Two takes on coercion and co-composition: combining distributional and formal semantics

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In this talk, I explore an integration of a formal semantic approach to lexical meaning and an approach based on distributional methods. First, I sketch the outlines of a formal semantic theory (from Asher 2011) that has the promise to combine the virtues of both formal and distributional frameworks. I then proceed to develop an algebraic interpretation of that formal semantic theory and show how at least two kinds of distributional models make this interpretation concrete. Focusing on the case of adjective-noun composition, I compare several distributional models with respect to the semantic information that a formal semantic theory would need, and we show how to integrate the information provided by distributional models back into the formal semantic framework.