

Triggering V2: On the Frequency of the Input Cue and Possible Consequences for Language Change

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1. INTRODUCTION

In this paper I argue that children generally need relatively little input evidence to set word order parameters, also in exceptional cases. Within a type of Split-CP model of clause structure, I suggest that children make no global search of the primary linguistic data, but scan the input for word order cues, focusing exclusively on the relevant clause type. Within a cue-based approach to acquisition and change, I look at some possible consequences of input frequencies for the loss of verb second (V2) word order, taking examples from declaratives in Old and Middle English (OE/ME) and *wh*-questions in present-day Norwegian dialects.

2. V2 AND A THEORY OF CUE-BASED ACQUISITION AND CHANGE

Cue for V2 syntax (from Lightfoot, 2006, p. 86):

(1) $_{CP}[XP_c V \dots]$

- Must be obligatory (UG requirement), for learnability reasons.
- Must be robustly expressed in primary linguistic data (17-30%?, Lightfoot 1999).

(2) Frequency counts of conversational speech in present-day V2 languages (Dutch and German) indicate that the initial element of the clause is a subject 70% of the time, while non-subject-initial clauses (the ones which express the cue for V2) are attested around 30%.

Some historical evidence from English: One text from *Sawles Warde* (early 13th century) shows a frequency of non-subject-initial declaratives (with V2) of only 17% (26 out of a total of 152 matrix clauses).

- (3) þa he onweg adrifen wæs, **cwom he** to Cent. (Early OE, V2)
when he away driven was came he to Kent
‘When he was driven away, he came to Kent.’ (from Bech 2001, p. 53)
- (4) Soo **the kyngre returned** hym to the toure ageyne. (Late ME, non-V2)
so the king returned him(self) to the tower again
So the king returned to the tower again.’ (from Bech 2001, p. 56)

Both V2 and non-V2 attested in non-subject-initial declaratives in historical texts. Explained as grammar competition, Lightfoot (1999), Kroch&Taylor (1997).

- ✚ Statistical shifts in input, caused by external or language-internal factors ⇒ cue may drop to critical level for lg. acquisition ⇒ children ignore it and develop a grammar without V2, although the grammar of previous generation had it – to a certain extent.
- ✚ Language change is not gradual, but abrupt and ‘**catastrophic**’, reflecting a new parameter setting in the I-language of individual speakers.

Present-day English: S-Aux inversion in questions (Residual V2); ‘VP inversion’ in declaratives with informationally light verbs, mainly *be* (Birner 1995).

- (5) a. When **will you** be leaving for Italy ?
 b. On the table **was a pile of old magazines**.

How is the word order of English learnable, given the obligatory nature of the cue?

- ✚ Frequency should determine what is learned first -
 cp. the acquisition of past tense morphology (e.g. Pinker 1999).

3. THE WORD ORDER OF NORWEGIAN

- (6) Vi **drikker ikke** fransk vin/*vi ikke drikker fransk vin. (V2)
we drink not French wine
 ‘We don’t drink French wine.’
- (7) Italiensk vin **drikker vi** ofte/*italiensk vin vi ofte drikker.
Italian wine drink we often
 ‘Italian wine we often drink.’
- (8) **Drikker han** mye vin?
drinks he much wine
 ‘Does he drink much wine?’
- (9) Det finnes noen studenter [som **aldri drikker** vin/*som drikker aldri vin]. (Non-V2)
it exist some students who never drink wine
 ‘There are some students who never drink wine.’
- (10) Jeg lurer på [hva **han drikker**]/[*hva drikker han].
I wonder on what he drinks
 ‘I wonder what he drinks.’
- (11) Kor stor **du er** blitt!/*Kor stor er du blitt!
how big you are become
 ‘How big you have become!’
- (12) Ég velti því fyrir mér [hvort hún **sé ekki** lögð af stað] (Icelandic)
I wonder whether she is not gone away
 ‘I wonder if she hasn’t left.’
- (13) They asked me **was I** going to the party. (Belfast English, Henry 1994, p. 275)
- (14) Hvor **er han** sød! (Danish)
where/how is he sweet
 ‘How nice he is!’
- (15) Ka slags vin **drakk du**?/*Ka slags vin du drakk? (Tromsø dialect) (V2)
which kind wine drank you/
 ‘Which kind of wine did you drink?’

