Distributional similarity beyond linguistic contexts: modeling metaphorical similarity in visual Vs. verbal metaphors

Metaphorical similarity is a peculiar type of semantic relation, which is often based on a very limited number of shared features between the two metaphor terms. The nature of this similarity and the type of features that shape it, is at today uncharted territory. In metaphor studies it is commonly accepted that metaphors are matters of thought, and as such, they pertain to the conceptual level of analysis. This might suggest that the same (conceptual) metaphors can be expressed in different modalities, such as images and words. In this study, metaphorical similarity is mined by means of distributional semantics in a representative sample of visual and linguistic metaphors. Three types of distributional similarity are taken into account and operationalized through three different distributional methods: attributional similarity (entity-related properties), experience-based relational similarity (extra-linguistic relations), and language-based similarity (linguistic relations). The different patterns of similarity emerging from these analyses, for the visual and the linguistic metaphors analysed, contribute to explain how images vs. words construct and represent metaphors in these two modalities.