When Ellipsis Can Save<br>Defectiveness and When<br>It Can't<br>Gesoel Mendes<br>Andrew Nevins

We discuss cases of salvation and non-salvation by deletion in the domain of lexical gaps, and distinguish two types of defectiveness: (a) defectiveness that can be saved by PF deletion, which we take to signal the lack of an eligible allomorph for certain environments within a language, and (b) defectiveness that cannot be saved by PF deletion, which we take to signal the lack of a proper alloseme for a given environment. With ellipsis modeled as an instruction for nonpronunciation on the PF branch of the grammar, only gaps on the Exponent List can be saved by it.
Keywords: lexical gaps, ellipsis, salvation by deletion, allomorphy, allosemy, elsewhere items

## 1 Introduction

We propose salvation by deletion (see, e.g., Ross 1969, Chomsky 1972, Lasnik 2001, Merchant 2001, Mendes and Kandybowicz to appear) as a way to investigate the locus of lexical gaps within the grammar. Salvation by deletion occurs when certain otherwise illicit outputs are made available if some relevant portion of the structure is obscured by ellipsis. It has been previously demonstrated that ineffable gaps in a verbal paradigm seem to be able to appear inside ellipsis sites. Thus, the Russian stripping examples shown in (1) are grammatical, even though neither buzit' 'to make a fuss' nor šelestet' 'to rustle' has a proper form for first person singular nonpast, which would be required in the ellipsis site.
(1) Russian

On \{buzit / šelestit\}, a ja net __.
he makes.a.fuss / rustles and I not
'He \{makes a fuss / rustles\} but I don't.'
(adapted from Abels 2019:1249)
Similar observations have been made for lexical gaps in other domains; see Kennedy and Merchant 2000, Kennedy and Lidz 2001, Merchant 2015, and Adamson 2019 (and see Baerman, Corbett, and Brown 2010 for discussion of defectiveness in several languages). The intuition behind these works is that lexical gaps, such as the first person singular nonpast for the verbs above, arise from the lack of a proper allomorph. Crucially, if ellipsis prevents morphophonological realization, the problem does not arise inside the ellipsis site. This logic, we will show, is only partially correct, as some lexical gaps cannot be saved by ellipsis.

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In this squib, we present what we contend are bona fide cases of salvation and non-salvation by deletion in the domain of defectiveness: (a) defectiveness that can be saved by deletion, which we take to signal the lack of an eligible allomorph for certain environments within a language (Vocabulary Insertion failure), and (b) defectiveness that cannot be saved by deletion, which we take to signal the lack of an eligible alloseme on the Encyclopedic list. We present several case studies, drawing from Brazilian Portuguese, Russian, Greek, and English, in the domains of both verbs and nouns. Our findings regarding lack of repair also have implications for the theory of ellipsis more generally, to which we return in section 4.

## 2 PF Defectiveness: Salvation by Deletion

### 2.1 Brazilian Portuguese Defective Verbs

Salvation by deletion in Brazilian Portuguese can be illustrated by the defective verb demol-i-r ( $\sqrt{\text { DEMOL-THEME.vowel-INF) 'to demolish', }}$ which lacks first person singular present indicative and all forms of present subjunctive. These gaps arise precisely where nondefective verbs lose their thematic vowel in the verbal paradigm, as shown in table 1, where each verb form is split into three slots: root-tv-T/ Agr. In this table, $* V$ indicates a gap. ${ }^{1}$

It is instructive to compare the patterning of nondefective and defective verbs. Taking the absence of the theme vowel to be a result of v-obliteration, ${ }^{2}$ 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). ${ }^{3}$

