Contextual allomorphy vs. portmanteaus: the case of suppletive nominatives

1. The contextual theory of allomorphy. One of the rarely questioned assumptions in morphology is that a special allomorph of a particular marker can be triggered by features in its immediate vicinity (= contextual allomorphy). To see how it works in practice, consider the MASC.DEM paradigm from Gothic (1). In NOM.SG we have an irregular form *sa*, while all other forms decompose into an invariable base *þ* followed by case/number/gender portmanteau.

(1)

	this M.SG	this M.PL
NOM	**sa**	þ-ái
ACC	þ-ana	þ-ans
GEN	þ-is	þ-izē
DAT	þ-amma	þ-áim

(2) a. *þ* ⇔ DEM
b. *sa* ⇔ DEM / __NOM.SG

(3) a. *þ* ⇔ DEM
b. *sa* ⇔ [DEM + NOM.SG]

One way to state the distribution of *sa* vs. *þ* is to say that *þ* is the general form of DEM, see (2a). When DEM is found next to NOM.SG, it is realized as *sa*, as in (2b). The second way this can be stated is by the rule set in (3), where morphemes simply pronounce the relevant features. On the alternative approach, allomorphy is not determined by what the marker stands 'next to,' it is determined solely on the basis of what it pronounces (= portmanteau allomorphy).

My goal in the talk is to show that these are not notational variants of each other. I argue that contextual rules as in (2) carry along theoretical consequences that turn out to be wrong in the Gothic demonstrative paradigm in (1). The rule set in (3) encounters no such problems.

2. Case decomposition: cumulation. The consequences of the contextual theory emerge when instead of using a-theoretical labels like NOM.SG, we replace such labels by something more substantial, namely the features that the categories contain. For example, Caha (2009), McFadden (2018), Smith et al. (2019) observe that in the triplet NOM–ACC–OBL, NOM and OBL are 'never' the same to the exclusion of ACC, which seems to hold both with respect to the full forms (Caha) or their parts (stems, McFadden). The authors argue that in order to capture such restrictions, individual cases should stand in structural containment relation: if the features of the OBL case properly contain ACC, and if ACC contains NOM, as in (4), *ABA follows.

(4) Cumulative decomposition
a. nom = [F1]
b. acc = [F1, F2]
c. obl = [F1, F2, F3, ...]

(5) a. DEM ⇔ *þ*
b. DEM ⇔ *sa* / __F1 & SG

(6) a. DEM ⇔ *sa*
b. DEM ⇔ *þ* / __F2

However, Chritopoulos and Zompi (2019, = C&Z) note that such a decomposition is useless for the purposes of the contextual theory of allomorphy. To see that, consider what happens when we replace the label NOM in (2) by F1, as in (5). The result of those rules is that all singular cases will get *sa*, because all singular cases contain F1. It does not help to restate the rules as in (6), trying to make *þ* the special allomorph activated by the presence of F2, because that would lead to *sa* in NOM.PL. So the conclusion that C&Z correctly draw is that Gothic (and quite a few other languages) cannot be modeled using the cumulative decomposition plus contextual allomorphy. Further, because of the wide-spread idea that contextual allomorphy is essentially a theory neutral way of stating the facts, they conclude that cumulative decomposition must be abandoned. In this paper, I show that this conclusion is not correct: cumulative decomposition must be maintained, and what should be abandoned is contextual allomorphy.

3. Partial cumulation To get the contextual theory going, C&Z propose that cases must decompose as in (7), where the nominative is granted a special nominative feature, F-NOM. This feature makes it possible for the contextual rules to operate correctly. In particular, the rule (8a) now correctly applies only in NOM.SG

(7) Partial cumulation

a. nom = [F1, F-NOM]
b. acc = [F1, F2]
c. obl = [F1, F2, F3, ...]

(8) a. DEM ⇔ *sa* / __F-NOM & SG
b. DEM ⇔ *þ*

(9) [þan -ei frijos] siuks is
who.ACC COMP you.love sick is
'(The one) whom you love is sick.'

4. Case attraction. However, the decomposition in (7) is problematic for the way case attraction works in Gothic free relatives. Case attraction is a process which applies when the relative pronoun must meet two different case requirements (one coming from the matrix clause, the other from the embedded clause). In such cases, only one case is preserved. As Bergsma (2019) shows, case attraction in Gothic always preserves the case which has more features in a cumulative-style approach. For instance, when an oblique and a structural case meet, oblique is always realised. Crucially, when NOM and ACC meet in a Gothic relative clause, ACC surfaces and NOM is eliminated, see (9). The asymmetry between NOM and ACC in free relatives clearly shows that the symmetric relation in (7) is on the wrong track, and that the decomposition in (4) must be adopted. By the same token, the contextual theory must be abandoned for this particular case, and replaced by the alternative along the lines of (3).

5. How it actually works. My full account of the Gothic facts relies on the theory of Nanosyntax (Starke 2018). I use cyclic spellout, in which the form *sa* cyclically spells out larger and larger constituents all the way to NOM. When the ACC feature is merged on top of NOM, backtracking must take place, because the endings in the Gothic paradigm are number/case portmanteaus. Backtracking goes back to DEMP, which spells out as *þ*. After that, complement movement takes place, and the endings are introduced. Pressing hard against the page limit, I am unable to show here the derivations, but they do come out well using nothing but the Starke (2018) system.

5.Multiple exponence. This view on the derivation is also able to deal with cases of multiple exponence. Consider the Latin 3rd declension in (10). The table shows a regular noun 'king' with *-s* in NOM.SG. The noun 'old man' has the same *-s*, but also a special stem *senec*. So it looks like NOM.SG is expressed twice, which may be taken as evidence in favor of the contextual theory.

(10)

	king	old man		old man, PL		king, PL
NOM	rēg-s	senec-s		**sen**	-ēs	rēg-ēs
ACC	rēg-em	**sen**	-em	**sen**	-ēs	rēg-ēs
GEN	rēg-is	**sen**	-is	**sen**	-um	rēg-um
DAT	rēg-ī	**sen**	-ī	**sen**	-ibus	rēg-ibus
INS	rēg-e	**sen**	-e	**sen**	-ibus	rēg-ibus

However, the solution I have proposed for Gothic works also here. I propose that *-s* is a pure NOM marker, spelling out just F1. The noun *senec* therefore spells out all features up to (but excluding) F-1. This means that *senec* spells out the number feature #. All the other case endings spell out number and case [# + K], and so in all other cases but NOM.SG, the noun has to shrink (by Backtracking) below #. For some nouns (*senek*), backtracking is accompanied by change in form (as in Gothic). Other roots (*rēg*) shrink without a formal change, because any entry that can spell out #P can spells out also smaller constituents, due to the Superset Principle.

Bergsma 2019. Mismatches in free relatives. *Glossa*. **Caha 2009**. *Nanosyntax of Case*. **Christopoulos & Zompí 2019**. Talk at CRAFF 2019. **Smith & others 2019**. Case-number suppletion in pronouns. *NLLT*. **Starke 2018.** Complex left branches, spellout, and prefixes. In *Exploring nanosyntax*.