

Interface Colloquium Series

Computational Morphology and its Implications for Theoretical Morphology

Richard Sproat

*University of Illinois at Urbana-Champaign
Department of Linguistics
Department of Electrical and Computer Engineering
Department of Computer Science*

Friday, November 18, 2005

2:00 p.m.

**UQAM
Pavillon J.A. De Sève
320, rue Sainte-Catherine Est
DS-6365**

ABSTRACT

In this talk I present a computational model that allows for a clean formal account of a wide variety of morphological phenomena. Much of what I will present is based heavily on the large literature on finite-state approaches to morphology dating back to Koskenniemi's 1983 dissertation, but it is more coherent in that I propose that all morphological operations can be modeled using a single regular operation: composition. I define this operation and give a number of examples of its application to morphology.

I then turn to the implications of this computational model to morphological theory. One view of morphology -- so-called Item-and-Arrangement approaches, in Hockett's terminology -- is that all morphemes are first-class lexical items, and that a complex word is built up out of morphological pieceparts, each of which contributes to the meaning of the whole. An alternative view, exemplified recently by Beard's Lexeme-Morpheme Base morphology, or Stump's Paradigm Function Morphology, takes the opposing stance that morphological expression is a consequence of morphosyntactic features, rather than the other way around.

I will argue on the basis of the computational model that I have presented that there is not as much difference between these two views as morphologists like to suppose.