- (16) Korfor **gikk** **ho?**/*Korfor ho gikk?
why go.PAST she /why she go.PAST
 ‘Why did she go?’
- (17) kor **er mitt fly?** (INV, file Ole.17) (V2)
where is my plane
 ‘Where is my plane?’
- (18) kor **vi lande** henne? (INV, file Ole.17) (Non-V2)
where we land LOC
 ‘Where should we land?’
- Statistically significant patterns (see Westergaard 2003):
 V2: Subject: DP/dem. pronoun Verb: *be*
 Non-V2: Subject: pers. pronoun Verb: all other verbs
 - Generalization:
 V2 with informationally new subjects (often a full DP)
 Non-V2 with informationally given subjects (often a personal pronoun)
 - Result of subject/verb movement to a low CP head (Top°), which attracts informationally light elements.
- (19) Kanskje **kongen kommer.**/Kanskje **kommer kongen.** (Non-V2/V2)
maybe king.DEF come.PRES
 ‘Maybe the king will come.’
- (20) *Vielleicht der König kommt. (German)
maybe the king come.PRES
- (21) Han **bare smilte.** /Han **smilte bare.** (Non-V2/V2)
he just smile.PAST
- (22) *Han **bare måtte** smile. /Han bare MÅTTE smile.
he just must.PAST smile
 ‘He just had to smile.’
- (23) *Er nur lächelte. (German)
he just smile.PAST

Table 1: Overview of clause types with V2 and non-V2 word order in Norwegian (Tromsø).

V2	Non-V2
Subject-initial declaratives (with adverbs/negation)	Subject-initial declaratives with certain adverbs (e.g. <i>bare</i>)
Non-subject-initial declaratives	Non-subject-initial declaratives with certain adverbs (e.g. <i>kanskje</i>)
Yes/no-questions	Exclamatives
Certain matrix <i>wh</i> -questions	Certain matrix <i>wh</i> -questions
	Embedded clauses (Neg-V) Embedded questions (S-V)

4. INPUT FREQUENCIES

Table 2: Overview of clause types in a sample of child-directed speech, three different adult speakers in the file Ole.14 (speaker INV, age of child 2;6.21), the file Ina.25 (speaker INV, age of child 3;1.8) and the files Ina.03 and 04 (speaker MOT, age of child 1;10.23-1;11.22), with percentages calculated relative to the total number of clauses (matrix and embedded).

Utterance Type	Number	Percentage
Subject-initial declaratives ¹	503	24.0%
<i>With Neg/Adv</i> ²	130	6.2%
Non-subject-initial declaratives ³	286	13.6%
	39 w/ <i>kanskje</i> ‘maybe’	1.9%
<i>Yes/no</i> -questions	645	30.8%
<i>Wh</i> -questions	73 V2 ⁴	3.5%
	110 non-V2 ⁵	5.2%
Exclamatives	9	0.4%
Imperatives	48	2.3%
Embedded clauses, total	384	18.3%
<i>With Neg/Adv</i>	3 (<i>S-V-Neg</i>)	0.1%
	14 (<i>Neg-V</i>)	0.5%
	3 (<i>Neg+S+V</i>)	0.1%
<i>Embedded wh</i> -questions	34	1.6%
Total no. of clauses	2097	100%
Total no. of utterances	2627	

- Evidence for V2 in main clauses only: 130+286+645+73=1134 (out of a total of 1713)=**66.2%** (cp. Lightfoot’s estimate in (2) above).

Table 3: Summary of evidence for V2 and non-V2 in the adult input (from Table 2, N=2097).

Evidence for V2		Evidence for non-V2	
Subject-initial declaratives with adverbs/negation	6.2%	Exclamatives	0.4%
Non-subject-initial decl.	13.6%	Non-subject-initial decl. w/ <i>kanskje</i>	1.9%
<i>Yes/no</i> -questions	30.8%	Embedded questions	1.6%
Certain <i>wh</i> -questions	3.5%	Certain <i>wh</i> -questions	5.2%
Embedded clauses with adverbs/negation	0.1%	Embedded clauses with adverbs/negation	0.5%
Total	54.2%	Total	9.6%

¹ This figure includes 9 subjectless declaratives and 27 intonation questions with declarative word order.

² The italicized figures are not included in the total.

³ This figure includes 19 V1 constructions and two cases of sentence-initial *kanskje* ‘maybe’ with V2.

⁴ This figure includes 4 examples with disyllabic question words and 3 examples introduced by full *wh*-phrases, which require V2 word order.

⁵ This figure includes 7 subject questions with the relative complementizer *som*.

