

Abstract for the Leipzig conference on competing motivations

## Conflicting vs. convergent vs. interdependent motivations in morphology

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“Competing motivations” may have different meanings. I intend to discuss three of them:

- 1) Competition may mean conflicting motivations either within the same theoretical approach or between different theoretical approaches. This is prototypical rivalry between motivations that exclude each other, if properly formulated. This is the classical case of the scientific ideal of monocausality, which is much easier to establish in “hard” sciences than in “soft” human sciences to which linguistics belongs in spite of all efforts to the contrary. Here the main epistemological problem is the weight of decisive criteria, whereas the main problem from the perspective of the sociology of science is ideological aversion against other theoretical approaches.
- 2) Convergent motivations are best conceived of as mutually independent motivations that combine or conspire in determining or promoting a certain result. Here the main problems lie in establishing multicausality, the mutual independence of motivations and in weighting the relative importance of each motivation.
- 3) Interdependent motivations are the most problematic ones to identify and classify. The ideal is to subordinate one motivation under another one, e.g. when subordinating a linguistic principle under a semiotic one. Here we must avoid the danger of undue reductionism, and clear criteria must be established, for example for differentiating reduction of phonology to phonetics from establishing a phonetic basis for a phonological generalisation. Whenever symmetric, reciprocal implications are found, one should try to subordinate such implications under a higher level motivation. But when asymmetric implications are found, then there may be either a superordinate motivating principle or the implied may be simply more basic.
- 4) An orthogonal dichotomy is the difference between sufficient and partial motivations where the boundaries are often difficult to draw. Are all non-reductionist motivations partial or are partial motivations rather a symptom of insufficiency of explanation?

I intend to discuss these and related problems with examples A) from morphological grammar theory with their synchronic and diachronic impacts and B) from psycholinguistic research in morphology (first language acquisition and online or offline processing, where I will draw on joint work with my coauthors). Since too many examples are worth of discussing, I am not yet decided which ones to finally choose, but indicate some of the most promising ones.

A) The theoretical approach is Natural Morphology with its “vertical” hierarchy of subordinations from extra-linguistic bases over subordinated universal morphological preferences, typological adequacy to language-specific system adequacy (cf. Dressler 2006, Kilani-Schoch & Dressler 2005), but this does not exclude that generalisations of a higher level may not be reweighted as less weighty than generalisations of a lower hierarchical level. But architectural problems of the model will be much less dealt with than topics which are relevant to several morphological models.

A case of hierarchisation of motivations applies to Greenberg’s (1963) generalisation that derivational affixes tend to be positioned between lexical roots/stems and inflectional affixes. Dressler (1989) has extended this to the preferential right-bound order: root/stem –

prototypical derivation – non-prototypical derivation – non-prototypical (= inherent) inflection – prototypical (= contextual) inflection. The highest-level motivation for this order proposed so far (Dressler 1989) is the difference between the main functions of derivation (lexical function) and inflection (syntactic function). The motivating syntactic function of inflection is combined with the indexical closeness preference in preferring inflectional indexical signantia of syntactic relations to be positioned closest to their indexical signata (e.g. in agreement the morphological marker of the gender targets closest to its gender controller) and thus to be peripheral in the word, especially in case of contextual inflection. The motivating lexical function of (especially prototypical) derivation favours lexicalisation (and tends to reduce morphosemantic transparency) and storage as a whole, which in turn combines with the word base preference of morphological rules in favouring inflectional suffixation following derivational suffixation than the inverse order. But how can the iconic correlation with degree of concreteness/abstraction of lexical, derivational and inflectional elements be related to this motivation architecture? And what about competing motivations formulated within other linguistic models?

In due respect to Leipzig-based Martin Haspelmath, his attack against the concept of markedness and its identification as an epiphenomenon (if that) of frequency (Haspelmath 2006) will be discussed in synchrony and diachrony. The main question about motivation will be whether markedness has to be subordinated to frequency or vice versa or whether mutual motivational relations are more complex (or whether it is a hen-and-egg question).

Markedness vs. frequency is also a general topic in the field of morphonotactics, as proposed by Dressler & Dziubalska (2006): phonological markedness predictions may interact conflictingly with typological morphotactic motivations and explain why certain phonotactically consonant clusters occur only in morphologically complex words or word forms, as in G. *lach-st* '(you) laugh', but frequency considerations come in when this is not an exclusive but still a default constellation (as in frequent German patterns *leb+st* '(you) vs. rare monomorphemic occurrences, as in *Papst* 'pope') vs. an equal cooccurrence of morphonotactic and phonotactic patterns. Resulting predictions for typical vs. SLI language acquisition have been confirmed.

