

Semantic analysis has become a bottleneck of many natural language applications. Machine translation, automatic question answering, dialog management, and others rely on high quality semantic analysis. Verbs are central elements of clauses with strong influence on the realization of whole sentences. Therefore the semantic analysis of verbs plays a key role in the analysis of natural language. We believe that solid disambiguation of verb senses can boost the performance of many real-life applications. In this thesis, we investigate the potential of statistical disambiguation of verb senses. Each verb occurrence can be described by diverse types of information. We investigate which information is worth considering when determining the sense of verbs. Different types of classification methods are tested with regard to the topic. In particular, we compared the Naïve Bayes classifier, decision trees, rule-based method, maximum entropy, and support vector machines. The proposed methods are thoroughly evaluated on two different Czech corpora, VALEVAL and the Prague Dependency Treebank. Significant improvement over the baseline is observed.