Testing the Universal Grammar hypothesis:
The contribution of computational modeling

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April 9, 2012
California State University, Fullerton
Linguistics Symposium

The induction problems facing language learners, sometimes called the *poverty of the stimulus*, have played a central role in debates about the types of learning biases that exist in the human brain. Many linguists have argued that the learning biases necessary to solve these language induction problems are both innate and language-specific – this is the *Universal Grammar* hypothesis. However, there have been alternative ideas as to the form helpful learning biases could take. How do we choose among different ideas about the nature of the necessary learning biases, some of which support Universal Grammar and some of which do not?

Computational modeling can help, as computational models can implement specific learning strategies that incorporate different learning biases. We can thus gain empirical support for or against particular learning biases, depending on whether a model succeeds or fails at acquisition. I will briefly describe two examples of poverty of the stimulus problems, and some competing ideas for the necessary biases that can solve each one. In both cases, computational modeling will suggest that certain Universal Grammar biases may not be as specific as once thought, and sometimes may not be necessary at all.