

Non-target Word Order in Early Child Language: Pragmatics vs. Economy

Marit R. Westergaard
University of Tromsø - CASTL
marit.westergaard@hum.uit.no

CASTL/CLS workshop on 'Variation and Stability in Grammar'
University of Nijmegen - 25 April, 2006

This paper considers the word order in object shift and so-called 'subject shift' constructions in Norwegian child language. The data show that the children produce certain non-target-consistent forms in these constructions, failing to move pronominal subjects and objects across negation/sentence adverbs. As the placement of pronouns in the higher position is related to information structure, a pragmatic account of the data is considered, but rejected. Instead, the non-target-consistent word order is accounted for in terms of structural economy, where children are assumed to initially move elements only as high up in the clausal structure as there is clear evidence for in the input.

1. SUBJECT AND OBJECT SHIFT

✚ Two subject positions visible in questions/non-subject-initial declaratives w/negation:

- (1) Kan **ikke Peter** gjøre dette?/ Kan **Peter ikke** gjøre dette? **Neg-S or S-Neg**
can not Peter do this
- (2) Dette kan **ikke Peter** gjøre./ Dette kan **Peter ikke** gjøre.
this can not Peter do

Westergaard&Vangsnes (2005): informationally given subjects precede, informationally new/focused subjects follow negation/sentence adverbs within the IP domain.

- (3) Dette kan **du ikke** gjøre. **S_{PRO}-Neg**
this can you not do
- (4) *?Dette kan **ikke du** gjøre./Dette kan **ikke DU** gjøre.
this can not you do

✚ Object shift: Weak pronouns precede negation, full DPs+strong pronouns follow.

- (5) Peter så **ikke boka**. **Neg-O**
Peter saw not book.DEF
- (6) Peter så **den ikke**./Peter så **ikke DEN**. **O_{PRO}-Neg**
Peter saw it not /Peter saw not that

2. SOME PREVIOUS ACQUISITION RESEARCH

❖ Evidence for weak continuity/structure building (Clahsen, Penke&Parodi 1993/94):

- (7) darf **nich Julia** haben. (Mathias, stage II) (German) **Neg-S**
may not Julia have
'Julia may not have that.'
Target form: Das darf Julia nicht haben.

- ❖ Evidence for strong continuity/full clause hypothesis (Poeppel and Wexler 1993):

(8) den tiegt **a nich** wieda. (Andreas, age 2;1) **S-Neg**
that.ACC gets he not again
 ‘He won’t get that back.’
 Target form: Den kriegt er nicht wieder.

- ❖ Sporadic examples of lack of object shift/scrambling in German/Dutch child language – target-consistent examples also appear ⇒ discussion whether object shift is available from early on (e.g. Barbier 2000).

(9) kann **nicht das** zumachen. (Julia, 2;4) (German) **Neg-O**
can not that close
 ‘I can’t close that.’
 Target form: Ich kann das nicht zumachen

(10) ich schaff **das nich**. (Julia, 2;3) **O-Neg**
I manage that not
 ‘I can’t do it.’ (from Barbier 2000, pp. 44-45, orig. from Clahsen 1990)

- ❖ Josefsson (1996): Sporadic examples found in corpora of Swedish child language. Avoidance? Elicited imitation experiment also reveals various ‘avoidance strategies’:

(11) Adult: Ser du **mej inte?** (Swedish)
see you me not
 Child: Ser du **inte mej?** (Pia, 2;5) (from Josefsson, 1996, p. 159)

3. THE NORWEGIAN CHILD DATA

Table 1: Overview of the Norwegian corpus of child language, Tromsø dialect.¹

Name of Child	Age	Files	Child Utterances
Ina	1;8.20-3;3.18	Ina.01-27	20,071
Ann	1;8.20-3;0.1	Ann.01-21	13,129
Ole	1;9.10-2;11.23	Ole.01-22	13,485
Total			46,685

3.1 Subject shift

Table 2: Overview of the number of full DP and pronominal subjects in questions/non-subject-initial declaratives with negation, with Neg-S and S-Neg word order (213 examples).

Child/Word order	Neg-S		S-Neg	
	DPs	Pronouns	DPs	Pronouns
Ina.01-27	7	29	0	65
Ann.01-21	9	10	0	24
Ole.01-22	6	28	0	35
Total	22	67	0	124

- ❖ Only 22 full DP subjects – which always follow negation (in early as well as late files):

¹ Apart from 10 files that have been collected and transcribed by the author, the corpus has been collected by Merete Anderssen.

(12) der snakke **ikkje mannen.** (Ina.09, age 2;2.12) Neg-S
there speak.PRES not man.DEF

(13) komte **ikke reven** med mæ # i senga mi? (Ina.18, age 2;8.12)
come.PAST not fox.DEF with me in bed.DEF mine
 ‘Didn’t the fox come with me in my bed?’