Table 4: Overview of the number of non-V2 constructions involving the adverb *bare* ‘just’ in some samples of adult speech.

Speaker/Files	No. of utterances	S <i>bare</i> V _{fin}	%
MOT Ina.01-27	5471	4	0.07%
INV Ole.13-22	7365	8	0.1%
INV Ina.01-27	18140	11	0.06%
Total	30976	23	0.07%

- (24) eg **bare føle** at eg må minne deg på om at de her transkripsjonan av disse
I just feel that I must remind you on whether that these here transcriptions of these
 samtalan dem bli å gå verden rundt. (INV, file Ina.09, addressed to MOT)
conversations they become to go world.DEF around
 ‘I just feel that I have to remind you that these transcriptions of these conversations will
 be spread all over the world.’

5. THE CHILD DATA

Table 5: Overview of the Norwegian acquisition corpus, Tromsø dialect.⁶

Name of child	Age	Files	No. of 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

- (25) ho mamma **er** ikke på jobb. (Ole.02, age 1;10.0) (V2)
DET mom be.PRES not at work
 ‘Mom is not at work.’
- (26) så **tegne** æ mamma. (Ina.02, age 1;10.4)
then draw.INF/PRES I mommie
 ‘Then I draw mommie.’
- (27) **ser** du nokka? (Ann.07, age 2;1.7)
see.PRES you something
 ‘Do you see anything?’
- (28) Ann vet ikke kor **han er** henne. (Ann.09, 2;2.19) (Non-V2)
Ann know not where he is LOC
 ‘Ann doesn’t know where he is.’
- (29) kor store mage **han har**. (Ina.27, age 3;3.18)
where/how big stomach he have.PRES
 ‘What a big stomach he has!’
- (30) det er ho mamma som **har** også tegna. (Ina.26, age 3;2.05)
it be.PRES DET mommie who have.PRES also draw.PART
 ‘It is mommie who has also drawn.’
 Target form: Det er ho mamma som også har tegna.

⁶ Apart from 10 files that have been collected and transcribed by the author, the corpus has been collected by Merete Anderssen.

- (31) kem som **vil ikkje** være ilag med han? (Ina.25, 3;1.8)
who that will not be together with him
 ‘Who doesn’t want to be with him?’
 Target form: Kem som ikkje vil være i lag med han?
- (32) kor **e babyen**? (Ina.06, 2;1.0) (cp. examples (17) and (18) above) (V2)
where be.PRES baby.DEF
 ‘Where is the baby?’
- (33) ka **du skal** finne? (Ina.05, age 2;0.5) (Non-V2)
what you shall find
 ‘What do you want to find?’
- (34) kanskje **det var** en anna dag. (Ina.9, age 2;2.12) (Non-V2)
maybe it be.PAST an other day
 ‘Maybe it was another day.’
- (35) kanskje **han sitt** og spise kaffe. (Ann.15, age 2;6.21)
maybe he sit.PRES and eat.INF/PRES coffee
 ‘Maybe he is sitting there eating coffee.’
- (36) kanskje **dem krangla**. (Ole.14, age 2;6.21)
maybe they fight.PAST
 ‘Maybe they were fighting.’

Adult data (from Table 2): Clause- initial *kanskje* ‘maybe’ with V2 – 2 (4.9%)
 with non-V2 – 39 (95.1%)

Table 6: The number of non-subject-initial declaratives introduced by the adverb *kanskje* ‘maybe’ with V2 and non-V2 word order in the production of the three children.

Child/File	Non-V2	V2	Total
Ina.01-27	4	1	5
Ann.01-21	13	0	13
Ole.01-22	10	0	10
Total	27 (96.4%)	1 (3.6%)	28 (100%)

- (37) æ **bare gjør** sånn. (Ina.05, age 2;0.5) (Non-V2)
I just do.PRES such
 ‘I am just doing like this.’
- (38) nei han **bare si** bort bort si han. (Ann.10, age 2;3.9)
no he just say.PRES away away say.PRES he
 ‘No, he just says “go away, go away”, he says.’
- (39) de **bare datt** av. (Ole.08, age 2;2.12)
they just fall.PAST off
 ‘They just fell off.’
- (40) vi **kan bare** se. (Ann.09, age 2;2.19)
we can only look
- (41) det er **bare** ho Merete. (Ole.07, age 2;1.26)
it be.PRES only DET Merete

Table 7: Non-V2 constructions involving the adverb *bare* ‘just’ in the child corpus.⁷

Child/Files	Total no. of utterances	S <i>bare</i> V _{fin}	%
Ina.01-27	20,071	14	0.07%
Ann.01-21	13,129	7	0.05%
Ole.01-22	13,485	8	0.06%
Total	46,685	29	0.06%

6. CUE-BASED ACQUISITION IN A SPLIT-CP MODEL

- Split-CP model: Illocutionary force reflected in different heads in the CP domain for different clause types (Westergaard&Vangsnes 2005, revised in later work).

