Hungarian cf. Lipták 2012, 2013; in European Portuguese, Brazilian Portuguese, Spanish, Catalan, and Galician cf. Martins 2006, 2007, 2013).[5] Such contexts are constituted by replies to polar (*Yes/No*) questions, which in Polish are formed either by the bare verb or by the negative or the positive particle, optionally followed by the verb (yet, cf. section 4 for an additional comment), by verbal reactions to commands, by contexts in which an assertion is confirmed or reversed, and by sentences involving polar contrast:

[4] Determining the precise mechanisms licensing genuine object drop in Polish and accounting for the difference between sentences such as (17)-(20) and (24), which are ungrammatical, and the grammatical (15)-(16) requires much further research and cannot be undertaken in the context of this paper. Some aspects of definite-object omission in Polish are discussed in Kowaluk (1999) and McShane (2000).

[5] The facts presented in this section and the analysis proposed are also discussed in Ruda (in press a).

- replies to polar questions

(25) A: *Przeczytałaś umowę?*
read-l.2SG.F agreement-ACC
'Did you read the agreement?'
B: *Przeczytałam* Ø. / *Tak* (, *przeczytałam* Ø).
read-l.1SG.F yes read-l.1SG.F
'Yes, I did.'

- verbal reactions to commands

(26) A: *Odbierz telefon.*
pick.up-IMP.2SG phone
'Pick up the phone.'
B: *Już odbieram* Ø./ *Nie odbiorę* Ø.
now pick.up-1SG not pick.up-1SG
'I'm just picking it up.'/'I won't pick it up.'

- confirming assertions

(27) A: *Moja wnuczka chyba zda egzamin.*
my granddaughter-NOM probably pass-3SG exam-ACC
'My granddaughter will probably pass the exam.'
B: *Na pewno zda* Ø./ *Oczywiście, że zda* Ø.
on sure pass-3SG of.course that pass-3SG
'She will for sure.'/'Of course she will.'

(28) A: *Moja wnuczka chyba nie zda egzaminu.*
my granddaughter-NOM probably not pass-3SG exam-GEN
'My granddaughter probably won't pass the exam.'
B: *Na pewno nie zda* Ø./ *Oczywiście, że nie zda* Ø.
on sure not pass-3SG of.course that not pass-3SG
'She won't for sure.'/'Of course she won't.'

- reversing assertions

(29) A: *Moja wnuczka chyba zda egzamin.*
my granddaughter-NOM probably pass-3SG exam-ACC
'My granddaughter will probably pass the exam.'
B: *Na pewno nie zda* Ø./ *Oczywiście, że nie zda* Ø.
on sure not pass-3SG of.course that not pass-3SG
'She won't for sure.'/'Of course she won't.'

(30) A: *Moja wnuczka chyba nie zda egzaminu.*
my granddaughter-NOM probably not pass-3SG exam-GEN
'My granddaughter probably won't pass the exam.'
B: *Na pewno zda* Ø./ *Oczywiście, że zda* Ø.
on sure pass-3SG of.course that pass-3SG
'She will for sure.'/'Of course she will.'

- polar contrast

(31) a. *Sąsiedzi ploktują, że moja wnuczka nie*
neighbours-NOM gossip-3PL that my granddaughter-NOM not
obroniła pracy magisterskiej, ale obroniła Ø.
defend-l.3SG.F thesis master's but defend-l.3SG.F
'The/my neighbours gossip about my granddaughter not having defended her master's thesis but she did.'
b. *Przechwalali się, że zdobędą Everest, ale nie zdobyli* Ø.
boast-l.3PL.M SE that climb-3PL Everest but not climb-l.3PL.M
'They boasted that they would climb Everest but they didn't.'

In addition to negating the full content of the preceding proposition, the polar-contrast structure can also be used to strip the proposition of a modal component, as shown in (32):

(32) a. *Mogłam spisać testament, ale nie spisałam.*
could-1SG.F draw.up-INF will-ACC but not draw.up-l.1SG.F
'I could draw up my will but I didn't.'
b. *Mogłam spisać testament i spisałam.*
could-1SG.F draw.up-INF will-ACC and draw.up-l.1SG.F
'I could draw up my will and I did.'

Whereas the first conjuncts in the structure exemplified in (32) involve modality, the second conjuncts do not comment on the proposition including modality but rather serve to assert that the event/state in the denotation of the VP over which modality scopes has taken/is taking/will take place or that it has/is/will not.

