

East Frisian Low German Consonantal Developments Reexamined¹

In a recent issue of this journal, Putnam and Weiss (2004) analyze certain consonantal developments found in East Frisian Low German (EFLG) as spoken in the midwestern United States (specifically in Iowa and Nebraska) within the framework of Optimality Theory (OT). This note offers an alternative analysis of the EFLG data.²

Putnam and Weiss discuss the pronunciation of three words in two dialects of EFLG, those spoken in Grundy Center (Iowa) and Nebraska, beginning with the words for 'air' (Standard German *Luft*) and 'saw' (Standard German *Säge*). In Grundy Center EFLG, the relevant forms are pronounced [lux] and [sɔ:ɔʏ], while in Nebraska EFLG, the pronunciations are [lu] and [sɔ:ɔ]. Of particular interest here is the presence of velar fricatives in word final position in Grundy Center EFLG versus their absence in Nebraska EFLG. Putnam and Weiss argue that the underlying representations of these words in both dialects contain velar fricatives, i.e. that they are /lux/ and /sɔ:ɔʏ/, respectively, and attribute the variant surface forms in the different dialects to the interaction of various OT constraints, as follows:³

- (1) *x
No velar fricative (either voiced or voiceless) in word final position.
- (2) DEP (v)
Vowel epenthesis is not allowed.
- (3) MAX (c)
Consonants may not be deleted.
In Nebraska EFLG, the constraints are ranked as follows:
- (4) *x, DEP (v) >> MAX (c)
In Grundy Center EFLG, the constraints are ranked as follows:
- (5) MAX (c), DEP (v) >> *x

Given the underlying representations assumed by Putnam and Weiss, these rankings yield the correct results. In Nebraska EFLG, the need to eliminate velar fricatives in word final position while not inserting a vowel compels the deletion of the underlying velar fricative. In Grundy Center EFLG, the need to avoid inserting a vowel and deleting a consonant allows the retention of the underlying velar fricative.

Putnam and Weiss also consider the EFLG forms of the English loanword 'kitchen', in order to assess the status of the alveo-palatal affricate [tʃ] in the relevant EFLG dialects. In both Nebraska EFLG and Grundy Center EFLG, the alveo-palatal affricate is eliminated; in Nebraska EFLG it is replaced by [ts], while in Grundy Center EFLG it is replaced by [ts^ɰ]. Putnam and Weiss make the straightforward assumption that the underlying representation of the relevant segment is /tʃ/, and account for its replacement in the surface forms with the following constraints:

- (6) * $[tʃ]$
 $[tʃ]$ is not allowed.
- (7) * $[+coronal, +dorsal]$
 $[ts^j]$ is not allowed.
- (8) IDENT (PLACE) -1
 Do not change underlying values for place of articulation -1.
- (9) IDENT (PLACE) -2
 Do not change underlying values for place of articulation -2.

While the constraints given in (6) and (7) are clear, the two constraints on changing underlying values for place of articulation require additional discussion. Putnam and Weiss propose these constraints to capture the insight that $[ts]$ is phonetically further away from $[tʃ]$ than $[ts^j]$ is (since in $[ts^j]$ the palatal articulation is retained, while it is lost in $[ts]$). The shift from $/tʃ/$ to $[ts^j]$ incurs a violation of IDENT (PLACE) -1, while the shift from $/tʃ/$ to $[ts]$ violates IDENT (PLACE) -2.

In Nebraska EFLG, the following constraint ranking prevails:

- (10) * $[tʃ]$ >> * $[+coronal, +dorsal]$ >> IDENT (PLACE) -1 >> IDENT (PLACE) -2

This constraint ranking rules out $[tʃ]$ and $[ts^j]$, leaving $[ts]$ as the only viable option.

In Grundy Center EFLG, we find the following ranking:

- (11) * $[tʃ]$ >> IDENT (PLACE) -2 >> * $[+coronal, +dorsal]$ >> IDENT (PLACE) -1

In this case, $[tʃ]$ is banned, IDENT (PLACE) -2 eliminates $[ts]$, and $[ts^j]$ is therefore the surface form.

