

Center for Cognitive Science

University at Buffalo, State University of New York

Wednesday, March 26, 2003

280 Park Hall
North Campus
2:00 pm – 4:00 pm

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"CONTEXTUAL VOCABULARY ACQUISITION: From Algorithm to Curriculum"

No doubt you have on occasion read some text containing an unfamiliar word, but you were unable or unwilling to find out from a dictionary or another person what the word meant. Nevertheless, you might, consciously or not, have figured out a meaning for it. Suppose you didn't, or suppose your hypothesized meaning was wrong. If you never see the word again, it may not matter. However, if the text you were reading were from science, mathematics, engineering, or technology, not understanding the unfamiliar term might seriously hinder your subsequent understanding of the text. If you do see the word again, you will have an opportunity to revise your hypothesis about its meaning. The more times you see the word, the better your definition will become. And if your hypothesis development were deliberate, rather than "incidental", your command of the new word would be stronger.

This talk discusses a research project that is developing and applying algorithms for computational contextual vocabulary acquisition (CVA): learning the meaning of unknown words from context. We are trying to unify a disparate literature on the topic of CVA from psychology, first- and second-language acquisition, and reading science, in order to help develop these algorithms. We are using the knowledge gained from the computational CVA system to build an educational curriculum for enhancing students' abilities to use CVA strategies in their reading of science texts at the middle-school and college undergraduate levels. The knowledge gained from case studies of students using our CVA techniques will feed back into further development of our computational theory.

Research done jointly with Michael W. Kibby, Department of Learning & Instruction, Center for Literacy & Reading Instruction, State University of New York at Buffalo.

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**Refreshments will be available.
Open to the public.**

For information, please call the Cognitive Science Office at (716) 645-3794 or visit
<http://www.cogsci.buffalo.edu/html/2003spring.htm>