All the sentences in (25)–(32) involve missing-object structures. This raises the question why missing objects should be freely available in these environments but not in others compatible with VP ellipsis (cf. section 2.3). As the factor linking all the contexts presented above is the focusing of polarity, it seems natural to hypothesise that the derivation of the structures involves the movement of the verb outside of VP to a functional head introducing the polarity feature into the derivation, followed by VP ellipsis. This approach receives support from empirical facts accompanying the contexts discussed.

In languages which tolerate (genuine) object drop only with some object

types, the features of the object can be used as a diagnostic for verb-stranding VP ellipsis. This is the case, for example, in Hebrew, where only inanimate objects can be dropped (cf. Doron 1990; Goldberg 2005), in Hungarian, where definite objects can be dropped only in the singular (cf. Lipták 2012, 2013), or in Irish, where object drop is unavailable outside the contexts licensing VP ellipsis (cf. McCloskey 1991). Object drop in Polish presents a complex picture and determining which features of the object or the sentence block object drop in contexts which do not license VP ellipsis will be left here for future research. Other diagnostics will be employed to test whether the relevant structures are plausibly analysed as involving VP ellipsis.

The first piece of data suggesting that sentences involving the focusing of polarity are instances of verb-stranding VP ellipsis is provided by the interpretation of VP-internal material. In particular, VP adjuncts present in the ellipsis antecedent are interpreted also in the elliptical VP (this diagnostic requires caution, as some non-elliptical contexts may show a similar effect (cf. a comment attributed to István Kenesei in Lipták 2013)). In (33), the adverb is necessarily understood as part of the meaning of the elliptical VP in B's response:

(33) A: *Spisałaś testament notarialnie?*
draw.up-l.2SG.F will-ACC notarial-ADV
'Did you draw up your will before a notary?'
B: *Spisałam ~~testament notarialnie~~.*
draw.up-l.1SG.F will-ACC notarial-ADV
'I did.'

Importantly, as shown in (34), when the structure is not elliptical and the object is pronounced in the answer, the answer is infelicitous as a confirmation of the proposition expressed in the question (a possible interpretation of such a structure in the given context is one in which the adverb is excluded from interpretation and the speaker signalises that its meaning is negated):

(34) A: *Spisałaś testament notarialnie?*
draw.up-l.2SG.F will-ACC notarial-ADV
'Did you draw up your will before a notary?'
B: #*Spisałam go.*
draw.up-l.1SG.F him-ACC
'I draw up my will (but I didn't do it before a notary).'

What is more, only the deletion of the entire VP is possible (judgments in (36) are given for the interpretation of the answer as confirming the proposition in the question in (35)):

(35) *Dzieci zjadły owoce po południu?*
children-NOM eat-l.3PL fruit-ACC after noon
'Did the children eat fruit in the afternoon?'

(36) a. *Zjadły.*
eat-l.3PL
'They did.'
b. #*Zjadły owoce.*
eat-l.3PL fruit-ACC
'They ate fruit.'
c. #*Zjadły po południu.*
eat-l.3PL after noon
'They ate in the afternoon.'

The effect observed in (36) shows that the polarity-related elliptical structures do not result from the ellipsis of the separate subconstituents of VP. Rather, the entire VP has to be elided.

Similar facts are observed with more complex structures, such as double-object and resultative constructions (judgments given for the interpretation of the answers as confirming the proposition in the questions):

(37) *Oddałeś swojemu bratu jego plecak?*
give.back-l.2SG.M self's brother-DAT his backpack-ACC
'Did you give back your brother his backpack?'

(38) a. *Oddałem.*
give.back-l.1SG.M
'I did.'
b. #*Oddałem swojemu bratu.*
give.back-l.1SG.M self's brother-DAT
'I gave (it) back to my brother.'
c. #*Oddałem jego plecak.*
give.back-l.1SG.M his backpack-ACC
'I gave back his backpack.'

(39) *Pomalowałaś dom na zielono?*
paint-l.2SG.F house-ACC on green
'Did you paint the house green?'

(40) a. *Pomalowałam.*
paint-l.1SG.F
'I did.'
b. #*Pomalowałam dom.*
paint-l.1SG.F house-ACC
'I painted the house.'

c. #*Pomalowałam na zielono.*
paint-l.1SG.F on green
'I painted (it) green.'

