Abstract: In this talk, I argue that the comprehension of a sentence is an incremental process driven by the goal of constructing a coherent representation of the event the speaker intends to communicate. I will introduce a distributional model to build semantic representations inspired by recent psycholinguistic research on sentence comprehension. The model also associates with each distributional semantic representation a composition cost, to model the cognitive effort necessary to build it. The composition cost depends on the internal coherence of the event representation being constructed and on the activation degree of such event by linguistic constructions. The model is tested on some psycholinguistic datasets for the study of sentence comprehension. In particular, I focus on the case of logical metonymy (e.g. The student began the book) showing that the model can account for the extra processing cost of coercion and for the inferential process leading to the recovery of the implicit event.