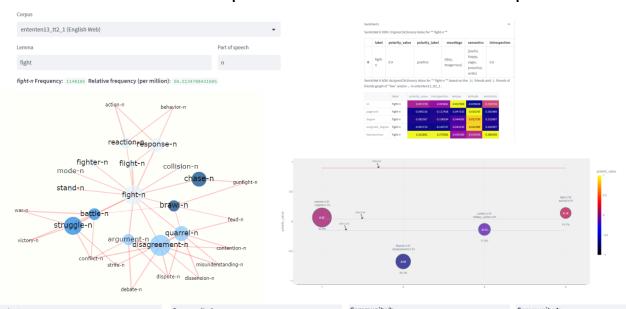# Graph analysis of the dependency-based lexical structures
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ConGraCNet: a method for exploring lexical semantic structures utilizing corpus-based graph analysis of syntactic dependency relations.

ConGraCNet web app integrates various computational tools and technologies to extract and integrate data structures that reflect the relationships between words and concepts.

Dependency graphs can be used for various lexical tasks.

1. **Identifying conceptually similar lexemes** using the "conj" relationship.
2. **Clustering conceptually similar lexemes into semantic domains**.
3. **Identifying polysemic structures of a lexeme**.
4. **Identifying category label for a semantic domain** by analyzing the hypernym or categorial relationships of the concepts in the domain.
5. **Propagating sentiment values and semantic properties** on a set of semantically similar concepts from a sparse sentiment dictionaries.
6. **Calculating sentiment value for sentiment domains**
7. **Identifying antonymicity by analysing statistical co-occurrence patterns of antonym pairs**, defined by WordNet or other lexicons
...

http://emocnet.uniri.hr/congracnet/