I now critically evaluate their proposals, beginning with their choice of an underlying representation in the EFLG words for 'air' and 'saw'. As noted above, Putnam and Weiss argue that in both Nebraska EFLG and Grundy Center EFLG these forms contain an underlying velar fricative in word-final position, and it was suggested that the correct results are obtained, "given the underlying representations assumed by Putnam and Weiss." Unfortunately, there is no concrete evidence that their proposed underlying representations are correct, at least for Nebraska EFLG (although the proposed underlying representation for Grundy Center EFLG does seem correct). There is no surface manifestation of the putatively underlying velar fricative in Nebraska EFLG, and it is accordingly difficult to believe that speakers of Nebraska EFLG would (or even could) posit an underlying velar fricative in this context.⁴

It may be possible to rescue their proposed underlying representations for Nebraska EFLG. Perhaps other data not cited in their article indicates the presence of an underlying velar fricative (for instance, its retention in forms where it is not in word final position). One could also argue that their underlying representations reflect diachronic reality, in that Nebraska EFLG presumably had underlying velar fricatives at some point (since the dialect it developed from had these fricatives), or that their underlying representations allow for a better model of the relationship between

Nebraska EFLG and Grundy Center EFLG.

The first of these possibilities would certainly be the best, but such data is unfortunately not provided. If such data is available, the reader needs to see it. The remaining two possibilities are not convincing. Setting up a surface form from an earlier stage of a language as the underlying representation of a later stage of the language is problematic, since language learners are not historical linguists.⁵ As for the last suggestion, while setting up a common underlying representation does indeed yield a better model of the historical relationships between the dialects, it seems preferable to consider individual dialects on their own synchronic terms.

Their analysis of the forms of 'kitchen' in the two EFLG dialects is also problematic. Although their proposal yields the correct results, the presence of two separate IDENT (place) constraints is highly suspicious, as both constraints have the same effect (penalizing changes from the underlying place of articulation). This duplication of effort can be avoided by relying solely on markedness constraints, specifically the two proposed by Putnam and Weiss and a third, *[ts], which bans [ts].⁶

In this new analysis, we find the following ranking in Nebraska EFLG:

- (12) *[tʃ] >> *[+coronal, +dorsal] >> *[ts]

Since the constraints banning [tʃ] and [tsʲ] both outrank the constraint banning [ts], [ts] is the only viable option.

In Grundy Center EFLG, we find the following ranking:

- (13) *[tʃ] >> *[ts] >> *[+coronal, +dorsal]

Here, since the constraints banning [tʃ] and [ts] outrank the constraint against [tsʲ], [tsʲ] is the surface form. This proposal obtains the desired results without the duplication of effort found in Putnam and Weiss' analysis.

In sum, the analysis presented by Putnam and Weiss (2004) is problematic in several respects. There is no convincing evidence for the putative underlying velar fricatives in Nebraska EFLG. Given this, their data can not be considered interesting evidence for the interplay of markedness constraints and faithfulness constraints. It is instead the straightforward result of high-ranking faithfulness constraints: there is no velar fricative in the surface forms of Nebraska EFLG because there is no velar fricative in the relevant underlying representations, and there is a velar fricative in the surface forms of Grundy Center EFLG because there is a velar fricative in the relevant underlying representations. Moreover, a simpler analysis of the alveo-palatal fricative in loan words like *kitchen* is possible. Finally, it should also be noted that their faithfulness constraints could be phrased more generally, i.e., DEP (v) could be restated as DEP, which would rule out inserting either a consonant or a vowel, and MAX (c) could be restated as MAX, which would block deleting either a consonant or a vowel. Some analyses require more nuanced statements of these constraints, but the one considered here does not. While their intentions in synthesizing old and new approaches should be applauded, the execution leaves something to be desired.

Notes

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² No introduction to OT is given here. Readers unfamiliar with the theory are referred to Kager (1999) or to the brief outline given in Putnam and Weiss (2004). The discussion of the history of EFLG, the settlement history of its speakers, and the methodology and demographics of the study found in the original article is also not repeated here.

³ The faithfulness constraints MAX (C) and DEP (V) are familiar from the OT literature, while the markedness constraint regulating the distribution of velar fricatives appears to be their own original proposal (see p. 142 of their article).

⁴ There is a substantial body of literature on this idea (the "Revised Alternation Condition"). Kenstowicz (1994: 103-14) provides an accessible discussion.

⁵ Labov (1989) argues that children can reconstruct patterns of stable variation, but the EFLG situation does not involve such variation.

⁶ Since standard OT practice holds that all constraints are universal, I assume the presence of a relatively low-ranking IDENT (PLACE) constraint, which bans changing the underlying place of articulation. This constraint is outranked by all three of the markedness constraints used here.

References

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