Table 8: Examples of syntactic heads and corresponding clause types.

Syntactic head	Clause type
Int [°]	<i>Wh</i> -questions
Pol [°]	<i>Yes/no</i> -questions
Top [°]	Declaratives
Fin [°]	Embedded declaratives
Wh [°]	Embedded questions
etc.	

- Verb movement is the result of an EPP head feature, [X°_{EPP}], on syntactic heads in the CP $\Rightarrow$ Many different V2 grammars (Standard English, Norwegian dialects, etc.)

(1') CP[XP_CV...]

Table 9: Examples of cues for V2 in a split-CP model.

Cue	Presence in the Input
IntP[<i>wh</i> Int [°] V...]	+ (English, Standard Norwegian) - (Nordmøre dialect)
TopP[XP _{Top} [°] V...]	+ (Norwegian, German etc.) - (English, Italian etc.)
PolP[Pol [°] V...]	+ (Norwegian, German, English etc.) - (Italian)
WhP[(XP) _{Wh} [°] V...]	+ (Belfast English) - (Norwegian, English)
etc.	

- No global cue for V2 syntax, but separate cues for each clause type.
- Children search selectively for cues, scanning the relevant contexts only.

⁷ In this table I have excluded a number of examples in the child data which seem to contain a non-finite verb (altogether 27). These are so-called Optional Infinitives, which in Norwegian child language tend to get a modal reading – that is, in some sense there is a modal missing in the structure, as illustrated in example (i).

(i) æ **bare** låne han. (Ann.10, age 2;3.9)
I just borrow.INF/PRES him
 ‘I (am) just (going to) borrow him/it.’
 Target form: Æ skal bare låne han.

- No overgeneralization of word order between clause types.
- Word order overgeneralization from subject-initial main declaratives to non-V2 main *wh*-questions and embedded contexts, in (30) and (31), involves the **IP domain**, where all clause types have the same functional architecture (Westergaard&Bentzen 2005).
- Some consequences of selective cue searching in primary linguistic data:
 - *Yes/no*-questions - attested 30.8% in total input, 100% in relevant contexts
 - Exclamatives - attested 0.4% in total input, 100% in relevant contexts
 - Non-subject-initial declaratives w/*kanskje* ‘maybe’ – attested 1.9% in total input, 12% of relevant contexts.
 - Subject-initial declaratives w/*bare* ‘just’ – attested 0.07% in total input, ?% of relevant contexts (1,5% or 3% or... depending on what the relevant context is).
- ✚ Exceptional syntax not learned ‘late’ in life.
- ✚ Frequency only relevant in connection with other aspects of the grammar – complexity, economy etc.
- ✚ Children sensitive to *classes* of categories (Roeper, forthcoming).

7. POSSIBLE CONSEQUENCES FOR LANGUAGE CHANGE

7.1 Changes Affecting only one Clause Type

Word order change should typically affect only one clause type:

- Declaratives in the history of English, *wh*-questions in present-day Norwegian dialects
- Additional example: Loss of V2 in imperatives in present-day Belfast English – other V2 constructions unaffected (e.g. embedded questions), Henry (1994).

7.2 Mixed Input within Clause Types

7.2.1 Declaratives in Old and Middle English

Table 10: The percentage of V2 in non-subject-initial declaratives across OE and ME.⁸

Word order	Old English		Middle English	
	Early (900-1000)	Late (1000-1150)	Early (1150-1350)	Late (1350-1480)
V2 (XVS)	69.7%	70.9%	51%	31%

- V2 preferred with full DP subjects, non-V2 with pronouns (information structure patterns as in Norwegian *wh*-questions, Westergaard 2005a).

(42) & of heom twam **is eall mannecynn** cumen. (Old English)
and of them two is all mankind come

(43) Ælc yfel **he mæg** don. (from Kroch and Taylor 1997, p. 302)
each evil he can do

- Initial *þa/þonne* (‘then’) require V2, also with pronominal subjects.