Moreover, as shown in (41), the construction is possible under embedding:

(41) A: *Prezydent podpisała tę ustawę?*
president-NOM sign-l.3SG.F this act-ACC
'Did the president sign this act?'
B: *Jej rzecznik powiedział, że podpisała.*
her spokesman-NOM say-l.3SG.M that sign-l.3SG.F
'Her spokesman said that she did.'

All the contexts in (33)–(41) are in line with the hypothesis that the elliptical structures in the polarity-related contexts are derived by the application of VP ellipsis. In accordance with this conclusion, the following section expands on the account suggested here.

3.1 The analysis

The analysis presented here will use examples with polar questions, assuming that the remaining polarity-related contexts are derived in a parallel manner:[6]

[6] Additional data of interest here include verb-doubling contexts:

(i) [Emphatic affirmation]
A: *Nauczyciel nie odczyta twojego pisma.*
teacher-NOM not decipher-3SG your handwriting-GEN
'The teacher won't decipher your handwriting.'
B: *Odczyta* Ø, *odczyta* Ø.
decipher-3SG decipher-3SG
'He definitely will.'

(ii) [V(P) topicalisation]
A: *Wysłałaś to pismo?*
send-l.2SG.F this document-ACC
'Did you send the document?'
B: *Wysłać* Ø, *wysłałam* Ø, *ale czy dojdzie na czas, to nie mam pojęcia.*
send-INF send-l.1SG.F but if arrive-3SG on time PRT not have-1SG idea
'As for sending it, I did send it, but I don't have a clue if it arrives on time.'

I assume that both contexts involve VP ellipsis licensed by Σ and that the verb-doubling effect results from the pronunciation of two copies of the verb (cf. Ruda in press b), made possible due to the fusion of V and C in (i) (cf. Martins 2006, 2007, 2013 and Nunes 2004 for related proposals), and the derivation involving two independent movement chains (i.e. the movement of

(42) A: *Spisałaś testament notarialnie?*
draw.up-l.2SG.F will-ACC notarial-ADV
'Did you draw up your will before a notary?'
B: *Spisałam ~~testament notarialnie~~.*
draw.up-l.1SG.F will-ACC notarial-ADV
'I did.'

In such contexts, the polarity feature is focused and the proposition expressed in the question is the topic (cf. Lipták 2013 for Hungarian). In general, I assume that the structure of the clause can include the polarity feature, valued as [Aff(irmative)] or [Neg(ative)] and introduced in the Σ head (cf. Laka 1990). The value [Aff] is the unmarked value of Σ and Σ valued as [Aff] is present in the derivation only when polarity is focused (cf. Lipták 2012). In Polish, Σ can be taken to dominate VP (*v*P/AspP) and be dominated by TP (cf. the discussion of negation in Polish in Błaszczak, Jabłońska, Klimek-Jankowska & Migdalski forthcoming and Błaszczak 2001a,b quoted therein). In the contexts under discussion, the verb moves to Σ.[7] An example of the derivation of the polarity-related missing-object structure is provided in (43) (cf. (42)):

