

WORKSHOP UMLAUT IN GERMANIC DIALECTS

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Umlaut is phonological. Evidence from ineffability

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A number of studies have argued in recent years, that West-Germanic umlaut is an example of a (non-concatenative) morphological process (e.g. Wiese 1996, Kurisu 2001, Iscrulescu 2006) rather than a productive phonological rule. In this paper, we argue instead for a phonological analysis for at least some dialects: the umlaut factor (e.g. a feature [-back]) spreads from the suffix to the stem. New evidence will come from some surprising data about an ineffability effect, which partly have gone unnoticed in the literature.

Background. The diminutive suffix /kə/ has a fronting effect on preceding vowel(s) in West-Germanic dialects such as those spoken in the Dutch province of Limburg. The process is fully productive, witness forms like:

(1)	[se:derəm]	CD-Rom	[se:de:rəm̩kə]
	[kanʊn]	'cannon'	[kanʏnkə]
	[matras]	'mattress'	[matræskə]

Two different approaches are possible in principle: a morphological or a phonological one. Under the former, formation of the Limburg diminutive one would consist of addition of /kə/, and of fronting vowel(s) in the stem (or choosing an appropriate stem allomorph). The second view postulates a floating feature as part of the underlying inventory of the diminutive. Umlaut would then be spreading of this feature from the suffix to the stressed vowel, due to Prosodic Licensing. Note that there does not seem to be a triggering phonological feature (umlaut factor) in the domain of the suffix, but it is usually assumed that such a feature is floating.

New evidence for the phonological view. We show that umlaut exhibits autosegmental spreading behavior, which morphological approaches cannot explain at all. Interestingly, if the stress is non-final in the stem, then, not only is umlaut blocked, diminutivization itself is impossible (an ineffability effect, cf. Féry and Fanselow 2003 for a similar observation on German):

(2)	[puma]	'puma'	*pumakə, *pumekə, *pyməkə, *pymakə
	[o:ma]	'grandma'	*o:makə, *o:mekə, *ø:məkə, *ø:makə
	[ho:mo]	'gay person'	*ho:mokə, *ho:møkə, *hø:møkə, *hø:mokə

These facts fit quite easily into the theory. The umlaut span must be maximally binary. Therefore, from the stem it cannot reach the antepenult, stressed syllable. Yet, in Limburg it must spread to the stress. This is what causes ineffability. There is one environment where the stress may be non-final. This happens when the final syllable is schwa, as shown in (3).

(3)	[va:dər]	'father'	[vɛ:dərkə]
	[mo:dər]	'mother'	[mø:dərkə]

Again this directly follows from autosegmental theory. Schwa lacks a place node and can therefore not act as an anchor for the spreading umlaut factor.

Further, rather surprising, confirmation that umlaut is spreading comes from a new set of facts: stems with a stressed front vowel followed by a back final vowel.

These cannot be diminutivized either, as shown in (4).

(4)	[hɛ:ma]	kind of store	*hɛ:makə, *hɛ:məkə
	[tyba]	'tuba'	*tybakə, *tybəkə
	[tina]	girl's name	*tinakə, *tinəkə

To reach the stress, the umlaut factor must spread, thereby removing the original Front feature, creating a ternary umlaut span, which is not allowed. Under a morphological approach, it is unclear why a stem which already has a front stressed vowel and therefore does not require a stem alternation, would not be a possible input to the diminutive formation. To reach the stress, the umlaut factor must spread, thereby removing the original Front feature, creating a ternary umlaut span, which is not allowed. Under a morphological approach, it is unclear why a stem which already has a front stressed vowel and therefore does not require a stem alternation, would not be a possible input to the diminutive formation.

Syntactic Antisymmetry as a Synchronic Source of Umlaut

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Umlaut is standardly seen as a phenomenon ruled by phonological processes, such as foot reduction. On the other hand does umlaut display morphological functions, e.g. plural formation, inflection, etc. Moreover, the type of languages that display umlaut, cannot be characterized by its phonological properties alone; morphosyntactic characterizations seem to be needed as well. In this talk, we will explore a syntax-phonology interface approach to umlaut without reducing the phonological nature of it. We will show that a specific type of hierarchical structure (that is provided by morphosyntax) that is to be projected onto a flat level of ordered elements (which is provided by phonology) forces hierarchically external morphemes to be realized internally.

