

Acquiring the semantics and pragmatics of attitude verbs
NSF grant # BCS-1124338 (Hacquard & Lidz)

What is the relation between the theory of linguistic meaning and the theory of language acquisition? In order for a semantic theory to be explanatory it must not only correctly capture speakers intuitions about meanings, but, ideally, also be so constrained as to both limit the range of cross-linguistic variation and give learners the tools to identify word meanings on the basis of the linguistic environments to which they are exposed. This project explores the link between semantics and its acquisition through a detailed case study of attitude verbs (*think, want...*). These verbs are important for several reasons. First, their meanings encode internal states not easily observed by learners, posing a classic poverty of the stimulus problem (Gleitman *et al* 2005). Second, children's acquisition of these words has been used as a window into their understanding of other people's minds (cf. Johnson 1982, Bartsch&Wellman 1995). Finally, because several semantic theories may equivalently account for the meanings of these terms, acquisition data can provide a useful additional measure for determining which is correct. In this project, we propose to investigate children's acquisition of attitude verbs and their semantics, in the hopes of furthering both our linguistic theories and our understanding of the connection between language and theory of mind development.

Semantic theories of attitudes aim at capturing adults' competence, and typically do not address how children arrive at this adult competence. However, an explanatory theory of attitude verbs should ultimately predict the range of possible and impossible attitude verbs, the information children use to acquire their meanings, and the kinds of errors children do and do not make in acquiring them. If, as some have argued, attitude verbs' subcategorization for different syntactic complements is principled we should predict the character of children's errors in addition to their semantic representations.

Semantic theories, in turn, can inform our understanding of acquisition patterns. An extensive number of acquisition studies show that children display difficulty with verbs like *think* but not *want*, though the theoretical basis for this asymmetry is underdeveloped. We will present a semantic explanation for these acquisition facts, which derives the asymmetry and children's mistakes from pragmatic factors, rather than a deficiency in semantic or conceptual knowledge. If children's linguistic mistakes can be shown to arise from pragmatic factors, these errors cannot be used as evidence for a deficient conceptual structure or a limited semantic knowledge.

An articulated understanding of children's representations of attitude verbs is crucial for identifying the connection between their acquisition and the development of theory of mind (i.e., the ability to attribute mental states to oneself and to others). Attitude verbs have been argued to boost, and even enable, mental state understanding, either by providing a way to reflect and label mental states (Astington 1996, Nelson 1996), or by providing the appropriate scaffolding to represent them via the syntax of sentential complementation (De Villiers 1995). Conversely, conceptual development has been argued to be a prerequisite for acquiring the related terms: if children do not understand BELIEF then they cannot have a semantics for the verb *believe*. However, our understanding of children's semantic representation of attitudes at various stages is lacking in important ways, and needs to be developed before causals claim can be made about the connection between language and theory of mind.