

Salvation and non-salvation of defectiveness under ellipsis

1. Introduction

We propose that *salvation by deletion* (see Ross 1969; Chomsky 1972; Merchant 1999; Lasnik 2001; among many others) can help investigate the placement of lexical gaps in the grammar. Salvation by deletion occurs when certain otherwise illicit outputs are made available if some relevant portion of the structure is covered up by ellipsis. It has been previously demonstrated that what would otherwise be ineffable gaps in a verbal paradigm seem to be able to appear inside ellipsis sites. Thus, the Russian stripping examples shown in (1) are good, despite the fact that neither *buzit* ‘to make a fuss’ nor *šelestit* ‘to rustle’ have a proper form for first person singular non-past, which would be required in the ellipsis site:

- (1) On {*buzit* / *šelestit*}, a ja net.
he makes.a.fuss / rustles but I not
‘He {makes a fuss/ rustles} but I don’t.’ (Russian, adapted from Abels 2018)

Similar observations have been made for lexical gaps in other domains; cf. Kennedy and Merchant 2000; Kennedy and Lidz 2001; Merchant 2015; Adamson 2019 (see Baerman, Corbett, and Brown 2010 for a thorough review on defectiveness in several languages). The intuition behind these works is that lexical gaps, such as the 1SG non-past for the verbs above, arise from the lack of a proper allomorph. Crucially, if ellipsis is an instruction to prevent morphophonological realization, the problem doesn’t arise inside the ellipsis site. This logic, we will show, is only partially correct, as some lexical gaps *cannot* be saved by ellipsis.

In this squib we present what we contend are bona-fide cases of salvation and non-salvation by deletion in the domain of defectiveness: (i) defectiveness that can be saved

by deletion, which we take to lack an eligible allomorph for certain environments within a language (Vocabulary Insertion failure), and (ii) defectiveness that cannot be saved by deletion, which we take to signal the lack of an eligible alloeme on the Encyclopedic list. We present several case studies drawing from Brazilian Portuguese, Russian, Greek, and English data.

2. PF defectiveness: salvation by deletion

2.1. Brazilian Portuguese defective verbs

To illustrate the cases of salvation by deletion in Brazilian Portuguese we will use the defective verb *demol-i-r* ($\sqrt{\text{DEMOLISH-TV-INF}}$)¹ ‘to demolish’, which lacks first person singular present indicative and all forms of present subjunctive. These gaps arise precisely where non-defective verbs lose their thematic vowel in the verbal paradigm, as shown in the following table in which each verb form is split in three slots ROOT-TV-T/AGR:²

We will compare the behavior of non-defective verbs with defective verbs.

	PRESENT INDICATIVE		PRESENT SUBJUNCTIVE	
1sg	vot-Ø-o	*V	vot-Ø-e	*V
2sg, 3sg, 1pl	vot-a-Ø	demol-e-Ø	vot-Ø-e	*V
2pl, 3pl	vot-a-m	demol-e-m	vot-Ø-em	*V
infinitive	vot-a-r ‘to vote’	demol-i-r ‘to demolish’	vot-a-r ‘to vote’	demol-i-r ‘to demolish’

Table 1: Brazilian Portuguese: comparison between the non-defective verb *vot-a-r* ($\sqrt{\text{VOTE-TV-INF}}$) ‘to vote’ and the defective verb *demol-i-r* ($\sqrt{\text{DEMOLISH-TV-INF}}$)

Taking the absence of the theme vowel to be a result of *v* obliteration,³ we assume that the root of *demol-i-r* ‘to demolish’ can only be realized in the presence of *v* (see Arregi and Nevins 2014; Nevins, Damulakis, and Freitas 2014, and references therein for further discussion):⁴

$$(2) \quad \sqrt{\text{DEMOLISH}} \leftrightarrow /demol/ / [v _ v] \quad (\text{no elsewhere item})$$

Defectiveness here is the lack of a proper allomorph due to the lack of an elsewhere item. With this background, let's look at what happens in ellipsis sites.

