

Functional categories in Finnish language acquisition

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1. Introduction

- The purpose of this study is to show how the children acquire functional projections in Finnish and it is part of my dissertation thesis.
- Two-year-old children are missing elements in their speech but there are striking regularities in what gets missed out where (example 1).

1) *riippuu tästä.

*hang.3SG this.ELA.

‘(It) hangs here.’

(Laura 1;11)

- There has been a long debate the role of functional categories in the child language because they have been one possibility to explain why children’s grammar differs from adult’s grammar.
- Functional categories are coding the information of the clause type, tense and (some) morphological features in languages, as lexical categories are coding only lexical words e.g. verbs, nouns etc.
 - IP-level projections cover basic sentence syntax such as tense marking and subject-verb agreement.
 - The higher CP-level projections cover more complex syntax, for example, question formation, relative clauses, and subordinate clauses.

2. Theoretical background

- Poeppel and Wexler (1993) present the Full Competence Hypothesis where children have all the same clausal functional projections that adults have at the earliest stage of syntactic development.
- The first, Poeppel and Wexler (1993) notice children do not use the agreement morphology on the verb randomly distributed among subjects and this supports an idea that children know agreement morphology although the agreement paradigm is not fully available to the child.
- Poeppel and Wexler's (1993) argue that head movement as a morphosyntactic process is in place in the early grammar because the children can distinguish finite verbs from non-finite verbs.
- According to Poeppel and Wexler (1993) if the child has the head movement from V to I to C, they must have two functional projections.
- Poeppel and Wexler (1993) claim that the child uses in a finite sentence first position other constituents besides the subjects and this supports the Full Competence Hypothesis.
- Other researchers argue that children's early grammar/syntax is different from the adult.
- Ortifelli and Hyams (2012) show that English children comprehend imperatives as finite clauses, similar to what they produce.
- Aguado-Orea & Pine (2015) claim show that verb inflection in L1 Spanish is developing gradually.
- Assuming the child grammar differs from the adult, what happens during development? Two approaches:
 - In the Organic Grammar the child begins with bare VP structure and the child will develop the tree in one structure in time from the bottom up (Vainikka and Young-Scholten 2011).

- In the Organic Grammar is assumed that each language has a Master Tree that includes all possible projections in that language but not all projections need to be projected by a speaker for each construction.
- The children will acquire complex constructions in the same order, and when the child have acquired all of these structures the child's grammar can be said represent the full adult structure.
- Clahsen (1990) and Clahsen, Penke and Parodi (1993) argue that children have one functional projection above VP.
- Clahsen (1990) and Clahsen, Penke and Parodi (1993) observed that in young German speakers place finite verbs in the verb-second position, whereas non-finite verbs predominantly occur sentence-finally.
- Clahsen, Penke and Parodi (1993) argue that the children place negation postverbal position after finite verbs and preverbal negation appear before nonfinite verb, so the children have one functional projection.
- Clahsen 1990 suggest that the category C and its projection might not exist in the early grammar because the children do not use overt lexical complementizers, or wh-elements.
- Ingham (1998) argues for the existence of a stage in English-speaking children's grammatical development with Tense (Tns) but without agreement (Agr), which can be seen in the child's use of finite but non-agreeing verb forms. So, children have at least one functional category.

3. Data collection

- The participants of the study were two monolingual Finnish girls between 1;10-3;0 years of age.
- The data were collected by videotaping the children's spontaneous speech in their homes once a month in free play situations.
- An average one video recording lasted 58 minutes.
- There were a total of 32 recordings.
- There were about 8500 utterances altogether.

4. Results

AGE	Imp	Past	Cond	Modal	Perf
1;10	9	9	0	0	0
1;11	20	18	0	0	0
2;0	13	25	0	0	0
2;1	34	24	0	0	0
2;2	31	27	1	0	0
2;3	21	53	5	2	4
2;4	77	42	4	1	6
2;5	61	65	0	2	5
2;6	39	42	9	8	1
2;7	33	28	4	6	1
2;8	40	22	2	3	8
2;9	79	74	9	8	1
2;10	25	32	5	21	5
2;11	62	44	8	22	12
3;0	76	49	5	19	14
SUM	624	559	52	92	57

Table 1. The children's verb forms

- As can be seen from the table 1, the children have past tense verb forms from the beginning of language acquisition.

AGE	1SG	2SG	3SG	1PL PASS	2PL
1;10	0	0	44	0	0
1;11	6	1	95	0	0
2;0	5	0	172	1	0
2;1	9	0	169	1	0
2;2	51	1	130	10	0
2;3	67	0	198	14	0
2;4	54	5	233	13	1
2;5	81	5	176	12	0
2;6	82	21	215	10	0
2;7	52	7	170	25	0
2;8	51	2	122	4	0
2;9	88	20	283	39	3
2;10	73	12	142	18	1
2;11	93	23	261	29	0
3;0	74	21	226	30	1
SUM	786	118	2663	206	6

Table 2. The children's agreement

- As can be seen from the table 2, the agreement (especially for 1. persons) emerges to the children at the age of 2;2.
- The first forms before age of 2;2 can be concluded to be memorized.

AGE	Imp	Past	Cond	Modal	Perf
1;10	9	9	0	0	0
1;11	20	18	0	0	0
2;0	13	25	0	0	0
2;1	34	24	0	0	0
2;2	31	27	1	0	0
2;3	21	53	5	2	4
2;4	77	42	4	1	6
2;5	61	65	0	2	5
2;6	39	42	9	8	1
2;7	33	28	4	6	1
2;8	40	22	2	3	8
2;9	79	74	9	8	1
2;10	25	32	5	21	5
2;11	62	44	8	22	12
3;0	76	49	5	19	14
SUM	624	559	52	92	57

Table 3. The children's CP-phenomenon

- As can be seen from the table 3, besides of wh-questions, there is only one CP-structure before the age of 2;2, and the children are missing overt complementizers, yes/no questions, discourse particles, and relative clauses in their early language.
- In Finnish, complementizer että ‘that’ is higher in tree than other complementizers (Brattico, Huhmarniemi, Purma and Vainikka 2014).
- While the other CP-elements occur from about 2;2 on, wh-questions (content questions) are produced earlier; I suggest that this is because wh-questions act as a trigger for the CP-projection -- these simple early questions 'guide' the child to the next syntactic level (Sakas and Fodor 2001).
- Having conducted a detailed analysis of these early questions, I can attest that they are syntactically very limited and may be formulaic (example 2).

2) missä on Puhi?

where be.3SG Winnie the Pooh.NOM

‘Where is Winnie the Pooh?’

(Milla 2;1)

- The children begin to use overt complementizers at the age of 2;2.
- The children begin to use relative clause at the age of 2;2.
 - The most of these are free relatives and they do not need reference to outside noun, so they are easier to form.
 - Other relative clauses come around the age of three.
- Yes/no questions emerge at the age of 2;3.
- Discourse particles become more common at the age of 2;5.
- Complementizer *että* 'that' emerges at the age of 2;6.

5. Conclusion

- My results show that the CP projection develops during the acquisition of Finnish.
- My results support Clahsen's view about one functional projection above VP from the beginning of two-word stage because the children have tense.
- My results also supports Ingham (1998) proposal that the children have Tense but not Agreement in their early language.
- My results do not support Wexler's Full Competence Hypothesis, or the Organic Grammar.
- New idea: early wh-questions trigger the CP-projection during development.

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