Naturally!

Linguistic studies in honour of Wolfgang Ulrich Dressler presented on the occasion of his 60th birthday

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Some observations on the role of lexicalization in standard/dialect phonology and in sociophonological change

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5. Introduction

In a series of publications from the 70s onwards, W.U. Dressler has contributed in substantial ways to theoretical phonology, building on the model of Natural Phonology as introduced by David Stampe, and developing his own, semiotically inspired version of naturalness (cf., among many other publications, Dressler 1976, 1980 or 1984; recently Foltin & Dressler 1997). At the same time, Dressler and his colleagues and disciples in Vienna have shown a distinct interest in applying Natural Phonology to the description of standard/dialect variation within the Austrian (and particularly, the Viennese) linguistic repertoire (cf., e.g., Dressler & Wodak 1982, Dressler & Moosmüller 1991; Moosmüller 1987, 1988). This interest has led to an impressive output of theoretical and empirical writings. These have presented a unified model of social and linguistic description, the relevance of which for sociolinguistic theory-building in general has not yet been sufficiently appreciated in the international sociolinguistic community. (Social dialectology continues to be influenced by the Labovian paradigm of variation studies which seems to predominate despite the fact that it is difficult to apply in most European contexts (cf. Auer 1995).)

In the present article, I focus on one particular aspect of Dressler's "bi-competence model", i.e. the role of lexicalization – in a way, the counterpole of naturalness. I will argue that lexicalization is one of the most important developments in the standard/dialect repertoires (particularly in Southern German) which needs to be taken into account in any sociophonological model which endeavors to capture the changes in present-day European dialects. I will first briefly outline the role of lexicalization in Natural Phonology and in the "bi-competence model", before I turn to some empirical evidence for lexicalization as the outcome of change in modern standard/dialect repertoires.

6. Lexicalization in Natural Phonology and in the "Bi-Competence Model"

Natural Phonology as conceived by Dressler distinguishes between phonological processes and morphological rules as prototypes which each establish their own scales (squishes) of functional/semiotic optimality (cf. Dressler 1976:330). Prototypical phonological processes are "natural" in the sense of following a teleology of facilitating the perception or pronunciation of sounds, which means that they are the output of universal phonological "process types" that apply in an unrestricted fashion in a particular language system. (The first, more hearer-oriented teleology results in mostly context-free fortitions and is typical of pre-lexical rules which constitute the phonemic system; the latter, more speaker-oriented teleology results in mostly context-dependent lenitions – such as assimilations - and is typical of post-lexical processes, as they apply, for instance, in casual speech.) Prototypical phonological processes are fully productive (i.e., they also apply to new forms, such as neologisms) and they are independent of morphological information. Prototypical morphological rules, on the other hand, are "phonetically arbitrary" ("implausible", Dressler 1976: 318). Optimal phonology is "natural" (in semiotic terms: biunique or at least unique, i.e. "iconic", but also "indexical", i.e. context-dependent); optimal morphology is "transparent" ("iconic").Yet phonological processes may apply in a non-optimal way; particularly in derivation and inflection, phonology may interact with morphology. (Here, a parallel with the "lexical rules" of Lexical Phonology is obvious.) Therefore, phonological processes (particularly unique, less likely bi-unique ones) can morphologize in the course of language change (cf., e.g., the history of German Umlaut, or Italian palatalization), i.e., a natural phonological process may turn into a morphonological or even a morphological one, while the opposite development is not possible. In this context, lexicalization is introduced by Dressler (1980:52) as the fate of "even more ambiguous" phonological processes "that are likely to apply to an ever smaller percentage of the lexical items they should apply to according to their structural description ('lexical fading')" (l.c.). Here, lexicalization appears at the deepest end of a cline which leads away from the 'pure' application of a natural process and ends in maximal 'symbolic' (non-natural) restrictions being imposed on it. Examples would be the remnants of English Umlaut (*feet, geese*, etc.) or plural voicing (*roof – rooves* etc.). Again, the cline is non-reversible.

