

Children's comprehension of apparently irrelevant and under-informative utterances

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Topic Background

Soon after their first birthdays, children are able to detect the intentions behind others' actions. Infants as young as 14 months of age can interpret cues such as gazing and pointing gestures as being relevant. For example, when playing a hiding and finding game with an adult, they infer the communicative intent behind such cues and are able to find hidden objects as a consequence (Behne, Carpenter and Tomasello, 2005). This capacity to grasp other people's intentions is the initial skill that will later allow individuals to draw pragmatic inferences. Given young children possess this ability very early, to what extent do they use it for language comprehension?

To address this question, we consider utterances whose relevance is not obvious (that is, utterances that imply the listener needs to seek out non-readily accessible information in order to understand their meaning). In everyday conversations, we often come across utterances that seem irrelevant initially but turn out to be pertinent if one adds a little something in the context of the discourse. Let us take the following exchange as an example.

- (1) A: *We have to wait for Sally in order to start the meeting.*
B: *It's Wednesday.*

In this case, speaker A has to remember the information that on Wednesdays, Sally stays at home to take care of her child. More generally, we can say that because acts of ostension carry a guarantee of relevance (Sperber and Wilson, 1995), person A will be motivated to seek information that is not readily accessible (but can be found in the environment or in this case long term memory) and to widen the discourse context so that in this new context, the utterance becomes relevant.

The question we raise in this proposal is whether children try, like adults, to « rationalize » speakers' utterances and seek out further information when first attempts at comprehension find it lacking. This is, will children look for a rational reason that might explain the speaker's utterance or else ask the speaker to clarify? We will address these questions by assessing children's response to over- and under-informative utterances.

Over-informative utterances

Recent research has shown that children are sensitive to the Gricean maxim of quantity and tend to judge object descriptions with redundant adjectives as non-optimal (Davies and

Katsos, 2010). There is also evidence that they are able to draw contrastive inferences when comprehending adjectives (Huang and Snedeker, 2008) and are more likely to imitate novel adjectives when they can identify a contrastive function for them (Bannard, Klinger & Tomasello, in press). Building on these observations, we ask whether children would actively seek out new referents when comprehending a modified referring expression that was way over-informative for the task at hand (due to the absence of a relevant contrast set). For example, would hearing the instruction “*Look at the horse with ears*” in a context where there is only one, normal looking horse lead the child hearer to ask “Why did she say that? Is there a horse without ears here?” Would children seek out another horse in such a situation? Given previous studies of rational imitation in the non-linguistic domain (e.g., Gergely et al., 2002), we predict that they would and that they would do so at least from the age of three, when comprehension of complex referring expressions is well under way.

Under-informative utterances

In addition to investigating children’s reactions to over-informativity, we are also interested to illuminate children’s tendency to accept and act on under-informative instructions such as “*Point to the red ball*” when there is more than one red ball in view. In Matthews, Lieven and Tomasello’s (2007) training study with 2-, 3- and 4-year-olds, children rarely asked for clarification when given an ambiguous description of the object they were asked to pick up. Instead, they were either confused by or oblivious to ambiguities (see also Lloyd, Mann, & Peers, 1998 for evidence that this problem persists for many years). Surprisingly, whereas children are keen to clarify their communicative intent when they are misunderstood (Shwe & Markman, 1997), they do not try to make sure of the speaker’s communicative intent when they are struggling to understand. This lack of an ability to request clarification is clearly problematic and might suggest that children presume adults will always be sufficiently informative even when they have evidence to the contrary. There is already some evidence that 4-year-olds are implicitly aware of message ambiguity (Nilsen, Graham, Smith, & Chambers, 2008). In this study we show children come to build on this awareness to the point that they will attempt to resolve the ambiguity either by checking speaker eye gaze or asking for clarification.