Reconstructing HPSG morphology

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In this talk I will address existing approaches to morphology within HPSG from the point of view of inferential-realizational morphology, as characterized by (Stump, 2001, chap. 1) and illustrated and defended, among many others, by Robins (1959), Matthews (1972), Anderson (1992), Zwicky (1992), Corbett and Fraser (1993), Aronoff (1994), Stump (2001), Blevins (2006), Brown and Hippisley (in press). Such approaches to morphology are characterized by four features that are familiar to the HPSG ethos:

1. A commitment to strong lexicalism

2. A feature-based interface between morphology and syntax

3. A preference for empirical coverage over purported theoretical simplicity

4. A preference for formal explicitness over 'explanatory' reasoning

I will argue, following previous such arguments by e.g. Miller and Sag (1997), Ackerman and Webelhuth (1998), Crysmann (2002), Bonami and Boyé (2002, 2006), Bonami and Samvelian (2009), Sag (in press), Bonami and Webelhuth (in press), that HPSG can fruitfully be combined with an inferential-realizational approach to morphology. However I will also argue that the dominant practice in HPSG, as witnessed by such work as Flickinger (1987), Pollard and Sag (1987), Riehemann (1998), Koenig (1999), Müller (2002), Sag et al. (2003), Sag (in press), goes in the way of such a combination by continuously relying on lexical rules modeled on a par with phrase structure schemata as the primary device for morphological analysis. Such a decision leads to a number of conceptual and analytical issues, the two most prominent of which are the following:

1. Modeling inflection rules as sign-to-sign transitions is not appropriate, as four decades of work in Word and Paradigm morphology confirm.

2. The perceived advantages to combining lexeme formation rules and lexical entries in a single type hierarchy (see e.g. Riehemann, 1998; Koenig, 1999) turn out be detrimental when scaling up to the description of the full lexeme formation system of a language.

I will outline a different view of HPSG grammar architecture, where syntax, the inflection system, the lexeme formation system, and the lexicon, are four separate components related by meta-constraints, although all can be modeled using typed feature structures. Under such a view, words are the only type of lexical object known to the syntactic component, and a number of locality paradoxes between morphology, syntax and the lexicon can be addressed in the spirit of Sag (2010, in press).

References

Ackerman, F. and Webelhuth, G. (1998). *A Theory of Predicates.* Stanford: CSLI Publications.

Anderson, S. R. (1992). *A-Morphous Morphology.* Cambridge: Cambridge University Press.

Aronoff, M. (1994). *Morphology by itself.* Cambridge: MIT Press.

Blevins, J. P. (2006). 'Word-based morphology'. *Journal of Linguistics*, 42:531–573.

Bonami, O. and Boyé, G. (2002). 'Suppletion and stem dependency in inflectional morphology'. In F. Van Eynde, L. Hellan, and D. Beerman (eds.), *The Proceedings of the HPSG '01 Conference.* Stanford: CSLI Publications.

———— (2006). 'Deriving inflectional irregularity'. In *Proceedings of the 13th International Conference on HPSG.* Stanford: CSLI Publications, 39–59.

Bonami, O. and Samvelian, P. (2009). 'Inflectional periphrasis in Persian'. In S. Müller (ed.), *Proceedings of the HPSG 2009 Conference.* Stanford: CSLI Publications, 26–46.

Bonami, O. and Webelhuth, G. (in press). 'The phrase-structural diversity of periphrasis: a lexicalist account'. In M. Chumakina and G. G. Corbett (eds.), *Periphrasis.* Oxford: British Academy and Oxford University Press.

Brown, D. and Hippisley, A. (in press). *Network Morphology: a defaults based theory of word structure.* Cambridge University Press.

Corbett, G. G. and Fraser, N. M. (1993). 'Network morphology: a DATR account of Russian nominal inflection'. *Journal of Linguistics*, 29:113–142.

Crysmann, B. (2002). *Constraint-based Coanalysis.* Ph.D. thesis, Universität des Saarlandes.

Flickinger, D. (1987). *Lexical rules in the hierarchical lexicon.* Ph.D. thesis, Stanford University.

Koenig, J.-P. (1999). *Lexical relations.* Stanford: CSLI Publications.

Matthews, P. H. (1972). *Inflectional Morphology. A Theoretical Study Based on Aspects of Latin Verb Conjugation.* Cambridge: Cambridge University Press.

Miller, P. and Sag, I. A. (1997). 'French clitic movement without clitics or movement'. *Natural Language and Linguistic Theory*, 15:573–639.

Müller, S. (2002). *Complex Predicates: Verbal Complexes, Resultative Constructions, and Particle Verbs in German.* Stanford: CSLI Publications.

Pollard, C. and Sag, I. A. (1987). *Information-based syntax and semantics.* Stanford: CSLI Publications.

Riehemann, S. (1998). 'Type-based derivational morphology'. *Journal of Comparative Germanic Linguistics*, 2:49–77.

Robins, R. H. (1959). 'In defense of WP'. *Transactions of the Philological Society*:116–144.

Sag, I. A. (2010). 'Feature geometry and locality'. In A. Kibort and G. G. Corbett (eds.), *Features: Perspectives on a Key Notion in Linguistics.* Oxford: Oxford University Press, 236–271.

———— (in press). 'Sign-based construction grammar: An informal synopsis'. In H. Boas and I. A. Sag (eds.), *Sign-Based Construction Grammar.* Stanford: CSLI Publications. Ms., Stanford University.

Sag, I. A., Wasow, T., and Bender, E. (2003). *Syntactic theory. A formal introduction.* Stanford: CSLI Publications, 2nd edn.

Stump, G. T. (2001). *Inflectional Morphology. A Theory of Paradigm Structure.* Cambridge: Cambridge University Press.

Zwicky, A. M. (1992). 'Some choices in the theory of morphology'. In R. D. Levine (ed.), *Formal Grammar. Theory and Implementation.* Oxford: Oxford University Press, 327–371.