

Master thesis: Quantifying Determiners from the Distributional Semantics View
Author: María Ximena Gutiérrez Vasques
Review of Master Thesis: Mgr. Barbora Vidová Hladká, PhD.
Institute of Formal and Applied Linguistics
Charles University in Prague

This thesis addresses a task of distributional semantics, namely detecting entailment between quantifier phrases. A machine learning approach has been applied. This work closely continues research done by Raffaella Bernardi from the University of Trento and her colleagues.

The thesis is composed of five regular chapters, references, an appendix and CD-ROM. Introductory Chapter 1 formulates goals of the thesis and introduces a structure of the thesis. Chapter 2 provides a review of concepts of both distributional semantics and machine learning that are relevant to the topic addressed. Chapter 3 presents research done on the entailment relation between adjective-noun constructions and their head nouns and the relations among quantifier phrases; this research was presented at the EACL'12 conference (Bernardi et al, 2012). Chapter 4 is the most important part of the thesis because it describes experiments performed to improve results attained by Bernardi and her team. Conclusion and future work are discussed in Chapter 5. An Appendix A summarizes implementation steps.

Comments

1. The thesis is well-structured and easy to follow. However no 'extra' performance was achieved, I really appreciate the way María has mastered the Support Vector Machines chosen to address the given issue. All aspects relevant to this algorithm, like dimensionality reduction, Kernel function selection, complexity parameter, are discussed and experimented with. In addition, the experiments can be performed only with a good understanding of the task. Notwithstanding this positive fact I have to mention that María's own contribution covers pages 39-51 (conclusion and references excluded) only.
2. A content of CD-ROM enclosed is not documented at all, a README file is missing as well.

In conclusion, I recommend the master's thesis presented here for defense.

References

Baroni, M. R. Bernardi, N. Do and C. Shan. 2012. Entailment above the word level in distributional semantics. *Proceedings of EACL 2012* (13th Conference of the European Chapter of the Association for Computational Linguistics), East Stroudsburg PA: ACL, 23-32.

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