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The European Summer School in Logic, Language and Information is an event organized every year in a different European country under the auspices of the Association for Logic, Language and Information (FoLLI).

Résumé de la presentation:

Distributional approaches to modelling meaning in use take some contextual clues into account while simultaneously lending themselves to computational implementations (Clark, 2014). In such approaches, the meaning of a word is represented by a vector consisting of the relative occurrence of this word with respect to other words within a certain distance of it. This vector is derived by counting how many times a target word occurs in a particular context. Similarity between words is then easily measured via a cosine measure that calculates the angle between the two vectors. The more similar two vectors are, the smaller the angle will be.

Distributional models were first developed to deal with words in isolation but they rapidly expanded so they could compare not only words but whole sentences (Clark, 2014). However, measures of word similarity do not transfer easily to notions of sentence similarity which could be important for such applications as paraphrase detection and short answer tasks (Koleva, 2014). As of now sentence-vectors only represent the explicit meaning of a sentence and evacuate all its inferred meaning. One goal of this article is to bridge the gap between the distributional representation of a sentence and its meaning that may be inferred from the context. Scalar implicatures are one such type of inference that will be important for advances in this area. After a brief review of the most prominent theories of scalar implicature (Chierchia et al., 2011; Geurts, 2010), we will examine two compositional distributional models, Mitchell and Lapata (2010) and Coecke et al. (2011), and describe how they could represent sentences involving scalar implicatures.

<u>References</u>

- Chierchia, G., Fox, D., & Spector, B. (2011). The Grammatical View of Scalar Implicatures and the Relationship between Semantics and Pragmatics. In P. Portner, C. Maienborn, & K. von Heusinger (Eds.), *Handbook of Semantics* (Mouton de, pp. 1–43).
- Coecke, B., Sadrzadeh, M., & Clark, S. (2010). Mathematical Foundations for a Compositional Distributional Model of Meaning. *Linguistic Analysis*, *36*(345).
- Geurts, B. (2010). *Quantity Implicatures*. Cambridge University Press.
- Koleva, N., Horbach, A., Palmer, A., & Ostermann, S. (2014). Paraphrase Detection for Short Answer Scoring. *NEALT Proceedings Series*, *22*, 59–73.
- Mitchell, J., & Lapata, M. (2010). Composition in Distributional Models of Semantics. *Cognitive Science*, *34*(8), 1388–1429.