## Table 1

Brazilian Portuguese: Comparison between the nondefective verb vot-a-r ( $\sqrt{\text { VOT-TV-INF }}$ ) 'to vote' and the defective verb demol-i-r ( $\sqrt{\text { DEMOL-TV-INF }}$ )

|  | Present indicative |  | Present subjunctive |  |
| :--- | :--- | :--- | :--- | :--- |
| 1 sg | vot- $\emptyset-\mathrm{o}$ | $* \mathrm{~V}$ | vot- $\emptyset-\mathrm{e}$ | $* \mathrm{~V}$ |
| $2 \mathrm{sg}, 3 \mathrm{sg}, 1 \mathrm{pl}$ | vot-a- $\emptyset$ | demol-e- $\emptyset$ | vot- $\emptyset-\mathrm{e}$ | $* \mathrm{~V}$ |
| $2 \mathrm{pl}, 3 \mathrm{pl}$ | vot-a-m | demol-e-m | vot- $\emptyset-\mathrm{em}$ | $* \mathrm{~V}$ |
| Infinitive | vot-a-r | demol-i-r | vot-a-r | demol-i-r |

[^0](2)
\[

$$
\begin{aligned}
& \sqrt{\mathrm{DEMOL}} \leftrightarrow / \mathrm{demol} / /\left[\mathrm{v} \_\mathrm{v}\right] \\
& \text { (no elsewhere item) }
\end{aligned}
$$
\]

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 gapping, for example, which we take to involve ellipsis of some portion of structure that includes the verb. ${ }^{4}$
(3) Brazilian Portuguese
a. Você votou *(n)o Pedro, e eu votei *(n)a you voted on-the Pedro and I voted on-the Maria.
Maria
'You voted for Pedro, and I for Maria.'
b. Você demole a casa, e eu $* V$ o you demolish the house and I demolish the prédio.
building
'You demolish the house, and I demolish the building.'
(3a) shows that 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. ${ }^{5}$ The same pattern arises in other types of ellipsis in which the relevant testing environments can be constructed-for example, stripping constructions (Depiante 2000, Merchant 2004, Nakao 2009) and comparative deletion (Chomsky 1977, Kennedy 2002, Lechner 2018).

[^1]
### 2.2 Russian Defective Verbs

Salvation by deletion in Russian will be exemplified by two defective verbs: pret-i-t' ( $\sqrt{\text { PRET-TV-INF }})$ 'to repulse' and oščut-i-t' ( $\sqrt{\text { OščT-TV- }}$ INF) 'to sense' ${ }^{6}$ Typically, Russian defective verbs are second conjugation ( $-i$ - theme vowel) and have a verb stem ending in a dental consonant. The gaps fall in the first person singular nonpast cell of the paradigm, where other verbs of the same conjugation ending in a dental consonant have alternations (for discussion, see Halle 1973, Sims 2006, Baerman 2008, Pertsova 2016, Gorman and Yang 2019). This is shown in table 2 by comparing the nonpast paradigm of pretit' and oščutit' with that of two nondefective verbs, sokrat-i-t ${ }^{\prime}(\sqrt{\text { SOKRAT-TV- }}$ INF) 'to shorten' and met-i-t' ( $\sqrt{\text { MET-TV-INF }) ~ ' t o ~ a i m ', ~ i n ~ w h i c h ~ t h e ~}$ verbal forms are divided into two slots: the verb stem followed by the theme vowel plus inflectional morphology ( $\check{s} \check{c}=/ \varsigma /$ and $\check{c}=/ \mathrm{f} /$ ).

In the first person singular, sokrat-it' 'to shorten' undergoes the $t / \mathrm{t} / \rightarrow \check{s} \check{c} / \epsilon /$ mutation (sokrašč-u), inherited from Old Church Slavonic, whereas met-it' 'to aim' undergoes the $t / \mathrm{t} / \rightarrow \check{c} / \mathrm{t} f /$ mutation ( $п е с \check{c}-u$ ), inherited from Old Russian. We take these alternations to be

Table 2
Russian second conjugation: Comparison between defective and nondefective verbs in the nonpast

| $1 \mathrm{sg} / 1 \mathrm{pl}$ | * V/pret-im | *V/oščut-im | sokrašč-u/sokrat-im | meč-u/met-im |
| :---: | :---: | :---: | :---: | :---: |
| 2sg/2pl | pret-iš/pret-ite | oščut-iš/oščut-ite | sokrat-iš/sokrat-it | met-iš/met-it |
| $3 \mathrm{sg} / 3 \mathrm{pl}$ | pret-it/pret ${ }^{\text {jat }}$ | oščut-it/oščut- ${ }^{\text {jat }}$ | sokrat-it/sokrat- ${ }^{\text {jat }}$ | met-it/met ${ }^{\text {jat }}$ |
| Infinitive | pret-it' | oščut-it' | sokrat-it' | met-it' |
|  | 'to repulse' | 'to sense' | 'to shorten' | 'to aim' |