Consider first gapping, which we take to involve ellipsis of some portion of structure that includes the verb.⁵

- (3) a. *Você votou *(n)o Pedro, e eu votei *(n)a Maria.*
you voted on-the Peter and I voted on-the Mary
'You voted for Peter, and I for Mary.'
- b. *Você demole a casa, e eu *V o prédio.*
you demolish the house and I demolish the building
'You demolish the house, and I demolish the building.' (Brazilian Portuguese)

(3a) shows the remnant portion corresponding to the complement of the verb in the gapped clause preserves the selectional properties of the verb inside the ellipsis site. This selectional connectivity implies that the root in the ellipsis has to be isomorphic with the one in the antecedent. The fact that the gapped verb has to be isomorphic with the one in the antecedent suggests that in (3b) the gap is syntactically active.⁶ The very same pattern arises in other types of ellipsis in which the relevant testing environments are possible to construct, e.g. stripping constructions (Depiante 2000, Merchant 2004, Nakao 2009) and comparative deletion (Chomsky 1977, Kennedy 2002, Lechner 2018).

2.2. Russian defective verbs

To illustrate the cases of salvation by deletion in Russian, we will use two defective verbs: *pret-i-t'* ($\sqrt{\text{REPULSE-TV-INF}}$) 'to repulse' and *oščut-i-t'* ($\sqrt{\text{SENSE-TV-INF}}$) 'to sense'.⁷ Typically, Russian defective verbs belong to the second conjugation (*-i-* theme vowel) in the non-past paradigm with a verb stem ending in a dental consonant. The gaps fall in the first person singular non-past cell of the paradigm, where other verbs of the same

conjugation ending a dental consonant have alternations.⁸ This is shown in the following table by comparing their non-past paradigm with that of two non-defective verbs *sokrat-i-t'* ($\sqrt{\text{SHORTEN-TV-INF}}$) ‘to shorten’ and *met-i-t'* ($\sqrt{\text{AIM-TV-INF}}$) ‘to aim’, in which the verbal forms are divided into two slots, with the verb stem followed by the theme vowel plus inflectional morphology ($\check{s}\check{c} = /c/$ and $\check{c} = /tʃ/$):

	NON-PAST			
1sg/ 1pl	*V/ pret-im	*V/ oščut-im	sokrašč-u/ sokrat-im	meč-u/ met-im
2sg/ 2pl	pret-iš/ pret-ite	ošcut-iš/ oščut-ite	sokrat-iš/ sokrat-it	met-iš/ met-it
3sg/ 3pl	pret-it/ pret- ^j at	ošcut-it/ oščut- ^j at	sokrat-it/ sokrat- ^j at	met-it/ met- ^j at
infinitive	pret-it' to repulse	ošcut-it' ‘to sense’	sokrat-it' ‘to shorten’	met-it' ‘to aim’

Table 2: Russian second conjugation - comparison between defective and non-defective verbs

In the 1.SG, *sokrat-it'* ‘to shorten’ undergoes the $t /t/ \rightarrow \check{s}\check{c} /c/$ mutation (*sokrašč-u*), inherited from Old Church Slavonic; whereas *met-it'* ‘to aim’ undergoes the $t /t/ \rightarrow \check{c} /tʃ/$ mutation (*meč-u*), inherited from Old Russian. We take these alternations to be morphophonological and the defectiveness of verbs like *pret-i-t'* ‘to repulse’ and *ošcut-i-t'* ‘to sense’ to arise through competition between the forms reflecting these two mutations (see Gorman and Yang, 2019, for a similar proposal), which we implement in terms of *lethal competition* between vocabulary entires (Nevins 2014), where essentially, the Subset Principle (Halle, 1997) for Vocabulary Insertion (or what Fodor 1972 calls ‘posttransformational lexical insertion’) cannot resolve a tie between equally specified entries.

- (4) a. $\sqrt{\text{REPULSE}} \leftrightarrow /prec/ / [T [v _ v] 1SG.NPST]$
 b. $\sqrt{\text{REPULSE}} \leftrightarrow /pretʃ/ / [T [v _ v] 1SG.NPST]$
 c. $\sqrt{\text{REPULSE}} \leftrightarrow /pret/$
- (5) a. $\sqrt{\text{SENSE}} \leftrightarrow /ofuc/ / [T [v _ v] 1SG.NPST]$
 b. $\sqrt{\text{SENSE}} \leftrightarrow /ofutʃ/ / [T [v _ v] 1SG.NPST]$

c. $\sqrt{\text{SENSE}} \leftrightarrow /ofut/$

The presence of two competitors equally fit for 1.SG non-past leads to ineffability, since the system cannot decide between the two alternant forms in the context of first person singular non-past.