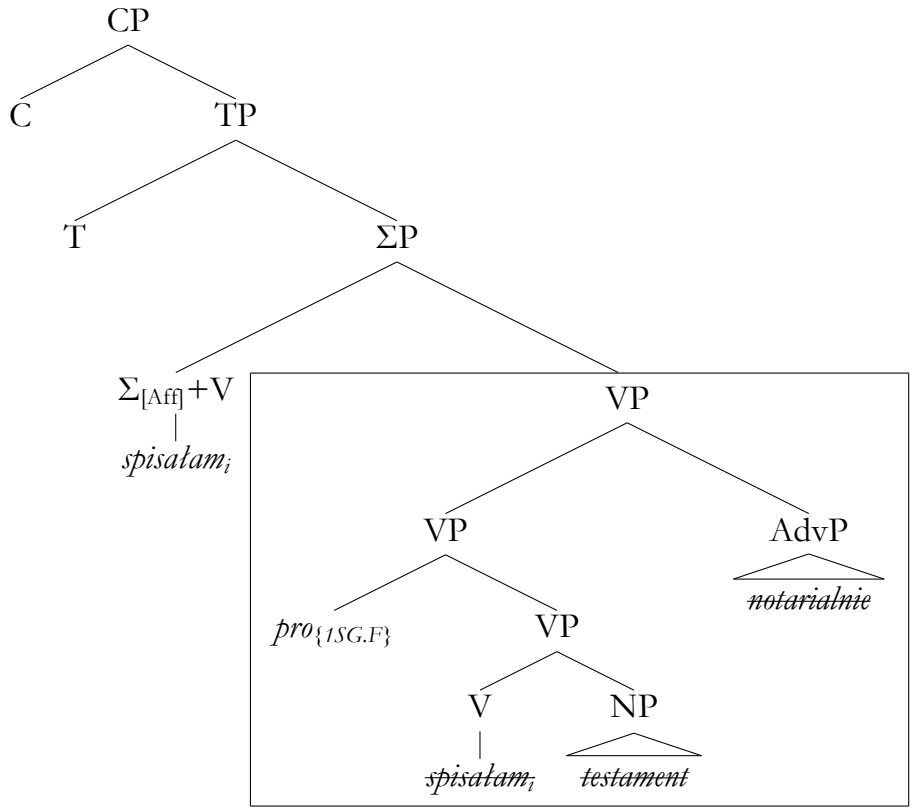
V to Σ and V topicalisation) in (ii) (cf. Bondaruk 2009, 2012 for an alternative view; for different analyses of similar constructions in other languages, cf. Abels 2001; Aboh & Dyakonova 2009; Cheng & Vicente 2013; Landau 2006; Trinh 2009; Vicente 2007).

[7] The sole presence of Σ in the clause is not sufficient to license VP ellipsis, as indicated by the negation data in (i):

(i) A: *Myślę, że lokaj nie otruł dziedziczki fortuny.*
think-1SG that butler-NOM not poison-l.3SG.M heiress-ACC fortune-GEN
'I think that the butler did not poison the heiress to the fortune.'
B: **Młodszy brat też nie otruł.*
younger brother-NOM also not poison-l.3SG.M
Intended: 'The younger brother didn't do it either.'

Even though Σ is present in (i), ellipsis is not licensed. This can follow either on the assumption that the verb moves to Σ only when Σ is focused or that Σ licenses the ellipsis of VP only when focused. The motivation of verb movement is a topic for a separate study requiring the investigation of verb movement in a wider variety of contexts. The movement of the verb in the present context can tentatively be assumed to be triggered by a verbal feature on Σ (for some relevant discussion of verb movement, cf., e.g., Roberts 2010).

(43)



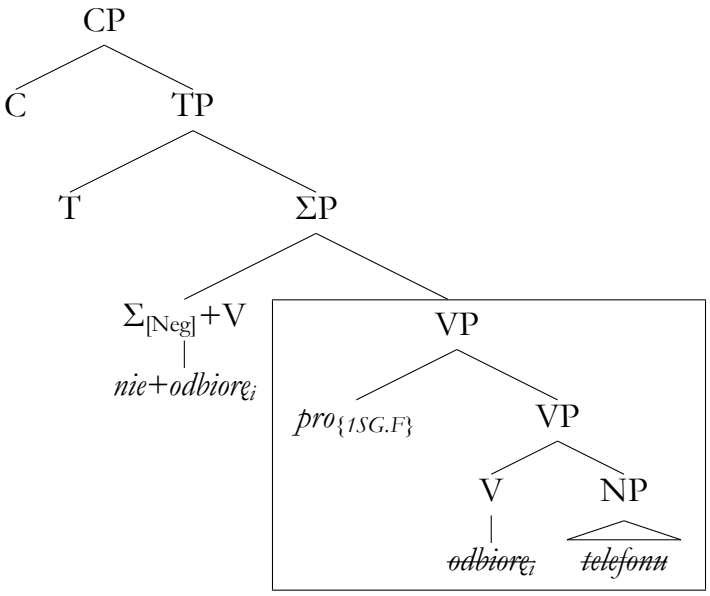
In this structure, the verb moves to Σ, which is followed by the deletion of the VP at the level of Phonetic Form.

The derivation of sentences involving negation proceeds in a parallel manner. The structure in (45) derives the pattern in (26), repeated here in (44):[8]

(44) A: *Odbierz telefon.*
pick.up-IMP.2SG phone-ACC
'Pick up the phone.'
B: *Nie odbiorę ~~telefonu~~.*
not pick.up-1SG phone-GEN
'I won't pick it up.'