(ii) a. Eu aprecio pessoas caridosas, e João aprecia pessoas I appreciate people charitable and João appreciates people inteligentes. intelligent 'I like charitable people and João likes intelligent people.'
b. *Eu aprecio pessoas caridosas, e João gesto de pessoas I appreciate people charitable and João likes of people inteligentes.
intelligent
Intended: 'I like charitable people and João likes intelligent people.'
Allowing this type of mismatch would be at odds with Chung's (2006) No New Words Condition, as well as the empirical absence of repair effects reported in section 3.
${ }^{6}$ The reason for choosing these 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.
morphophonological and the defectiveness of verbs like pret-i-t' 'to repulse' and $o \check{s} \check{c} u t-i-t$ ' 'to sense' to arise through competition between the forms reflecting these mutations. This lethal competition between vocabulary entries (Nevins 2014) can be implemented in terms of the Subset Principle (Halle 1997), as Vocabulary Insertion (or what Fodor (1972) called "posttransformational lexical insertion") cannot resolve a tie between equally specified entries (see Gorman and Yang 2019 for another competition-based approach).
(4) a. $\sqrt{\text { PRET }} \leftrightarrow / \mathrm{prec} / /\left[_{\mathrm{T}}[\mathrm{v}\right.$ v] 1SG.NPST]
b. $\sqrt{\text { PRET }} \leftrightarrow / \operatorname{pret} / / /\left[\mathrm{T}\left[\mathrm{v} \_\mathrm{v}\right]\right.$ 1SG.NPST]
c. $\sqrt{\text { PRET }} \leftrightarrow /$ pret/
(5) a. $\sqrt{\text { OŠčUT }} \leftrightarrow /$ o̧uç/ / [T $[v \ldots \mathrm{v}]$ 1SG.NPST]
b. $\sqrt{\text { OŠčUT }} \leftrightarrow /$ oçutf/ / [T [v $\quad \mathrm{v}]$ 1SG.NPST]
c. $\sqrt{\text { OŠčUT }} \leftrightarrow$ /ocut/

The presence of two competitors equally fit for first person singular nonpast leads to ineffability, since the system cannot decide between the two alternant forms in that context.

In Russian, the evidence that the lexical gap is syntactically active is more direct, since the verbs under discussion assign different cases to their complements. One can thus see case connectivity in the very examples where the lexical gaps are inside the ellipsis site. Now consider the following pair:
(6) Russian
a. Na veršine étoj gory ty oščutiš radost', on top this mountain you sense happiness.ACC a ja 烟 strakh.
and I sense fear.ACC
'At the top of this mountain, you will sense happiness, and I fear.'
b. Ty pretiš mne, a ja $\mathrm{*V}$ tebe. you repulse me.Dat and I repulse you.DAT 'You repulse me, and I you.'

In both examples, the gapped verb corresponds to a gap in the paradigm. As the glosses indicate, oščut-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 that the lexical gaps in question can be syntactically active. This in turn suggests that in these cases, syntax can build the relevant structures that correspond to lexical gaps. If the source of defectiveness here is lack of a proper allomorph, and ellipsis prevents lexical insertion (modeled either as structure obliteration or simply as an instruction to forgo lexical insertion to account for case and selectional connectivity as shown by our examples; see Ross 1969, Bartos 2000, Lasnik 2001,

Lipták and Saab 2016, Banerjee 2020, Saab to appear, and references therein), the prediction is that defective verbs like these can appear inside ellipsis sites. ${ }^{7}$

### 2.3 Defective Nouns: Genitive Plurals in Russian and Greek

In this section, we present two examples of salvation by deletion in the nominal domain. One occurs in Russian, and the other in Greek, both involving the genitive plural form of nominals and its relation to stress assignment.

