Ellipsis and the phonological prespecification of roots

Introduction: ellipsis as non-insertion. Until recently, the vast literature on ellipsis has had surprisingly little to say about the actual mechanism(s) responsible for its characteristic silence: the matter has rarely been pursued beyond the summary catchphrase, "ellipsis is deletion at PF". Given the substantial evidence pointing to articulated syntactic structure inside ellipsis sites (Ross 1969, Merchant 2001, a.o.), we know that the silencing effect of ellipsis must indeed arise at PF, during the derivation from syntax to phonology; the question is when, and by what means.

Some progress in this area has been made in work applying a core mechanism from Distributed Morphology (DM: Halle and Marantz 1993, 1994, a.o.) to the study of ellipsis, namely post-syntactic Vocabulary Insertion (henceforth *VI*). The general proposal is that the silence of ellipsis arises because the terminals within an ellipsis site somehow simply fail to undergo VI (Wilder 1997, Bartos 2001, Kornfeld and Saab 2004). This position is becoming increasingly popular, and the arguments supporting it are both conceptual and empirical in nature (Saab 2008, Aelbrecht 2010, Merchant 2015, Saab and Lipták 2016, Gribanova 2017, Mendes and Nevins, to appear, Saab, to appear, and Sailor, to appear). In other words, ellipsis sites do not undergo "deletion at PF" *per se*; rather, they simply fail to receive phonological content in the first place, as summed up below (see Murphy and Müller, to appear for a solution to the apparent lookahead problem that arises with deeply-embedded ellipsis-internal material):

(1) **Non-Insertion Hypothesis** (NIH)
The silence of ellipsis arises when VI is instructed to skip the terminals inside an ellipsis site.

If this NIH is correct, though, then it has significant implications for another, seemingly-unrelated debate within the DM literature: namely, the question of whether roots enter the syntactic derivation with their phonological features prespecified (Embick 2000, Borer 2009, 2014, a.o.).

In this talk, I show that if the NIH is correct, then roots cannot be phonologically prespecified; they must acquire their phonological features during VI, as other terminals do. In other words, the right theory of elliptical silence within DM points us toward the right theory of roots within DM.

Background: roots in DM. In DM, post-syntactic VI furnishes syntactic terminals – bundles of (at least) syntactic features drawn from the pre-syntactic *List 1* – with phonological exponents drawn from *List 2*. A question that has persisted throughout the development of DM asks whether the composition of all morphemes is necessarily "distributed" in this way, or whether some might enter the syntactic derivation with additional (i.e., semantic and/or phonological) features prespecified as part of their List 1 entry. This is often framed as a broader question of *individuation*: the means by which morphemes can be formally distinguished from one another during the syntactic computation.

Until now, the question of individuation has focused almost exclusively on the status of roots (for reasons left aside here). Following the initial challenges raised in Marantz (1995), it is now generally held within DM and related (realizational) theories that there must be some means by which roots can be individuated within the syntax, and that this cannot be accomplished if their representations are limited to only those features that drive the syntactic computation. One common solution to this individuation problem holds that some or all roots enter the syntactic derivation with their phonological features prespecified (Embick 2000, Embick and Halle 2005, Borer 2009, 2014, Embick 2015:§2.3.1, a.o.), providing a straightforward means of distinguishing them. One immediate consequence of such phonological prespecification is that roots are precluded from undergoing VI: if a root's phonological features are present at the start of the syntactic derivation, then a List 2 entry for that root would be entirely superfluous; VI would have nothing more to add. Harley (2014) argues forcefully against this position, based on the empirical claim that roots undergo suppletion in some languages (suppletion in DM being the sole product of competition during VI); critics counter that such cases of root suppletion are illusory, or otherwise not the result of competition (see e.g. Borer 2014).

Taking stock, what matters for present purposes is the following: (i) there is a live debate in the DM literature about whether roots are generally subject to VI, and (ii) until now, this debate has pivoted around the empirical status of root suppletion. In this talk, I am to provide a new argument against the phonological prespecification of roots—one that is entirely independent of root suppletion.

A new argument against phonological prespecification. The problem is straightforward: if roots have phonological prespecification, they are not candidates for VI (by design: see Embick 2015:§2.3.1); however, if roots bypass VI with their phonological prespecification intact, then the NIH dictates that ellipsis can have no silencing effect on them, contrary to fact. In other words, prespecification predicts a clear functional/lexical divide: ellipsis should only render functional categories silent, leaving lexical categories' inherent phonological features intact. This is directly contradicted by a variety of phrasal ellipsis phenomena, including predicate ellipsis, clausal ellipsis (e.g. sluicing, stripping), etc.