Yiddish Umlaut, a morphosyntactic reflex of ‘rough’ merger

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1. Yiddish Umlaut. Yiddish Umlaut is as puzzling as its Standard German counterpart: it is always induced by suffixation, not prefixation, and suffixes fall into three categories with respect to their Umlaut inducing behavior: 1) suffixes which ALWAYS induce Umlaut; 2) suffixes which IRREGULARLY induce Umlaut; 3) suffixes that NEVER induce Umlaut. A few examples appear in (1).

- (1) a. suffixes which always induce Umlaut
- | | | | | | |
|----------------------|-------|---------|---|---------|----------|
| [_{PL} +er] | drong | ‘stick’ | ~ | drenger | ‘sticks’ |
| [_{PL} +ø] | shux | ‘shoe’ | ~ | shix | ‘shoes’ |
- b. suffixes which irregularly induce Umlaut
- | | | | | | |
|----------------------|------|---------|---|-------|----------------|
| [_{DIM} +l] | tsop | ‘braid’ | ~ | tsepl | ‘little braid’ |
| vs. | ban | ‘train’ | ~ | bandl | ‘little train’ |
- c. suffixes that never induce Umlaut
- | | | | | | |
|-----------------------|------|--------------|---|---------|----------------|
| [_{PL} + es] | zhuk | ‘coackroach’ | ~ | zhukes | ‘coackroaches’ |
| | | | | *zhikes | |
| [_{PL} + n] | traf | ‘syllable’ | ~ | trafn | ‘syllables’ |
| | | | | *trefn | |

Another point of similarity with Standard German is the inability of Yiddish Umlaut to target affixes. Thus, adjectival +lex can be seen to trigger Umlaut in *grintlex* ‘fundamental’ (< grunt ‘ground’), yet **visnsheftlex* (< visn+shaft+lex ‘scientific’) is out of the question.

On the other hand, Yiddish provides a valuable source of evidence unavailable in German. It will be discussed in due course and will prove crucial for the proposal I will develop: Yiddish +er, and + Ø plurals (formed with exceptionless Umlaut, and much more numerous than in Standard German) allow embedding under diminutive +l, thus giving rise to the ‘Perlmutter’ effect whereby an inflectional affix (plural, underscored in (2)) appears to be embedded under, or to the left of a derivational (diminutive) affix, noted in caps in (2):

- (2) dorn ‘thorn’ derner ‘thorns’ dernerlex /dorn+er+L+ex/ ‘little thorns’
 shux ‘shoe’ shix ‘shoes’ shixlex /shux+g+L+ex/ ‘little shoes’

2. The proposal. I will argue that Umlaut is *in no way* a property of the suffixes that apparently induce it. Rather, Umlaut is a strictly structural consequence of the conditions under which a root merges with a category-assigning head (cf. Embick & Marantz (2006) and references therein). Denominal adjectives will illustrate the point. Under normal conditions, a denominal adjective will be formed in two-step fashion: first a root will merge with N, then with ADJ. The structural configuration is shown in (3), along with an example below.

- (3) [_{adjP} ADJ [_{nP} N [_{√P} √]]]
 [_{adjP} ik [_{nP} N [_{√P} √KANT]]]: kantik ‘angular’ (<kant ‘angle’)

However, another option is available, viz. ‘rough’ merger of ADJ directly with √. When the nominal step of the derivation is bypassed, Umlaut kicks in. This is represented in (4a); for graphic clarity, I have represented the bypassed nominal step as ‘--’ in (4b). I take both representations to be equivalent for purposes of the point made here. Again, an example – this time, of course, WITH Umlaut – appears below the structural configurations:

- (4) Umlaut configuration:
 a. [_{adjP} ADJ [_{√P} √]]
 b. [_{adjP} ADJ [-- [_{√P} √]]]
 [_{adjP} ik [_{√P} √KALB]]: kelbik ‘pregnant cow’ (cf. kalb ‘calf’)

An important confirmation for the proposal put forth here comes from a robust semantic generalization: the denotation of umlauted adjectives may or may not be compositional; the denotation of non-umlauted adjectives is always compositional. This is entirely consistent with an observation due to Maya Arad (2005). Arad notes that the semantic contribution of a head which is directly adjacent to a root is more or less ‘free’. And indeed, umlauted *kelbik* denotes the condition of a pregnant cow, not the property of being calf-like. By contrast, non-umlauted *kantik* could not denote anything but the property of being endowed with the characteristics denoted by the noun *kant*.