In Russian, the repair effect can be demonstrated with the defective noun mečt'- $a$ 'dream'. Post-stressing nouns like this lack a genitive plural form, but are saved by ellipsis. ${ }^{8}$
(7) Russian

U nego byli máčty, a u menja ne bylo at him.GEN were mast.PL.GEN and at me.GEN not were mačt.
mast.PL.GEN
'He had masts, but I didn't.'
(8) Russian

U nego byli mečtý, a u menja ne bylo at him.gen were dreams.PL.NOM and at me.gen not were * N .
dream.pl.gen
'He had dreams, but I didn't.'
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 in this declension class (Jakobson 1957, Pertsova 2005, Bailyn and Nevins 2008). To capture this, we assume that the root of mečt' $-a$ is inherently unstressed.

$$
\text { (9) } \sqrt{\text { MEČT }} \leftrightarrow \stackrel{/ \text { mefft } /}{[- \text { stress }]}
$$

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 a problem is neutralized under ellipsis and thus repair effects are again predicted to occur.

We have confirmed that salvation by deletion further obtains with defective nouns such as Modern Greek kot-a 'hen', which are also defective in the genitive plural (Sims 2006 and references therein).
${ }^{7}$ These data may be consistent with LF copying (Chung, Ladusaw, and case connectivity and selectional connectivity, which do not come for free in this type of approach; see Merchant 2001:chaps. 3-4 for further discussion.
${ }^{8}$ We thank a reviewer for pointing this fact out to us and providing the example in (8).
(10) Greek

Efaga ta podia mias kotas, oxi trion ate.1SG the legs one.gen.SG hen.gEN.SG not three.GEN *N.
hen.GEN.PL
'I ate the legs of one hen, not three.'
We take the nominal stems of defective nouns like kot-a 'hen' as inherently stressed. When the stem is combined with a stress-attracting genitive form, the two will lethally compete for primary stress (i.e., culminativity), leading to ineffability. Again, phonological properties such as stress assignment are not at stake when the relevant portion of the structure goes unpronounced, and the repair effect is again correctly predicted.

Thus, salvation by deletion in the case of PF-defective elements can apply to either verbs or nouns. Nonetheless, as we will now show, when LF defectiveness is at stake, neither verbs nor nouns can escape a crash, even with the help of ellipsis.

## 3 LF Defectiveness: Non-salvation by Deletion

### 3.1 Idiomatic Pluralia Tantum: High Jinks

The first type of non-salvation by deletion to be presented is illustrated by expressions such as high jinks ('mischief'), a phrasal idiom used only in plural contexts.
(11) a. high jinks
b. *high jink

The important point here is that *jink (in the singular) does not have an independent life (inside or outside the construction). Following Harley (2014), we take the gap in (11b) to signal the lack of an Encyclopedic entry for the relevant morphosyntactic context. The implementation here is similar to our previous cases: namely, we propose that there is a gap because no elsewhere item exists. The crucial difference is that this happens now on the LF side of the grammar.

> (12) $\sqrt{\mathrm{JINK}} \leftrightarrow$ mischief $^{\prime} /\left[\mathrm{DP}\right.$ high $\left[\# \mathrm{PP}\left[\mathrm{nP} \_\mathrm{n}\right][+\right.$ plural $\left.\left.]\right]\right]$ (no elsewhere item)

If ellipsis is seen as nonpronunciation of terminals in PF , the prediction is that ellipsis will not be able to rescue the absence of a proper alloseme. The resulting structure will still lack an appropriate denotation for this element in combination with a [-plural] environment. This prediction is borne out.
(13) a. *I don't care for these high jinks, not even one $\qquad$ .
b. *I don't care for her high jinks, especially the last $\qquad$
With the lack of an elsewhere alloseme as a basis for the analysis of (13), let us 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 poltora 'one and a half' to četyre 'four', and this restriction is carried over to ellipsis sites. Thus, while numerals such as odni 'one' require a nominative plural complement, and numerals such as pjat' 'five' and šest' 'six' require a genitive plural complement, paucal numerals such as tri 'three' require a genitive singular complement, and pluralia tantum nouns such as poxoron-y 'funeral/rites' are incompatible with genitive singular forms.
(14) Russian

