Appendix A. Types of grammatical questions (only questions that include a verb) that each child in the samples produced

	Root Questions						Embedded Questions					
Age	VP question	Unacc VP question	Subject question	Object question	Adjunct question	Yes/no questions	VP question	Unacc VP question	Subject question	Object question	Adjunct question	Yes/no questions
1;6	■		■			■						
1;8	■		■		■	■						
1;10												
1;10												
1;10			■	■		■						
1;11												
1;11												
1;11												
1;11			■			■						
1;11	■		■	■		■						
1;11												
2;0	■					■						
2;0												
2;0			■									
2;0												
2;1												
2;1		■				■						
2;2												
2;2	■			■		■						
2;3												
2;5					■	■					■	
2;6	■				■	■						
2;6	■	■	■		■							
2;6	■			■			■			■		
2;8			■									
2;9	■			■	■	■				■		
2;11	■		■	■	■	■						
2;11	■				■	■						
2;11	■	■		■	■	■						■
2;11						■						
3;0		■	■	■		■						
3;0			■			■						
3;1	■		■	■		■						
3;1	■		■	■	■	■						
3;2												
3;3				■	■	■						■
3;3				■	■							
3;3	■		■	■	■	■	■					
3;5					■	■						
3;7	■			■	■	■	■	■				
4;0			■	■	■	■		■		■	■	
4;3	■		■	■	■	■						
4;5			■		■	■					■	
4;9			■	■	■	■						
4;10												
4;10					■	■					■	
4;11					■	■				■	■	
5;1					■	■				■		■
5;2	■			■		■				■	■	
5;3			■		■	■				■	■	
5;4			■	■	■	■						
5;7				■	■	■				■		
5;8	■			■	■						■	
5;8	■		■	■	■	■						
5;10					■	■	■					■
6;1			■		■	■						

Appendix B. Types of relative clauses in the samples

	Subject relative		Object relative		Object PP relative				
Age	Lex head	pro head	Lex head	pro head	Lex head	pro head	Relative that-there's	*Subject relative with RP	*Object PP relative without PP
1;6									
1;8									
1;10									
1;10									
1;10									
1;11									
1;11									
1;11									
1;11									
1;11									
1;11									
2;0									
2;0									
2;0									
2;0									
2;1									
2;1									
2;2									
2;2									
2;3									
2;5									
2;6	■								
2;6									
2;6									
2;8	■								
2;9									
2;11									
2;11	■				■				
2;11									
2;11									
3;0									
3;0	■								
3;1									
3;1	■		■	■					
3;2									
3;3	■								
3;3									
3;3			■					■	
3;5									
3;7	■								
4;0	■	■		■					
4;3									
4;5			■	■	■		■		
4;9	■		■	■			■		
4;10	■							■	
4;10							■	■	
4;11	■	■	■				■		■
5;1	■	■	■	■				■	
5;2	■	■	■	■				■	
5;3	■				■			■	
5;4					■				
5;7	■	■		■			■		
5;8	■								
5;8									
5;10	■		■		■				
6;1	■		■		■			■	

Lex: head of the relative clause is a lexically restricted DP. Pro: the head is a pronoun/empty

Appendix C. Types of embedding in the samples

	Embedding to V							Embedding to N	
Age	Nonfinite compl.	Embedded declarative (compl.)	Embedded question	Embedded yes/no (*if*)	Embedded quotation	Finite adjunct	Nonfinite adjunct	No A-bar movement (compl.)	Relative clause
1;6	■								
1;8									
1;10									
1;10									
1;10									
1;11									
1;11									
1;11									
1;11									
1;11	■								
1;11	■								
2;0	■								
2;0									
2;0									
2;0									
2;1									
2;1									
2;2	■								
2;2									
2;3	■								
2;5	■	■	■						
2;6	■	■	■		■	■	■	■	■
2;6	■								
2;6	■		■						
2;8	■	■							■
2;9	■	■	■			■			
2;11	■	■				■			
2;11	■		■		■				■
2;11	■			■					
2;11	■								
3;0	■		■		■				
3;0	■	■				■			■
3;1	■								
3;1	■		■			■			■
3;2	■								
3;3	■	■		■					■
3;3	■	■	■			■			
3;3	■		■			■			■
3;5	■		■						
3;7	■	■	■			■			■
4;0	■	■	■		■	■			■
4;3	■	■	■			■			
4;5	■	■	■		■	■		■	■
4;9	■	■			■	■			■
4;10	■	■							■
4;10	■	■	■			■		■	■
4;11	■	■	■			■			■
5;1	■	■	■	■	■	■			■
5;2	■	■	■		■	■			■
5;3	■	■	■		■	■			■
5;4	■	■	■			■	■		■
5;7	■	■	■		■	■			■
5;8	■	■	■		■	■			■
5;8	■	■	■		■	■	■		
5;10	■	■	■	■	■	■			■
6;1	■	■	■		■	■	■		■

compl. – complement

Appendix D. The order of appearance of A-bar movement structures and finite embedding in each sample in the longitudinal data of the two heavily sampled children