3. Consequences. Based on the considerations developed above, I will 1) assess the structural position of the regularly umlaut-inducing plurals described in (1a), and 2) draw the consequences for the projecting properties of features such as [n] and [PL].

Arad, M. 2005. *Roots and Patterns*, Springer, Dordrecht.

Booij, G. 1995. Inherent versus contextual inflection and the Split Morphology Hypothesis, *Yearbook of Morphology*.

Borer, H. 1998. Morphology and Syntax, *The Handbook of Morphology*, A. Spencer & A. Zwicky (eds.), Blackwell, Oxford, 151-191.

Borer, H. 2005. *In Name Only, Structuring Sense Volume I*, Oxford University Press.

Embick, D. & A. Marantz. 2006. Architecture and blocking, ms. University of Pennsylvania and MIT.

Janda, R. 1998. German Umlaut: Morpholexical All the Way Down from OHG to NHG TwoStützpunkte for romance Metaphony, *Rivista di Linguistica* **10.1**: 165-234.

Mark, Y. 1942. vegn mertsoln fun verter vos shtamen fun hebreish, *yidishe shprakh* **II**: 76-82.

Mark, Y. 1954. mertsol fun zakhverter, *yidishe shprakh* **XIV** 2: 33-42.

Mark, Y. 1954 mertsol fun zakhverter, *yidishe shprakh* **XIV** 3: 80-92.

Mark, Y. 1955 mertsol fun zakhverter, *yidishe shprakh* **XV** 2: 58-64.

Mark, Y. 1956 mertsol fun zakhverter, *yidishe shprakh* **XVI** 1: 8-22.

Mark, Y. 1978 *Gramatik fun der yidisher klal-shprakh*, Congress for Jewish Culture, New York.

Perlmutter, D. 1988 The Split Morphology Hypothesis: Evidence from Yiddish, *Theoretical Morphology*, M. Hammond and M. Noonan (eds.), 79-99.

Zwicky, A. 1967 Umlaut and Noun Plurals in German, *Studia Grammatica* **6**: 35-45.

Morphological umlaut in Verbs in present day Low Saxon and Low Frankish dialects

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There are several theories on the development and maintenance of umlaut in Dutch or in Dutch dialects. For words not alternating umlauted forms with non-umlauted forms anymore, there is only historical evidence from the sister languages. Words that show alternations, do so in word forms related by morphology, and we see this synchronically. The difficulty is often that in the exposition of their umlaut theories historical linguists indiscriminately travel between modern synchrony and (very early) diachrony.

I will give an analysis of morphological umlaut in Dutch dialectal verb forms that is strictly based on synchronous modern data from the GTRproject database as used in the Morphological Atlas of the Dutch Dialects (MAND). (And if dataprocessing has been done in time, also of noun plurals and diminutives).

Neither of the postulated developments is completely projectable into the modern dialects; and there are also differences as regards region: southeastern umlaut is not the same as northeastern umlaut.

**On the relation between phonological and geographical distance: the successive decline of
umlaut in Dutch dialects**

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Umlaut as a phonological process is attested in diminutives in eastern Dutch dialects, but not in more western dialects. This research explores the development from a full umlaut system to an umlautless system in dialect continua and investigates whether a relationship between phonological and geographical distance can be revealed. This micro variation study makes use of the Morphological Atlas of Dutch Dialects (MAND), the database of the Meertens Institute of the KNAW and additional dialect biographies.

It is assumed that umlaut is a floating feature [+front] on the diminutive suffix, which spreads from right to left and is attached to the final full stem vowel. However, some segments e.g. a coronal consonant, attract this feature and in such a case the umlaut cannot reach the full stem vowel and does not surface at all. By comparing diminutives in dialect continua in three different regions, it is possible to trace back the phonological contexts that resist umlaut subsequently and it can be observed that from east to west the number of these contexts increases. In between umlaut in a particular context in dialect A and no umlaut in that same context in dialect C, quite often variation is attested in the same context in Dialect B. A second observation is that when the results of those four regions are compared, it becomes clear that these contexts often are similar, e.g. an open syllable or a complex coda or a low vowel, but the order in which these contexts are applied from east to west differs per region.