(2) Jessica was saying that Tom tried to buy something, but I don't know... *Sluicing*

a. ...what ~~[$_{\text{CP}}$ Jessica was saying that Tom tried to buy t_i]~~.

b. *...what [$_{\text{CP}}$ Jessica ~~was~~ say(ing) ~~that~~ Tom tri(ed) ~~to~~ buy t_i]

Thus, the two DM-internal positions described here are incompatible. Either **(i)** the silence of ellipsis is not the result of non-insertion (i.e. the NIH is wrong), or **(ii)** no terminal can enter the syntactic derivation already bearing phonological features (lest it be an "unelidable" terminal, contrary to fact).

If (i) holds, then ellipsis has no particular relevance to the question of prespecification; however, the preponderance of recent DM-oriented work in ellipsis (cited above) indicates a clear consensus forming around the NIH. Moreover, given that there are already strong empirical arguments for (ii) in the DM literature (again see Harley 2014), this talk can be taken as an additional, DM-internal argument going in the same direction.

Extensions: the role of strict modularity. Time permitting, I will discuss **(a)** the precise means by which the NIH should be implemented within VI (based in part on Saab, to appear), and **(b)** a seemingly-similar argument from Gribanova (2017), who uses data from ellipsis (and across-the-board movement) to argue that roots undergo VI. What unifies my treatment of both (a) and (b) is the crucial role played by the strictly modular organization of grammar (see Scheer 2011:§586 for an overview).

For (a), I argue that various VI-based implementations violate strict modularity (specifically, *domain specificity*: each module only understands its own proprietary alphabet). The syntax must not be allowed to directly "instruct" VI on when and how to do its job (contra Saab 2008 and others; cf. (1)), because VI is extra-syntactic: it operates on the output of the syntactic computation – e.g., the featural configurations that it assembles – but it is not a syntactic operation itself (see esp. Scheer 2012:§169 on the inter-modular status of VI). Simply put, syntax can only manipulate items of its own alphabet, not those of operations falling outside the syntactic module. (This also provides an additional argument against the phonological individuation of roots: individuation within a module can only be established using features legible within that module.) Something like a "don't insert on me" feature (Saab 2008) could have no bearing on the syntactic computation; its only function would be as a diacritic, smuggling non-syntactic instructions out of the syntax module and into VI (see Scheer 2012:§95 on diacritics as modularity-violators). Similar arguments extended to the modified proposal in Saab (to appear), as well.

For (b), I argue in favor of Gribanova's (2017) conclusion, but against her reasoning, again based on the constraints imposed by strict modularity. Gribanova's argument is as follows: if roots entered the derivation with their phonological features prespecified, then suppletive roots (i.e. those differing only in their List 2 exponents) would count as non-identical to each other at LF where ellipsis identity/isomorphism is determined, contrary to fact (the Verbal Identity Requirement in fact treats suppletive roots as identical; details left aside here). By contrast, I argue that domain specificity again rules out such a possibility: even if roots were phonologically prespecified, LF could not make use of such phonological information in order to evaluate their (non-)identity under ellipsis: semantics (like syntax) is phonology-blind. So while Gribanova's (2017) conclusion is sound, this argument does not sustain it.

Selected references. Borer, H. 2009. Roots and categories. Talk given at the 19th CGG. • Borer, H. 2014. Wherefore roots? *Theo. Ling.* 40:343–359. • Embick, D. 2015. *The morpheme*. De Gruyter. • Gribanova, V. 2017. Roots and ellipsis and multidominance. In *Asking the right questions*, 1–16. UCSC. • Harley, H. 2014. On the identity of roots. *Theo. Ling.* 40:225–276. • Murphy, A, and G. Müller. To appear. Derivational ellipsis and Vehicle Change. In *The derivational timing of ellipsis*. OUP. • Saab, A. 2008. Hacia una teoria de identidad parcial en la elipsis. PhD Diss., U. de Buenos Aires. • Saab, A. To appear. Ellipsis: its way from syntax to morphology. In *The derivational timing of ellipsis*. OUP. • Scheer, T.. 2011. *A guide to morphosyntax-phonology interface theories*. De Gruyter. • Scheer, T. 2012. *Direct interface and one-channel translation*. De Gruyter.