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A Picture is Worth a Thousand Words—But That's the Problem

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Problems in language aquisition have provided a central challenge to psychology, linguistics, and computing. The process of recovering the underlying forms of language from the complexities of input is very difficult one to specify. Efforts to do so raise deep questions about the relations between linguistic and nonlinguistic information, and between language and thought. Understanding the representations used as input to learning and constructed as the product of learning is a key part of understanding acquisition of vocabulary, of syntax, and of the interplay between them.

This talk concerns structural supports for vocabulary acquisition and reports evidence from a line of research on children's verb learning. It is first shown that pairing words (qua phonological objects) to the contingencies for their use by observing the contexts in which they're uttered is too weak a procedure to account for verb (though not noun) learning. Rather, the story for verb acquisition must be more complex, drawing on structural information from syntax as well as observations about the situations in which a verb is used. Before acquiring verbs, the child aquires knowledge of phrase structure during the process of learning nominals, a process which does not itself depend on syntactic knowledge. Once possessed of the phrase structure, child learners bootstrap the verb meanings by joint attention to extralinguistic and syntactic context. Vocabulary learning is thus shown to be part of the general procedure for mapping conceptual structure onto linguistic structure, rather than a separate associative process.

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