Limits on Noun-suppletion

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Suppletion refers to the phenomenon in which a single lexical item is associated with two phonologically unrelated forms, the choice of form depending on the morphosyntactic context. Consider the familiar example of the *good-better-best* paradigm, in which the adjective root surfaces as *good* in isolation but as *be(tt)* in the context of the comparative (and superlative). Though rare in absolute terms, suppletion is frequently observed across languages (Hippisley *e.a*. 2004). Indeed, when we look at nouns, we observe that languages can display suppletion for number, but not in the presence of case. Consider data from Ket (spoken in the Krasnoyarsk region): the singular forms in (1) have a phonologically distinct root from the plural forms of the corresponding lexical items (cf. regular forms in (2)).

(1)

	SG	PL
'tree'	:oks'	aʔq
'child'	dyl'	kat
'man'	kɛʔt	dɛʔ-ŋ

(2)

	sg	pl
'mother'	am	ama-ŋ
'knife'	doʔn	doʔna-ŋ
'crow'	kyl	kyle-n

(Ket; Surrey Database)

In the Surrey Suppletion Database, 12 out of 34 genetically diverse languages were found to display number-driven root-suppletion, while only one noun suppletes for case (see below).

In contrast, pronouns regularly supplete not only for number but for case as well (3):

(3) (German; 1st person)

	SG	PL
NOM	ich	wir
DAT	mir	uns
ACC	mich	uns

In this paper, I argue that pronouns and lexical nouns have distinct structures. These structures interact with locality restrictions, which results in allowing for case-driven suppletion in pronouns but prohibiting it in nouns.

My argument crucially relies on hierarchical structure, and so it is cast in Distributed Morphology (DM; Halle & Marantz 1993). In DM, features are distributed over nodes, which are subject to Vocabulary Insertion (VI); e.g., [1-SG-NOM] corresponds in English to /ai/ 'I'. Suppletion is modeled as (a type of) contextual allomorphy: a feature (set) has a context-free default exponent, but in a more specific context a different exponent takes precedence (Bobaljik 2012). Consider again the *good-better-best* paradigm; its regular (context-free) exponent is *good* (4) but in the context of the comparative it is *be(tt)* (5).

(4) $\sqrt{\text{GOOD}} \Leftrightarrow$ good

(5) $\sqrt{\text{GOOD}}$ / _ Comparative $\Leftrightarrow$ be(tt)

What is accessible as a potential context for VI-rules is restricted by cyclicity (Embick 2010, Bobaljik 2012). Certain nodes delimit domains and processes are confined to operate within a domain. In particular, a *phasal* node induces the spellout (including VI) of its sister, and, as such, immobilises it for further interaction. In (6), if B is a phasal node, then B forces the spellout of its sister: A. On the assumption that spellout freezes a string, C and A cannot interact across B (Embick 2010, Bobaljik 2000,2012; see Scheer 2010 for an overview).

(6) [[A B^{phasal}] C]

Note, though, that the node that triggers VI of its sister may serve as a context for insertion (Bobaljik 2000, 2012). As such, B can condition suppletion of A.

I assume pronouns to be purely functional (Postal 1969, Longobardi 1994), containing (a complex of) φ-features and (a complex of) case features (K); in addition, they may contain a D-projection (7). In contrast, nouns contain a root and category node in addition to φ and K (8).

(7) *pronouns*
[[(D) φ] K]

(8) *nouns*
[[[√ n] φ] K]

Aside from the category-defining node *n*, the complex of φ-features constitutes a phase (cf. Sauerland ms, 2008).

First consider lexical nouns. VI proceeds cyclically from the root outwards so we start at the root. Next, on theories including a category-defining node directly above the root, this node does not interfere for purposes of locality (Embick 2010) Thus, when we reach the φ-features, which will trigger spellout (and VI) of the root, root-suppletion by number is possible since number is sufficiently local to the string undergoing VI. However, when we reach case, the root will not be accessible since the root has already been spelled out on the φ-induced cycle. Thus, we derive the lack of case-driven root-suppletion in nouns.

In contrast, pronouns are impoverished compared to lexical nouns in that they lack a root and category-defining node (*n*) below φ and K. I assume that (first and second) personal pronouns also lack D, while demonstratives do contain a D projection (personal pronouns with more internal structure are subject to the same restrictions as demonstratives). In the absence of D, suppletion is expected since K is local to φ upon VI of the latter. When a D projection is present, we account for Case-driven suppletion as follows. Radkevich (2010) and Bobaljik (2012) argue that portmanteaux extend locality. In effect, a portmanteau makes the node dominating the elements within it the focal point; i.e., whether by pre-VI fusion of morphosyntactic nodes or VI-insertion at non-terminal nodes, the relevant node at which VI (sensitivity to suppletive contexts) applies is higher than the VI-targeted nodes prior to the portmanteau. Applying this to pronouns, when D and φ form a portmanteau, this provides an opportunity for Case-driven suppletion, since K then is local to the "D-φ" portmanteau; indeed, D-pronouns in Xakass (Surrey Dababase) and Georgian (Hewitt 1995) display suppletion for case but crucially only when they form a D-φ portmanteau.

Finally, as mentioned above, there is a counter-example to the claim advocated here that lexical nouns do not display suppletion for case. Archi (a North-Caucasian language spoken in Southern Daghestan) displays 'regular' suppletive nouns that show suppletion for number (9) (Hippisley *e.a.* 2004). However, the form for *father* suppletes for case (10).

(9)

		SG	PL
'man'	ABS	bošor	Lele
	ERG	bošor-mu	Lele-maj
'corner of a sack'	ABS	bič'ni	boždo
	ERG	bič'ni-li	boždo-rčaj

(10)

		SG	PL
'father'	ABS	abt:u	--
	ERG	um-mu	--

Intriguingly, though, (10) is a *singulare tantum* and the form does not have a corresponding plural. Indeed, I argue that Archi's *father* is defective in that it lacks number (cf. Pesetsky 2012). Furthermore, I argue that the absence of number in this particular item opens up the door for case-driven root-suppletion. Specifically, the lack of number in this item means the φ-feature complex is deficient and, as such, I assume it does not trigger spell-out. Consequently, the spellout domain will be extended to include [√-n-φ]; therefore, the root remains susceptible to the case node, which allows for case-driven root-suppletion.

In sum, the interaction between structural differences and locality restrictions account for the divergent behaviour of pronouns and nouns regarding case-driven suppletion, and, as such, contributes to the formalisation of locality domains as employed in DM. The curious behavior of Archi's *father* is explained by appealing to domain extension due to absence of number. The proposal advocated here relies on (morpho)syntactic structure playing a crucial role in the discrepant behavior, which raises the question whether these observations can be captured in frameworks that deny that hierarchical syntactic structure plays a role in the morphology.

Selected references: Hippisley *e.a*. 2004. Suppletion: frequency, categories and distribution of stems. *Studies in Language* 28(2). • Embick, D. 2010. *Localism versus Globalism in Morphology and Phonology*. MIT Press. • Bobaljik, J. 2012. *Universals in Comparative Morphology*. MIT Press. • Sauerland, U. 2008. On the semantic markedness of Phi-features. In *Phi-Features*. • Pesetsky, D. 2012. Russian Case Morphology and the Syntactic Categories.