A case of conflicting and convergent motivations relating morphology to text linguistics is the tendency towards cataphorical reference of nominal compounding in titles to nouns and phrases in the following text (cf. Dressler & Mörth to appear): although cataphoric indexicality is dispreferred to anaphoric indexicality, which establishes more reliable sign relations, the convergence of textual condensation in titles and morphosemantic condensation in compounds appears to represent a stronger motivation.

B) The psycholinguistic data come, on the one hand, from processing studies undertaken together with Gary Libben, on the other hand from an international typological cooperation on first language acquisition of 18 languages (cf. Bittner et al. 2003, Savickiene & Dressler 2007, Stephany & Voeikova 2009) and related acquisitional studies.

The first acquisitional question why inflection emerges earlier than derivation in first language acquisition can be answered by two combined motivations: first, in morphology-rich languages, there is a syntactic motivation for the earlier emergence of inflection, but a second motivation comes from processing: peripheral morphemes are easier to segment and identify than medial morphemes. This explains also that in agglutinating languages the first case morpheme (contextual inflection) is acquired earlier than the plural morpheme (inherent inflection, cf. Stephany & Voeikova 2009).

But there is a motivated exception: early emergence of diminutives as representatives of non-prototypical derivation (Savickiene & Dressler 2007): what is the main motivation? The pragmatic importance of diminutives in child-directed speech or the fact that inflection of diminutives is usually more productive and transparent than of the average of the simplex bases of diminutives? Frequency plays a role insofar as a low threshold of critical mass of

diminutives must occur in child-directed speech. However diminutives emerge as early in German as in much diminutive-richer Dutch, etc.

This will lead us to the general motivating forces of richness vs. complexity of inflectional morphology in their impact on order of acquisition (cf. Laaha & Gillis 2007, Xanthos et al. to appear, Ravid et al. 2008).

Various online and offline processing studies by the authors and their associates (Dressler et al. 2001, Libben et al. 2002) have established the importance of morphotactic transparency for production and perception of German compounds. The same motivating force, together with degree of productivity can explain the order of emergence of German compound types: first compounds with mere concatenation and then compounds with productive *-n* interfixation after first-member-final schwa (e.g. *Straße+n+bahn* ‘tram’) are the first compound types acquired.

However, in the course of acquisition of nominal compounds the Viennese boy has a phase where he tends to omit this *-n*-interfix and simultaneously adds an *-e*-interfix to consonant-final first elements (e.g. *Hase+mama* ‘hare mother’, *Bank+e+sache-n* ‘bank hings’) in a sort of output-oriented conspiracy. Such developments represent a short-termed blind-alley development that children construct in deviation from adult targets and have to give up very soon. Such blind alleys provide the most forceful support for a constructivist approach to language acquisition. But how are such deviating child constructions motivated or constrained? Does “everything go”?

The most spectacular cases of blind alley construction within our project have occurred in the course of development of the Greek boy Christos in his attempts to acquire the Greek subjunctive introduced by the particle *na* (Christofidou & Kappa 1998): in a first blind alley he omitted the particle and lengthened the root vowel of the verb, although Modern Greek has no distinctive vowel length; in a second attempt he replaced the particle by a reduplicative syllable, although Modern Greek lacks reduplication as a grammatical operation. Thus he replaced the 3.Sg. subjunctive of ‘to cut’ [*na* ‘kopsi] first with [‘ko:pi], then with [ko’kopsi], two operations which Natural Morphology can motivate partially.

Finally we’ll discuss more in detail (including logistic regression statistics) the acquisition of actual German plural forms and of the differentiation between actual vs. potential vs. illegal plurals, based on an online processing test and on spontaneous longitudinal corpora. Conflicting and combined motivations will be discussed particularly in respect to our graded productivity model (Dressler 2003, Laaha et al. 2006, Libben et al. 2002) and to Köpcke’s (1998, cf. Bittner & Köpcke 2001) schema model.

