The ups and downs of child language
Abstract: Downward Entailment is a semantic property common to many linguistic expressions across natural languages (Ladusaw, 1979). This dissertation takes downward entailment as a yardstick in assessing children's semantic competence. First, downward entailment is used as a case study for several alternative models of language acquisition, including those recently proposed by Tomasello (2000) and by Pullum and Scholz (2002). According to these researchers, children are initially conservative, and tend to (re)produce linguistic expressions that they have experienced in the input. Even at later stages, when children form generalizations, children's linguistic generalizations are directly tied to the input, based on domain general learning mechanisms. These models are contrasted with one based on the principles and parameters of Universal Grammar.

In an experimental study using the Truth Value Judgment task (Crain and Thornton, 1998), these alternative models are put to a test by investigating a phenomenon that displays a mismatch between the data available to the child and the semantic competence the child acquires, namely the interaction between downward entailment and c-command. In particular, we report the results of an experiment investigating children's interpretation of the disjunction operator 'or' in sentences in which that operator is c-commanded by negation, such as 'Winnie the Pooh will not let Eeyore eat the cookie or the cake,' and in sentences in which disjunction is only preceded by negation, as in 'The Karate Man will give the Pooh Bear he could not lift the honey or the donut.'

Second, children's knowledge of downward entailment is investigated in order to assess children's knowledge of quantification. Beginning with Inhelder and Piaget (1964), children have been reported to have problems in interpreting sentences containing the universal quantifier 'every.' These findings have recently been interpreted as showing that children fail to distinguish between the restrictor and the nuclear scope of the quantifier 'every' (see Philip, 1995; Drozd and van Loosbroek, 1998) A Truth Value Judgment task was designed to evaluate this assumption. The findings, together with the results of previous research, show that children's knowledge of quantification runs deeper than is anticipated either by recent linguistic accounts of children's non-adult responses to universally quantified sentences or by input driven models of language development.

Children's adult-like knowledge of downward entailment and of the negative polarity item 'any' stands in contrast with their non-adult interpretation of the positive polarity item 'some' in negative sentences, e.g., 'The detective didn't find some guys' (see Musolino, 1998). To address this contrast, an experiment was conducted drawing upon the observation that negative statements are generally used to point out discrepancies between the facts and the listener's expectations, and that this felicity condition was not satisfied in previous studies. The experimental findings show that children's interpretation of indefinites in negative sentences is fully adult-like when the felicity conditions associated with negative statements are satisfied. The same picture emerges from the findings of a final experiment investigating children's interpretation of sentences containing multiple scope bearing elements, as in 'Every farmer didn't clean some animal.'

In sum, the experimental findings suggest that even in the domain of semantic competence, there is no reason to assume that child language differs from adult language in ways that would exceed the boundary conditions imposed by Universal Grammar, as maintained by the Continuity Assumption (Crain and Thornton, 1998; Pinker, 1984).