

Bare-Bones Dependency Parsing

Joakim Nivre

Uppsala University
Department of Linguistics and Philology
Box 635, 75126 Uppsala, Sweden
joakim.nivre@lingfil.uu.se,
WWW home page: <http://stp.lingfil.uu.se/~nivre/>

Abstract. If all we want from a syntactic parser is a dependency tree, what do we gain by first computing a different representation such as a phrase structure tree? The principle of parsimony suggests that a simpler model should be preferred over a more complex model, all other things being equal, and the simplest model is arguably one that maps a sentence directly to a dependency tree – a bare-bones dependency parser. In this paper, I characterize the parsing problem faced by such a system, survey the major parsing techniques currently in use, and begin to examine whether the simpler model can in fact rival the performance of more complex systems. Although the empirical evidence is still limited, I conclude that bare-bones dependency parsers can achieve state-of-the-art parsing accuracy and often excel in terms of efficiency.

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