This suggests that a relationship between this particular phonological process and the geographical distance exists, which can be explained in a constrained based model. In comparing different dialects, reranked of certain constraints is expected and the larger the geographical distance, the more rerankings take place. I assume that reranking is a gradual process in which different strata of non crucially ranked constraints cause variation. More or less the same constraints are relevant for all regions, but the actual reranking process differs per region.

Transmission and diffusion of palatalized [u]>[y] and umlaut in eastern Dutch dialects

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Later Old Germanic underwent a revolutionary realignment of the vocalic system by the introduction of a complete new sequence of fronted back vowels, [y], [ø], [œ] (Gothic did not have them), presumably between the 6th and 8th century (Rask 1811, Grimm 1822). Despite the overall similarity within Germanic, the new sequence has been incorporated into the sound system of the distinct continental varieties in at least two different manners that were spatially separated: it has either been incorporated as a conditioned change ("secondary umlaut" in roughly the varieties of present-day Germany, [u] > [y] under influence of [i], etc.) or as a gradual across-the-board process as spontaneous palatalization of long vowels in Dutch varieties [u:] > [y:]. For the internal mechanism of secondary umlaut it is uncontroversially assumed that it was facilitated by an "umlaut factor" in unstressed syllables. A possible language-internal scenario is that the umlaut factor facilitated a slightly fronted allomorph of the back vowels, which fronting became phonemic after the reduction c.q. elimination of the umlaut factor (Shetter 1958), probably in a process of deflection in the late Old-Germanic period.

First, we will argue that this change has proceeded by "transmission" in terms of the Labov 2007-model, i.e. as a gradual change during various life spans. For spontaneous palatalization, a similar gradual process of Lautwandel is likely as well in earlier stages (Heeroma 1965, Goossens 1962), but it has been convincingly argued that the spontaneous palatalized [y] (<[u]), has spread eastward, word by word, morpheme by morpheme, by diffusion ("Lautersatz", "lexical diffusion", cf. Kloeke 1927, Van Reenen 1992). The present-day line where this diffusion has stopped is interesting as it (almost) coincides with (the borderline of the regions Salland and Twente in the eastern province Overijssel in the Netherlands), an old geographical border (moors), a socio-linguistic border (protestant-catholic), an old military border (between Spanish and Dutch troops during the Dutch Revolution), as well as the linguistic border (morphological umlaut). Despite the fact that the isogloss is old (Van Reenen 2006), it seems to be minimally moving (only slightly in the border dialect of Hellendoorn where umlaut is declining (Nijen Twilhaar 1990). Using new fieldwork data for the distribution of morphological umlaut in specific contexts (e.g. plural formation and diminutive formation), we evaluate the various counterforces that block further diffusion of the spontaneous palatalisation, especially the structural counterforce of morphological umlaut. As a preliminary result we may conclude that language varieties that geographically "meet" are sensitive to each other both on the level of grammatical system and on the phonemic output level.

- Goossens, J. 1962. Die gerundeten Palatalvokale im Niederländischen Sprachraum. *Zeitschrift für Mundartforschung* **29**, 313-328.
- Grimm, J. 1822. *Deutsche Grammatik*. Dieterich : Göttingen.
- Heeroma, K. 1965. De herkomst van het Nederlandse vocalisme. *Taal en Tongval* **17**, 162-180.
- Kloeke, G.G. 1927 De Hollandsche Expansie in de zestiende en zeventiende eeuw en haar weerspiegeling in de hedendaagsche Nederlandse dialecten: proeve eener historisch-dialect-geographische synthese. Martinus Nijhoff, 's-Gravenhage.
- Labov, W. 2007. The life span of linguistic change. *Talk presented at ICHL18*, Aug 7-11, 2007, Montreal.
- Nijen Twilhaar, J. 1990. Generatieve fonologie en de studie van Oostnederlandse dialecten. Amsterdam: P.J. Meertens-Instituut.
- Reenen, P. van. 1992. *Corpustaalkunde en de Hollandse Expansie*. Stichting het Vrije Universiteitsfonds: Amsterdam.
- Reenen, P. van. 2006. *In Holland staat een huis*. Nodus: Münster.
- Shetter, W.Z. 1958. Phonemics of the Zwolle Dialect: Synchronic and Diachronic. *Language* **34**, 40-54.