Theory of Mind and Children’s Use of Referring Expressions
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The term ‘theory of mind’ has been used broadly to refer to the cognitive capacity to correctly assess the mental states of others and to attribute to others mental states that may be different from one’s own. Aspects of language that appear to involve this capacity include the ability to articulate linguistically what others believe, desire, intend, and so on, as well as the ability to know what others are familiar with and are attending to, the latter an ability that many consider to be crucial in learning appropriate use of referring expressions, and especially pronouns. In this paper, we summarize and discuss results of corpus analytic investigations of children’s use of referring expressions and consider possible implications of this work for questions relating to development of theory of mind in children.

Gundel and Page 1998, Gundel, Page and Sera 2000, and Gundel, Page, Sera and Kowalsky 2001 investigated the use of referring expressions in transcripts of three preschool children learning English and 2 preschool children learning Spanish (using CHILDES, McWhinney 1995). The studies address the following questions: When do children master definite and indefinite articles, demonstratives, and personal pronouns? Is the appropriate use of these forms acquired idiosyncratically or is there a pattern that holds for all children, both within and across languages? If there is a developmental order, does this differ according to the language being acquired and, if so, how might such findings be explained? The studies found that both English and Spanish speaking children are using the full range of referring forms examined (definite and indefinite articles, demonstrative determiners, and demonstrative and personal pronouns), and are using them appropriately, by age 2:5, in some cases earlier. Results of these studies also suggest that the order of acquisition of these forms parallels the order of forms associated with cognitive (memory and attention) statuses on the Givenness Hierarchy (Gundel, Hedberg and Zacharski 1993). Pronouns, which signal the most restrictive statuses (‘in focus’ and ‘activated’) are appropriately used first. Demonstrative determiners and the definite article, which signal intermediate cognitive statuses (‘familiar’ and ‘uniquely identifiable’ respectively) are acquired next. And the indefinite article, which signals the least restrictive status (type identifiable), are acquired last. A more recent analysis of longitudinal data from children learning Malagasy (Ntelitheos & Manorohanta 2004) yields similar findings. The studies also compared the relative frequency of different types of forms in the children’s speech with the relative frequency of these same forms in the speech of their adult interlocutors. An interesting and unexpected finding here is that the relative frequency of demonstratives is considerably higher in the children’s speech than in adult speech, including adult speech to children. Gundel et al 1993 propose to explain the relatively low frequency of demonstratives in adult discourse in terms of ‘scalar implicature’ resulting from interaction of the Givenness Hierarchy with Grice’s Maxim of Quantity (“be as informative as required”).

In addition to relevant semantic/conceptual and syntactic knowledge, appropriate use of referring expressions thus requires at least two different kinds of knowledge and ability, both of which assume the capacity to appropriately assess the mental states of others, but in different ways: (1) lexical (i.e. linguistic) knowledge about the cognitive statuses conventionally encoded by different determiners and pronouns and the capacity
to assess such states in their interlocutors; and (2) knowledge of more general pragmatic principles and the capacity to apply these by correctly assessing, for example, how much information about cognitive status is sufficient to allow the addressee to correctly identify the intended referent in a given situation. Separating out these two kinds of abilities may help to reconcile seemingly contradictory findings reported in the literature regarding the age at which children acquire and appropriate use pronouns and other referring forms as well as different views about the age at which children develop theory of mind. We also explore other, and possibly related, explanations for the different findings such as the possibility that very young children may be relying on purely structural cues before they fully learn the cognitive status meanings associated with different forms as well as the ability to assess the cognitive status a referent has for the addressee.