Joint attention helps explain why children omit new referents

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Abstract

New referents are typically introduced into adult discourse with lexical nouns. This makes new referents maximally clear for listeners, and helps the listeners direct their attention appropriately. A different trend is observed in child language, where new referents may be realised with demonstratives or pronouns, or they may be omitted altogether. This has led some to claim that children are pragmatically immature and not sensitive to the perspective of their interlocutors. In this paper, we analyse a videotaped corpus of naturalistic spontaneous speech of four children acquiring Inuktitut (2;0–3;6) to examine the different ways in which they realise new referents. Our results show that in their realisation of new referents children are sensitive to the presence or absence of joint attention. Specifically, they tend to omit arguments when joint attention is present, and they use lexical forms when it is absent. Their use of demonstratives reflects similar sensitivity: they tend to use demonstrative clitics when joint attention is present but independent demonstrative forms when it is absent. The use of omitted forms in child language is thus not explained by any pragmatic deficiency; indeed, it shows that children adjust their messages for the interlocutor, strictly following the Gricean Maxim of Quantity.
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1. Introduction

In natural discourse, syntax is sensitive to context and constrains how information is structured for the immediate communicative needs of the interlocutors (Chafe, 1976; DuBois, 1987; Birner and Ward, 2009; Féry and Krifka, 2008). An example is argument realisation in the context of recency: adults tend to represent referents that are new to the discourse (i.e. they have not been linguistically mentioned previously) with overt forms (e.g. definite noun phrases), while those that are already established in discourse tend to be realised with reduced forms (e.g. pronouns), or, if the grammar allows it, they are omitted altogether (Chafe, 1976; Givón, 1983; DuBois, 1987). The use of overt forms makes discourse maximally clear to interlocutors, and helps to signal the relative accessibility of each piece of information so that interlocutors know where to direct their attention (Bock and Warren, 1985; Ariel, 2001).

Young children also show sensitivity to information structure in the way they realise new and old information with different referring expressions (e.g. Allen, 2000; Salazar Orvig et al., 2010; Hughes, 2011). For instance, while children use overt forms for only 9% of old referents, these forms are used for a significantly higher proportion (55%) of new referents in a study of child Inuktitut (Allen, 2000). What becomes clear, however, is that children often realise new referents with reduced or omitted forms. This is illustrated in the following example from Inuktitut (Allen, 1996):

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(1)   Ø Kata-rar-qa?
       Ø fall-INCP-INT.3sS[1]
       'Did they drop?'   (Elijah, 2;9)

In (1) above, the child introduces a new referent (i.e. a referent that has not been linguistically mentioned in the prior discourse). The utterance alone does not provide any detailed information about the intended referent. Using an underspecified form for the introduction of new referents may be ambiguous for the interlocutor and may lead to communication breakdown. This apparent insensitivity to the listeners' needs, and similar phenomena in other aspects of child syntax, has led some to claim that children have an "immature pragmatic system" (Schaeffer, 2000, p. 67), or that they are otherwise pragmatically deficient, at least with respect to encoding new information (e.g. Deutsch and Pechmann, 1982; Hyams and Wexler, 1993; Hamann and Plunkett, 1998; van Hout et al., 2010; De Cat, 2013).

This conclusion, however, does not sit well with numerous findings that in other situations children demonstrate a sophisticated awareness of both the wider context and the perspective of others. For example, even very young children adjust their requests depending on the knowledge state of their interlocutor (O'Neill, 1996, 2005; Liszkowski et al., 2008). More generally, even very young children show an awareness of what others know, and they use this to guide their behaviour in a variety of different situations (Baillargeon et al., 2010). It would thus be surprising if their linguistic production, including argument realisation, did not exhibit the same sensitivity to others' knowledge.

One specific type of situation that is likely to influence children's linguistic choices is joint attention. Joint attention refers to those situations in which a pair of interlocutors are visually attending to a referent, and both are aware that the other is doing so (Fig. 1). Joint attention is a triadic concept with two interlocutors and a referent, in contrast to standard attention (visual or otherwise) that can be simply dyadic with one individual and a referent. Consider the details in Fig. 1: joint attention can be absent in a variety of different ways (e.g. the interlocutor is not focused on the referent or child), but it is present if and only if the requisite conditions are satisfied. This requirement hence distinguishes joint attention from instances of 'visual perspective', when the child communicates about objects that are or are not occluded from the perspective of the interlocutor (e.g. Nadig and Sedivy, 2002). In the situation of 'visual perspective', the child's linguistic descriptions are influenced by what their addressee can or cannot see but not necessarily by whether or not the two are involved in a triadic interaction with mutual awareness of what the other is focused on.

The definition of joint attention in this paper is also distinct from 'focus of attention' or 'joint action' (e.g. Gundel et al., 1993; Chafe, 1994; Clark, 1996). While it may be that a recently mentioned referent is in the focus of attention of the discourse participants, it does not necessarily hold that this referent is also being visually jointly attended to by both interlocutors. This difference is illustrated in the following exchange between a mother and her child (Allen, 1996):

(2)   Mother: Nipittajuurmi qaujimanngilatit?
                  'You don't know where the Scotch tape is?'
       Child: Aah.
                  'I don't.'
       Child: Qariamiikkuk!
                  'It's in the room.'
       Child: Ailaurlaguu?
                  'Want me to go get it?'

In this exchange, the child and his mother talk about the Scotch tape. While the referent is the topic of the conversation for several utterances and thus in the focus of attention, the child and adult do not visually jointly attend to the referent at all points of the conversation. In fact, at the time of the child's final utterance, the mother is focused on another third entity. In essence, we consider joint attention to refer to a specific event or moment in a conversation, rather than a model of all potential referents in the history and present of the conversation that may be part of the interlocutors' common ground (Clark, 1996).

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[1] The following abbreviations are used in the glosses in this article: 1sS = first person singular subject; 2sS = second person singular subject; 3sS = third person singular subject; 3pS = third person plural subject; 3sO = third person singular object; 1Ssg = first person singular possessor, singular possessed item; 2Sdu = second person singular possessor, dual possessed item; ABS = absolutive case; COP = copula; CTG = contingent mood; EMPH = emphatic; FUT = future; INCP = inceptive aspect; IMP = imperative; IND = indicative mood; INT = interrogative mood; MOD = modalis case; NEG = negative; PAR = participative mood (equivalent to indicative in this dialect of Inuktitut); PASS = passive; PERF = perfective aspect; POL = politeness (preceding imperative); PRE = prefix on demonstrative; SG = singular.