❖ 191 pronominal subjects – 67 follow negation (early files), 124 precede (later files):

(14) har **ikkje han** fota her? (Ina.13, age 2;5.25) Neg-S_{PRO}
have.PRES not he feet here

(15) no kan **ikke han** sove mer. (Ann.10, age 2;3.9)
now can not he sleep more

(16) det får **ikke æ** lov til. (Ole.12, 2;5.18)
that get.PRES not I allowed to
 ‘That I am not allowed to do.’

(17) nei, nå må **han ikke** røre. (Ina.21, age 2;9.18) S_{PRO}-Neg
no now must he not touch

(18) nei det kan **dem ikke.** (Ann.17, age 2;8.4)
no that can they not
 ‘No, that they can’t do.’

(19) korfor ser **æ ikke** skoan? (Ole.17, 2;8.24)
why see.PRES I not shoe.DEF/PL
 ‘Why don’t I see the shoes?’

Table 3: Overview of Neg-S_{PRO} word order (left-hand columns) and S_{PRO}-Neg (right-hand columns) in non-subject-initial declaratives/questions w/negation in the Norwegian child data.

Period 1		Period 2		Period 3		Period 4		Period 5	
Ina, age 1;8.20-2;2.12		Ina, age 2;3.12-2;5.25		Ina, age 2;6.19-2;7.22		Ina, age 2;8.12-2;11.26		Ina, age 3;1.8-3;3.18	
0	0	7	4	7	4	10	36	5	21
Ann, age 1;8.20-2;2.19		Ann, age 2;3.9-2;6.0		Ann, age 2;6.21-2;7.14		Ann, age 2;8.4-3;0.1			
0	2	9	7	1	3	0	12		
Ole, age 1;9.10-2;2.12		Ole, age 2;3.15-2;6.2		Ole, age 2;6.21-2;7.20		Ole, age 2;8.5-2;11.23			
1	1	21	3	0	13	6	18		

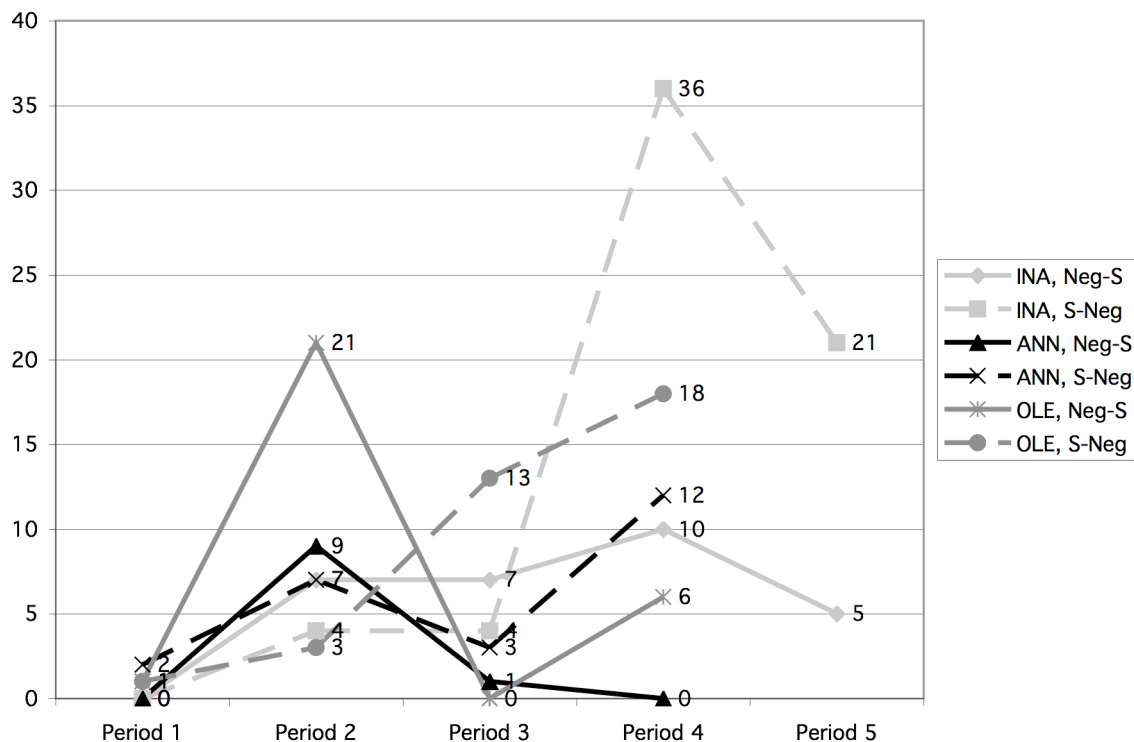


Figure 1: The development of Neg-S_{pro} word order (solid lines) and S_{pro}-Neg word order (broken lines) in non-subject-initial declaratives and questions w/negation in the Norwegian child data.