U nas bylo šest' poxoron, a ne pjat' $\qquad$ . at us.gEN was six funeral.pl.gen and not five 'We had six funerals, not five (funerals).'
(15) Russian
*U nas bylo šest' poxoron, a ne tri at us.GEN was six funeral.PL.GEN and not three 'We had six funerals, not three (funerals).'

Parallelism with defective verbs such as pret-it' 'to repulse' (section 2.2) immediately breaks down. Recall that verbs such as pret-it' 'to repulse' lack a first person singular nonpast, but that ellipsis saves the nonpronunciation of such forms. Why can a similar mechanism not be at play with nouns such as poxoron-y?

The difference cannot be due to a difference in the way salvation by deletion operates in nouns vs. verbs, as we showed in section 2.3 that defective nouns whose source of defectiveness is clearly morphophonological, such as mečt-á 'dream', can indeed be saved by deletion in Russian. Rather, we propose that pluralia tantum nouns such as poxoron-y 'funeral/rites' are defective because they lack a matching alloseme in the Encyclopedic list on the LF side. (In the Encyclopedic entry in (16), the feature [+plural] refers to the case-number ending found within the functional structure on the noun; see Halle and Matushansky 2006.)
(16) $\sqrt{\text { POXORON }} \leftrightarrow$ funeral $^{\prime} /\left[{ }_{\mathrm{KP}}\left[\mathrm{nP} \_\ldots \mathrm{n}\right][+\right.$ plural $\left.]\right]$ (no elsewhere item)
Similar to the manner in which nouns such as mečt-á 'dream' lack an allomorph in the PF Exponent list for environments in which they would occur with rhizotonic stress, nouns such as poxoron-y 'funeral/ rites' lack an alloseme on the LF Encyclopedic list for environments in which they occur with singular features. ${ }^{9}$

Thus, the impossibility of paucal numerals with these pluralia tantum nouns arises from LF defectiveness: the paucal numerals select

[^2]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 not morphophonological in nature. Morphophonological defectiveness can be saved by deletion, whereas placing a pluralia tantum root in the context of a singular Num head cannot. ${ }^{10}$

Greek pluralia tantum nouns like kalanta 'carols' also differ from the genitive plural gaps illustrated in section 2.3 in not being savable via ellipsis.
(17) Greek
*Mu aresun ta kalanta, alla ksero na tragudao me.gen like the carols but I know sing mono ena $\qquad$ -. only one 'I like carols, but I know how to sing only one $\qquad$ —.

To summarize, all of these cases involve pluralia tantum nouns that, in singular contexts, lead to Encyclopedic defectiveness that cannot be saved by ellipsis, as ellipsis only saves violations on the PF side. While it may be possible to formalize this defectiveness in terms of a syntactic failure (e.g., the requirement that roots such as Russian $\sqrt{\text { POXORON }}$ 'funeral' and Greek $\sqrt{\text { KALANTA }}$ 'carol' must syntactically check against a [+plural] feature), the implementation in terms of Encyclopedic defectiveness squares with existing accounts for phrasal idioms such as English $\sqrt{\text { JINK. Whether these gaps are ultimately ac- }}$ counted for in terms of syntactic failure or Encyclopedic defectiveness, the inability of ellipsis to save them demonstrates that they are not morphophonological in nature.
(i) Russian