[8] The genitive-Case marking in B's response is the so-called Genitive of Negation, an effect observed in Polish when the operator of sentential negation scopes over a nominal that surfaces in the accusative in positive-polarity contexts.

(45)



On the present assumptions, a negatively valued Σ can be equated with what is sometimes represented in the literature as the Neg head. The verb can be taken to incorporate with the negation marker generated in Σ (in violation of the mirror principle) or otherwise the verb enters the derivation in the negative form and the complex formed by the negation marker and the verb moves to Σ. The structure in (45) illustrates the former option, but it seems that adopting the other view would not have a bearing on the issues which are the focus of the present paper (for some related discussion on negation in Polish, cf., e.g., Błaszczak 2001a,b; Migdalski 2006; Wiland 2009).

4 Constraints on verb-stranding ellipsis

Holmberg (2007) divides languages into two groups with respect to whether they allow a null subject in the second conjunct of sentences such as *They say that John doesn't speak French, but he does*. His A-group consists of the languages in which the subject can be null in the second conjunct in this context, whereas his B-group consists of the languages in which the subject has to be overt here. He provides the following generalisation, where YNQ stands for a *Yes/No* question:

(46) In most A-languages a YNQ is standardly answered affirmatively by a special affirmative particle. In most B-languages a YNQ is standardly answered affirmatively by repeating the finite verb of the question (if the question contains a verb).

Holmberg (2007) notes in addition that several languages in both groups have both options, one of which is preferred. This is true of Polish, where answering with the particle is the preferred option when both of them are possible, as shown in (25), repeated here:[9]

(47) A: *Przeczytałaś umowę?*
read-l.2SG.F agreement-ACC
'Did you read the agreement?'
B: *Przeczytałam* Ø./ *Tak* (, *przeczytałam* Ø).
read-l.1SG.F yes read-l.1SG.F
'Yes, I did.'

For A-languages, Holmberg (2007) suggests that the verb-stranding context is derived via VP ellipsis (in languages with V-to-I movement), coupled with a null subject or, alternatively, by postulating a null subject and a null object. For B-languages, he suggests a derivation by the movement of the finite verb to C, followed by the deletion of the IP (qua ΣP).

Polish is listed in Holmberg (2007) among B-languages and it is noted that this language constitutes an exception to the generalisation in (46), as a polar question is usually answered with a particle in Polish. However, the data support the opposite classification. As illustrated in (48)–(49), an overt pronominal subject in the second conjunct of the test sentences is unacceptable:

(48) *Mówią, że Jan$_i$ nie zna francuskiego, ale* (#*on$_i$*)
say-3PL that Jan-NOM not know-3SG French but he-NOM
zna.
know-3SG
'They say Jan does not know French, but he does.'

(49) *Mówią, że znam francuski i* (#*ja*) *znam.*
say-3PL that know-1SG French and I know-1SG
'They say I speak French and I do.'

[9] Holmberg (2007) notes with respect to English that answering with a particle is not always possible. This is also true of Polish, as shown by the context constituted by contradicting a negative statement:

(i) A: *Nie spisałaś testamentu?*
not draw.up-l.2SG.F will-GEN
'You didn't draw up your will, did you?'
B: #*Tak./ Spisałam.*
yes draw.up-l.1SG.F
'I did.'

In this context, the finite verb is the only option yielding a coherent response.

This pattern is expected, as in Polish a pronominal subject in general can only be overt when stressed, an effect for which (48)–(49) do not provide a required information-structural context. Hence, the data in (48)–(49) suggest that Polish should be included in Holmberg's A-group. As an A-language, Polish is not an exception to the generalisation in (46). Furthermore, in light of the discussion in the preceding sections, it seems that from the two derivational scenarios proposed by Holmberg (2007) for the relevant verb-stranding data in A-languages, the analysis employing VP ellipsis rather than object drop is more appropriate.

It has been observed that there are some cases of blocking the verb-stranding VP ellipsis strategy. In particular, when an adverbial or an argument is focused in the question in Polish, as shown in (50)–(51), the repetition of the finite verb cannot be used as an answer, as Holmberg (2007) also observes with respect to Finnish:

(50) a. *Na pewno NOTARIALNIE spisałaś testament?*
on sure notarial-ADV draw.up-l.2SG.F will-ACC
'Was it really before a notary that you have drawn up your will?'

b. *To na pewno TY spisałaś ten testament?*
PRT on sure you draw.up-l.2SG.F this will-ACC
'Was it really you who has drawn up this will?'

c. *Na pewno WCZORAJ spisałaś testament?*
on sure yesterday draw.up-l.2SG.F will-ACC
'Was it really yesterday that you have drawn up your will?'