3.2 Object shift

Table 4: Overview of full DP and pronominal objects in sentences with single finite verb and negation (259 examples).

Child/Word Order	Neg-O		O-Neg	
	DPs/ <i>det</i>	Pronoun	DPs	Pronoun
Ina.11-27, age 2;4.1-3;3.18	121	16	0	4
Ann.11-21, age 2;4.0-3;0.1	46	2	0	3
Ole.11-22, age 2;4.21-2;11.23	57	7	0	3
Total	224	25	0	10

- ❖ Most of the examples have full DP objects or *det* (224 vs. only 35 pronouns) – all follow negation in a target-consistent way (in early as well as late files):
 - (20) æ har **ikkje smykke(t)**. (Ina.12, age 2;4.28) **Neg-O**
I have not necklace.DEF?
 ‘I don’t have (the) necklace.’
 - (21) æ trur **ikkje det**. (Ina.25, age 3;1.8)
I think not it
 ‘I don’t think so.’
- ❖ Only 35 pronominal objects – which mainly follow negation (25). Occasional target-consistent examples (10) in later files:

Table 5: The number of sentences with Neg-O_{PRO} word order (left-hand columns) and O_{PRO}-Neg order (right-hand columns) across five periods in the Norwegian child data.

Period 1	Period 2		Period 3		Period 4		Period 5	
Ina, age 1;8.20-2;3.12	Ina, age 2;4.1-2;5.25		Ina, age 2;6.19-2;7.22		Ina, age 2;8.12-2;11.26		Ina, age 3;1.8-3;3.18	
<i>Not checked</i>	2	0	6	2	3	2	5	0
Ann, age 1;8.20-2;3.9	Ann, age 2;4.0-2;6.0		Ann, age 2;6.21-2;7.14		Ann, age 2;8.4-3;0.1			
<i>Not checked</i>	2	0	0	0	0	3		
Ole, age 1;9.10-2;4.6	Ole, age 2;4.21-2;6.2		Ole, age 2;6.21-2;7.20		Ole, age 2;8.5-2;11.23			
<i>Not checked</i>	3	0	1	1	3	2		

- (22) eg finn <**ikkje han**> [>] . (Ina.13, age 2;5.25) **Neg-O_{PRO}**
I find.PRES not him
 ‘I can’t find him.’
 Target form: Eg finn han ikkje.
- (23) æ [/] æ får **ikke den** løs. (Ann.13, age 2;5.10)
I I get not it loose
 ‘I can’t get it off.’
 Target form: Æ får den ikke løs.
- (24) åh æ klare **ikke det**. (Ole.12, age 2;5.18)
oh I manage.PRES not it
 ‘Oh, I can’t do it.’
 Target form: Æ klare det ikke.
- (25) ho har **den ikkje** på sæ . (Ina.24, age 2;11.26) **O_{PRO}-Neg**
she have.PRES it not on REFL
 ‘She doesn’t have it on.’
- (26) æ kom **meg ikke** ut . (Ann.19, age 2;9.17)
I come.PAST REFL not out
 ‘I couldn’t get out.’
- (27) æ hold **mæ ikke** fast ! (Ole.22, age 2;11.23)
I holdPRES REFL not tight
 ‘I am not holding on (to it).’

4. AN ACCOUNT OF THE DATA: PRAGMATICS OR ECONOMY?

- ❖ Syntax is early, pragmatics is late? e.g. Hyams (1996), Chien&Wexler (1990), Avrutin&Wexler (1992), Batman-Ratyosyan&Stromswold (2002).
 - ❖ Schaeffer (2000), “Concept of Non-shared Knowledge”.
- ✚ Possible pragmatic analysis of the Norwegian child data: The lack of the concept of non-shared knowledge makes young children unable to distinguish between informationally given and new subjects.
- ✚ Economy-based account of the Norwegian child data:
- children only build as much structure as there is evidence for in the input
 - children only move elements as far as there is clear evidence for in the input

Additional factors (e.g. for subject shift):

- Complexity of construction: 1) Verb movement to CP domain, 2) movement of non-subject/*wh*-phrase to initial position, 3) movement of informationally given subject.
- Inconsistent pattern (pronouns move only sometimes).
- Non-saliency of landing site, cp. subject-initial declaratives (where subject movement to initial position is attested extremely early, irrespective of verb movement):

- (28) **æ ikke låne.** (Ole.03, age 1;10.22) **S-Neg**
I not borrow.INF
 ‘I (will) not borrow (it).’