U nas bylo šest' poxoron, a ne troe by we.GEN was six funeral.pl.GEN and not three.coll
рехогю.
funeral.pl.gen
'We had six funerals, not three (funerals).'
As these collective numerals select for genitive plural complements, the nouns find a matching Encyclopedic entry.
${ }^{10}$ Indeed, parallel restrictions have been found in languages without such rich case-number paradigms, as noted by Depiante and Masullo (2004) for pluralia tantum nouns in Spanish such as nupcias 'nuptials'.
(i) Spanish
*Asistí a las nupcias del príncipe, pero no a la I attended to the.pl nuptials.pl of.the prince but not to the.sG de la princesa.
of the princess
'I attended the prince's wedding, but not the princess's.'
(Depiante and Masullo 2004:2)
Similarly, Merchant (2018) provides examples such as (ii).
(ii) Beth's nuptials \{were/*was\} in Bond Chapel, and Rachel's $\qquad$ \{were/*was\} in Rockefeller Chapel.
(Merchant 2018:31)

### 3.3 English Beware

The last case of non-salvation of defectiveness under ellipsis to be discussed here involves the English verb beware (Lakoff 1970:28, Fodor 1972). Beware can appear in directive environments such as imperative sentences, and embedded under certain modals (e.g., should/ must) and command verbs (e.g., tell, ask, ...) (18). ${ }^{11}$ However, it cannot appear elsewhere (19).
(18) a. Beware of barking dogs!
b. You should/must beware of barking dogs.
c. I told them to beware of barking dogs.
(19) 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 won't watch out for barking dogs.'
One must first rule out 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 faces setbacks, however. First, it is not clear that beware is diachronically derived from be aware; the Oxford English Dictionary reports some ancient uses of beware ( $\approx 1300$ ) 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. ${ }^{12}$
(20) a. \%You should beware barking dogs!
b. \%Beware barking dogs!

[^3](i) "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)

Indeed, beware and be aware have different meanings. Collapsing the two would overgenerate the following type of example (Max Guimarães, pers. comm.):
(21) *They should beware of barking dogs, but they aren't.

Now, notice that beware can in principle appear inside ellipsis sites.
(22) 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.
(23) 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 alloseme in the Encyclopedic list to fit [realis] environments. ${ }^{13}$ The entry for $\sqrt{\text { BEWARE }}$ thus is specified with a [+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.

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\begin{align*}
& \sqrt{\text { BEWARE }} \leftrightarrow \text { watch-out-for / [TP [+irrealis] [vp __ XP }]]  \tag{24}\\
& \text { (no elsewhere item) }
\end{align*}
$$

Non-salvation by deletion again implies deficiency in the Encyclopedic list. (Alternatively, an account in terms of syntactic failure to check an [+irrealis] feature on this root could be pursued, although we do not take this tack here.) Crucially, ellipsis, as an instance of nonpronunciation, can only save gaps 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 alloseme to insert in a given environment. Ellipsis, as a PF deletion operation-modeled, for instance, as an instruction to forgo Vocabulary Insertion or structure removal-can track this distinction, thereby constituting an efficient probe to distinguish cases of Vocabulary Insertion failure (which can be salvaged) from Encyclopedic deficiency.

[^4]More generally, the phenomenon of non-salvation by deletion in the domain of defectiveness provides evidence for abstract syntactic structure in the ellipsis site (pace Dalrymple, Shieber, and Pereira 1991, Ginzburg and Sag 2000, Culicover and Jackendoff 2005). This is so because unacceptability in such cases comes from grammatical properties lying within the ellipsis site-precisely what nonstructural approaches to ellipsis lack. Given the contrast between salvation and non-salvation by deletion, ellipsis operations must reside on the PF branch of the grammar.

We have nonetheless left open to a certain degree whether the failure of salvation by deletion for certain kinds of gaps is due to LF defectiveness, as proposed above for the sake of concreteness, or to syntactic failure. This matter can be investigated by examining other lexical gaps and their interaction with ellipsis, such as the pairing of gender endings with animate nouns that lack certain gender combination (e.g., Greek animal nouns; Sudo and Spathas 2016), English modals that lack nonfinite forms (e.g., McCawley 1988, Mendes 2020), and potentially other cases of gaps such as deponent verbs (Embick 2000 ) and nominative anaphors. More detailed future investigations involving ellipsis will shed light on whether these are gaps in the Exponent list or the Encyclopedic list, or whether they arise when syntactic derivations fail to converge.

