The Acquisition of Word Order
Micro-cues, information structure, and economy

Marit Westergaard

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The Acquisition of Word Order. Micro-cues, information structure, and economy by Marit Westergaard
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For Kristin and Erik
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Marit Westergaard
CHAPTER 1

Preliminaries

1. Introduction

This book is a study of children’s first language acquisition of word order in Norwegian, more specifically of the acquisition of verb movement and the verb-second (V2) phenomenon. Norwegian is normally considered to be a classical V2 language with the finite verb always in second position, as illustrated by the wh-question in (1) and the non-subject-initial declarative in (2), provided in the bokmål variety.1,2 The standard analysis of this in generative syntax is that the finite verb has moved across the subject in these cases.

(1) Hvilket språk snakker dere?
    which language speak you.pl
    ‘What language do you speak/are you speaking?’

(2) Av og til snakker vi tysk.
    sometimes speak we German
    ‘Sometimes we speak German.’

V2 word order is also found in other clause types, e.g. yes/no-questions and subject-initial declaratives with adverbs or negation, see (3)–(4). In the latter example, the finite verb is assumed to have moved across the adverb mest ‘mostly’.

(3) Snakker dere norsk?
    speak you.pl Norwegian
    ‘Do you speak Norwegian?’

(4) Vi snakker mest engelsk hjemme.
    we speak mostly English home
    ‘We mostly speak English at home.’

---

2. In this book, verbal morphology is generally not specified in the gloss of constructed examples such as (1)–(4) or in corpus material produced by the adults. In the child data presented in Chapters 5–9, on the other hand, this information is always provided.
This word order is often considered to be the result of a parameter, and accordingly, it is assumed that children need very little input evidence to set the parameter to the right value, e.g. $+V2$ in Norwegian, but $-V2$ in English. In this book, it will be shown that, in order to produce target-consistent word order, children need to do more than to simply set a parameter. This is due to the considerable variation that exists with respect to $V2$ across languages and dialects, discussed in detail in Chapter 2. For example, in the Norwegian dialect spoken by the children in this study (Tromsø), there are several contexts where non-$V2$ word order is either required or allowed. That is, the choice of word order may be dependent on for example clause type, type of initial element, or information structure. This is illustrated by the following examples: Sentence (5) is an exclamative, and non-$V2$ word order is required in all varieties of Norwegian. Sentence (6) is a non-subject-initial declarative with non-$V2$ word order, which is possible due to the initial element *kanskje* 'maybe' (cf. Example 2). And sentence (7) is a *wh*-question introduced by a monosyllabic *wh*-element, which may appear with non-$V2$ in the Tromsø dialect if the subject conveys given information (i.e. typically when it is realized as a pronoun).

(5) Kor rart **han snakke**!  
where/how strange he speaks  
‘How strange he speaks!’

(6) Kanskje vi **skal** snakke engelsk.  
maybe we shall speak English  
‘Maybe we should speak English.’

(7) Ka **du** sir?  
what you say  
‘What are you saying?’

There are a number of studies focusing on the acquisition of $V2$ in other languages, e.g. Clahsen (1986) and Poeppel and Wexler (1993) for German, Jordens (1990) for Dutch, Schönenberger (2001) for Swiss German, and Santelmann (1995), Platzack (1996), and Waldmann (2008) for Swedish. There are also several investigations of the acquisition of subject-auxiliary inversion in English, also a kind of $V2$ syntax, see e.g. Stromswold (1990), Radford (1994) or Ambridge, Rowland, Theakston, and Tomasello (2006). This book differs from most of these previous accounts in that it takes word order variation such as the one illustrated in examples (1)–(7) into account. It also provides a close look at the input that Norwegian children are typically exposed to.
2. Theoretical background

This study takes a generative approach to language acquisition, and the findings from the investigation of the child data are analyzed in a syntactic model with a split-CP domain. This model is inspired by, but not identical to, that of Rizzi (1997, 2001). More specifically, the ForceP of Rizzi’s model is split into different projections depending on clause type, e.g. Int(errogative)P(hrase) for wh-questions, Decl(аратив)P(hrase) for main clause declaratives, etc. This means that word order requirements may distinguish between different clause types, which is necessary in the case of V2, cf. the above examples. In this model, therefore, V2 word order is not considered to be a unified process, but the result of verb movement to different head positions in the CP domain, e.g. the Intº or Declº heads. This means that the model can account for different types of V2 grammars; e.g. the grammar of English, which has verb movement to Intº but not to Declº, while another grammar may have the opposite requirements, e.g. some dialects of Norwegian (cf. Chapter 2). Furthermore, the model accounts for word order facts in Norwegian dialects that are dependent on information structure, e.g. example (7) above. This is taken care of by a projection in the CP domain called the Top(ic)P, which attracts informationally light elements and ensures that verb movement applies according to the pragmatic principles of end focus and end weight (see e.g. Firbas 1992).

The theoretical framework of language acquisition adopted in this book is a generative approach which assumes the existence of a relatively restricted Universal Grammar (UG) consisting of a pool of possible syntactic primitives (categories, features) and general principles of structure building (basic syntactic operations). In the process of language acquisition, children select the relevant primitives from this universal set and build syntactic structure based on general UG principles and cues expressed in the input. The cues are not input strings, but pieces of syntactic structure that result from parsing the input. In turn, they trigger the syntactic operations necessary to produce the relevant target structures. This means that the cues themselves are learned from the input, but they are made of syntactic primitives provided by UG. The universal language faculty must also consist of basic syntactic operations, i.e. Merge and Move, the latter often referred to as internal Merge (see Starke 2001 for the proposal that Move is simply a type of Merge).

The language acquisition process is also affected by more general cognitive factors, e.g. memory limitations or economy. The latter is argued to be especially important for the cue-based model and the acquisition of the word order facts discussed in this book. More specifically, children are assumed to take an economy approach to structure building and only build as much structure as is triggered by the primary linguistic data that they are exposed to. This tendency for economy is also argued to be responsible for movement operations initially targeting positions
that are as low as possible in the clause structure. Under this approach to language acquisition, children use UG, input, and principles of economy when building syntactic structure, as stated in (8).

(8) Children build syntactic structure based on:
   a. UG (universal categories/features and basic syntactic operations)
   b. input
   c. economy principles

This approach to language acquisition thus does not assume that there are particular aspects of the syntactic structure (e.g. functional categories or specific principles or constraints) that are completely unavailable to children at a certain point in their development and that have to mature (see e.g. Borer and Wexler 1987, Radford 1990, or Wexler 1999b for a maturational approach to language acquisition). In my view, the child data from Norwegian presented in Chapters 5–9 do not provide any evidence for a maturational analysis, as the findings indicate that there is indeed very early acquisition of complex constructions. Children obviously sometimes produce incomplete structures of various kinds, but these are generally argued to be the result of economy. According to the cue-based approach, most of the actual learning that takes place is a result of the interaction between input cues and the grammar provided by UG, and this is typically a relatively quick process. Compared to this, the disappearance of incomplete structures is a more gradual development, indicating that more general principles are involved (e.g. economy).

The main justification for choosing this approach is that target-consistent production typically appears alongside non-target-consistent forms for an extended period of time in language acquisition data. It therefore does not look like there are certain structures that are completely inaccessible to young children (and therefore replaced by other forms), but rather that children for some other reason do not consistently use the adult structures. As most of the children’s non-target-consistent production constitutes errors of omission rather than commission, this optionality in child grammars is considered to be the result of economy. In this sense, young children are “true minimalists” and follow the principles of structural economy specified in (9).

(9) Structural economy
   a. only build as much structure as there is evidence for in the input
   b. only move elements as far as there is evidence for in the input

This means that children should not build any more syntactic structure than there is clear evidence for in the input that they are exposed to. This has been argued for by others, especially within the framework of weak continuity in the 1990s, see e.g. Clahsen, Eisenbeiss, and Vainikka (1994), Radford (1996), or Clahsen,
Eisenbeiss, and Penke (1996), the latter discussing ideas originally introduced in Safir (1993). Furthermore, I argue that children initially assume that movement operations target positions that are as low as possible in the clause structure. This latter idea, expressed in (9b), may presumably be subsumed under (9a), given the extension condition of Chomsky (2001), restricting Merge to applying at the root of the tree. That is, a syntactic operation must always extend the structure. This means that movement (i.e. internal Merge) always involves structure building, and movement to lower positions in the clause structure thus necessarily involves building smaller trees.

Given this overall view of language acquisition, input and triggering mechanisms are considered to play an important role. Lightfoot’s (1999, 2006) cue-based approach to language acquisition and change is therefore especially appropriate for the present model. According to Lightfoot, a cue is a piece of I-language structure that is produced in the child’s grammar on exposure to the relevant input. In order to account for the variation across languages and dialects with respect to V2, I extend Lightfoot’s approach and formulate a number of what I refer to as micro-cues for word order. In this model of micro-cues, the specific context for a particular word order (V2 or non-V2) is specified as part of the cue. This captures the fact that children do not only need to acquire a specific word order, but also the contexts in which this word order is relevant. An important difference between Lightfoot’s theory and the model adopted in this book is that Lightfoot assumes a richer UG, where the cues themselves are provided by the innate language faculty. In the micro-cue approach, on the other hand, the cues are considered to be language-specific and thus learned from input. As mentioned above, however, the cues are made up of syntactic primitives provided by UG. These ideas are elaborated in Chapter 3.