(44) þa **siglde he** þonan suðryhte be lande. (Old English)
then sailed he from.there southwards along coast (from Bech 2001, p. 3)

⁸ The percentages are based on raw data taken from Bech (2001), a corpus of 5000 main clauses.

Table 11: Development of initial *þa/þonne* ('then') across the OE and ME periods.

		Early OE	Late OE	Early ME	Late ME
1	% <i>þa/þonne</i> w/V2 + pronominal subjects, of total X-initial decl.	25.4%	12.7%	8.1%	1.8%
2	% <i>þa/þonne</i> of total X-initial decl.	36.7%	36.1%	15.4%	11.3%
3	% <i>þa/þonne</i> w/V2	99%	99.4%	94.6%	27.9%

- Loss of frequency of *þa/þonne* w/pronominal subjects in late OE.
- Loss of overall frequency of *þa/þonne* between OE and ME.
- The combination of these two factors causes the expression of the cue to fall below critical level for acquisition $\Rightarrow$ loss of special status for *þa/þonne*.

7.2.2 *Wh*-Questions in Present-day Norwegian Dialects

- Vangsnes (2004): Dialect variation represents diachronic change V2 $\Rightarrow$ non-V2.
- Sample of adult data (Table 2): 3.5% V2 – 5.3% non-V2 of total input, **39.9%** V2 vs. 60.1% non-V2 of relevant contexts.

Table 12: The total number of *wh*-questions with V2 and non-V2 in the child data.

<i>Wh</i> -word	INA 1;8.20-2;10.12		ANN 1;8.20-3;0.1		OLE 1;9.10-2;11.23		Total
	V2	Non-V2	V2	Non-V2	V2	Non-V2	
<i>ka</i> 'what'	48 (35%)	89 (65%)	19 (26.4%)	53 (73.6%)	1	0	210
<i>kor</i> 'where'	128 (89.5%)	15 (10.5%)	63 (81%)	15 (19%)	42	0	263
<i>kem</i> 'who'	21 (72.5%)	8 (27.5%)	9 (75%)	3 (25%)	3	0	44
Total	197 (64%)	112 (36%)	91 (56%)	71 (44%)	46(100%)	0	517

Table 13: Overview of V2 vs. non-V2 word order in questions with monosyllabic *wh*-words in the production of several adult speakers in the acquisition corpus.

Speakers	V2	Non-V2	Total
INV, Ole.13-22, F, b. 1956, Tromsø	136 (45.3%)	164 (54.7%)	300 (100%)
INV, Ina.01-27, F, b. 1968, Senja	34 (3.9%)	839 (96.1%)	873 (100%)
MOT, Ina.01-27, F, b. 1968, Lenvik	147 (29.9%)	344 (70.1%)	491 (100%)
FAT, Ina.01-27, M, b. 1965, Målselv	22 (10%)	197 (90%)	219 (100%)
MOT, Ann.01.21, F, b. 1957, Kåfjord	114 (14.8%)	657 (85.2%)	771 (100%)
FAT, Ann.01.21, M, b. 1952, Kåfjord	3 (2.5%)	115 (97.5%)	118 (100%)
MOT, Ole.01-22, F, b. ?, Tromsø			<i>Not transcribed</i>
FAT, Ole.01-22, M, b. ?, Tromsø			<i>Not transcribed</i>

- Considerable variation among adult speakers, based on regional/sociolinguistic factors? Tromsø vs. rural areas, male vs. female, and - **age?** (Cf. Sollid 2003 on Nordreisa dialect, K. Westergaard 2005 on Tromsø teenagers – approx. **70%** V2).
- Recent change in progress in Tromsø in the direction of the standard language, $\Rightarrow$ V2?

Table 14: Four types of V2 grammars in *wh*-questions.