HAGAR

Age	Wh question	Topicalization	Relative	Embedding
19.02/03				
19.17				
19.22/24				
20.01/04				
20.07-10	■			
21.00/03				
21.06-08				
21.21-23	■			
22.01				
22.03/04				
22.10				
22.14/15	■			
22.16-18	■			
22.21/22				
22.25				
23.01-03	■			
23.06/07				■
23.09				
23.16				
23.18	■			
23.20				
23.22				
23.27				
24.02/03	■			
24.10/11	■			■
25.05		■		
25.08/09	■		■	
25.12-14	■			
25.19/20	■		■	
25.22	■	■		
25.23		■		
25.24	■			
25.28/30				
26.04	■			■
26.12/13	■			
26.19				
26.20				
26.22				
26.24-26	■			
27.12	■		■	
27.16	■			■
27.24	■	■		■
27.29	■			
28.01				
28.02	■			■
28.05				■
28.06	■			
28.14/15	■	■		■
28.19	■			■
28.20	■			
28.24/25	■	■		
28.28				
29.01		■		■
29.05				
29.23			■	
30.09	■			
30.11	■			■
30.21	■		■	■
30.24	■	■	■	■
31.01				
31.07/08	■	■		■
31.16	■			■
31.22/24			■	■
32.03	■			■
32.07	■		■	■
32.10	■		■	
32.12	■		■	■
32.20	■		■	■
32.27	■			■
33.01			■	
33.04	■	■	■	■
33.27	■	■	■	■
33.30	■	■	■	■
34.01	■			■
35.11	■			■

LEOR

Age	Wh question	Topicalization	Relative	Embedding
21.00				
21.04				
21.11				
21.17				
21.24				
22.03/06				
22.15				
22.22/23	■			
23.00	■			
23.04	■			
23.12	■			
23.13	■			
23.15	■			
23.17	■			■
23.22	■			
23.30				
24.05	■			
24.10	■			
24.16	■			
24.23	■			
24.30	■			
25.15	■			
25.23	■			
25.27				
25.28	■	■		
26.05	■		■	
26.11	■			■
26.13				
26.17	■			■
26.19				
26.21	■			
26.25	■			
27.00	■	■		
27.11	■			
27.16	■			
27.23	■			■
28.00	■			
28.03	■			
28.12	■	■		■
28.22	■	■	■	■
28.29	■			■
29.06	■	■		■
29.15	■	■		■
29.22				
29.25	■			
30.04				
30.13	■			■
30.21	■			
30.23/24	■		■	
31.03	■			■
31.11	■		■	■
31.21				
31.24	■	■	■	■
32.02	■	■		■
32.12				
32.21	■			■
32.29	■	■		■
33.11	■			■
33.15	■			■
33.22	■	■	■	■
33.3	■			■
34.02	■	■	■	
34.10	■		■	■
34.18	■		■	■
34.25	■	■		■
35.02	■	■		■
35.09	■		■	■
35.17/18	■		■	■
35.19	■	■	■	■
35.25	■	■		
35.28	■		■	■
36.06	■	■		■
36.14	■	■		■
36.25	■	■	■	■
36.27	■		■	■

Notes: Samples in consecutive days collapsed into one line.
Topicalized sentences were included here only if they included an explicit subject

Two of the five children, Hagar and Leor, were sampled very frequently, which allowed us to pinpoint when each structure appeared in a resolution of several days. The Figure presents the structures in each sample, with samples in 2-4 consecutive days merged in a single sample.

Order of structure appearance by age

Both children showed the same order of acquisition as the one we reported for the group of samples. Hagar produced simple SV, $SV_{unacc,}$ and nonfinite embedding when she was 1;7. A

month later, at age 1;8, she started producing wh-questions. Three month later, at age 1;11 we see her first embedding (an embedded question with a nominal predicate), followed by topicalization structures (with an explicit subject) and relative clauses when she was 2;1 (3 days apart). An embedded declarative appeared less than a month later. Only at age 2;8 do we see her first V-C.

Leor showed a similar order, in a slightly later age: nonfinite embedding to "want" appeared already at age 1;9. He produced SV at age 1;10, SV_{unacc} at age 1;11. Wh questions started appearing at age 1;11. At age 1;11 we also see his first embedding (an embedded question with a nominal DP predicate). He started producing topicalization, relative clauses and embedding within two weeks: he produced his first DP topicalization at age 2;2 (25.28), exactly a week later, a relative clause, and six days later his first embedded declarative. V-C first appeared at age 2;3, still without trigger, which appeared only at age 3;0.