3. The acquisition data

The corpus used for the present study was collected in Tromsø between the early spring of 1997 and late summer of 1998, mainly by Merete Anderssen (see Anderssen 2006). Ten of the sessions recorded for one of the children (Ole.13–22) were collected and transcribed by the present author. Two girls, Ina and Ann, and a boy Ole, all born in 1995, were picked out for the study. All three were around 1 year 9 months at the start of data collection, which means that they were just beginning to produce multi-word utterances. They were recorded in their homes approximately every two to three weeks until the age of three. The children are all

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3. For a discussion of I-language vs. E-language (internalized vs. externalized language), see Chomsky (1986a) or Lightfoot (1999).
monolingual speakers of Norwegian, and all three were in full-time daycare from the age of one (or slightly later). They have therefore had relatively extensive exposure to the variety of Norwegian spoken in Tromsø, from a number of different speakers. The children’s parents all speak (relatively similar) Northern dialects, as do both investigators.

The acquisition corpus consists of altogether 70 recorded sessions, most of them lasting approximately one hour. Before the age of three, there are 23 files collected of Ina, 21 of Ann, and 22 of Ole. In addition, there are four later recordings made of Ina. In order to be able to compare the three children, these extra recordings are not always included in the investigation, but are consulted in special cases in connection with the acquisition of more complex structures. Table 1.1 gives an overview of the corpus.

The recordings were transcribed in CHAT format by the two investigators and two assistants. The transcripts are as far as possible written in standard orthography, both for the adult and the child data, with some exceptions for typical dialect forms. This has been done to facilitate easy searches in the corpus. Furthermore, there is no specification of phonology or intonation. The transcribers have occasionally added extra information about the pronunciation of an utterance, and certain sounds or syllables missing from the children’s pronunciation are sometimes given in parentheses (e.g. (s)trikke ‘knit’, (k)aninen ‘the rabbit’). When examples from the corpus are used in the discussion of child data in Chapters 5–9, they are always presented in the exact form that they have been transcribed. Because of certain differences between the transcribers, mainly with respect to how much detail has been included, there may be slight inconsistencies in the format of presentation.

### Table 1.1 Norwegian corpus of child language, Tromsø dialect

<table>
<thead>
<tr>
<th>Name of Child</th>
<th>Age</th>
<th>Files</th>
<th>No. of Child Utterances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ina</td>
<td>1:8.20–3:11.18</td>
<td>Ina.01–23</td>
<td>17,367 (20,071)</td>
</tr>
<tr>
<td>Ann</td>
<td>1:8.20–3:11.18</td>
<td>Ann.01–21</td>
<td>13,129</td>
</tr>
<tr>
<td>Ole</td>
<td>1:9.10–2:11.23</td>
<td>Ole.01–22</td>
<td>13,485</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>43,981 (46,685)</td>
</tr>
</tbody>
</table>

---

4. The numbers in parentheses include the four extra files made of Ina.

5. CHAT = Codes for the Human Analysis of Transcripts.
For corpus searches in the transcribed material, the CLAN program has been used. In addition, it has been necessary to do extensive hand searching and counting of relevant examples in the material. When counting individual instances of specific constructions, I have excluded child utterances that are unanalyzable, either because they are incomplete or have been marked as unclear, as is common practice in language acquisition research. Exceptions to this are cases where the remaining part of the sentence provides enough of the relevant construction, and it is obvious that what is missing or unclear does not affect the interpretation of the rest of the sentence. With respect to child repetitions, which are also commonly excluded from the analysis of child data, I have made a different decision, as these have in fact been included in the calculations done for the analysis of the child data. The reason for this is that I believe it is not unimportant to record children's exact repetitions of the same utterance. That is to say, just like it is significant when they produce a sentence and immediately repeat it in a slightly different way (which is quite common and which would obviously be counted in any approach to child language data), I believe that it is equally significant when they repeat an utterance in identical fashion. This is especially important if they are producing non-target-consistent forms: One occurrence of a non-target form could simply be a slip, whereas three identical occurrences (even if they are produced immediately adjacent to each other) may reveal more about the state of the child's grammar at a particular stage.

General linguistic development is often measured in terms of MLU (Mean Length of Utterance), a relatively crude measure of utterance length in number of morphemes, or simply words, which has been found to correspond with general syntactic complexity. This was first developed by Brown (1973), and has since traditionally been used to assess general linguistic development in language acquisition studies. The Norwegian corpus used for this study has not been coded for morphology, and a calculation of MLU in morphemes for the three children is therefore not possible in the CLAN program. It would presumably not be particularly useful either, as there is no focus on a comparison of the three children in this study that is related to their MLU.

Nevertheless, in order to get a rough indication of these children's syntactic development, an MLU analysis in terms of number of words per utterance (MLUw) has been performed; see Figure 1.1 and Table A.2 in the Appendix. In some cases MLUw has in fact been found to be a better indicator of syntactic development than a traditional MLU count; see e.g. the discussion in Clahsen, Penke, and Paradisi (1993/94: 403).

6. CLAN = Computerized Language Analysis. Both CHAT and CLAN are downloadable from the CHILDES webpage, http://childes.psy.cmu.edu/.
Not surprisingly, the children’s MLUw increases relatively gradually over time, from approximately 1.4–1.7 in the earliest files to approximately 3.3–3.9 in the last files (with a peak of 4.8 in Ole.17). There is no even development, but some ups and downs, which in my view is an indication that this measure cannot be a direct reflection of syntactic complexity, but must also be a function of other, possibly extralinguistic, factors. Furthermore, according to Figure 1.1 Ole’s production is more advanced than that of the two girls with respect to MLUw, and this is a stable pattern throughout the corpus, while Ina relatively consistently has the lowest MLUw of the three. As will become obvious in Chapters 5–9, there is no clear correlation between the children’s MLUw and their production of word order in the different contexts. I would therefore argue that the children’s development in terms of MLUw could hardly be said to reflect syntactic complexity in the children’s grammars at a

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7. The developmental pattern often shows these ups and downs also when MLU is calculated in morphemes, see e.g. Santelmann (1995).
given stage, at least not in a direct way. The MLUw counts are nevertheless included here, mainly to facilitate a rough comparison with other studies.

4. Outline of the book

This book consists of ten chapters and is organized as follows: The next chapter provides an overview of the variation across languages and dialects with respect to V2 word order, with a special focus on the dialect that the children in this study are exposed to (Tromsø). It is shown that the choice between V2 and non-V2 is dependent on clause type, the category of the initial element, and the information value of the subject, V2 being chosen when the subject conveys new or focused information. As it has often been claimed that there is a correlation between syntactic movement and finiteness, the chapter also sketches the relatively impoverished nature of verbal morphology in Norwegian, especially the Tromsø dialect.

Chapter 3 outlines a syntactic model with a split CP-domain, where variation in V2 word order is considered to be the result of different requirements for verb movement to the various head positions. It also provides an analysis of the main contexts for V2 and non-V2 in the Tromsø dialect. Based on this syntactic model, a cue-based approach to acquisition is developed and several micro-cues are formulated to account for the acquisition of this word order variation. The model is a generative approach that argues against V2 as a major parameter. Instead, when acquiring word order in different contexts, children must acquire a set of smaller-scale cues. Children are assumed to be endowed with categories and structure, and thus the ability to detect fine linguistic distinctions in the input. The formulation of micro-cues in children's grammars takes place as an interaction between UG and the input. This approach also differs from a constructivist model in that the micro-cues are not surface strings of word combinations, but pieces of hierarchical I-language structure that make reference to linguistically relevant distinctions.

In Chapter 4, a detailed analysis of a sample of child-directed speech is provided, with frequencies for the expression of the various micro-cues. The findings show that clause types with V2 word order are attested quite frequently, while non-V2 contexts constitute approximately 10% of the input. The main argument in this chapter is that input frequencies should not be calculated on the basis of the total input. If children are sensitive to micro-cues, they will focus on the relevant contexts only, and all other contexts will be irrelevant for the acquisition of the I-language structure that constitutes a cue. That means that input frequencies for the particular cues are relatively high, in many cases 100%.
Chapters 5–9 present and discuss the findings from the investigation of the Norwegian corpus in relation to certain predictions based on previous research on other child languages. The predictions concern issues such as syntactic movement and verbal morphology, the tension between input and economy, and the interaction of syntax and information structure. Chapter 5 focuses on the acquisition of word order in non-subject-initial declaratives, and it is shown that target-consistent V2 is attested from the onset of multi-word utterances. Thus, the micro-cue for V2 in non-subject-initial declaratives is in place from early on. However, the I-language structure necessary to produce exceptional non-V2 word order in declaratives, i.e. with a specific adverb, is also acquired early. In accordance with predictions from previous research, non-subject-initial declaratives occur mainly with finite verbs, but contrary to predictions, occasional subjectless examples appear in the child data. The children also produce some examples with non-target-consistent non-V2. These are shown to be of two different kinds – a low number of non-finite root clauses with a modal or other auxiliary missing, and a slightly higher number of true non-target-consistent word order, appearing with finite verbs. The latter examples are found to differ from their V2 counterparts with respect to information structure, V2 being chosen with informationally new subjects and non-V2 with subjects that convey new information. This suggests that children have an early preference for word orders that conform to principles of information structure.

