Templatic Inflection in German

The inflection of strong verbs in Modern German is often assumed to be irregular and fully lexicalized. In this paper, we argue against this view, investigating the paradigms of Standard German (SG), Middle High German (MHG), and of a Bavarian dialect, Upper Austrian German (UAG). Strong verbs are characterized by the fact that the tense opposition is expressed by a stem vowel alternation (*ablaut*). We argue that, apart from tense, another morphological category (F) is expressed by the quality of the stem vowel. The values of F interact with number agreement and mood. At an empirical level, our data lend further support to a templatic analysis of German strong verbs in the spirit of Guerssel & Lowenstamm (1996). At a conceptual level, we argue that phonological phenomena are mapped directly on morphological and syntactic structure, *i.e.*, we advocate a strong version of the Mirror Hypothesis.

1. In SG, genuinely strong verbs with stem vowel *e* show a vocalic alternation (*e/i*) in their indicative present tense paradigm and in the imperative (1).

(1) SG, present, *geben* (to give)

indicative	*sg*	*pl*	*imperative*	*2sg*	*2pl*
1	gebe	geben		gib	gebt
2	gibst	gebt			
3	gibt	geben			

We call this alternation *present tense umlaut* (PTU) and ask:

(2) a. Which vowel is the lexical vowel in these verbs?
b. What is the morphological role of the alternation?
c. Why does PTU apply to (a subclass of) strong verbs only?

2. Ad (2.a), we assume with Ségéral & Scheer (1998) that *ablaut*, the marker of the tense opposition, is governed by the *Apophonic Path*:

(3) Apophonic Path: Ø -> I -> A -> U -> U

Since the apophonic output in the past tense of *e/i* verbs is A (the presence of [o] in a subclass follows from the consonantal context), the lexical vowel of these verbs must be I (8).

3. We address (2b) from the perspective of UAG. The set of PTU-verbs in UAG is a proper subset of the PTU-verbs in SG. Two types of alternation occur in UAG: *e-i* (4.1) and *œ-y* (4.2).

(4) UAG: (i.) *e/i*, present, *geem* (to give) (ii.) *œ/y*, present, *hœffa* (to help)

(i)	*sg*	*pl*	*(ii)*	*sg*	*pl*
1	gib	geem	*1*	hyf	hœffan
2	gibst	gebts	*2*	hyfst	hœfts
3	gibt	geem	*3*	hyft	hœffan
imperative	gib	gebts		hyf	hœfts

(4.i) reveals that [i] shows up in all and only singular forms and [e] in all and only plural forms. Thus, the vocalic alternation expresses number agreement in UAG. We postulate a morpho-syntactic category F, whose marker is (the output of) PTU for both UAG and SG, and whose function is number agreement in UAG only.

(5) a. UAG: *e-i* class sg: [i] /I/ pl: [e] /A.I/
b. UAG: *œ-y* class sg: [y] /U.I/ pl: [œ] /A.U.I/

4. The internal structure of the vowels given in (5) above reveals that both classes mark their plural forms by adding an A element. Notice also that we are dealing with the lexical vowel I in both classes: the U in the *œ-y* class (4.ii/5b) derives from lost post-vocalic [l] (cf. SG *viel* (much) – UAG *fy:*). Since A is the apophonic output of I (3), we adopt the following rule:

(6) F-marking: Add the apophonic output of the lexical element. [UAG, SG]

Since PTU (*i.e.*, F-marking) is governed by apophony, it is just natural that its application is constrained to an apophonically defined class of verbs, answering (2c).

5. In MHG, plural agreement occurred in both present and past tense paradigms. The present forms resemble UAG, marking plural by PTU. In the past tense, plural is marked by a full apophonic step (*e.g.*, *a/u* in class III), or by length contrasts. Now notice that subjunctive mood is always based on the plural stems of the respective tense:

(7) MHG, *hëlfen* (to help)

res.	*ind.sg*	*subj.sg*	*ind.pl*	*subj.pl*	*past*	*ind.sg*	*subj.sg*	*ind.pl*	*subj.pl*
1	hilfe	hëlfe	hëlfen	hëlfen		half	hülfe	hülfen	hülfen
2	hilfest	hëlfest	hëlfet	hëlfet		hülfe	hülfest	hulfet	hülfet
3	hilfet	hëlfe	hëlfen	hëlfen		half	hülfe	hulfen	hülfen

Past number agreement was lost at the transition between MHG and SG. Additionally, 1sg.pres. has adopted the plural stem-vowel, and the *e/i* alternation is declining in the imperative in SG (Bittner 1996). We conclude that F has lost its agreement function in SG.

However, we argue that it is still present as a morphosyntactic category. In particular, we observe that subjunctive mood (marked by a *schwa* suffix) required marked F (the plural stem) in MHG. We argue that *umlaut* in the past subjunctive paradigm has been grammaticalized as a marker of F once the apophonic plural had been lost. Thus, in SG, F is marked by PTU in present subjunctives, and by *umlaut* in past subjunctives:

(8) SG, *treten* (to kick)

pres.	*ind.sg*	*subj.sg*	*ind.pl*	*subj.pl*	*past*	*ind.sg*	*subj.sg*	*ind.pl*	*subj.pl*
1	trete	trete	treten	treten		trat	träte	traten	träten
2	trittst	tretest	tretet	tretet		tratst	trätest	tratet	trätet
3	tritt	trete	treten	treten		trat	träte	traten	träten

Phonologically, *umlaut* in the past subjuntive can be characterized as the addition of an I element to the apophonic vowel. We stress the fact that the stem vowel of a strong verb in past tense is not a lexical vowel, but the output of a derivation, viz. the apophonic path (3). The lexical vowel is not present in a past tense stem. Thus, the occurrence of I as a marker in Num is immediately predicted by (6), as the output of the derivation Ø -> I.

6. F-marking takes as its input verbs which are already marked for tense. Given a strictly cyclical derivation, a strong version of the Mirror Hypothesis then dictates that F is structurally superior to T. Furthermore, the order of mood (M) and agreement suffixes supports superiority of Agr over M. Since both Agr and M may select for specific values of F, the latter must be inside their domain, *i.e.*, lower. Hence, we arrive at the following arrangement of functional heads for the relevant portion of German clause structure:

(9) Agr > M > F > T

References:

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