
The role of the head in the interpretation of deverbal compounds

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We present an interdisciplinary study on the correlation between the transparency of NN deverbal compounds (DCs; e.g., *task assignment*) and the ambiguity of their deverbal heads as predicted by their morphosyntax. Theoretical hypotheses are tested with computational tools and resources. We start with Grimshaw’s (1990) observation that deverbal nouns are ambiguous between Argument-Structure-Nominal (ASN) readings, which inherit verbal arguments (e.g., *the assignment of difficult problems*), and the less verbal and more lexicalized Result Nominal readings (RNs: cf. *two-page assignment*). Following Grimshaw, our hypothesis is that the presence of ASN properties in the head triggers a direct object interpretation on the non-head of a DC (i.e., the verb’s lowest argument). If the head is a RN, it should allow a broader range of context-dependent semantic relations just like primary compounds such as *chocolate box* (cf. Borer 2013).

We selected a varied yet controlled set of DCs from the Gigaword corpus (Napoles et al. 2012) for which we ran an annotation effort with three native speakers. To determine the ASN-hood of DC heads we constructed 7 indicative patterns inspired by Grimshaw’s ASN properties and collected evidence from Gigaword. To test our hypotheses we ran a MaxEnt classifier.

We identified two properties of the deverbal heads with high predictive power in the interpretation of DCs: a head’s predilection for DC-contexts and its frequent realization of internal arguments outside DCs (i.e., its predilection for the ASN-reading). Both predict an object interpretation of the non-head, which, especially in the case of the latter property, confirms Grimshaw (1990)’s claim and our hypothesis that DCs have some event structure hosting internal arguments. These experiments are a first attempt to identify the patterns that underlie the interpretation of deverbal compounds. Further work is necessary to determine the interdependence of the individual features and the contribution of the remaining features.

References: • Borer, H. 2013. *Taking Form*. Oxford: OUP. • Grimshaw, J. 1990. *Argument Structure*. Cambridge, MA: MIT Press. • Napoles, C., M. Gormley, and B. Van Durme. 2012. *Annotated Gigaword*. Proceedings of AKBC-WEKEX 2012.