Below we discuss in detail their data, with 31 bi-weekly grouped samples per child.

A-movement

In the longitudinal data, like in the group analysis, there was no difference between SV and VS order with an unaccusative verb and a lexical DP subject. For Hagar, 13 samples included unaccusatives in SV order and 14 in VS order; and for Leor, 20 samples included unaccusatives in SV order and 21 in VS order, with no significant differences between the two structures for either child, $\chi^2 \leq 0.08$, $p \geq .77$.

This pattern is entirely different from the word order patterns produced with unergative verbs, where VS order is a result of verb movement to C: out of 31 samples with some unergative verb, an SV order with an unergative verb appeared in all of Hagar's samples and in 28 of Leor's samples. Contrarily, a VS structure with an unergative appeared in only two of Hagar's samples, and three of Leor's – significantly less than VS structures with an unaccusative for each of the children, $p<.001$. This is further evidence that children distinguish unaccusative from unergative verbs from an early age.

As in the group samples, Hagar and Leor acquired the conditions on the order of pronoun subjects and unaccusative verbs at a very early age, so whereas they did produce 14 and 21 (respectively) samples in which a lexical DP subject followed an unaccusative verb, they did not produce any pronoun following an unaccusative verb (except for a single instance of a post-verbal demonstrative).

A-bar-movement

Questions. Wh-questions appeared in 84% (26/31) of Hagar's samples, and in 87% (27/31) of Leor's samples. Hagar's first wh-question appeared at age 1;8, and Leor's at age 1;11 (with a slightly ungrammatical question, "ma kara otobus" *what happened bus,* missing a preposition, a week earlier). For Hagar, subject questions appeared in 52% of the samples (16/31), and object questions appeared in 48% of the samples (15/31). For Leor, subject questions appeared in 55% of the samples (17/31), and object questions appeared in 68% of the samples (21/31). Hagar's first question to appear was a subject question, Leor's first question was an object question. No significant difference between the two kinds of questions was found for either child ($\chi^2 \leq 1.9$, $p \geq .30$). All object and subject question (apart from one) that were uttered by the two children were bare. A lexically-restricted question with a verb (a 'which' object question: *eize ceva ani ohevet?* which color I like?) appeared in one sample only (uttered by Hagar at age 2;6), but it did not include a crossing movement because the subject was a pronoun.

Topicalization. The first topicalization structure appeared for both children age 2;1. Topicalization appeared in 36% of Hagar's grouped samples, and 55% of Leor's samples. All topicalization structures had a pronoun or arbitrary pro as a subject.

Relative clauses. Hagar's first relative clause, at age 2;1, was an object relative (of the *še-yeš* type, approximately meaning 'that-one-has'). Less than two weeks later, a DP object relative clause without a resumptive pronoun appeared. The first subject relative only appeared at age 2;6. Subject relatives appeared in 6 of her samples, and object relatives in 7 of her samples, with no significant difference between the two kinds of relatives, $\chi^{2=}0.10$, p=.76. Leor's first relative clause was a subject relative, appearing at age 2;2, and an object relative appeared at age 2;6. Subject relatives appeared in 9 of his samples, and object relatives in 4 of his samples, no significant difference between the two kinds of relatives, p=.21.

Furthermore, in accordance with the group level, subject and object questions were acquired together, as did subject and object relatives. The children produced no object A-bar-structure with crossing movement with two lexical DPs.

Finite clausal embedding

Both children produced their first (finite) embedded clause, an embedded wh-question with a nominal predicate in both cases, at age 1;11, for both of them later than the first appearance of a root wh-question. Declarative sentential complements appeared at age 2;2 for Hagar, and 2;3 for Leor.

Structures with A-bar-movement and embedding

For both children, similarly to the findings from the group samples, root wh-questions appeared first, before finite embedding and before relatives/topicalization. After questions, embedding and relatives/topicalization appeared together within a 2.5-months span.

Hagar produced an embedded clause without a finite verb at age 23.07 and then topicalization, relative clauses, and declarative embedding all within a month (25.05-26.04).

Leor produced one embedded clause without a finite verb at age 23.17 and then topicalization, relative clauses, and embedding with a finite verb all within two weeks' time.

Hagar's first wh-question appeared almost 5 months before her first topicalization, and Leor's first wh-question appeared almost three months before his first topicalization.

Verb movement to C

For both children, unergatives and transitives in VS order were rare. Interestingly, like in the group samples, in all early VS structures the moved verb was "do" for both children. We analysed these structures for Hagar, and found that the VP questions with pre-subject "do" coincided with wh-questions and preceded relatives, topicalization, and embedding. Non-"do" V-C appeared only once relatives/ topicalization/ embedding were acquired.