In Russian the evidence that the lexical gap is syntactic active is more direct, since the verbs under discussion assign different cases to their complements. We can thus see case-connectivity in the very examples where the lexical gaps are inside the ellipsis site. Consider now the following pair:

- (6) a. Na veršine étoj gory ty oščutiš radost', a ja *V strakh.
on top this mountain you sense happiness.ACC but I sense fear.ACC
'At the top of this mountain, you will sense happiness, and I fear.'
- b. Ty pretiš mne, a ja *V tebe.
you repulse me.DAT and I repulse you.DAT
'You repulse me, and I you.' (Russian)

In both examples, the gapped verb corresponds to a gap in the paradigm. From the verbs we are using, *ošcut-it* 'to sense' assigns accusative and *pret-it* 'to repulse' assigns dative. The case of the verb complement in the gapped clause is dependent on the verb inside the ellipsis site, again implying that the verb inside the ellipsis site is isomorphic with the one in the antecedent. As in Brazilian Portuguese, the same effect is found in other types of ellipsis.

The patterns found in the examples above all suggest the lexical gaps we are dealing with can be syntactically active. That suggests that in these cases syntax can build the relevant structure that correspond to lexical gaps. If the source of defectiveness here is lack of a proper allomorph, and ellipsis bleeds lexical insertion (say, by the instruction of non-pronunciation of a constituent by an E-feature on the head introducing the constituent

to be elided; Bartos 2000, Aelbrecht 2009, Kornfeld and Saab 2004, Sailor 2019, see also Wasow 1972, p.89 for a precursor of this idea), the prediction is that defective verbs like these can appear inside ellipsis sites.

2.3. Defective nouns: genitive plurals in Russian and Greek

In this subsection, we present two examples of salvation by deletion in the nominal domain. One of them in Russian (pointed out to us by a reviewer) and the other in Greek, both arising the genitive plural form of nominals and related to stress assignment.

In Russian, we demonstrate the repair effect with the defective noun *mečt'-a* 'dream'. Post-stressing nouns like this lack a genitive plural form, but are saved by ellipsis:⁹

(7) U nego byli máčty, a u menja ne bylo maět.

by he.GEN were mast-PL.GEN and by I.GEN not were mast.PL.GEN

'He had masts, and I had not.'

(8) U nego byli mečtý, a u menja ne bylo *N.

at him.GEN were dreams-PL.NOM and at me.GEN not were dream.PL.GEN

'He had dreams, but I hadn't.' (Russian)

The gaps with nouns of this type arise when stress would be forced to retreat to the stem because the genitive plural inflection, where the stress would otherwise fall, ends up being phonetically null (Jakobson 1957, Pertsova 2005, Bailyn and Nevins 2008). To capture this, we assume that the root of *mečt'-a* is inherently unstressed:

(9) $\sqrt{\text{MEČT}} \leftrightarrow \begin{matrix} /metʃt/ \\ [-\text{stress}] \end{matrix}$

When the rhizotonic form is required because the genitive plural ending is null, there is a clash in the stress specification of the stem, resulting in ineffability. Given its PF nature, such problem is neutralized under ellipsis and thus repair effects are again predicted to

happen.

We have confirmed that salvation by deletion also obtains with defective nouns such as Modern Greek *kot-a* ‘hen’, which are also defective in the genitive plural (Sims 2006 and references therein):

- (10) Efaga ta podia mias kotas, oxi trion *N.
ate.1SG the legs one.GEN.SG hen.GEN.SG not three.GEN hen-GEN.PL
‘I ate the legs of one hen, not three.’ (Greek)

We take nominal stems of defective nouns like *kot-a* ‘hen’ as inherently stressed. When combined with a stress attracting genitive form, the stem and the genitive ending will lethally compete for primary stress (i.e. culminativity), leading to ineffability. Again, phonological properties such as stress assignment are not at stake when relevant portion of the structure goes unpronounced and the repair effect is again correctly predicted.

Thus, salvation by the deletion in the case of PF-defective elements can apply to either verbs or nouns. Nonetheless, as we will see in the next section, when LF-defectiveness is at stake, both verbs and nouns will not escape a crash, even with the help of ellipsis.