When this model is extended to more complex repertoires, for instance to those containing a standard-type and a dialect-type component, the distinction between pre-lexical, lexical (morphonological) and post-lexical process applications can be maintained; it simply doubles, for the two components will each have their own pre-/post- and lexical rules, as well as usually a good number of common ones. However, as Dressler and colleagues point out, the factual links between these two components have to be modelled as well. Apart from overlapping sets of processes, one decisive linking mechanism between dialect and

standard are what Dressler calls "input switch rules" (cf. Dressler & Wodak 1978:345f; cf. the "rules of correspondence" in Auer 1995, 1990). These rules connect those lexical items ("morphemes" or "words") to each which originate either from their different pre-lexical rules or from lexical re-allocations (*lexikalische Umbesetzungen*) in the two distinct components of the repertoire. As an example of the first case, consider the fact that many High and Middle German dialects do not distinguish round from unround front vowels; according to a pre-lexical rule, front vowels of these dialects are always specified as [–round], while some of the words containing an unround front mid or high vowel will appear as words containing a corresponding round vowel in the standard variety, e.g.:

(1)	Middle Bavarian	/fiɐ/	/diɐ/	/keɐt/	/be:s/	corresponds with
	Bavarian Std.	/fy:a/	/dy:a/	/gehø:at/	/bø:se/	
		'for'	'door'	'belongs'	'bad'.	

While the dialectal forms can be derived by rule from the standard forms, the opposite does not apply; rather, for each dialect word, the relation to its corresponding standard word has to be learned individually. The second case, lexical re-allocation, refers to those instances in which dialect and standard both include the same phonemes in their phonological structure, but with different lexical distribution. For instance, in the same middle Bavarian repertoires mentioned above, the two diphthongs /ai/ and /ɔi/ occur both in the standard and in the dialect component, but not in the same (i.e., etymologically and semantically related) words:

(2)	Middle Bavarian:	/hɔit/	/fɔit/	/vɔit/	—	/hait/	/sai/	/saitn/
	Bavarian Std.:	/halt/	/fɛlt/	/valt/	—	/hɔite/	/sain/	/saite/
		'hold'	'falls'	'wood(s)'	—	'today'	'his'	'side'

In this case, no difference in pre-lexical rules is involved since both Bavarian and Standard Bavarian have /ɔi/ and /ai/ in their phoneme repertoires. However, dialectal /ɔi/ corresponds with syllable-final std. /a+l/ (or /ɛ+l/), but Bavarian /ai/ with Standard Bavarian /ɔi/ or /ai/.

Thus, "input switch rules" introduce a highly frequent kind of "lexicalization" into bi-dialectal grammar. Contrary to "lexicalization" in a monolectal repertoire (which, in the metaphor of Lexical Phonology, is purely "vertical", in the sense of the "deepness" of grammatical embedding of a rule), "lexicalization" in a bidialectal repertoire is the most important means for linking standard and dialect to each other ("horizontally", if we imagine standard and dialect standing side by side).

7. Lexicalization in sociophonological change

Now, in monolectal Natural Phonology, it is predicted that language change will lead to an increase in morphologization and (even) lexicalization of productive

% standard: / *no. of speakers:*	< 60% 8	60-74% 5	75-84% 7	85-89% 5	90-94% 7	> 94% 9
kriegen 'to get'	+	+	+	+	+	+
zu 'PREP., PREFIX'	+	+	+	+	+	+
tun 'to do'	+	+	+	+	+	+
gut 'good, well'	+	+	+	+	+	+
Bub 'boy'	+	+	+	ø	+	ø
Schule 'school'	+	+	+	+	–	+
wie 'as, like'	+	–	+	–	–	+
muß 'must'	+	+	+	+	+	–
rufen 'to call'	+	+	+	+	ø	–
müssen 'must'	+	+	+	+	–	–
Kuchen 'cake'	+	+	+	+	–	ø
Schuh 'shoe'	+	+	+	ø	–	–
nie 'never'	+	+	+	–	–	–
suchen 'to look for'	+	+	+	–	–	–
Bücher 'books'	+	+	ø	–	–	–
niemand 'nobody'	+	+	–	–	–	–

Only lexical items of which examples were available in at least four of the six token frequency groups are shown. ø = no data available.

