Patterns of Nominalizations in Competition

Semantically equivalent nominalizations in German show variation with respect to blocking:

(1) -er-nouns and nominalized present participles
   a) equally acceptable
      i. der Bloßsteller – der Bloßstellende
      ii. der Denker – der Denkende
   b) preferences for the participle
      i. ?? der Glauber – der Glaubende
      ii. ?? der Schenker – der Schenkende
   c) equally bad
      i. * der Müsser - * der Müssende
      ii. * der Soller - * der Sollende

(2) -ung-nouns and nominalized infinitives
   a) equally acceptable
      iii. die Normalisierung – das Normalisieren
      iv. die Anerkennung – das Anerkennen
   b) preferences for the infinitive
      v. * die Streichelung – das Streicheln
      vi. * die Glaubung – das Glauben

To model this kind of competition, we propose a multi-factorial analysis within an OT-framework. In the following, we show our results for -ung-nouns/ nominalized infinitives (cf. (2) above). Similar work is still in progress for the data in (1).

The nominalization of infinitives is morphologically almost unrestricted, cf. Blume (2004). Semantic restrictions referring to Aktionsart of the underlying verb do play a role, though, in the formation of deverbal -ung-nouns. This has been observed by many researchers, cf. Reinhard (2001), Shin (2001), Ehrich and Rapp (2000). However, the influence of Aktionsart has not been tested empirically with a broader range of data. We took the 500 most frequent verbs from the CELEX corpus and annotated them manually with Vendler-Aktionsart (applying a combination of 6 tests). Then we checked these verbs in COSMAS with respect to their ability to form -ung-nouns (eliminating all Swiss and Austrian German data from COSMAS, because -ung-nominalization seems to work completely different in these German varieties). – To find out what governs the different readings of -ung-nouns (event versus result versus physical object), we made a collocational analysis of the same COSMAS-sentences with the help of the GermaNet tool, paying attention to the linguistic environment of -ung-nouns. Some adjectives (e.g. dimensional adjectives) and adverbs typically co-occur with certain readings. Nominalized infinitives only have event readings.

The OT-solution starts with an input that is underdetermined with respect to the concrete spell-out of the nominalizing affix. The candidates in turn are fully specified with both morphology and semantics (i.e., for our purposes, specified for reading (event versus result versus physical object)). The constraints are semantic (saying, i.e., which Aktionsarts allow ung-nominalization) and collocational (adverb X matches with events only etc). The motivation for the constraints is given externally in a separate semantic analysis.

To find out furthermore what governs argument linking in compound -ung-nouns and compound nominalized infinitives, we made reaction time experiments with DMDX for cases where our data in COSMAS were dubious. We could refute Nunes (1993) and Ehrich and Rapp (2000) – the lowest affected object does not have priority and agent readings are more frequent than previously assumed.