3. LF defectiveness: non-salvation by deletion

3.1. *High jinks*

The first type of non-salvation by deletion we present is related to the expression *high jinks*, a phrasal idiom used only in plural contexts, which will provide the basis for our analysis in this section:

- (11) a. high jinks *mischief*
b. *high jink

The important point here is that **jink* (singular) does not have an independent life (inside

or outside the construction). Following Harley (2014), we take the gap above to signal the lack of an Encyclopedic entry for the relevant morphosyntactic context. The implementation here is similar to our previous cases in the sense that the existence of the gap is captured by the lack of an *elsewhere item*. The crucial difference, however, is that this happens now on the LF side of the grammar:

(12) $\sqrt{\text{JINK}} \leftrightarrow \text{mischief}' / [_{\text{DP}} \text{high} [_{\#P} [_{nP} _ n] [+plural]]]$ (no elsewhere item)

If ellipsis is seen as non-pronunciation of terminals in PF, the prediction is that ellipsis won't be able to help the absence of a proper alloeme. The resulting structure will still be deprived of a proper semantic interpretation. This prediction is borne out:

- (13) a. *I don't care for these high jinks, not even one.
 b. *I don't care for John's high jinks, especially the last.

We will now consider other cases of non-salvation by deletion that can receive an analogous treatment.

3.2. Russian *pluralia tantum* nouns

In Russian *pluralia tantum* nominals lack a form for the paucal genitive of quantity used with numerals from *one and a half* ('poltora') to *four* ('četyre') and this restriction is carried over to ellipsis sites. Thus, while numerals such as *odni* 'one' require a nominative plural complement, and *pjat* 'five' and *šes't* 'six' a genitive plural complement, the numeral *tri* 'three' requires a genitive singular complement, and *pluralia tantum* nouns such as *poxoron-y* 'funeral/rites' lack genitive singular forms:

(14) U nas bylo šes't' poxoron, a ne pjat.
 by we.GEN was six funeral-PL.GEN and not five
 'We had six funerals, not five (funerals).' (Russian)

(15)*U nas bylo šes't' poxoron, a ne tri.

by we.GEN was six funeral-PL.GEN and not three

‘We had six funerals, not three (funerals).’ (Russian)

There is an immediate breakdown of the parallelism with defective verbs such as *pret-it* ‘to repulse’ from above. Recall that verbs such as *pret-it* ‘to repulse’ lack a 1SG.PRES, but that ellipsis saves the non-pronunciation of such forms. Why can a similar mechanism not be at play with nouns such as *poxoron-y*?

The difference cannot be due to salvation by deletion operating differently in nouns vs. verbs, as we have shown in section 2.3 that defective nouns whose source of defectivity is clearly morphophonological, such as *mečt-á* ‘dream’, can indeed be saved by deletion in Russian. Rather, we propose that the defectivity of *pluralia tantum* nouns such as *poxoron-y* ‘funeral/rites’ is due the lack of a matching allomorph on the Encyclopedic list on the LF side. (In the Encyclopedic entry below, the feature [+plural] refers to the case-number ending found within the functional structure on the noun; see Halle and Matushansky 2006).

(16) $\sqrt{\text{POXORON}} \leftrightarrow \text{funeral}' / [_{\text{KP}} [_{\text{nP}} _ n] [+plural]]$ (no elsewhere item)

Similar to the manner in which nouns such as *mečt-á* ‘dream’ lack an allomorph on the PF Exponent list for environments in which they would occur with rhizotonic stress, nouns such as *poxoron* ‘funeral’ lack an allomorph on the LF Encyclopedic list for environments in which they occur with singular features.¹⁰

Thus, the impossibility of paucal numerals with these *pluralia tantum* nouns arises from LF defectiveness: the paucal numerals select for a genitive singular complement, and these nouns have no Encyclopedic entry outside of [+plural] environments.

On the current proposal, therefore, the ill-formedness of (15) is thus not morphophonological in nature. Morphophonological defectivity can be saved by deletion, whereas these

cannot. Indeed, entirely parallel restrictions are found in languages without such rich case-number paradigms, as noted by Depiante and Masullo (2004) for *pluralia tantum* nouns in Spanish such as *bodas* ‘wedding’.

- (17) *Asistí a las bodas del príncipe, pero no a la __ de la princesa.
I attended to the wedding.PL. of-the prince, but not to the.SG __ of the princess
‘I attended the prince’s wedding, but not the princess’s.’ (Spanish)

Similarly, Merchant (2018) provides examples such as the following:

- (18) Beth’s nuptials {were /*was} in Bond Chapel, and Rachel’s __ {were/ *was} in Rockefeller Chapel.

