

COMPUTATION AND GRAMMAR: RESTRICTIVENESS IN SEMANTICS

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Abstract

There is a tradition of linguistic research starting with the earliest work in generative grammar that aims to employ notions of computational restrictiveness (e.g, generative capacity, parsing complexity, etc.) to explain general properties of human language. When such work is successful, it provides theoretical simplification as well as a means for understanding (as opposed to stipulating) why human grammars are structured as they are. This tradition has been applied widely in the linguistic domains of syntax and phonology, increasingly so in recent years, and I will briefly review the progress that has been made. In contrast, there has been little work attempting such computational explanation in the domain of semantics. I will report on a line of research that attempts to do just this. Specifically, I will show how a "synchronous" extension of Tree Adjoining Grammar, a computationally weak, mildly context-sensitive, grammar formalism, provides a simple, restrictive, and arguably empirically satisfying theory of the correspondence between surface syntax and logical form.