Table 1. *Loss of* ie/ue*-diphthongs in the city dialect of Constance in token frequency and types (table adapted from Auer 1990:130)*

(natural) processes, but not the other way round. Although both morphologization and lexicalization lead to non-optimal phonological structures (i.e., to less iconicity/biuniqueness and more symbolic components), this deterioration is compensated for by an increase in (morphonological) indexicality (function); morphology wins over phonology. The same can be expected in the dialect and standard component of a "bi-competence model" when considered in isolation. However, input switch rules present a different case. Here, no morphological issues are involved; and since learning a high number of input switch rules is cognitively costly, one would expect language change (such as dialect/standard convergence or dialect-to-standard advergence) to reduce their number. We would therefore predict that through a process of word-by-word loss (erosion), lexical reallocations quickly disappear, and different pre-lexical rules of standard and dialect level out.

There is indeed evidence that such leveling is proceeding on a word-by-word basis. An example is the disappearance of the high-falling diphthongs /ie/, /ue/ (< MHG *ie, uo, üö*) in the urban dialect of Constance. In the present day vernacular spoken in the town, the input switch rules linking words containing these diphthongs to their standard German counterparts, i.e. words with the long high vowels /i:, u:/, are gradually being lost, and the diphthongs thereby being replaced by monophthongs. This sociophonological change can even be captured in the format of an implicational scale, i.e. it follows the usual route of lexical diffusions (but in reverse). Table 1 shows how the decrease of overall (token) frequency of the standard forms (rows) proceeds hand in hand with a lexical erosion of the lexical base (lines).

The number of tokens in which the dialectal diphthong is used decreases with the number of types; thus, of the 16 words used by the most and the second most dialectal speakers, only 15 (14) remain in the third group, 12 (11) in the fourth group, 9 (8) in the fifth and 4-6 in the sixth. Or, to put it the other way round: although the standard form could be derived by a simple context-free phonological rule (*ie/ue* → *i:/u:*), which would apply in a probabilistic way to any dialect word with a diphthong, speakers do not proceed in this way. Rather, dialect/standard convergence implies the word-by-word loss of input-switch rules, and this loss proceeds along lines so similar within the community that it can be represented by an implicational scale in which the only exception is the word *wie*.

8. The limits of lexical erosion in standard/dialect leveling

Thus, a model of standard/dialect phonology which includes input switch or correspondence rules can easily explain certain empirical facts of language change in the present day German standard/dialect repertoires. Another empirical observation is not so easily accommodated by the model and its underpinnings in Natural Phonology. This is the fact that the loss of input-switch rules often stops before reaching completion, i.e. a handful of dialectal words remain and survive leveling. These 'survivors' are not 'relict words' in the sense of archaisms, little used and little known;[1] rather they are high-frequency words which form a central part of everyday vocabulary or which even have a grammatical function (such as auxiliaries).

A good example are the reflexes of MHD *ei* in the Constance vernacular. In the case which is quantitatively by far dominant, this *ei* is realized today just as it is in Standard German, i.e. as [ɑɪ]. There are, however, a number of wildly divergent realizations which also have their historical origin in MHD *ei*, and std. /ai/ as their present-day counterpart; these are (notably) always restricted to very few, but highly frequent lexical items. For instance, in the dialectal form corresponding with std. *klein* 'small', we find the only instance of /ɛ:/ as a reflex of MHD *ei*, and therefore an isolated input switch rule /klain/ ↔ /klɛ:/. Similarly, the std. words *weiß(t)* 'know(s)', *kein* 'no', *mein(en)* '(to) mean' and *ein* 'one' correspond with dialectal /vɔʃ, kɔn, mɔn, ɔn/, i.e. the MHD diphthong is here realized as a velar monophthong. While the likelihood that these words be realized in the dialectal form is not the same (the above order represents their decreasing frequency[2]), the monophthong is restricted to exactly this list of words in the present-day city vernacular. There is some evidence that we are dealing with the remains of a more general phonological rule of monophthongization