To summarize, all of these cases involve *pluralia tantum* nouns that, when turned singular, lead to Encyclopedic defectivity that cannot be saved by ellipsis, as ellipsis only saves violations on the PF side.

3.3. English *beware*

The last case of non-salvation of defectiveness under ellipsis arises with the English verb *beware* (Lakoff 1970, p.28, Fodor 1972), which appears basically in directive environments, such as imperative sentences, embedded under certain modals (e.g. *should/ must*) and command verbs (e.g. *tell, ask, ...*) as seen in the examples below:¹¹

- (19) a. Beware of barking dogs!
b. You should/must beware of barking dogs.
c. I told them to beware of barking dogs.
- (20) a. *John bewares of barking dogs. (intended: John watches out for barking dogs)
b. *John bewared of barking dogs. (intended: John watched out for barking dogs)
c. *John didn’t beware of barking dogs. (intended: John didn’t watch out for barking

dogs)

d. *I won't beware of barking dogs. (intended: I will not watch out for barking dogs)

We must rule out first the possibility of *beware* being parsed as *be aware* (pace Fodor 1972), which could in principle account for some of its restrictions. The restriction on tensed *beware* (**bewares*, **bewared*) would follow because *aware* is an adjective and thus cannot host tense morphology. Similarly, the restriction on *John didn't beware of barking dogs* would reflect the restriction on *John didn't be aware of barking dogs*, which doesn't seem to be related to defectiveness.

This analysis, however, faces setbacks. It is not clear that *beware* is diachronically derived from *be aware*; the Oxford English Dictionary reports some ancient uses of *beware* (≈1300) where *be* is a verb prefix/particle *by* rather than a copula, and also some inflected uses (*bewares*, *bewared*, ...) after the 17th century, which were eventually discarded. Second, the fact that, for some speakers, *beware* can take a DP complement directly is difficult to reconcile with a *be aware* parsing - as adjectives can't case-mark their complements:¹²

(21) a.%You should beware barking dogs!

b.%Beware barking dogs!

Indeed, *beware* and *be aware* have different meanings. Collapsing the two would over-generate the following type of example (Max Guimarães, pers. comm.):

(22)*They should beware of barking dogs, but they aren't.

Notice now, that *beware* can in principle appear inside ellipsis sites:

(23) a. They told me to beware of the dog, but I refused to ~~beware of the dog~~

b. They didn't tell me to beware of barking dogs, but I should ~~beware of barking dogs~~.

Crucially, the constraints on the distribution of *beware* inside ellipsis sites instantiate a case of *non-salvation* by deletion:

(24) *Beware* is **not** saved under ellipsis

- a. *John should beware of barking dogs, but he doesn't ~~beware of barking dogs~~.
- b. *I told them to beware of barking dogs, but they don't ~~beware of barking dogs~~.

We take the defectiveness of *beware* to come from the lack of a proper alloeme in the Encyclopedic list to fit [realis] environments.¹³ The entry for $\sqrt{\text{BEWARE}}$ thus is specified with an [+irrealis] feature evoked in directive environments as a mood feature in the TP layer, which we take to be the common aspect of the environments where *beware* can appear:

(25) $\sqrt{\text{BEWARE}} \leftrightarrow \text{watch-out-for}' / [\text{TP } [+irrealis] [\text{VP } _ \text{XP}]]$ (no elsewhere item)

Non-salvation by deletion again implies deficiency in Encyclopedic list. Ellipsis, as an instance of non-pronunciation, cannot repair LF defectiveness. It can only save those morphemes that are morphophonologically problematic.

4. Conclusion

We have offered cases of two types of defectiveness: morphophonological failures, whereby the set of vocabulary entries in a language lacks an appropriate allomorph, and LF defectiveness, whereby the language lacks an appropriate alloeme to insert in a given environment. Ellipsis operations, modeled as an instruction to forego Vocabulary Insertion, can track this distinction, thereby constituting an efficient probe to distinguish cases of Vocabulary Insertion failure (which can be salvaged) from Encyclopedic deficiency. More generally, the phenomenon of non-salvation by deletion in the domain of defectiveness, to our knowledge first documented in this paper, itself also seems to provide novel and

independent evidence for unpronounced structure in the ellipsis site. Without it (e.g. Dalrymple, Shieber, and Pereira 1991, Culicover and Jackendoff 2005, among many others), it is difficult to say what goes wrong in cases of non-salvation by deletion. Other lexical gaps that can be studied in this way include gender gaps (e.g. certain Greek animal nouns, see Sudo and Spathas 2016), deponent verbs (Embick 2000), English modals that lack non-finite forms (e.g. **will must*, **doesn't must*, **have must(ed)*, **is musting*; McCawley 1988), and long-distance reflexives (already discussed in Kennedy and Lidz 2001 for English). These we leave for future research.

