

Bootstrapping language acquisition

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Room 2.05, Williamson Building, University of Manchester

ALL WELCOME

Bootstrapping Language Acquisition

Recent work with Abend, Kwiatkowski, Smith, and Goldwater (2017) has shown that a general-purpose program for inducing parsers incrementally from sequences of paired strings (in any language) and meanings (in any convenient language of logical form) can be applied to real English child-directed utterance from the CHILDES corpus to successfully learn the child's ("Eve's") grammar, combining lexical and syntactic learning in a single pass through the data.

While the earliest stages of learning necessarily proceed by pure "semantic bootstrapping"---that is, by building a probabilistic model of all possible pairings of all possible words and derivations with all possible decompositions of contextually available meaning representations or logical forms---the later stages of learning show emergent effects of "syntactic bootstrapping" (Gleitman 1990), where the program's increasing knowledge of the grammar of the language allows it to identify the syntactic type and meaning of unseen words in one trial, as has been shown to be characteristic of real children in experiments with nonce-word learning. We show a quite detailed correspondence between the time-course of learning in child and program for a number of features of the input. The concluding section of the talk considers the extension of the learner to a more realistic semantics including information structure and interpersonal conversational dynamics.

Directions

Williamson Building is on Oxford Road , building 52 on the [Campus Map](#).

Further information

For further information about this seminar, please contact michaeline.k.glover@manchester.ac.uk or about LuCiD, please contact helen.allwood@manchester.ac.uk