## References

Abels, Klaus. 2019. On "sluicing" with apparent massive pied-piping. Natural Language and Linguistic Theory 37:1205-1271. 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.
Arregi, Karlos, and Andrew Nevins. 2014. A monoradical approach to some cases of disuppletion. Theoretical Linguistics 40:311330.

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, ed. by Asaf Bachrach and Andrew Nevins, 237-270. Oxford: Oxford University Press.
Banerjee, Neil. 2020. Ellipsis as obliteration: Evidence from Bengali negative allomorphy. In Proceedings of the Linguistic Society of America 5(1), ed. by Patrick Farrell, 133-143. https://jour nals.linguisticsociety.org/proceedings/index.php/PLSA/issue /view/169.
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, Joaquim Mattoso, Jr. 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. by Stanley Peters, 63-130. Englewood Cliffs, NJ: Prentice-Hall.
Chomsky, Noam. 1977. On wh-movement. In Formal syntax, ed. by Peter Culicover, Thomas Wasow, and Adrian Akmajian, 71132. New York: Academic Press.

Chung, Sandra. 2006. Sluicing and the lexicon: The point of no return. In Proceedings of the annual meeting of the Berkeley Linguistics Society 31, ed. by Rebecca T. Cover and Yuni Kim, 7391. Berkeley: University of California, Berkeley Linguistics Society.
Chung, Sandra, William Ladusaw, and James McCloskey. 1995. Sluicing and Logical Form. Natural Language Semantics 3:1-44.
Culicover, Peter W., and Ray Jackendoff. 2005. Simpler syntax. Oxford: Oxford University Press.
Dalrymple, Mary, Stuart M. Shieber, and Fernando C. N. Pereira. 1991. Ellipsis and higher-order unification. Linguistics and Philosophy 14:399-452.
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.
Depiante, Marcela A., 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.
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 3:528-535.
Ginzburg, Jonathan, and Ivan Sag. 2000. Interrogative investigations: The form, meaning, and use of English interrogatives. Stanford, CA: CSLI Publications.
Gorman, Kyle, and Charles Yang. 2019. When nobody wins. In Competition in inflection and word formation, ed. by Franz Rainer, Francesco Gardani, Hans Christian Luschützky, and Wolfgang Dressler, 169-193. Dordrecht: 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. by Benjamin Bruening, Yoonjung Kang, and Martha McGinnis, 425-450. MIT Working Papers in Linguistics 30. Cambridge, MA: MIT, MIT Working Papers in Linguistics.

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 3:181186.

Jayaseelan, K. 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, Christopher. 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 WCCFL 20: Proceedings of the 20th West Coast Conference on Formal Linguistics, ed. by Karine Megerdoomian and Leora Bar-el, 318-331. Somerville, MA: Cascadilla Press.
Kennedy, Christopher, and Jason Merchant. 2000. Attributive comparative deletion. Natural Language and Linguistic Theory 18:89146. https://doi.org/10.1023/A:1006362716348.

Lakoff, George. 1970. Irregularity in syntax. New York: Holt, Rinehart and Winston.
Lasnik, Howard. 2001. When can you save a structure by destroying it? In NELS 31, ed. by Minjoo Kim and Uri Strauss, 2:301-320. Amherst: University of Massachusetts, Graduate Linguistics Students Association.
Lechner, Winfried. 2018. Comparative deletion. In The Oxford handbook of ellipsis, ed. by Jeroen van Craenenbroeck and Tanja Temmerman, 624-657. Oxford: Oxford University Press.
Lipták, Anikó, and Andrés Saab. 2016. Movement and deletion after syntax. Studia Linguistica 70:66-108.
McCawley, James. 1988. The syntactic phenomena of English, volume 2. Chicago: University of Chicago Press.