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1 This would be predicted by models of lexical diffusion or cultural spread in general; cf. Rogers 1983 - , where an S-curve type of phasing out is postulated which, as a statistical model, is compatible with the perserveration of some few dialect forms in standard leveling.

2 /vɔʃ/ is also used as a tag question and therefore reaches very high frequencies in some speakers.

Variable	Interview			relative
	1-5	5-8	1-8	
(P,T)	–7.2	–1.9	–9.0	–72
(Ü)	–1.3	–0.8	(–2.1)	(–94)
(A:)	–6.9	–3.2	–10.2	–65
(E:)	–1.2	–0.4	(–1.6)	(–31)
(OI)	–0.2	–0.1	(–0.3)	(–43)
(Ü:)	–2.8	–0.3	(–3.0)	(–62)
(O:)	–3.2	–2.9	–6.0	–49
(U:)	–1.7	–1.0	(–2.7)	(–74)
(CH)	–6.3	–6.3	–12.6	–44
(G)	–3.1	–0.9	(–3.9)	(–24)
(AUCH)	–5.3	–4.9	–10.1	–20
(AI)	+1.1	–0.7	+0.4	+3

1st column: absolute difference between the first and fifth interview (1st year); 2nd column: absolute difference between the fifth and eighth interview (2nd year); 3rd column: total change in two years, i.e., absolute difference between the first and the eighth interview; 4th column: change in two years relative to the initial USV values; differences not reaching 5% significance level or more in parentheses; from: Auer, Barden & Großkopf (1998).[3]

***Table 2.** Absolute and relative accommodation of the standard variety by speakers of Upper Saxonian Vernacular (in %) over two years*

before nasals and /s/ (=[ʃ]), but during this century, the situation seems to have been quite stable: an investigation among NORM/NORF speakers in the 1920s (Joos 1928) lists only two additional words – /gmɔndro:t/ 'commune council' and /hɔdlə/ 'bilberries' – in which the input switch rules have been lost over the last 70 years, in the latter case together with the whole word. These and many more examples show that although input switch rules are generally subject to standard/dialect leveling, some of them – particularly in highly frequent words - are often remarkably resistent to standard influence.

The rather special role of exceptional and isolated lexicalized dialect forms is not only evident from dialect change on the community level (such as in the Constance case). It receives further support from an investigation of long-term dialect accommodation, a field which also provides some clues to the socio-phonological background for this resistence to leveling. Table 2 above and Figure 1 below present some results of a longitudinal study on standard accommodation among Saxonian speakers who migrated into the Western parts of Germany around 1990 (cf. Auer, Barden & Großkopf 1998, Barden & Großkopf 1998). The purpose of this study was to investigate whether, to which degree and in which phonological features Saxonian speakers suppress the Upper Saxonian Vernacular (USV) in interaction with standard-speaking West Germans.

