MAS 962: Computational Semantics

Assignment 4

Readings

Gardenfors, Peter. (1997). Symbolic, conceptual and subconceptual representations, pp. 255-270 in Human and Machine Perception: Information Fusion, ed. by V. Cantoni, V. di Gesù, A. Setti and D. Tegolo, Plenum Press, New York.

Terry Regier and Laura Carlson. (2001). Grounding spatial language in perception: An empirical and computational investigation. *Journal of Experimental Psychology: General,* 2001. vol. 130(2), 273-298.

Hofstadter, Douglas. (1995). Review of Mental Leaps: Analogy in Creative Thought. AI Magazine, pp. 75-80.

Questions

1. For each paper, summarize the main ideas and your reactions to them.

2. Where does Regier & Carlson's model of spatial semantics fit into Gardenfor's scheme?

3. Consider the following syllogism:

> Cheap apartments are rare
> Rare things are expensive
> --------------------------------------
> Cheap apartments are expensive

We can tighten the language and retain the result:

> Cheap apartments (in Boston that are desirable) are rare (things)
> Rare things (in Boston that are desirable) are expensive
> --
> Cheap apartments (in Boston that are desirable) are expensive

Provide an explanation for why this syllogism fails to produce a 'reasonable' conclusion.