In Chapter 6 it is shown that V2 word order is also attested early in subject-initial declaratives with negation. There is a clear correspondence with finiteness, V-Neg word order occurring with finite and Neg-V with non-finite verbs. The prediction that V2 word order should be acquired later in Norwegian than in morphologically richer languages does not hold, and this indicates that finiteness is not relevant as a trigger for verb movement. Furthermore, the non-finite Neg-V pattern is argued not to be due to failure of verb movement, but to constitute a structure with an auxiliary (usually a modal) missing. As expected, these non-finite root clauses have a considerably higher percentage of subjectless clauses than sentences with target-consistent word order and finite verbs. A gradual verb-by-verb learning development of verb movement is considered, and although it is shown that there is a distributional difference, no evidence for an item-based development is found. Finally, based on the children’s behavior with respect to focus-sensitive adverbs requiring non-V2, which is target-consistent from early on, it is argued that they are extremely sensitive to input, even when exceptional word orders are attested with very low frequencies in child-directed speech.

Chapter 7 shows that the children produce both V2 and non-V2 word order in questions with monosyllabic wh-elements from an early age, while occasional non-target-consistent examples are incomplete structures where one element is
missing; the verb, the *wh*-constituent or, in rare cases, the subject. With the exception of three examples with a missing auxiliary, all the children’s *wh*-questions, with V2 as well as non-V2, appear with finite verbs. Thus finiteness does not seem to be directly linked to verb movement. Furthermore, the children seem to be aware of the distinction between informationally given and new subjects, displaying the same preference patterns for subject and verb types with the two word orders as adults. The chapter also discusses questions with long *wh*-elements (requiring V2) and subject questions (requiring non-V2) in the child data, and with the exception of the omission of functional elements at the earliest stage, the children's production is generally target-consistent. This again shows that the children are very sensitive to fine syntactic distinctions at an early stage.

The child data on word order in *yes/no*-questions are presented in Chapter 8, divided into three types, non-finite examples with a missing auxiliary, intonation questions, and questions with target-consistent VSX word order. Subjectless examples are attested relatively frequently in the non-finite *yes/no*-questions and occasionally in intonation questions. The latter type is found to be produced at more or less adult levels and is not considered to be substitutions for target-consistent word order in the child grammar. Again, most of the children's non-target forms are errors of omission. The children's production of *yes/no*-questions is different from non-subject-initial declaratives and *wh*-questions with respect to the proportion of non-finite examples. This indicates that it is not the process of verb movement *per se* that is crucial for the issue of finiteness. The different acquisition paths for *wh*-questions and *yes/no*-questions also provide support for the model of micro-cues, which postulates different functional structure for these clause types and predicts that children should not generalize word order from one to the other in the acquisition process.

The final data chapter investigates the children's word order in non-V2 contexts such as exclamatives, embedded questions, and (all) embedded clauses with negation or adverbs. These are infrequent contexts, both in the input and in the child data. The children are nevertheless found to produce target-consistent non-V2 in exclamatives and embedded questions. In embedded clauses with negation or adverbs, on the other hand, the majority of relevant cases are found to have non-target-consistent V-Neg/Adv word order. A couple of similar examples are also attested in other non-V2 contexts. This is argued to be the result of children's misanalysis of the input in main clauses as the cue for V-to-I movement, which is due a principle of economy of movement. This means that children's uneconomical behavior in non-V2 contexts is due to an economy principle operative in main clauses, causing them to move the verb only as high up in the clause structure as there is clear evidence for in the input.
Finally, Chapter 10 provides an overview of the child data and gives an analysis of the findings within the model of micro-cues and the Split-CP clause structure outlined in Chapter 3. The chapter also discusses children’s early sensitivity to information structure, attested in *wh*-questions and non-subject-initial declaratives, and this is integrated into the syntactic model as a projection in the CP domain that attracts informationally light elements. Furthermore, children’s occasional non-target-consistent production is generally related to principles of economy.
CHAPTER 2

Word order variation and the structure of the target language

1. Introduction

This chapter provides an overview of the word order facts of the target language to be acquired by the children in this study, V2 vs. non-V2 in various contexts. The word order variation attested in the Tromsø dialect, and in adult languages more generally, is discussed against the backdrop of the idea of major word order parameters in generative theory. That is, children seem to be faced with a much greater challenge than just setting parameters, as word order variation turns out to be dependent on many fine linguistic distinctions such as clause type, information structure, and the (sub-)category of the elements involved. Since verb movement and V2 word order has been linked to the richness of agreement or finiteness in previous research, the chapter also presents an overview of the relatively impoverished nature of verbal morphology in Norwegian, especially in the Tromsø dialect. Furthermore, I suggest that children acquiring this dialect use some overgeneralization patterns in the present tense which may obscure the acquisition data to some extent.

The chapter is organized as follows: The next section briefly discusses the role of parameter setting in language acquisition and a cue-based approach which has a similar view on what type of linguistic information is provided by UG. Section 3.1 gives an overview of the variation attested in some Germanic languages with respect to V2 and non-V2 in different clause types (e.g. German, Icelandic, and different varieties of English), with a focus on Norwegian. In Section 3.2 I consider variation within certain clause types (non-subject-initial declaratives and wh-questions) in the dialect of Norwegian relevant for this study, generally related to the category of the initial element, and in Section 3.3 I discuss cases where the word order variation is dependent on information structure (in wh-questions). Finally, Section 4 provides an overview of the relatively sparse verbal morphology found in Norwegian, relevant for the discussion of the acquisition of verb movement, and Section 5 is a brief summary.
2. Parameter setting and word order variation

Within the Principles and Parameters framework of generative theory as outlined in e.g. Chomsky (1981, 1986a), it is typically argued that Universal Grammar (UG) provides the language-learning child with the necessary functional structure and constraints, and that all the child needs to do is to learn lexical items and the setting of some major parameters, e.g. +/- pro-drop, +/- head-final, or +/-V2. One of the main reasons for postulating the existence of parameters is the ease and speed of language acquisition; children should only need to be exposed to a few relevant examples in order to set a parameter and make major generalizations for their language. That is to say, a child would only need to hear a few examples of a particular structure in the input to set a parameter to the right value, and many other aspects of the child grammar (that are subsumed under the same parameter) would immediately fall into place, even without exposure. It has also been argued that children set parameters very early, possibly even before they start producing the relevant utterances, and this should then explain that there are typically relatively few syntactic errors found in child language, e.g. non-target-consistent word order. An example of this is the hypothesis of Very Early Parameter Setting (VEPS) argued for in Wexler (1999a).

Also in Lightfoot’s (1999, 2006) cue-based approach to language acquisition, there is an underlying assumption that there are large-scale word order parameters provided by UG that are formulated as cues. These cues are pieces of syntactic structure which are formed in children’s I-language grammars on exposure to certain triggers in the primary linguistic data (PLD). This means that the cues are not themselves in the input, but they are expressed by particular input strings that force a specific syntactic analysis in the child grammar. Examples of such word order cues are provided in (1) and (2), corresponding to the head parameter (e.g. VO vs. OV) and the V2 parameter.

1. Cue for OV syntax: \[VP[DP V]\]
2. Cue for V2 syntax: \[CP[XP C V...]\]

The cue for V2 syntax is thus a piece of I-language structure that specifies that the (finite) verb is in second position, i.e. in the head of the clause, in C. Furthermore, Lightfoot (1999: 93) argues that the syntactic configuration specified by the cue must be obligatory, a requirement that is also provided by UG. The reason for this requirement is that, if learners of a V2 language such as Dutch or German adopt this structure as an optional configuration, and as a consequence produce a mixture of V2 and non-V2, they would need negative evidence (i.e. correction) in order to acquire the target grammar. And negative evidence is typically either
unavailable or completely ignored by children. This means that Lightfoot considers this to be a typical poverty-of-stimulus situation, making it necessary to invoke UG to explain target-consistent acquisition.

But there are many examples of word order variation in natural languages. Not all of these are necessarily argued to be part of a parameter in the generative literature. Two obvious cases from present-day English are the double object construction and the particle shift construction, illustrated in (3) and (4). Whether word order variation is considered to be part of a major parameter or not, it poses a challenge to the language-learning child, as it is typically dependent on subtle distinctions in syntax and information structure, factors that one might expect children not to be sensitive to at an early age.

(3) I gave the students a new book. / I gave a new book to the students.

(4) The student looked the word up. / The student looked up the word.

Further variation is often found in historical languages. For example, in the history of English, there was a mixture of V2 and non-V2 in declaratives for many centuries, see e.g. Kroch and Taylor (1997), Bech (2001), or Westergaard (2005b, 2009b). There was also a mixture of OV and VO in the history of English, see e.g. Pintzuk and Taylor (2006), a situation which is attested also in many other historical languages, see Hinterhölzl (2009) for German, Hróarsdóttir (2000, 2008) for Icelandic, or Sundquist (2002, 2006) for Middle Norwegian. A common analysis of such diachronic variation is grammar competition, understood as two different parameter settings competing with each other, see e.g. Pintzuk (1991) or Kroch & Taylor (1997). The idea of grammar competition is also entertained in work on language acquisition, e.g. in Roeper's (1999) model of Universal Bilingualism, which is used to account for syntactic variation such as the restriction on inversion in present-day English, see also Roeper (2007). Another example of this is the variational model of Yang (2002), according to which children are argued to go through a selectionist process where different grammars provided by UG compete to match the linguistic input that children are exposed to. Much of the input will be compatible with several grammars, but certain input sentences will favor one grammar and penalize others. This means that, for the variational model of language acquisition, statistical frequencies in the input play a major role.