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[3] The following variables were investigated: (A): vernacular velarized (rounded, back) long low vowel for std. [a]; (E): vernacular low long mid front vowel for std. [e:]; (Ü:): vernacular non-rounded long high front vowel for std. [y:]; (Ü): vernacular non-rounded short high front vowel for std. [ʏ]; (O:): vernacular centralization of long mid back vowel for std. [o:]; (U:) vernacular centralization of long high back vowel for std. [u:]; (OI): vernacular non-round

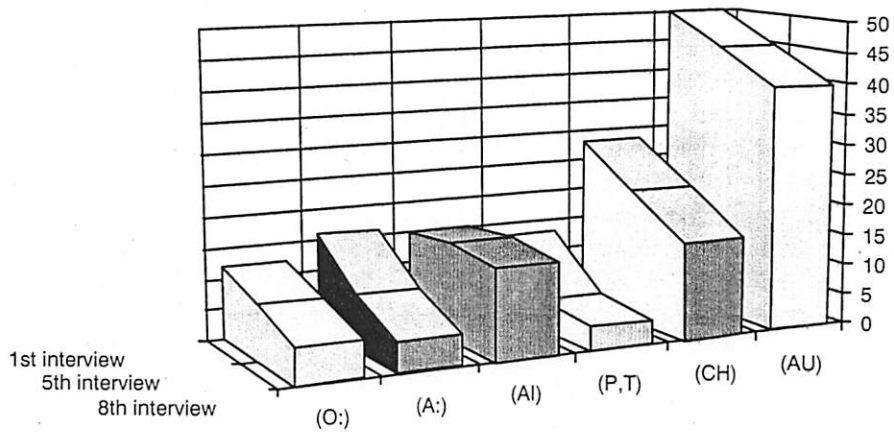

Figure 1. *Loss of (strong) USV forms over two years (significant differences only). From: Auer, Barden & Großkopf (1998)*

Of the variables investigated, only (AI) and (AU) are massively lexicalized. In diachronic terms, they represent lexical reallocations (*lexikalische Umbesetzungen*) in the reflexes of MHG *ei* and *au* which are usually realized as /ai/ and /au/ in std. German, but as monophthongal /e:/ and /o:/ in some words of the USV. Synchronically speaking, we are dealing with a group of input switch rules with an extremely narrow lexical basis in our data; particularly for (AU), only the word *auch* is still widely used in the dialectal form, i.e. /o:x/; for (AI), the lexical basis is slightly broader.[4] The fact that (AI) and (AU) are input switch rules (as well as the concomitant socio-psychological fact that these input switch rules are highly conscious and salient), would make accommodation of the standard form (i.e., leveling) rather likely. However, as Table (2) shows, (AU) and (AI) are the variables in which accommodation over the two-year period investigated was *least* prominent: in (AU), the relative decrease of 20% in dialectal realizations is less than in any other variable, for (AI), there is even an increase of 3%. Once more, it is quite clear that a residue of lexical input switch rules is highly resistent to the influence of the standard.

9. Conclusion

Both in dialect/standard leveling in the repertoire of a community and in long-term dialect accommodation in (groups of) individuals we found evidence for

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back outgliding diphthong for std. /oi/; /AI/: vernacular monophthong /e:/ instead of the std. front outgliding diphthong /ai/; (AU): vernacular monophthong /o:/ instead of the std. back outgliding diphthong /au/ in the word *auch*; (CH): vernacular coronalization of the palato-alveolar fricative std. [ç]; (G): vernacular spirantization of the intervocalic velar voiced stop std. [g]; (P,T): vernacular syllable-initial lenis stops instead of voiceless fortes.

4 In our data, it contains (in decreasing frequency of dialectal realization) the words *ein, kein, weiß/(t), allein(e), zwei(te), heißen, meinen, klein* and *heim*.

the resistence of residual lexical input switch rules to the general trend which is characterized by a loss of lexicalized differences between standard and dialect. This resistence is not predicted by Natural Phonology, but it perfectly makes sense in social and social psychological terms: While the cognitive effort to learn this very limited number of dialect/standard correspondences is small, the social gains are considerable: functioning as schibboleths for the community, they are displays of regional identity. It is easy to capture this function of residual input switch rules in a semiotic model of (socio-)phonology, as propagated by W.U. Dressler, which goes beyond Natural Phonology in its original version. In such a model, they may be seen as *indexes* of local culture or *Heimat*.

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