(51) a. #*Spisałam.*
draw.up-l.1SG.F

b. *Tak.*
yes
'Yes, it was.'

However, when the element focused in the question is also repeated in the answer, verb-stranding is available, as shown in (52) for the respective questions in (50):

(52) a. *NOTARIALNIE spisałam.*
notarial-ADV draw.up-l.1SG.F
'It was.'

b. *JA spisałam.*
I draw.up-l.1SG.F
'It was.'

c. *WCZORAJ spisałam.*
yesterday draw.up-l.1SG.F
'It was.'

The example in (52) seems to suggest that the effect found in (51) may be attributed to the information-structural requirement on the expression of the element focused in the question rather than a condition blocking VP ellipsis per se. In this case, the verb is not stressed and the focused element can be assumed to occupy the Spec,Σ position, or to be positioned even higher than ΣP.

Another fact relevant to the discussion is that it has been noted in the literature (cf. Lipták 2012) that an answer to a polar question in Hungarian can consist of a verbal modifier, which does not need to be followed by the verb; in Slovenian a pronominal clitic can constitute an answer. In Polish, any element focused in the question can be given as an answer:

- VP adjunct

(53) A: *SZYBKO upiekłaś ten tort?*
quickly bake-l.2SG.F this birthday.cake-ACC
'Did you bake the birthday cake QUICKLY?'
B: *Szybko./ Szybko upiekłam./ #Upiekłam.*
quickly quickly bake-l.1SG.F bake-l.1SG.F
'I did.'

- object NP

(54) A: *TORT upiekłaś?*
birthday.cake-ACC bake-l.2SG.F
'Did you bake a BIRTHDAY CAKE?'
B: *Tort./ Tort upiekłam./ #Upiekłam.*
birthday.cake-ACC birthday.cake-ACC bake-l.1SG.F bake-l.1SG.F
'I did.'

- NP-internal modifier[10]

(55) A: *DOBRY tort upiekłaś?*
good birthday.cake-ACC bake-l.2SG.F
'Did you bake a GOOD birthday cake?'

[10] I do not take a stand here on whether such examples involve the movement of the entire NP above Σ and a VP ellipsis combined with an NP ellipsis with an NP-internal remnant, whether it is only the modifier which moves above Σ, or whether both options are available. Note that Polish being a left-branch-extracting language (cf. (i)), the latter scenarios are not implausible:

(i) *Dobry upiekłam tort.*
good bake-l.1SG.F birthday.cake-ACC
'I baked a good birthday cake.'

B: *Dobry./ Dobry* (*tort*) *upiekłam./ #Upiekłam.*
good good birthday.cake-ACC bake-l.1SG.F bake-l.1SG.F
'I did.'

An anonymous Reviewer informs me that similar facts are found in Hungarian, where an answer can also be constituted by any element focused in a polar question, with both the verb and the verbal particle being inappropriate in this context. This is illustrated in (56)–(57), provided by the Reviewer:

- VP adjunct

(56) A: *GYORSAN sütötted meg a tortát?*
quickly baked-2SG PRT the cake-ACC
'Did you bake the birthday cake QUICKLY?'
B: *Gyorsan./ #Meg./ #Sütöttem./ Gyorsan sütöttem./ Gyorsan sütöttem meg.*
guickly PRT baked-1SG quickly baked-1SG quickly baked-1SG PRT
'I did.'

- object NP

(57) A: *TORTÁT sütöttél?*
cake-ACC baked-2SG
'Did you bake a CAKE?'
B: *Tortát./ Tortát sütöttem./ #Sütöttem.*
cake-ACC cake-ACC baked-1SG baked-1SG
'I did.'

5 Conclusions

The contexts presented in this paper speak against assuming the general availability of the verb-stranding VP ellipsis mechanism in the system of Polish, with the data suggesting that verb-stranding VP ellipsis is available in Polish in a very narrow set of polarity-related environments. This leads to the conclusion that missing-object constructions outside this context have to be analysed in terms of genuine object drop. From a more general point of view, the data from Polish suggest that missing-object constructions in a single language as well as across languages can be derived via the application of different operations and do not constitute a homogeneous phenomenon.

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