In all these approaches, there is an assumed richness of UG that takes care not only of universal principles, but also points of language variation (in terms of parameters or major cues). In work within the Minimalist program, parameters are typically replaced by a variety of features which are involved in syntactic operations such as Agree, Merge, and Move, e.g. strong vs. weak features, interpretable vs. uninterpretable, valued vs. unvalued, edge features and EPP, see Adger and Svenonius
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(2009) for a recent overview and discussion. Generally speaking, parameters have been recast as features, whose presence or absence in a grammar typically has similar sweeping effects. In some very recent minimalist work, however, the role of UG has been minimized, and in e.g. Hauser, Chomsky and Fitch (2002), narrow syntax is argued to only include recursion. The idea of a restricted language faculty is further developed in e.g. Chomsky (2005, 2007) or Hornstein (2009). Much of the rationale behind this work may be found in the current debate on language evolution: If language evolved in the human species over a relatively short period of time, then the genetic endowment is unlikely to be very complex, see e.g. Boeckx (2006). It is also unlikely to have developed fixed points of variation (parameters). Chomsky (2005) outlines a design for language that is dependent on three different factors: the genetic endowment (UG), the environment, and so-called 3rd factors, including general cognitive principles such as economy or processing preferences. As the importance of 3rd factors increases in the minimalist program, the role of UG fades, and according to Chomsky (2007) and Boeckx (2008), the objective of the minimalist research program should be to account for language variation by attributing as little as possible to UG. This resonates with what I would consider a sound guiding principle in all work on language acquisition: UG should be resorted to as an explanation for the observed facts only after one has considered the possibility that they are the result of input or general cognitive principles.

In the remainder of this chapter, word order variation with respect to V2 vs. non-V2 is considered across several languages, with a focus on the dialect of Norwegian that the children in this study are acquiring. The variation encountered will form the basis of an argument against V2 as a major parameter or cue, and in the next chapter, these word order phenomena are instead formulated as a series of micro-cues that must be learned from the input.

3. Variation in verb second (V2) word order

3.1 Variation across clause types

As shown by the examples in Chapter 1, Norwegian is generally considered to be a typical V2 language, with the finite verb appearing in second position in all main clauses. This is illustrated by the word order of the subject-initial declarative in (5), where the finite verb must appear in front of negation or the sentence adverb aldri ‘never’.
(5) Peter **snakker ikke** /aldri italiensk.
   Peter speaks **not** /**never** Italian
   ‘Peter doesn’t speak/never speaks Italian.’

Non-subject-initial declaratives generally also require V2 in Norwegian, as illustrated in (6), where the finite verb is assumed to have moved across the subject.1 As shown by (7), any non-subject constituent appearing in initial position triggers verb movement, also short adverbs such as **så** ‘so’, **da** ‘then’, **der** ‘there’ etc., which are very frequent in the child data (see Chapter 5).

(6) Italiensk **snakker Peter aldri når han er i Italia**
   Italian speaks **Peter never when he is in Italy**
   ‘Italian Peter never speaks when he is in Italy.’

(7) Da **snakker han engelsk**/*da han snakker engelsk.
   then speaks **he** English
   ‘Then he speaks English.’

The V2 requirement also holds in main clause questions in Standard Norwegian (see the next two sections on deviations from this in the Tromsø dialect). That is, the verb must move across the subject in yes/no-questions, as illustrated in (8), and the following examples show that all types of wh-questions in Standard Norwegian also require V2, irrespective of the nature of the wh-word; the monosyllabic wh-word **hvem** ‘who’ in (9) or the full DP wh-constituent in (10).

(8) **Liker du** jordbær? **(Standard Norwegian)**
   like **you** strawberries
   ‘Do you like strawberries?’

(9) Hvem **líker du best?**/*Hvem du líker best?
   who **like you best**
   ‘Who do you like best?’

(10) Hvilket språk **snakker han?**/*Hvilket språk han snakker?
    which **language speaks he**
    ‘Which language does he speak?’

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1. In a dialect of Norwegian spoken in Nordreisa, an area north of Tromsø, Sollid (2003) has documented occasional cases of optional non-V2 word order in declaratives in the speech of the older generation. She considers this lack of V2 in the dialect to be the result of language contact with Finnish and Saami around the turn of the 20th century, but shows that these contact effects are now in the process of disappearing.
Unlike main clauses, embedded clauses generally do not exhibit V2, as shown by the position of the verb in relation to negation or the sentence adverb in (11), cf. example (5) above. Furthermore, sentence (12) illustrates that there is no verb movement across the subject in embedded questions.

(11) Jeg vet at Peter ikke/aldri snakker italiensk.
     I know that Peter not/never speaks Italian
     ’I know that Peter doesn’t speak/never speaks Italian.’

(12) Jeg lurer på [hvilket språk han snakker]/[*hvilket språk snakker han].
     I wonder on which language he speaks
     ’I wonder which language he speaks.’

The word order sketched so far is not untypical within the family of Germanic languages, as also e.g. German, Dutch, and Swedish display similar patterns, typically referred to as asymmetric V2. Another non-V2 context that is shared by many of the Germanic languages is exclamatives, shown for Standard Norwegian in (13). Exclamatives are often introduced by wh-elements, e.g. in English as well as in the Tromsø dialect, but they are still incompatible with V2 (i.e. for English, this means subject-auxiliary inversion or do-support, see Pesetsky and Torrego 2001), illustrated in (14) and (15). These examples show that exclamatives may be distinguished from wh-questions simply by word order in both languages.

(13) Så fin du er!/*Så fin er du! (Standard Norwegian)
     so nice you are
     ’How nice you look!’

(14) a. What a silly book Mary bought!

b. *What a silly book did Mary buy!

(15) a. Kor stor du e blitt! / *Kor stor er du blitt! (Tromsø)
     how/where big you are become
     ’How big you’ve become!’

b. Kor stor er du blitt?
     how/where big are you become
     ’How big have you become?’

These similarities across Germanic presumably have nothing to do with settings of the V2 parameter in UG, but are simply due to a close historical relationship between these languages. When considering the word order of different clause types in more detail, one also finds that this varies considerably across the Germanic

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2. Symmetric V2 languages, such as Icelandic and Yiddish, display V2 word order in main as well as embedded clauses.
family: For example, Icelandic is traditionally argued to have verb movement across negation and adverbs in embedded contexts, see (16), and even German, which is generally considered to be an asymmetric V2 language, displays V2 in embedded declaratives when there is no complementizer present, illustrated in (17).³

(16) Êg veit [af hverju Hedda kaupir oft skó].
    I know why Hedda buys often shoes
    ‘I know why Hedda often buys shoes.’ (Wiklund et al. 2007: 204)

(17) a. Sie sagte, sie würde kommen / *daß sie würde kommen.
    she said she would come
    ‘She said (that) she would come.’

b. Sie sagte, daß sie kommen würde / *sie kommen würde.
    she said that she come would
    ‘She said (that) she would come.’

Furthermore, Modern Spoken Afrikaans (MSA) displays verb movement across the subject in embedded questions, and Danish is V2 in (certain) exclamatives, see (18)–(19). Thus, the word order in all these clause types does not come ‘for free’ with a positive setting of the V2 parameter, but must be learned from input.

(18) Ek wonder [wat het hy vandag weer aangevang]? (MSA, Biberauer 2002: 37)
    I wonder whathas he today again done
    ‘I wonder what he has been up to today.’

(19) Hvor er han sød!
    where/how is he sweet
    ‘How nice he is!’

In this perspective, also present-day English displays certain V2 properties. First and foremost, there is subject-auxiliary inversion in yes/no- and wh-questions, often referred to as residual V2 (Rizzi 1996), see (20)–(21). Other varieties of English display V2 word order in other clause types, as Indian Vernacular English (IVE) has verb movement in embedded wh-questions and Belfast English in embedded yes/no-questions, illustrated in (22) and (23). The latter variety also displays V2 in imperatives, see (24).⁴

³ However, Angantysson (2001) provides data showing that this word order may be optional in certain varieties of Icelandic. See also Wiklund et al. (2007) for an alternative view of embedded word order in Icelandic and the Mainland North Germanic languages.

⁴ Note that in imperatives, also lexical verbs may move across the subject in Belfast English, while verb movement in embedded questions is restricted to auxiliaries and be. Given that lexical verbs do not seem to undergo movement at all in other clause types, this indicates that verb movement in imperatives may involve a lower head than the one that attracts auxiliaries and be in main and embedded questions.
What will you bring to the party?

Have you seen her today?

They know who has Vijay invited tonight. (IVE, Bhatt 2004: 1020)

They asked me was I going to the party. (Belfast English, Henry 1997: 275)

Bring you that with you! (Belfast English, Henry 1997: 274)

Interestingly, IVE does not display V2 in main clause questions, as illustrated in (25). This means that this variety of English is similar to Norwegian dialects in this respect, as we will see in the next section.

What he has eaten? (IVE, Bhatt 2004: 1020)

3.2 Variation within clause types

In this section I show that V2 word order does not only vary according to clause type; there are also exceptions to V2 within certain clause types. The most obvious example is perhaps from English, which was treated in the previous section as a partial or mixed V2 language. That is, not only is V2 in English restricted to certain clause types (wh- and yes/no-questions); but within these clause types V2 is further restricted to appearing only with a particular verb type, viz. auxiliaries. This is illustrated by the ungrammaticality of the following sentences:

*What ate you yesterday?

