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# Refining WordNets in the Context of OntoLex-Lemon

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## Abstract

In the paper [1], we presented an approach for encoding German compounds listed in GermaNet into the decomposition module of OntoLex-Lemon (<https://www.w3.org/2016/05/ontolex/>). This lead us to the possibility to associate distinct senses to a component that is used in different compounds. Beyond this we could also associate senses to components of compounds that are not per-se a lexical entry.

We are currently extended this word to the consideration of morphological variants of a word that is listed in Princeton WordNet [2]. This concerns inflectional and derivational variants. Inflectional variants are relevant as some differences in the use of the singular or the plural form of a word can affect the type and the range of senses (or synsets) associated to a specific lemma. Our approach would thus consist in not associated synsets only to lemmas, but also to forms (in the terminology of OntoLex-Lemon). This can be easily done while adding some restrictions to the senses listed in OntoLex-Lemon. We will present our current encoding of such phenomena in the poster.

Derivation is also a topic of interest as this would allow to describe (slight) sense modifications when considering, for example, a verb and its nominalisation, or between an adjective and its adverbial derivation. Using OntoLex-Lemon for encoding those aspects could help in extending WordNet with this type of information, including shift of meanings. We are currently working on proposing an encoding of this phenomenon in OntoLex-Lemon

## References:

Thierry Declerck, Piroska Lendvai. Towards a Formal Representation of Components of German Compounds in: Micha Elsner, Sandra Kuebler (eds.): Proceedings of the 14th SIGMORPHON Workshop on Computational Research in Phonetics, Phonology, and Morphology, Berlin, Germany, ACL, Humboldt University, 8/2016  
Princeton University "About WordNet." <https://wordnet.princeton.edu/WordNet>. Princeton University. 2010.

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