Language and Social Understanding: Commentary on Nelson et al.

Heidemarie Lohmann  Michael Tomasello
Max Planck Institute for Evolutionary Anthropology Leipzig, Germany

Key Words
Discourse • Language development • Social understanding • Theory of mind

There are many parallels between modern-day theory of mind research and Piagetian research in the 1960’s and 1970’s concerning such things as children’s understanding of the conservation of quantities. For many years few researchers believed that 4- and 5-year-old children really did not understand that there is the same amount of juice no matter the shape of the glass it is in. There must be something wrong with the task, or something wrong with the experimenter-child discourse about the task. Modifications of the procedure, training children in the task, and other changes did sometimes produce improvements in children’s performance, but these were typically modest and not long-lasting [Gelman & Baillergeon, 1983]. It is now widely accepted that no matter the procedure, conservation of quantity is a difficult concept for young children and they do not master it easily until the end of the preschool period.

Some of the same incredulity greeted the findings from the first false belief tasks. Surely 3-year-olds cannot be so dense. And so people have tried many modifications to the task and various training procedures. The modifications of Nelson et al. are especially interesting and innovative and show a refined sensitivity to children’s rather fragile attention spans and discourse competencies. But in a recent meta-analysis of literally hundreds of administrations of all of the different versions of the false belief task, Wellman et al. [2001] demonstrated that these task variations, like those in Piagetian tasks, can help to some degree, but they do not change the fact that this task is really difficult for children before 4 years of age. The way the task is administered and the discourse in it matter, but only within limits. Indeed, some versions would not seem to be particularly demanding of children at all. For instance, in the change of locations task (Sally-Ann task) children are not necessarily engaged in any discourse about mental states, and they can express their
answer to experimenter questions nonverbally. Thus, the essence of the interaction is that the experimenter asks the child (after the duped person returns) something simple like ‘When she returns, where will she look first?’ and the child can point to the location she chooses. This would not seem like confusing discourse or overly stringent response demands for a 3-year-old child. Of course it is an artificial discourse situation in which the adult is asking test questions and not real questions, but in this respect the false belief task is no different from many other tasks used successfully with 3-year-olds.

So it is not just the task or the discourse in it. And it is not that children this young cannot deal with unobservable psychological states at all. By around their second birthdays, and sometimes a bit before, young children demonstrate in their overt behavior (not just in preferential looking or habituation studies) the ability to understand the intentions of other persons [Meltzoff, 1995; Carpenter et al., 1998], the likes and dislikes of other people [Repacholi & Gopnik, 1997], the focus of attention of other persons [Tomasello & Haberl, 2002], and what other people have and have not seen [Akhtar et al., 1996]. Of course, these psychological states are not belief, and that is just the issue. Understanding the beliefs of other people – the way they perceive and understand a situation as distinct from the way that other people perceive and understand it or the way that it really is (perhaps as determined by some social norm) – is something children master only two years later. Why does it take so long? What are children doing for those two long years?

Nelson et al. argue that language must be involved in the process, and we cannot but agree. There are currently many studies showing a correlation between children’s language skills and their performance on false belief tasks [e.g. Astington & Jenkins, 1999; Dunn et al., 1991]. And in a recent study we found evidence for a causal role of language in false belief understanding: specifically, we found that training children over several days with various kinds of language about deceptive objects (that look like one thing but really are another) facilitated their performance on false belief tasks, whereas training with those objects in the absence of attention structuring discourse with an adult had no effect [Lohmann & Tomasello, 2002].

But there is still the question of precisely how language facilitates an understanding of other people’s minds, especially their beliefs and other sophisticated psychological states. Nelson et al. make several interrelated proposals. The main proposal seems to be that discourse with adults (‘participation in discourse about social interactions within pragmatic contexts’) is the key factor. As they note, this is a proposal first championed by Harris [1996, 1999], and the key idea seems to be that in the to-and-fro of discourse children are confronted on a regular basis with things they know that others do not know and vice versa [see also Tomasello, 1999, for some more specific proposals along these lines]. The study of Lohmann and Tomasello [2002] provides experimental support for this position as one of the successful training conditions in that study involved rich perspective-shifting discourse about deceptive objects (while controlling for other linguistic factors such as the semantics of verbs and the syntactic constructions involved).

However, the important role of discourse does not necessarily lead to the conclusion that ‘the burden of constructing a model of minds does not rest on the child’s individual cognitive powers, but rather it is a gift from the larger community’. It is still the case that ‘the child must do work to unpack the gift’, and the child must have certain skills in order to do this. And this is where the unique as-
pect of Nelson et al.’s proposals enter the picture. Nelson et al. claim that explicitly representing the world in language is a developmental achievement that requires ‘extensive experience with interpreting language messages from others and formulating messages for others that represent situations and events that are not evident in the immediate present surround’ – as in, for example, narrative discourse. This experience leads to new means and modes of cognitive representations. It is not just that narrative allows us to talk about evanescent entities such as atoms, solar systems, or mathematical formulae, but it also serves to create new cognitive functions, one of the most important for theory of mind being ‘the ability to maintain two representations of the same situation or event simultaneously’. Children must be able to do this to succeed in a false belief task, because they must be able to compare their understanding of the real situation to the false understanding of someone else.

But Nelson et al. have not given sufficient attention, in our opinion, to an especially important way that language helps children to compare two different representations of a situation – with, importantly, a contrast between the representations involving something like truth. Basically all languages contain syntactic constructions in which the speaker signals her own or another person’s attitude about some state of affairs that may or may not be true. For example, in English, we say things like ‘I think the moon is made of green cheese’ or ‘I hope I win the lottery’ or ‘She believes she controls everything’. These constructions, whose importance has been stressed by De Villiers and De Villiers [2000], implicitly encode the possibility that the embedded proposition is not necessarily the case. As a number of linguists have pointed out, the difference between ‘It’s raining’ and ‘I think it’s raining’ is only that the second raises, as a pragmatic presupposition, that it might not be raining in fact [see Diessel & Tomasello, 2001]. These constructions would thus seem to be of special importance, again as stressed by De Villiers and De Villiers [2000], in providing a representational format for exactly the kind of reasoning that goes on in false belief tasks – they indicate a situation as potentially either true or not true (irrealis). And Lohmann and Tomasello [2002] found that indeed training children with these constructions – even in the absence of any deceptive experiences – led to increases in children’s false belief understanding.

And so the reason it takes so long for children to develop false belief understanding is that this understanding depends on extensive linguistic and discourse experience. Nelson et al. single out the role of narrative discourse, whereas we are more inclined to focus on certain special linguistic constructions and discourse interactions that highlight the contrast between a state of affairs and the speaker’s attitude toward that state – which may or may not reflect reality. But in either case the expectation is that entering a community of minds requires children to understand other persons in new ways, and this takes extensive communicative interactions with those persons. Future research should explore the particularities of the way specific kinds of discourse and specific kinds of linguistic constructions facilitate or inhibit children’s understanding of the minds of other persons.
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