*Saw you her yesterday?

Moving on to Norwegian, we may first note that, while main clause declaratives are generally V2, as we saw above, there are some adverbs that display an exceptional behavior in this clause type, what one might consider ‘pockets of non-V2’. Example (28) illustrates that the adverb kanskje ‘maybe’ in initial position may occur with either V2 or non-V2. Furthermore, there does not seem to be any meaning difference between the two word orders.

Kanskje kongen kommer./Kanskje kommer kongen.

maybe king_def come_pres

‘Maybe the king is coming.’

The historical origin of this adverb is that it was once a combination of two verbs, kan skje ‘may happen’, and this is presumably the cause of the unusual word order diachronically. That is to say, these verbs appeared in a main clause structure

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5. Strictly speaking, this is not a restriction on V2 per se, but a result of the fact that English has also lost V-to-I movement for lexical verbs (see e.g. Lightfoot 1999).
followed by an embedded clause, which would obviously not display V2 (*det kan skje at* + non-V2 ‘it may happen that’ + non-V2). This adverb has a similar exceptional status in Icelandic and Swedish, suggesting that this is a property that has persisted throughout several centuries. Note, however, that the corresponding adverb *vielleicht* in German (which is historically unrelated to *kanskje*) does not allow non-V2, as we see in (29).

(29) *Vielleicht der König kommt./Vielleicht kommt der König.*

\text{maybe the king come.pres} \hspace{1cm} \text{(German, V2)}

‘Maybe the king is coming.’

Another type of exceptional adverb triggering non-V2 in Norwegian declaratives is discussed in Egerland (1998) and Nilsen (2003). These are so-called focus-sensitive adverbs, or focus particles, which may occur in front of the verb in subject-initial declaratives. This results in the word order S-Adv-V, illustrated in (30). Note that the usual V2 word order is also grammatical. The most common ones of these focus particles are *bare* ‘just, only’ and *nesten* ‘almost’, but Nilsen (2003) also mentions *simpelthen* ‘simply’, *utelukkende* ‘exclusively’ and a few others. In (31), we again see that the corresponding adverb behaves differently in German. The variation across different languages thus shows that a child acquiring these word order facts must to a large extent rely on the input.

(30) Han \text{bare smilte.}/Han \text{smilte bare.} \hspace{1cm} \text{(Norwegian, non-V2/V2)}

he just smiled

‘He just smiled.’

(31) *Er nur lächelte/Er lâchelte nur. \hspace{1cm} \text{(German, V2)}

he just smiled

‘He just smiled.’

Moreover, there is further microvariation connected with these adverbs in Norwegian, in that auxiliaries and the verb be typically do not appear in the position following the adverb. This is illustrated in (32) and (34), while (33) and (35) show that if these verbs are stressed, the non-V2 word order again becomes acceptable.

(32) Hun \text{er bare} vakker. / *Hun bare er vakker.

\text{she is just beautiful}

‘She is simply beautiful.’

(33) Hun \text{bare ER} her, og gjør ingenting.

\text{she just is here and does nothing}

‘She just is here and doesn’t do anything.’
(34) Han skal bare spise først. / *Han bare skal spise først.
he shall just eat first
‘He’ll just eat first.’

(35) Han bare skal spise spinaten først.
he just shall eat spinach.DEF first
‘He just has to eat the spinach first.’

Second, verb movement may occasionally take place across an adverbial or negation in embedded clauses, as sentence (36) is grammatical with either word order. This is especially the case in *that*-clauses after so-called bridge verbs, which allow embedded topicalization (see Vikner 1995). According to Bentzen (2005, 2007), there is dialectal variation with respect to the acceptability of word order in embedded contexts, the variation being dependent not only on the matrix verb, but also on the type of verb and adverb in the embedded clause. Embedded verb movement is also attested in Swedish, where the nature of the complementizer (i.e. type of embedded clause) seems to play a major role (see Waldmann 2008). It should also be noted that the possibility of V2 word order in embedded clauses in Norwegian is not dependent on the presence vs. absence of a complementizer (which is the case in German, cf. example (17) above).

(36) Han sa (at) han ikke kommer / (at) han kommer ikke.
he said that he not comes
‘He said that he isn’t coming.’

Third, in many dialects of Norwegian, there is no absolute V2 requirement in *wh*-questions, as discussed in e.g. Åfarli (1985, 1986), Lie (1992), Fiva (1996), Sollid (2003), Vangsnes (2005), Westergaard (2003, 2005a, 2009a), and Westergaard and Vangsnes (2005). There is considerable variation across the dialects, generally related to the length and function of the *wh*-element, and it has been argued that this variation represents stages in a diachronic development from V2 to non-V2 (see Vangsnes 2005, Westergaard 2005a, 2009a). In certain dialects non-V2 is allowed in any type of *wh*-question, illustrated by examples with both long and short *wh*-
elements in (37)–(38) from the Nordmøre dialect spoken in the Western part of the country.\footnote{As in the corpus of spontaneous speech (see Chapter 1, Section 3), the constructed dialect examples are generally provided in standard orthography (not phonetic transcription) with some concessions made for different pronunciations. For example, there are significant differences between the two standard varieties and the dialects with respect to the \textit{wh}-elements, the three monosyllabic ones being \textit{hva}, \textit{hvem}, \textit{hvor} (‘what’, ‘who’, ‘where’) in \textit{bokmål}, pronounced with an initial [v], and \textit{ka}, \textit{kem}, \textit{kor} in the Tromsø dialect.}

(37) Kåles bil kjøpte du?/Kåles bil du kjøpte? \hspace{1cm} (Nordmøre)
which car bought you
‘Which car did you buy?’

(38) Kåin lika du best?/Kåin du lika best?
who like you best
‘Who do you like best?’ \hspace{1cm} (Åfarli 1986: 98, 100)

For the Tromsø dialect, the situation is as follows: Questions introduced by long \textit{wh}-phrases or the disyllabic question words \textit{korfor}, \textit{korsen} and \textit{katti} (‘why’, ‘how’ and ‘when’) always require the finite verb in second position, as shown in (39)–(42). In contrast, V2 is not obligatory after the monosyllabic \textit{wh}-words \textit{ka}, \textit{kem} and \textit{kor} (‘what’, ‘who’ and ‘where’), as illustrated in (43)–(45).

(39) Ka slags bil kjøpte du?/*Ka slags bil du kjøpte? \hspace{1cm} (Tromsø dialect)
which car bought you
‘Which car did you buy?’

(40) Korfor gikk ho?/*Korfor ho gikk?
why went she
‘Why did she go?’

(41) Korsen har ungan det?/*Korsen ungan har det?
how have kid.\textsc{def/pl} it
‘How are the kids doing?’

(42) Katti kommer du?/*Katti du kommer?
when come you
‘When are you coming?’

(43) Ka legen sa?/Ka sa legen?
what doctor.\textsc{def} said
‘What did the doctor say?’
(44) Kor du bor?/Kor bor du?
where you live
‘Where do you live?’

(45) Kem den nye læreren er?/Kem er den nye læreren?
who the new teacher.DEF is
‘Who is the new teacher?’

Finally, there is also a word order distinction based on the function of the wh-element as subject or non-subject. While Standard Norwegian has the finite verb in second position also in subject questions, see (46), non-V2 word order is required in the Tromsø dialect in the form of the relative complementizer som in second position, as shown in (47). Note that the position of the finite verb in relation to negation shows that there is no verb movement in this case. In this connection it is also interesting to note that the same subject/non-subject asymmetry is found in embedded wh-questions in all varieties of Norwegian, as illustrated by the example from Standard Norwegian in (48).

(46) Hvem kommer ikke til festen? (Standard Norw.)
who comes not to party.DEF
‘Who is not coming to the party?’

(47) Kem som ikkje kommer til festen?/*Kem kommer ikkje til festen?
who som not comes to party.DEF
‘Who is not coming to the party?’

(48) Vet du hvem *(som) ikke kommer?/*Vet du hvem kommer ikke?
know you who som not comes
‘Do you know who is not coming?’

3.3 Variation based on information structure

In this section we return to the ‘optional’ word order in questions introduced by monosyllabic wh-elements. A study of some of the adult data in the acquisition corpus, Westergaard (2003), showed that the word order chosen in spontaneous production is not random, but dependent on certain discourse factors. This is expressed as a clear (and statistically significant) preference for particular subject and verb types occurring with the two word orders. That is, V2 typically appears with the verb være ‘be’ and full DP subjects or the demonstrative/expletive det, as in (49), while non-V2 is most often chosen when the subject is a personal pronoun and the verb any other verb than ‘be’, see (50).
Chapter 2. Word order variation and the structure of the target language

In Westergaard (2003), it was argued that the choice of word order is dependent on information structure, V2 being used with informationally new or focused subjects (often full DPs) and non-V2 with discourse given subjects (often personal pronouns). The terms given and new information are used relatively informally to refer to context, either situational or linguistic (previous mention). Given information could therefore, to cite Chafe (1976: 30), simply be defined as “knowledge which the speaker assumes to be in the consciousness of the addressee at the time of the utterance.” This word order choice adheres to the well-known pragmatic principles of end focus and end weight, which express the tendency for old or given information to be placed as early as possible in the sentence, while new, and often heavier, elements normally occur towards the end. These principles of information structure have a prominent position in the linguistic tradition of the Prague school, see e.g. Firbas (1992) for ideas of ‘Communicative Dynamism’ within the model of Functional Sentence Perspective. In the generative tradition, pragmatic principles have typically not played any major role, except in the cartographic approach of Rizzi (1997, 2001), where a split-CP domain is argued to host projections for Topic and Focus (see Chapter 3).