References

- Abels, Klaus. 2018. On “sluicing” with apparent massive pied-piping. *Natural Language & Linguistic Theory* URL <https://doi.org/10.1007/s11049-018-9432-1>.
- Adamson, Luke James. 2019. Derivational Trapping And The Morphosyntax Of Inflectionlessness. Doctoral dissertation, University of Pennsylvania.
- Aelbrecht, Lobke. 2009. You have the right to remain silent: The syntactic licensing of ellipsis. Doctoral dissertation, Katholieke Universiteit Brussel.
- Arregi, Karlos, and Andrew Nevins. 2014. A monoradical approach to some cases of disuppletion. *Theoretical Linguistics* 40:311–330.
- Baerman, Matthew. 2008. Historical observations on defectiveness: the first singular non-past. *Russian Linguistics* 32:81–97.
- Baerman, Matthew, Greville G. Corbett, and Dunstan Brown. 2010. *Defective paradigms: Missing forms and what they tell us*. Oxford: Oxford University Press and the British Academy.

- Bailyn, John, and Andrew Nevins. 2008. Russian genitive plurals are impostors. In *Inflectional identity*, 237–270. Oxford: Oxford University Press.
- Baker, C. L., and Michael K. Brame. 1972. Global rules: A rejoinder. *Language* 48:51–75.
- Barros, Matthew, Patrick Elliott, and Gary Thoms. 2014. There is no island repair. Ms., Rutgers University, University of Edinburgh, and University College London.
- Bartos, Huba. 2000. VP-ellipsis and verbal inflection in Hungarian. *Acta Linguistica Hungarica* 47:3–24.
- Bermúdez-Otero, Ricardo. 2012. The Spanish lexicon stores stems with theme vowels, not roots with inflectional class features. *Probus* 25:3–103.
- Camara Jr, Joaquim Mattoso. 1970. *Estrutura da língua portuguesa*. Petrópolis: Vozes.
- Chomsky, Noam. 1972. Some empirical issues in the theory of transformational grammar. In *The goals of linguistic theory*, ed. Stanley Peters, 63–130. Englewood Cliffs, New Jersey: Prentice-Hall.
- Chomsky, Noam. 1977. On wh-movement. In *Formal syntax*, ed. P. Culicover, T. Wasow, and A. Akmajian. New York, New York: Academic Press.
- Culicover, Peter W., and Ray Jackendoff. 2005. *Simpler syntax*. Oxford University Press.
- Dalrymple, Mary, Stuart M. Shieber, and Fernando C. N. Pereira. 1991. Ellipsis and higher-order unification. *Linguistics & Philosophy* 14:399–452.
- Depiante, Marcela, and Pascual Masullo. 2004. Gender is in the lexicon, number is in the syntax: evidence from nominal ellipsis in Spanish. Paper presented at GLOW 27, Aristotle University.

- Depiante, Marcela A. 2000. The syntax of deep and surface anaphora: A study of null complement anaphora and stripping/bare argument ellipsis. Doctoral dissertation, University of Connecticut at Storrs.
- Elliott, Jennifer R. 2000. Realis and irrealis: forms and concepts of the grammaticalisation of reality. *Linguistic Typology* 4:55–90.
- Embick, David. 2000. Features, syntax, and categories in the Latin perfect. *Linguistic Inquiry* 31:185–230.
- Fodor, Janet Dean. 1972. Beware. *Linguistic Inquiry* 3.4:528–535.
- Gorman, Kyle, and Charles Yang. 2019. When nobody wins. In *Competition in inflection and word formation*, ed. Franz Rainer, Francesco Gardani, Hans Christian Luschützky, and Wolfgang Dressler. Springer.
- Halle, Morris. 1973. Prolegomena to a theory of word formation. *Linguistic Inquiry* 4:3–16.
- Halle, Morris. 1997. Impoverishment and fission. In *PF: Papers at the interface*, ed. Benjamin Bruening, Yoonjung Kang, and Martha McGinnis, volume 30 of *MIT Working Papers in Linguistics*, 425–450. MITWPL, MIT, Cambridge, Mass.
- Halle, Morris, and Ora Matushansky. 2006. The morphophonology of Russian adjectival inflection. *Linguistic Inquiry* 37:351–404.
- Harley, Heidi. 2014. On the Identity of Roots. *Theoretical Linguistics* 40:225–276.
- Jakobson, Roman. 1957. The relationship between genitive and plural in the declension of Russian nouns. *Scando-Slavica* 3:181–186.