1		2		3		4
Predominantly V2 with short <i>wh</i> (approx. 70%)		Mixed V2/non-V2 with short <i>wh</i> (approx. 40-50%)		Predominantly non-V2 with short <i>wh</i> (approx. 3-30%)		Predominantly non-V2, spread to long <i>wh</i>
Young Tromsø speakers		Adult speaker, Tromsø	$\Rightarrow$	Other North Norwegian speakers	$\Rightarrow$	Kåfjord speakers
V2 w/all verb and subject types, occasional cases of non-V2 w/given subjects, verbs <i>-be</i>	$\Leftarrow$	V2 w/ <i>be</i> + new subjects Non-V2 w/given subjects, verbs <i>-be</i>		Non-V2 w/all verb and subject types, remnant cases of V2 with <i>be</i>	$\Leftarrow$	Non-V2 w/all verb and subject types, remnant cases of V2 with <i>be</i>
Verb movement to Int ^o		Verb movement to lower head (Top ^o)		(Generally) no verb movement		(Generally) no verb movement

$\Rightarrow$ ‘Natural’ development, based on UG principles, factors in acquisition

$\Leftarrow$ Development based on sociolinguistic factors

Factors contributing to the ‘natural’ development from V2 to non-V2: Head drift (van Gelderen 2004), Information structure drift (Westergaard 2005a, b).

Factors in language acquisition/child-directed speech that contribute to the development from grammar 2 to grammars 3 and 4:

- A statistical shift towards more non-V2 word order in child-directed speech caused by: *Wh*-word most frequently used with non-V2, *ka* ‘what’ (see Table 15), also by far the most frequent in child-directed speech, 68.4% (1896) compared to 13.5% (375) *kor* ‘where’ and 18.1% (501) *kem* ‘who’ (see Table 16).

Table 15: Percentage of non-V2 word order produced by different adult speakers across the three monosyllabic question words.

Speaker	<i>ka</i> ‘what’	<i>kor</i> ‘where’	<i>kem</i> ‘who’
INV Ole.13-22	68.1% (124)	43.3% (29)	21.6% (11)
MOT Ina.01-27	79.8% (268)	49.2% (29)	49.0% (47)
FAT Ina.01-27	93.9% (155)	63.6% (14)	87.5% (28)
MOT Ann.01-21	91.3% (481)	82.4% (108)	60.2% (68)
FAT Ann.01-21	98.9% (87)	100% (17)	84.6% (11)
INV Ina.01-27	98.5% (589)	83.3% (66)	93.9% (184)

Table 16: Questions with the three monosyllabic question words in child-directed speech.

Speaker	<i>ka</i> 'what'	<i>kor</i> 'where'	<i>kem</i> 'who'
INV Ole.13-22	182	67	51
MOT Ina.01-27	336	59	96
FAT Ina.01-27	165	22	32
MOT Ann.01-21	527	131	113
FAT Ann.01-21	88	17	13
INV Ina.01-27	598	79	196
Total	1896 (68.4%)	375 (13.5%)	501 (18.1%)

- The spread of non-V2 to questions with disyllabic *wh*-words and full *wh*-phrases (Grammar 4, e.g. Kåfjord/Nordmøre) caused by:
 - Questions with monosyllabic *wh*-words much more frequent than questions with longer *wh*-phrases in typical child-directed speech: In adult sample investigated in Table 2, only 7 'long' *wh*-elements out of 183 (3.8%).
 - Questions with 'long' *wh*-elements appear much later in the children's speech (around age 2;9-3;1 – questions with short *wh*-words frequent from age 2;2).
- V2 survives in certain cases, and then only with *be* (also in English) because:
 - Information structure pattern of the mixed grammar links *be* to V2 word order.
 - V2 with *be* is an extremely early acquisition:

In non-subject-initial declaratives (with V2), *be* is the most frequent verb at early stages; before approx. age 2;2 this verb makes up

59.2% (61 out of 103) in Ina.01-09,

76.1% (108 out of 142) in Ann.01-08 and

85.5% (189 out of 221) in Ole.01-08.

Corresponding figure for small adult sample, INV in Ole.14: **23.5%** (28 out of 119)

Be also extremely frequent in *wh*-questions with V2 – as in the adult grammar! – and slightly more frequent in *wh*-questions generally, **62.1%** (192 out of 309) in Ina.01-23, **66.0%** (107 out of 162) in Ann.01-21, **95.7%** (44 out of 46) in Ole.01-22, cp. to **54%** (160 out of 300) in the adult data from INV Ole.13-22 (this may **partly** account for more V2 overall for the children).

9. SUMMARY/CONCLUSION

- ✚ V2 word order is the result of many microparameters, one for each clause type + other minor ones – many types of V2 grammars learnable (no grammar competition).
- ✚ Amount of triggering experience must be related to total number of relevant clause types only. Children make a selective search for cues.
- ✚ Certain factors in child-directed speech may cause a statistical shift in the direction of non-V2 in the input to children.
- ✚ Language change appears to be gradual because it is the result of '**many small catastrophes**'.

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