The given/new distinction has also been argued to be relevant for the difference between V2 and non-V2 in declaratives in Old and Middle English, see e.g. Bech (2001) or Westergaard (2005b, 2009b). As illustrated by the following examples, non-V2 was typically chosen with pronominal subjects, while V2 appeared with full DPs.

(51) Hiora untrymnesse he sceal ðrowian on his heortan.
their weakness he shall atone in his heart
“He shall atone in his heart for their weakness.”
(Haeberli 2002: 90, CP 60.17)

(52) On his dagum sende Gregorius us fulluht.
in his days sent Gregory us baptism
“In his time, Gregory sent us Christianity.”
(Haeberli 2002: 88, ChronA2 18.565.1)
Some especially revealing examples of the given/new distinction being a decisive factor for the choice of word order in present-day Norwegian dialects are the following sequences of questions from the adult in a conversation with one of the children.

(53) **INV:** kor er skoan hannes henne?  (File Ole.17)

    where be.pres shoe.def/pl his loc
    ‘Where are his shoes?’

    **OLE:** ja?
    yes

    **INV:** kor dem er henne?
    where they be.pres loc
    ‘Where are they?’

(54) **OLE:** xx mjau mjau sir pusekattan.  (File Ole.17)

    meow meow say.pres kitty.def/pl
    ‘xx meow meow say the kitties.’

    **INV:** ja.
    yes

    **INV:** <ka sir> [/] ka sir hunden da?
    what says / what says dog.def then
    ‘What does the dog say then?’

    **OLE:** voff voff.
    (Ole imitates a dog.)

    **INV:** og eselet da # ka det sir?
    and donkey.def then # what that says
    ‘And the donkey then – what does that say?’

A few lines later:

    **INV:** hanen ja.
    rooster.def yes
    ‘The rooster, yes.’

    **OLE:** hanen # og den +/.rooster.def # and that
    ‘The rooster – and that…’

    **INV:** ka hanen sir?
    what rooster.def says
    ‘What does the rooster say?’

In (53), the subject is referred to by a full DP in the first question (skoan hannes ‘his shoes’) and V2 is used, while the follow-up question has a pronominal subject
with the same reference, now given information, and thus non-V2 word order. The first question in (54) is an example where the adult is introducing something new in the conversation (hunden ‘the dog’), and consequently, V2 word order is used. In the second question a new element (eselet ‘the donkey’) is introduced first, and then, once it is given information, it can be referred to by a pronoun and put into pre-verbal position. The third example is different, in that the given information (hanen ‘the rooster’) has been mentioned in the previous discourse, but is still referred to by a full DP. Nevertheless, non-V2 word order is chosen due to the informational status of this subject as given information.

Summarizing this section, we can conclude that there are some clause types in the Tromsø dialect that require V2 and some that require or permit non-V2. Furthermore, there are certain elements (adverbs or wh-words) which are used with a different word order than other similar elements within the same clause type (declaratives and wh-questions). Finally, in ‘optional’ contexts, with the monosyllabic wh-elements, word order is dependent on the information value of the subject. This means that children learning the language are exposed to input that only sometimes forces them to analyze it with a structure where the finite verb is in C. That is, the cue for V2 as formulated in (2) does not seem to be obligatory, as was argued by Lightfoot (1999).

4. Norwegian verbal morphology

The acquisition of verb movement and V2 word order has often been linked to the richness of agreement or finiteness, see Chapters 5–9. I will therefore provide a brief overview of the verbal system of Norwegian as background for this study. As mentioned in the Introduction, there is very little morphology on the verb in Norwegian. The verb is marked for present or past tense, but there is no person or number agreement. Verbs belong to different morphological classes, which means that tense endings may vary depending on the class the verb belongs to. According to Endresen and Simonsen (2001), Norwegian verbs can be divided into regular and irregular verbs, which are referred to as weak and strong respectively in the classical Germanic terminology that they use. The regular verbs can be further subdivided into a large weak class and a small weak class (abbreviated WL and WS respectively), both of which have a syllabic suffix in the past tense. On the basis of the 4800 verbs listed in Bokmålsordboka (1986) [The Bokmål Dictionary], Endresen and Simonsen have calculated that the irregular verbs make up 4% of all verbs, and the WL and WS classes 56% and 40% respectively. In the following, I follow Jensvoll (2002) and use the terms regular and irregular verbs rather than strong and weak, but keep the WS and WL abbreviations for simplicity.
Table 2.1 Overview of verb forms in Standard Norwegian (bokmål)

<table>
<thead>
<tr>
<th>Infinitive</th>
<th>Present</th>
<th>Past</th>
<th>Past Part.</th>
<th>Imperative</th>
</tr>
</thead>
<tbody>
<tr>
<td>WL class</td>
<td>kast-e ‘throw’</td>
<td>kast-er</td>
<td>kast-et/-a</td>
<td>kast-et/-a</td>
</tr>
<tr>
<td>WS class</td>
<td>lek-e ‘play’</td>
<td>lek-er</td>
<td>lek-te</td>
<td>lek-t</td>
</tr>
<tr>
<td>Irregular</td>
<td>drikk-e ‘drink’</td>
<td>drikk-er</td>
<td>drakk-Ø</td>
<td>drukk-et</td>
</tr>
<tr>
<td></td>
<td>komm-e ‘come’</td>
<td>komm-er</td>
<td>kom-Ø</td>
<td>komm-et</td>
</tr>
<tr>
<td></td>
<td>si-Ø ‘say’</td>
<td>si-er</td>
<td>sa-Ø</td>
<td>sag-t</td>
</tr>
</tbody>
</table>

There are three simple (i.e. non-periphrastic) finite forms in Norwegian: the present, the past, and the imperative. Additionally, there are three non-finite simple forms: the infinitive, and the present and past participles. Table 2.1 gives an overview of the three finite forms plus the infinitive and the past participle with three different verb classes. These are the large and the small weak verb classes (WL and WS) as well as some examples of irregulars, all listed in the standard bokmål variety (cf. Chapter 1, Footnote 1).

In the Tromsø dialect, which is spoken by the children in this study, some of the distinctions in Table 2.1 do not exist. This is mainly because the present tense –er ending of Standard Norwegian is reduced to –e for most of the regular verbs (WL and WS), which is also the ending for the infinitive. Thus, for approximately 96% of all verbs in the dialect (the two weak verb classes), there is no distinction between the infinitive and the present tense. This will make it somewhat complicated to identify whether verb forms ending in –e in the corpus of child language are infinitives or finite forms. Table 2.2 gives an overview of the relevant verb forms in the Tromsø dialect.

A further complication regarding the distinction between finite and non-finite verb forms is that the children in this corpus seem to overgeneralize the present tense -e ending of the weak classes to the irregular verbs. Several examples of this are found in Chapters 5–9. Since it is actually more of an exception that the present tense and the infinitive forms differ, children may pick up on this generalization.

Table 2.2 Overview of verb forms in the Tromsø dialect

<table>
<thead>
<tr>
<th>Infinitive</th>
<th>Present</th>
<th>Past</th>
<th>Past Part.</th>
<th>Imperative</th>
</tr>
</thead>
<tbody>
<tr>
<td>WL class</td>
<td>kast-e ‘throw’</td>
<td>kast-e</td>
<td>kast-a</td>
<td>kast-a</td>
</tr>
<tr>
<td>WS class</td>
<td>lek-e ‘play’</td>
<td>lek-e</td>
<td>lek-te</td>
<td>lek-t</td>
</tr>
<tr>
<td>Irregular</td>
<td>drikk-e ‘drink’</td>
<td>drikk-Ø</td>
<td>drakk-Ø</td>
<td>drukk-et/-e</td>
</tr>
<tr>
<td></td>
<td>komm-e ‘come’</td>
<td>komm-er</td>
<td>kom-Ø</td>
<td>komm-et</td>
</tr>
<tr>
<td></td>
<td>si-Ø ‘say’</td>
<td>si-r</td>
<td>sa-Ø</td>
<td>sag-t</td>
</tr>
</tbody>
</table>
very early. Thus I would argue that we see overgeneralization of the present tense -e ending from regular to irregular verbs in this dialect, similar to what is so familiar from studies of past tense morphology in various languages, see e.g. Pinker (1999) for English, Ragnarsdóttir, Simonsen, and Plunkett (1999) for Norwegian and Icelandic, and Jensvoll (2002) for bilingual Norwegian/English children. This means that children acquiring the Tromsø dialect internalize a morphological rule, based on the major verb classes (e.g. kaste ‘throw.pres’), that the present tense ending is –e. This rule is then overgeneralized to irregular verbs, as illustrated in (55), where the target-consistent forms would be ødelegg and gjør.

\[
\begin{align*}
\text{æ kaste} / \ \text{æ leke} & \Rightarrow \text{æ ødelegg} / \ \text{æ gjøre} \\
\text{I throw.pres} / \ \text{I play.pres} & \ \text{I break.pres} / \ \text{I do.pres}
\end{align*}
\]

Support that this overgeneralization takes place may be found in examples such as (56). In this sentence the child is using two verbs, one clearly finite (sitt ‘sit.pres’), the other non-finite, spise ‘eat’, which looks like the infinitive. Given that the two verbs refer to the same event, it is likely that also the second one should be interpreted as a present tense verb form.

\[
\begin{align*}
\text{kanskje han sitt og spis} \ \text{kaffe.} (\text{Ann.15, age 2;6.21}) \\
\text{maybe he sit.pres and eat.inf/pres? coffee}
\end{align*}
\]

‘Maybe he is (sitting there and) eating coffee.’