5. ARGUMENTS FOR ECONOMY

5.1 The two positions treated differently from early on

- ✚ No mixture of pronouns and full DPs in the two positions. DPs always in target-consistent (low) position, only informationally given elements undergo movement.
- ✚ Lack of concept of non-shared knowledge should cause children to treat new elements as given, cf. Gordishevsky&Avrutin (2004). Opposite situation in the Norwegian data, i.e. given information occurring in positions normally reserved for new information.

5.2 Pragmatic account would predict simultaneous acquisition?

- ✚ Subject shift seems to be in place earlier than object shift.
- ✚ Similar delay in subject movement attested in Swiss German (Schönenberger 2002): Overgeneralization of V2 in embedded contexts until age five; at early stage (age 3;10-4;03) all subjects appear below the verb; around age 4;04 pronominal subjects appear in a higher position. Children discover principle of non-shared knowledge around 4;04? Why should such a general principle be acquired later by Swiss German children? Alternative account: Syntactic complexity + frequency (Swiss German data attested in embedded clauses; more complex and less frequent than main clauses).

5.3 Children sensitive to information structure early

- ✚ Some recent studies argue that information structure is in place early, e.g. De Cat (2003), Gordishevsky&Avrutin (2004).
- ✚ Tromsø dialect: Both V2 and non-V2 possible in questions with monosyllabic *wh*-constituents. Choice of word order not random, Westergaard (2003): investigation of sample of spontaneous adult speech.

V2: Subject: DP/dem. pronoun Verb: *be*
 Non-V2: Subject: personal pronoun Verb: all other verbs

V2 with informationally new/focused subjects (often a full DP)
 Non-V2 with informationally given subjects (often a personal pronoun)

- (29) kor er mitt fly? (INV, file Ole.17) **V2**
where is my plane
 ‘Where is my plane?’
- (30) kor vi lande henne? (INV, file Ole.17) **Non-V2**
where we land LOC
 ‘Where do we land?’

- ❖ Children distinguish between informationally given and new subjects in the two types of *wh*-questions from early on, with the same patterns for subject and verb types.

- (31) kor **er Ann sin dukke** hen? (Ann.04, age 1;11.0) **V2**
where is Ann POSS doll LOC
 ‘Where is Ann’s doll?’
- (32) ka **du skal** finne? (Ina.05, age 2;0.5) **Non-V2**
what you shall find
 ‘What do you want to find?’

- ✚ Similar patterns found in certain non-target-consistent (non-V2) non-subject-initial declaratives, where there is no input for this distinction (Westergaard 2004).

- (33) her **er sekken.** (Ann.03, age 1;10.2) **V2**
here be.PRES backpack.DEF
 ‘Here is the backpack.’
- (34) der **Ann har** et. (Ann.08, age 2;1.28) **Non-V2**
there Ann have.PRES one
 ‘There Ann has one.’
 Target form: Der har Ann et.

5.4 Why a difference between subject and object shift?

- ✚ Small sample of input data, INV in Ole.14, 793 utterances, (Westergaard, forthcoming):
 - 42 examples of questions/non-subject-initial declaratives w/negation, 7 DPs - 35 pronominal subjects (**28** S_{PRO}-Neg).

- (35) har **han ikkje** et dyr? (INV, file Ole.14) **S_{PRO}-Neg**
has he not an animal
 ‘Doesn’t he have an animal?’
- (36) har **ikkje han Postman Pat** en katterpus? (INV, file Ole.14) **Neg-S**
has not DET Postman Pat a kitty
 ‘Doesn’t Postman Pat have a kitty?’

- 11 examples of ‘V_{fin} + *ikkje* + object’, 8 DPs – only **3** pronouns (O_{PRO}-Neg).

- ✚ Difference in proportion DP vs. pronoun between subjects (7/35) and objects (8/3) is presumably simply a function of subjects more often being given information than objects – i.e. more often pronouns – in adult and possibly also in child data.
- ✚ An error pattern caused by economy, complexity etc. may persist for a longer time if there is a lack of frequency in the input. (Westergaard&Bentzen, forthcoming)

6. SUMMARY/CONCLUSION

- ✚ A certain delay attested in Norwegian children’s movement of pronominal subjects and objects to a position preceding negation.
- ✚ Subject shift falls into place around age 2;6-3 - object shift (somewhat) later?
- ✚ A pragmatic account (lack of the principle of non-shared knowledge) argued not to be relevant in this case, mainly because the children are found to distinguish between informationally given and new subjects very early in *wh*-questions.
- ✚ Non-target-consistent word order argued to be due to economy of movement.

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