Mendes, Gesoel. 2020. Investigations on salvation and non-salvation by deletion. Doctoral dissertation, University of Maryland.
Mendes, Gesoel, and Jason Kandybowicz. To appear. Salvation by deletion in Nupe. Linguistic Inquiry.
Merchant, Jason. 2001. The syntax of silence: Sluicing, islands, and the theory of ellipsis. Oxford: Oxford University Press.
Merchant, Jason. 2004. Fragments and ellipsis. Linguistics and Philosophy 27:661-738.
Merchant, Jason. 2015. On ineffable predicates: Bilingual GreekEnglish code-switching under ellipsis. Lingua 166:199-213.
Merchant, Jason. 2018. Ellipsis: A survey of analytical approaches. In The Oxford handbook of ellipsis, ed. by Jeroen van Craenenbroeck and Tanja Temmerman, 19-45. Oxford: 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 Linguística 4. https://rev istas.ufrj.br/index.php/rl/article/view/4578.
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. 2nd ed. Cambridge: Cambridge University Press.
Pertsova, Katya. 2005. How lexical conservatism can lead to paradigm gaps. In UCLA working papers in phonology 6, ed. by Jeffrey Heinz, Andy Martin, and Katya Pertsova, 13-38. UCLA Working Papers in Linguistics 11. http://phonetics.linguistics.ucla .edu/wpl/issues/wpl11/wpl11.htm.
Pertsova, Katya. 2016. Transderivational relations and paradigm gaps in Russian verbs. Glossa 1(1), 13. http://doi.org/10.5334/gjg 1.59.

Pesetsky, David. 1982. Paths and categories. Doctoral dissertation, MIT.
Portner, Paul. 2018. Mood. New York: Oxford University Press.
Ross, John Robert. 1967. Constraints on variables in syntax. Doctoral dissertation, MIT.
Ross, John Robert. 1969. Guess who? In Papers from the 5th regional meeting of the Chicago Linguistic Society, ed. by Robert I. Binnick, Alice Davison, Georgia M. Green, and Jerry L. Morgan, 252-286. Chicago: University of Chicago, Chicago Linguistic Society.
Saab, Andrés. To appear. Grammatical silences from syntax to morphology. In The derivational timing of ellipsis, ed. by Güliz Güneş and Anikó Lipták. Oxford: Oxford University Press.
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, ed. by Nadine Bade, Polina Berezovskaya, and Anthea Schöller, 712-729. https://ojs.ub.uni-konstanz.de/sub /index.php/sub/article/view/291.

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[^0]:    ${ }^{1}$ The ${ }^{*} \mathrm{~V}$ in the tables and examples does not represent the judgment itself; rather, it represents the fact that speakers are uncomfortable with potential forms that could arise for the gap.
    ${ }^{2}$ For a phonological take on the missing theme vowel, see Camara Jr. 1970; see also Bermúdez-Otero 2012 on Spanish.
    ${ }^{3}$ We assume that structural descriptions of vocabulary insertion rules in general do not make reference to linear order, which we take to come from an independent linearization algorithm.

[^1]:    ${ }^{4}$ See Ross 1967, Pesetsky 1982, and Jayaseelan 1990, among others; though see Johnson 2009 for a different analysis.
    ${ }_{5}$ A reviewer asks whether in examples like (3b) the ellipsis could instead contain a different, nondefective verb with the same selectional requirement. For instance, Brazilian Portuguese has the verb destruir 'to destroy', which is not defective. Both destruir 'to destroy' and demolir 'to demolish' select a DP complement.
    (i) Brazilian Portuguese

    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.'
    However, apreciar 'to like/appreciate' selects a DP complement, whereas gostar 'to like' selects a PP complement. If one could replace the verbs inside the ellipsis site in this way, one would erroneously predict that selectional connectivity effects would go away (iib).

[^2]:    ${ }^{9}$ To circumvent such restrictions, speakers use a collective numeral that combines with a genitive plural form of the noun.

[^3]:    ${ }^{11}$ We thank Howard Lasnik for the observation that restrictions on beware are not rescued by ellipsis.
    ${ }^{12}$ Consider the following examples of beware with a direct DP complement:

[^4]:    ${ }^{13}$ The idea of [ $\pm$ irrealis] as a grammatical feature is widely discussed in the literature; see Elliott 2000, Palmer 2001, Portner 2018, and references therein.