Target form: Kanskje han sitt og spis kaffe.

It could be mentioned that a similar overgeneralization pattern in the present tense has been attested in early German, see Clahsen (1986). At a stage which he calls Phase III (around age 2;6), he finds that the children overgeneralize the 1sg present tense morpheme -e to irregular verbs or modals, as illustrated in (57) and (58). In spoken German, the -e ending is a phonological variant of Ø for the regular verbs, e.g. ich mache/ich mach ‘I do’, and Clahsen explains this overgeneralization as the children’s preference, at this particular stage, to supply all verbs with overt markings.

\[
\begin{align*}
\text{weisse} \ \text{nich.} \quad (\text{Mathias, phase III, no age given}) \\
\text{know.pres not}
\end{align*}
\]

‘I don’t know.’ Target: (Ich) weiß nicht.

---

8. Even though the verb spise ‘eat’ belongs to the WS class and has a regular -te ending in the past tense, it has the irregular Ø ending in the present tense in the dialect, i.e. spis.

9. In this book, all examples from the corpus are provided with initial small case letters, the way they have been transcribed in the CHAT files. All constructed examples, on the other hand, have an initial capital letter. The target form is generally only provided when the child utterance deviates from it in a way that is not obvious from the discussion of the example.
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(58) ich kann drinsitzen. (Mathias, phase III, no age given)
'I can sit in there.' Target: Ich kann drinsitzen.

5. Summary

This chapter has provided an overview of the structure of Norwegian relevant for the acquisition of V2 vs. non-V2, with a special focus on the dialect that the children in this study are exposed to (Tromsø). It has been shown that there are some clause types that require V2 word order, generally main clause declaratives and questions, while most embedded clauses and exclamatives have obligatory non-V2. Word order may also vary according to the initial element in non-subject-initial declaratives and \(\text{wh}\)-questions. In so-called ‘optional’ contexts, viz. \(\text{wh}\)-questions introduced by a monosyllabic question word, word order is dependent on information structure, V2 being preferred when the subject conveys new information (often represented by a full DP), while non-V2 is used when the subject is familiar in the context (often a pronoun), thus given information. Table 2.3 provides an overview of the different contexts which require V2 and non-V2 word order in the Tromsø dialect.

It was also shown that Norwegian, and the Tromsø dialect in particular, has relatively impoverished verbal morphology, making the infinitive and present tense forms identical, and it was argued that children acquiring this dialect also produce some overgeneralization patterns which will make it even more difficult to distinguish between finite and non-finite verb forms in the corpus of child language.

<table>
<thead>
<tr>
<th>Table 2.3 Word order in different contexts – Tromsø dialect</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>V2</strong></td>
</tr>
<tr>
<td>Subject-initial declaratives with adverbs/negation</td>
</tr>
<tr>
<td>Non-subject-initial decl.</td>
</tr>
<tr>
<td>Yes/no-questions</td>
</tr>
<tr>
<td>(\text{Wh})-questions w/phrasal (\text{wh})</td>
</tr>
<tr>
<td>(\text{Wh})-questions w/monosyll. (\text{wh} + \text{Su} = \text{new info})</td>
</tr>
<tr>
<td>Certain embedded clauses with adverbs/negation</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>
The word order facts presented in this chapter represent the target grammar for the children in this study. Generally it must be said that they are faced with a considerable challenge, as in order to acquire the adult system, they must be able to make many subtle distinctions in syntax and information structure. Given this variation, it cannot be the case that all children need to do is to choose a value for a major word order parameter, e.g. +/-V2. It is of course theoretically possible that they first set a parameter, and then learn the fine linguistic details at a later stage. However, it will be shown in this book that children produce target-consistent word order in different environments from early on, without overgeneralization from one context to another.

But before looking into the child data, I provide a syntactic model of word order in the next chapter, extending Lightfoot's (1999, 2006) cue-based approach of language acquisition in order to accommodate the variation outlined in this chapter. This model is based on the existence of micro-cues that are produced in children's I-language grammars as a result of exposure to certain triggers in the input. That is, V2 is not a unified phenomenon and consequently not a major parameter. Instead, word order is seen as the result of a number of small-scale cues which children are sensitive to in the acquisition process, focusing on each context separately. The patterns of information structure documented in this chapter are also accounted for in this model and argued to be part of the syntax, in the sense that some syntactic positions are reserved for elements expressing given information and other positions for elements conveying new information.
CHAPTER 3

The syntax of V2 and a model of micro-cues

1. Introduction

In this chapter I outline a syntactic model of clause structure that accounts for the word order variation described in the previous chapter. The model distinguishes between the dialect spoken by the adults and children in this study and various other V2 grammars, including different varieties of English. Within a Split-CP framework of clause structure, inspired by Rizzi (1997, 2001), it is argued that V2 is not a unified process, but the result of verb movement to different heads in a split-CP domain. The differences between the various types of V2 grammars are accounted for by arguing that languages and dialects may differ with respect to the requirement for verb movement to the various C-heads. The model also captures the distinction between the two word orders allowed in wh-questions in the Tromsø dialect by postulating the existence of a functional projection in the CP domain which attracts informationally light elements. This projection thus functions as a syntactic spell-out of the pragmatic principle of end focus (see e.g. Firbas 1992). In light of the word order variation outlined in the previous chapter, I also develop an extension of Lightfoot’s (1999, 2006) cue-based approach to language acquisition and formulate a number of micro-cues that may account for the acquisition of such variation. The micro-cues are not themselves assumed to be provided by UG (as in Lightfoot’s approach), but children are argued to be endowed with a language faculty consisting of universal categories and features and principles for structure building (see Chapter 1, Section 2). This syntactic system makes it possible for children to parse the input and discover the micro-cues.

The chapter is organized as follows: In the next section I briefly review a few previous accounts of V2 word order, focusing on standard head movement analyses of the Principles and Parameters framework. In Section 3 I outline a syntactic analysis of different V2 grammars within a split-CP approach to clause structure, which takes care of variation dependent on clause type and information structure. Micro-variation in word order with respect to other linguistic distinctions (e.g. category and function of wh-elements) is also discussed. Based on this syntactic model I then develop a cue-based approach to acquisition in Section 4, formulating a number of micro-cues that children produce in their I-language grammars on exposure to the
relevant input. Section 5 summarizes the chapter, and specifies what challenges the children in this study are faced with in the acquisition process.

2. Some previous analyses of V2 word order

As outlined in the two previous chapters, all Germanic languages except English are traditionally considered to be V2 languages, meaning that the finite verb must appear in second position, illustrated by the German \textit{wh}-question in (1) and the Norwegian declarative in (2).

\begin{align*}
(1) \text{ Was liest er?} & \quad \text{(German)} \\
\text{what reads he} & \quad \text{‘What is he reading?’}
\end{align*}

\begin{align*}
(2) \text{ Aviser leser han aldri.} & \quad \text{(Norwegian)} \\
\text{newspapers reads he never} & \quad \text{‘Newspapers he never reads.’}
\end{align*}

The Germanic V2 languages are traditionally divided into two major types, symmetric and asymmetric V2 grammars, depending on whether verb second effects are found in main clauses only or in both main and embedded contexts. Languages belonging to the latter type are Icelandic, Yiddish, and Old English, while the former type includes German, Dutch, and the Mainland North Germanic languages. In Chapter 9 it will be shown that Norwegian child language at an early stage is similar to the symmetric V2 languages.

Vikner (1995) provides an extensive overview of different analyses of V2 word order within a relatively standard Principles and Parameters framework. The clause structure assumed in most of the works discussed by Vikner is based on the X-bar phrase structure schema of Chomsky (1986b), with I(nflection)P(hrase) and C(omplementizer)P(hrase) as the main clausal projections, see (3). That is, above the VP there are two specifier positions, one for the subject (SpecIP) and one for \textit{wh}-constituents and topicaized elements (SpecCP). Additionally, there are two head positions that may function as the target for verb movement, I and C.
The standard syntactic account of V2 goes back to den Besten (1977), who was the first to argue that the finite verb moves to the head of the clause, i.e. to C. One important argument in favor of such an analysis is that in German embedded clauses, the verb competes with a complementizer for this position. This is shown by the examples in (4a, b), where V2 word order is incompatible with the presence of the complementizer dass.

(4) a. Sie sagte, *sie würde kommen / dass sie würde kommen.
    she said she would come
    'She said (that) she would come.'

In accordance with this, all the accounts discussed by Vikner assume that word order in the asymmetric V2 languages is the result of verb movement to the C position, via I, referred to as V-to-I-to-C movement. Thus, the syntactic representation of some of the Nor wegian V2 constructions outlined in the previous chapter would be as in the bracketed structures in (5)–(7), giving only the relevant parts of the derivation.

(5) a. Hvilken bok liker du best?
    which book.def like you best
    'Which book do you like best?'

