The role of modality in the semantics of children's root infinitives: a cross-linguistic perspective

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Context. A central empirical observation for child German and child Dutch is that lexical predicates unmarked for tense and agreement -- the so-called 'root infinitives' - tend to have modal semantics (e.g. Jordens 1990, Hoekstra & Jordens 1994, Wijnen 1997). A typical modal root infinitive (RI) is volitional in nature, as shown in (1) [child German data are from Ingram & Thompson [I&T] 1996:114)].
I&T (1996:114) further note that the RIs as in (1) are "rarely produced as answers to immediately preceding questions containing modals". By contrast, null modals in adult German are linked to a linguistic antecedent. Hoekstra & Hyams [H&H] (1998) and more recently Hyams (2005, 2007) contrast the impressive modality rates of German and Dutch RIs (over 86% on average) with the limited distribution of modal RIs in child English (17% on average), arguing for the existence of two types of RI grammar. However, Blom (2003) argues that the child Dutch-English differences are inflated by methodological irregularities. (According to Blom, Dutch RIs drop to 50% if only 3PSG contexts are counted, which is the sole context type investigated for modality semantics in child English). In light of these facts, we ask whether the claim about the non-modality of English RIs should be revisited.

Goals. First, we investigate the semantics of RIs in child English by broadening the range of contexts to include 1st and 2nd person subjects (along with 3PSG). Second, we expand on Blom (2003) who observes that the rates of modal RIs in Dutch increase as children transition to finite representations in the present tense domain, a development described as a Modal Shift. An important implication of the Modal Shift is that finite syntactic structures emerge by temporal domain, with children facing problems when finiteness is instantiated by modal elements. In this connection, we also address two theoretical questions: (i) What properties of children's grammar account for the 'growth' of finiteness by semantic domain? and (ii) Does the Modal Shift indicate a failure to license the Modal Phrase (ModP) in child grammar?

Study. The study is based on the longitudinal production data from three CHILDES children: Nina (ages 1;11.24 - 2;3.28; files 2-19;), Peter (ages 1;11.17-2;4.15; files 5-12);), and Naomi (ages 1;11/20 – 2;3.19; files 30-54). Children's root clauses with a clear subject-predicate structure [including null subjects] were coded for semantic reference ([temporal: past and present] and modal (future, desires, etc. -- future was considered a modal category per Iatridou, 2000). For one set of data, semantic reference was determined based on parental response, which contained either a modal verb or a specific temporal marker (this method was used in I&T, 1996). [See examples in (2).] For the second set of data, semantic reference was determined based on conversational context by three coders. Only the utterances where all 3 coders were in agreement were included. Furthermore, we reanalyzed child German data in Behrens (1993) and child Russian data in Kallestinova (2007) to investigate the presence of the Modal Shift in other RI grammars characterized by predominantly modal reference.

Results. The distributional patterns of RIs in the English-speaking children show that bare lexical verbs are used with future/modal semantics and their rates far exceed 17% reported in H&H (1998), Hyams (2005, 2007). See Tables 1-3 that compare RIs in present tense vs. modal domains [PR= parental response data set; CB = context-based data set]. Our results allow us to reject the hypothesis about two types of RI grammar and suggest that modality semantics are unlikely to be

rooted in the morphological properties of lexical verbs (as argued in H&H 1998, Hyams 2005/07). In this talk, we propose a uniform explanation for the delay in finiteness in the modal domain (which we also observe in the child English data) by arguing that the licensing of the Modal Phrase is linked to the acquisition of aspectual features. Using the framework of Hacquard (2006), we argue that children's modal RIs persist until they acquire a generic imperfective feature necessary for the licensing of ModP.

(1) Nicole Wurst haben
Nicole sausage have
'Nicole wants to have sausage'

Modal semantics:
(2a) CHI: My do it. (Nina, file 12)
MOT: You wanna do it?

(2b) CHI: uh draw this? (Naomi, file 38) (= 'Can/should I draw this?')
FAT: Yes yes you may.

Modal semantics (future reference):
(2c) CHI: me hang up? (Naomi, file 46) (= 'I'm going to hang up?')
MOT: Nomi's going to hang it up there.

Table 1. Nina: Ongoing vs. modal/future RIs at Stage 1 (ages 1;11.24-2;1.22)

	Data set	Ongoing present	Modal/Future
Files 2-11	PR set	48% (51)	52% (56)
	CB set	51% (40)	49% (38)
	Total	49% (91)	51% (94)

Table 2. Peter: Ongoing vs. modal/future RIs at Stage 1 (1;11.17-2;2.13)

	Data set	Ongoing present	Modal/Future
Files 5-9	PR set	22% (14)	78% (51)
	CB set	42% (38)	58% (53)
	Total	33% (52)	67% (104)

Table 3. Naomi: Ongoing vs. modal/future RIs at Stage 1 (1;11.20 - 2;1.17)

	Data set	Ongoing present	Modal/Future
Files 30-47	PR set	50% (13)	50% (13)
	CB set	37% (39)	63% (65)
	Total	40% (52)	60% (78)

Selected References:
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