## Bibliography

- Bittner, Dagmar, W.U. Dressler & Marianne Kilani-Schoch eds. 2003. *Development of Verb Inflection in First Language Acquisition: A Cross-Linguistic Perspective*. Berlin: de Gruyter.
- Bittner, Dagmar & Köpcke, Klaus-Michael (2001). Acquisition of the German plural markings: A case study in natural and cognitive morphology. In C. Schaner-Wolles, J. Rennison & F. Neubarth eds. *Naturally: Linguistic studies in honour of Wolfgang Ulrich Dressler*. Torino: Rosenberg & Sellier. 47-58.
- Christofidou, Anastasia & Ioanna Kappa. 1998. Pre- and protomorphological fillers in Greek language acquisition. In: S. Gillis ed. *Studies in the Acquisition of Number and Diminutive Marking*. Antwerp Papers in Linguistics 95. 193-214.
- Dressler, Wolfgang U. 1989. Prototypical differences between inflection and derivation. *Zs. für Phonetik, Sprachwissenschaft und Kommunikationsforschung* 42. 3-10
- Dressler, W.U. 2003. Degrees of grammatical productivity in inflectional morphology. *Italian Journal of Linguistics* 15. 31-62.
- Dressler, W.U. 2006. ed. Special Issue: Natural Morphology. *Folia Linguistica* 40,1-2.

- Dressler, W.U. & Katarzyna Dziubalska-Kořaczyk. 2006. Proposing morphonotactics. *Italian Journal of Linguistics* 18. 249-266.
- Dressler, W.U., Laura E. Lettner & Katharina Korecky-Kröll. 2010. First language acquisition of compounds with special emphasis on early German child language. In S. Scalise & I. Vogel eds. *Cross-Disciplinary in Compounding*. Amsterdam: Benjamins. to appear
- Dressler, W.U., Gary Libben, Jacqueline Stark, Christiane Pons & Gonia Jarema. 2001. "The processing of interfixed German compounds". *Yearbook of Morphology* 1999.185-220.
- Dressler, W.U. & Karlheinz Mörth. 2010. Produktive und weniger produktive Komposition in ihrer Rolle im Text an Hand der Beziehungen zwischen Titel und Text. To appear
- Greenberg, Joseph H. 1963. Some universals of grammar with particular reference to the order of meaningful elements. In: J.H. Greenberg ed. *Universals of Language*. Cambridge: MIT Press.
- Haspelmath, Martin. 2006. Against markedness (and what to replace it with). *Journal of Linguistics* 42. 25-70.
- Kilani-Schoch, Marianne & W.U. Dressler. 2005. *Morphologie naturelle et flexion du verbe français*. Tübingen: Narr.
- Köpcke, Klaus-Michael. 1998. The acquisition of plural marking in English and German revisited: schemata versus rules. *Journal of Child Language* 25, 293-319.
- Laaha, Sabine & Steven Gillis eds. 2007. Typological perspectives on the acquisition of noun and verb morphology. *Antwerp Papers in Linguistics* 112.
- Laaha, Sabine, Dorit Ravid, Katharina Korecky-Kröll, Gregor Laaha & W.U. Dressler. 2006. Early noun plurals in German: regularity, productivity or default? *Journal of Child Language* 33. 271-302.
- Libben, Gary, Gonia Jarema, W.U. Dressler, Jacqueline Stark & Christiane Pons. 2002. "Triangulating the effects of interfixation in the processing of German compounds". *Folia Linguistica* 26. 23-43.
- Ravid, Dorit, W.U. Dressler, Bracha Nir-Sagiv, Katharina Korecky-Kröll, Agnita Souman, Katja Rehfeldt, Sabine Laaha, Johannes Bertl, Hans Basbøll & Steven Gillis 2008 Core morphology in child directed speech: Crosslinguistic corpus analyses of noun plurals. In: H. Behrens ed. *Corpora in Language Acquisition Research*. Amsterdam: Benjamins. 25-60.
- Savickiene, Ineta & W.U., Dressler eds. 2007. *The Acquisition of Diminutives*. Amsterdam: Benjamins.
- Stephany, Ursula & Maria D. Voeikova eds. 2009 *Development of Nominal Inflection in First Language Acquisition: A Cross-Linguistic Perspective*. Berlin: Mouton de Gruyter.
- Xanthos, Aris, Sabine Laaha, Steven Gillis, Ursula Stephany, Ayhan Aksu-Koç, Anastasia Christofidou, Natalia Gagarina, Gordana Hrzica, Nihan Ketzrez, Marianne Kilani-Schoch, Katharina Korecky-Kröll, Melita Kovačević, Klaus Laalo, Marijan Palmović, Barbara Pfeiler, Maria D. Voeikova & W.U. Dressler. 2010. On the role of morphological richness in the early development of noun and verb inflection. *First Language*, to appear.