- Jayaseelan, Karattuparambil A. 1990. Incomplete VP deletion and Gapping. *Linguistic Analysis* 20:64–81.
- Johnson, Kyle. 2009. Gapping is not (VP-) ellipsis. *Linguistic Inquiry* 40:289–328.
- Kennedy, Chris. 2002. Comparative deletion and optimality in syntax. *Natural Language and Linguistic Theory* 20:553–621.
- Kennedy, Christopher, and Jeffrey Lidz. 2001. A (covert) long-distance anaphor in English. In *Proceedings of West Coast Conference on Formal Linguistics 20*, 318–331. Cambridge: Cascadilla Press.
- Kennedy, Christopher, and Jason Merchant. 2000. Attributive comparative deletion. *Natural Language & Linguistic Theory* 18:89–146. URL <https://doi.org/10.1023/A:1006362716348>.
- Kornfeld, Laura, and Andrés Saab. 2004. Nominal ellipsis and morphological structure in Spanish. In *Romance languages and linguistic theory 2002*, ed. Reineke Bok-Bennema, Bart Hollebrandse, Brigitte Campers-Manhe, and Petra Sleeman, 183–19. John Benjamins.
- Lakoff, George. 1970. *Irregularity in syntax*. Holt, Rinehart & Winston.
- Lasnik, Howard. 2001. When can you save a structure by destroying it? In *Proceedings of the North East Linguistic Society 31*, ed. Minjoo Kim and Uri Strauss, 301–320. Georgetown University: GLSA.
- Lechner, Winfried. 2018. Comparative deletion. In *The Oxford Handbook of Ellipsis*, ed. Jeroen van Craenenbroeck and Tanja Temmerman, 624–657. Englewood Cliffs, New Jersey: Oxford University Press.

- McCawley, James. 1988. *The syntactic phenomena of English*, volume 2. New York: University of Chicago Press.
- Merchant, Jason. 1999. The syntax of silence: Sluicing, islands, and identity in ellipsis. Doctoral dissertation, University of California, Santa Cruz, CA.
- Merchant, Jason. 2004. Fragments and ellipsis. *Linguistics and philosophy* 27:661–738.
- Merchant, Jason. 2015. On ineffable predicates: Bilingual Greek-English code-switching under ellipsis. *Lingua* 166:199–213.
- Merchant, Jason. 2018. Ellipsis: A survey of analytical approaches. In *The oxford handbook of ellipsis*, ed. Jeroen van Craenenbroeck and Tanja Temmerman, 19–45. Englewood Cliffs, New Jersey: Oxford University Press.
- Nakao, Chizuru. 2009. Island repair and non-repair by PF strategies. Doctoral dissertation, University of Maryland.
- Nevins, Andrew. 2014. Book review of “Defective paradigms: missing forms and what they tell us”. *Revista Lingüística* 4.
- Nevins, Andrew, Gean Damulakis, and Maria Luisa Freitas. 2014. Phonological regularities among defective verbs. *Cadernos de Estudos Linguísticos* 56:11–21.
- Palmer, Frank Robert. 2001. *Mood and modality*. second edition. Cambridge University Press.
- Pertsova, Katya. 2005. How lexical conservatism can lead to paradigm gaps. In *UCLA working papers in linguistics, number 11: Papers in phonology* 6, 13—38. Los Angeles: University of California.

- Pertsova, Katya. 2016. Transderivational relations and paradigm gaps in Russian verbs. *Glossa: A Journal of General Linguistics* 1. URL <http://doi.org/10.5334/gjgl.59>.
- Pesetsky, David. 1982. Paths and categories. Doctoral dissertation, Massachusetts Institute of Technology.
- Portner, Paul. 2018. *Mood*. New York: Oxford University Press.
- Ross, John. 1967. Constraints on variables in syntax. Doctoral dissertation, Massachusetts Institute of Technology.
- Ross, John Robert. 1969. Guess who? In *Chicago Linguistics Society*, ed. Robert I. Binnick, Alice Davison, Georgia M. Green, and Jerry L. Morgan, 252–286. Chicago, Illinois.
- Sailor, Craig. 2019. The morphophonology of ellipsis: evidence for segregated transfer. Manuscript, University of Tromsø.
- Sims, Andrea. 2006. Minding the gaps: Inflectional defectiveness in a paradigmatic theory. Doctoral dissertation, Ohio State University.
- Sudo, Yasutada, and Giorgos Spathas. 2016. Nominal ellipsis and the interpretation of gender in Greek. In *Proceedings of sinn und bedeutung 20*, 132–153. Cambridge University Press.
- Wasow, Thomas. 1972. Anaphoric relations in English. Doctoral Dissertation, MIT, Cambridge, Massachusetts.

Notes

¹TV= theme vowel; INF = infinitive.

²*V indicates a gap. The *V in the tables and examples we present do not represent the judgement itself, but rather that speakers are uncomfortable with potential forms that could arise for the gap.

³For a phonological take on the missing theme vowel, see Camara Jr 1970, see also Bermúdez-Otero 2012 on Spanish, among others.

⁴We assume that structural description of vocabulary insertion rules in general do not make reference to linear order, which we take to come from an independent linearization algorithm.

⁵See Ross 1967, Pesetsky 1982, Jayaseelan 1990, among others, though see Johnson 2009 for a different analysis.

⁶A reviewer asks whether it would be possible to use a different, non-defective, verb within the ellipsis site in (i) with the same selectional properties:

- (i) Você **demole** a casa, e eu **destruo** o prédio.
you **demolish** the house and I **destroy** the building
'You demolish the house, and I destroy the building.'

We do not believe this is viable possibility since selectional connectivity also obtains when we can find pairs of verbs with close meaning but different selectional properties (Brazilian Portuguese *apreciar* 'to like/appreciate' selects a DP complement, whereas *gostar* 'to like' selects a PP complement):

- (ii) a. Eu **aprecio** pessoas caridosas, e John **aprecia** pessoas inteligentes.
I **appreciate** people charitable, and John **appreciates** people intelligent
Intended: 'I like charitable people and John likes intelligent people.'
- b. *Eu **aprecio** pessoas caridosas, e John **gosto** de pessoas inteligentes.
I **appreciate** people charitable, and John **likes** of people intelligent
Intended: 'I like charitable people and John likes intelligent people.'

This effect was observed in all types of ellipsis we tested. Similar facts are also observed with case matching in Russian, which will be discussed in the next subsection. See also discussion around example (18), which shows that this type of replacement is not generally possible. The salvation by deletion analysis we present here does not fall into this pitfall.

⁷The reason for choosing these two particular verbs is twofold. First, the competition analysis we will develop is easily stated with verbs whose stems end in *-t*. Second, these verbs assign different cases to their complements, which makes it possible to demonstrate that the gaps can be syntactically active in the ellipsis site. The facts we report here for these two verbs hold for all Russian defective verbs we tested.

⁸See Halle 1973; Sims 2006; Baerman 2008; Pertsova 2016 and Gorman and Yang 2019 for discussion.

⁹We thank a reviewer for pointing us to this fact and proving the example in (8).

¹⁰In order to circumvent such restrictions, speakers use a collective numeral that combines with a genitive plural form of the noun.

- (iii) U nas bylo šes't' poxoron, a ne troe ~~poxoron~~
by we.GEN was six funeral-PL.GEN and not three.COLL funeral.PL.GEN
'We had one funeral, not three (funerals).' (Russian)

As these collective numerals select for genitive plural complements, the nouns will find a matching Encyclopedic entry.

¹¹We thank Howard Lasnik for the observation that restrictions on *beware* are not rescued by ellipsis.

¹²Consider the following example of *beware* with a direct DP complement:

- (iv) 'Beware the Jabberwock, my son!
The jaws that bite, the claws that catch!
Beware the Jubjub bird, and shun
The frumious Bandersnatch!' (Lewis Carroll, *Jabberwocky* [1871])

¹³The idea of [\pm irrealis] as a grammatical feature is widely discussed in the literature. See Palmer 2001, Elliott 2000, Portner 2018, and references therein, for discussion.