(6) b. CP[Hvilken bok C[liker I[du ][liker best hvilken bok ]]]
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(6) a. Denne boka liker jeg ikke.
   ‘This book I don’t like.’
   
   b. CP[ Denne boka C[ liker IP[ jeg I[ liker VP[ ikke liker denne boka ]]]]]

(7) a. Jeg liker ikke denne boka.
   ‘I don’t like this book.’
   
   b. CP[ Jeg C[ liker IP[ jeg I[ liker VP[ ikke liker denne boka ]]]]]

In questions and non-subject-initial declaratives, illustrated in (5) and (6), the initial position of the clause is filled by the wh-constituent or the topicalized element, while the subject is in SpecIP and the verb has moved to C. In subject-initial declaratives, illustrated in (7), the standard assumption is that the subject moves to SpecCP as a default topic, ensuring that verb movement to C can be uniform across clause types (see e.g. Schwartz and Vikner 1996). An alternative view, first proposed by Travis (1984), argues that subject-initial declaratives may be bare IPs, and that the subject therefore is located in SpecIP also in this case. This is proposed for Dutch by Zwart (1997). Such an approach will turn out to be relevant for the Norwegian child data discussed in Chapters 5 and 9.

Vikner discusses several different types of motivation for verb movement, most of these involving syntactic features. In some of the earliest work cited, e.g. Holmberg (1986) and Taraldsen (1986), it is argued that for main clause CPs to be predicates in the sense of Kayne (1982), C must acquire the feature [+V], and this is achieved by verb movement. This is not required in embedded clauses, since these are arguments and may therefore be nominal. In later work, C itself has a feature which attracts the verb (and which in non-V2 languages is located in I). In Platzack and Holmberg (1989) and Holmberg and Platzack (1990), this feature is a finiteness operator called [+F]. Other approaches include the proposal that C has features of tense and agreement (e.g. Tomaselli 1990) or the feature [+I] (Rizzi 1990). Vikner finds certain problems with all of these analyses and concludes that V2 is verb movement to C caused by some feature in this head position (p. 64).

A feature analysis of verb movement is retained also within the minimalist framework of Chomsky (1995). In this model all movement operations in syntax are caused by so-called strong features which need to be checked before Spell-out. In work on V2 word order within the minimalist program, e.g. Platzack (1996), it is argued that verb movement is due to a strong feature in C which attracts the verb to this position, as this feature needs to be checked, or deleted, before the sentence is spelled out.

Some recent approaches have challenged the traditional verb movement analysis of V2, e.g. Nilsen (2003) or Müller (2004), who both argue against a head
movement account and propose an approach in terms of remnant movement (movement of a constituent containing a trace), where the finite verb is argued to move as part of a larger constituent. One reason behind these approaches is the claim made in Chomsky (2001) that there can be no head movement in narrow syntax. This is due to the extension requirement, a condition on structure building that it always extend the target, meaning that the operation (internal) Merge must take place at the root of the clause. However, in Matushansky (2006) a new approach to head movement is developed, splitting it into two processes, phrasal movement and a morphological process referred to as m-merging, making head movement again compatible with the extension requirement in minimalist syntactic theory.

In this book I follow the more standard view and take a head movement approach to V2. In the next section, I outline a theory of verb movement within a revised version of a split-CP model of word order originally introduced in Westergaard and Vangnes (2005). The model builds on previous accounts of V2 effects, as verb movement is argued to be triggered by certain properties on functional heads. It differs from these accounts in that verb movement is assumed to target different heads in the C-domain, depending on clause type and the information value of the subject. Verb movement is also dependent on the (sub-)category of some of the other elements in the context. On this approach, V2 is not considered to be a unified process or one major rule or parameter.

3. The syntax of V2 in a split-CP model

3.1 Different clause types and a split ForceP

The aim of this section is to develop a general syntactic model of word order which accounts for the syntax of verb movement and captures the variation among different V2 grammars, as outlined in the previous chapter. As the foundation for the model developed in this chapter, a version of the cartographic approach originally introduced by Rizzi (1997, 2001) is adopted. According to this model, the CP domain consists of a ForceP(phrase) as its topmost projection, specifying the illocutionary force of the utterance, and a Fin(iteneness)P(phrase) at the bottom, with optional projections specifying information structure relations in between, i.e. Top(ic)P and Foc(us)P. This is illustrated in (8) (from Rizzi 1997: 297).
The model presented here differs in certain ways from Rizzi’s account of clause structure. First and foremost, the ForceP is split into different projections expressing illocutionary force, such that different clause types have different ‘flavors’ of Force, so to speak. In this model a declarative is a Decl(аратив)P(hrase), a wh-question is an Int(еррогатив)P(hrase), a yes/no-questions a Pol(арити)P(hrase), etc. An overview of the different types of ForceP is provided in (9).

(9) Different types of ForceP (clause type):
- Declarative       Decl(аратив)P(hrase)
- Wh-question       Int(еррогатив)P(hrase)
- Yes/no-question   Pol(арити)P(hrase)
- Exclamative       Excl(аматив)P(hrase)
- Imperative        Imp(ератив)P(hrase)

This means that sentences with V2 word order are no longer assumed to have exactly the same structure. The examples in (5) and (6), representing V2 in declaratives and wh-questions respectively, may now be considered to be due to verb movement to the Intº head in the former case and to the Declº head in the latter. This is illustrated in (10) and (11):

(10) IntP[ Hvilken bok [ Intº[ liker I[ du ] liker V[ liker best hvilken bok ] ]]]
which book like you best

(11) DeclP[ Denne boka [ Declº[ liker I[ jeg ] liker V[ ikke liker denne boka ] ]]]
this book like I not

Note that, unlike most accounts of V2, verb movement in this split-CP model is also considered to target different heads in wh-questions and yes/no-questions. This is due to the asymmetry between the two clause types in certain dialects of Norwegian, where there is a strict requirement for V2 in yes/no-questions, but not
in *wh*-questions, illustrated in (12)–(13) from the Tromsø dialect. Inspired by the argumentation in Holmberg (2003), I therefore consider a *yes/no*-question to be a Pol(arity)P(hrase). Since *yes/no*-questions are questions about the polarity of a proposition, i.e. [±Neg], Holmberg argues that verb movement has a different role in these question types than in other V2 constructions, in that it is a semantically motivated rule. The function of the PolP in Holmberg’s analysis is a head that the verb moves through on its way to C, picking up the [±Neg] feature (Pol-to-C). In the present model, on the other hand, the PolP is a head in the CP domain that the verb moves *to* (V-to-Pol).

(12) Har du vært i byen?
    have you been in town
    ‘Have you been to town?’

(13) Kor du har vært?
    where you have been
    ‘Where have you been?’

In the Westergaard and Vangsnes (2005) model, embedded clauses were assumed to have less syntactic structure than main clauses. More specifically, embedded declaratives were considered to be bare FinPs, while embedded questions were argued to have one projection on top of the FinP, called WhP. This expresses the fact that embedded clauses typically do not share the illocutionary force of main clauses. For example, embedded questions are not real questions and thus do not have the interrogative force of main *wh*-questions. However, embedded clauses are presumably more complex than what was argued by Westergaard and Vangsnes, also with respect to the issue of verb movement. Garbacz (2004), studying both written and spoken corpora of the Mainland North Germanic languages, shows that different types of embedded clauses behave differently with respect to the occurrence of verb movement. Studying a corpus of child-directed speech in Swedish, Waldmann (2008) also finds clear differences in the frequency of verb movement in three different types of *that*-clauses. The question of illocutionary force in embedded contexts is also discussed in Bentzen, Hræfnbjargarson, Hróarsdóttir, and Wiklund (2007). Thus, I would no longer like to claim that embedded clauses completely lack illocutionary force. For the purposes of this book, however, it suffices to distinguish embedded declaratives and embedded questions from their main clause counterparts. For simplicity, I will therefore keep the terms FinP and WhP for these two embedded clause types, although more complexity is presumably involved.

Given this model, it is now possible to revise the V2 parameter into many micro-parameters, depending on whether a particular clause type displays verb movement.
That is, there is no longer a major parameter for verb movement to C, but several smaller parameters for verb movement to the DeclP, verb movement to the IntP, etc. In terms of micro-parameters, some of the word order variation discussed in the previous chapter (Section 3.1) may be accounted for in the following way:

Since Standard Norwegian is V2 in declaratives and all questions, it may be said to have set three micro-parameters to a positive value, i.e. it has verb movement to Declº, Intº and Polº. Standard English, on the other hand, has set a positive value only for the latter two micro-parameters, while there is no verb movement in declaratives and thus a negative value for verb movement to the Declº head. The Nordmøre dialect of Norwegian, which is strictly V2 in all declaratives but allows non-V2 in all wh-questions, is exactly the opposite of English with respect to the values for the Intº and the Declº heads. This is shown by the examples in (14)–(15).

(14) Kåles bil han kjøpte?
    which car he bought
    ‘Which car did he buy?’

(15) Tyske bila kjøpe han aldri.
    German cars buys he never
    ‘German cars he never buys.

Furthermore, both English and Norwegian have a negative value for the micro-parameter for verb movement in exclamatives, shown for English in (16), while Danish, which displays V2 word order in this clause type, must have set the micro-parameter for verb movement to Exclº to a positive value.1

(16) What a great guy he is!

(17) Hvor er han sød!
    where/how is he sweet
    ‘How nice he is!’

With respect to the word order of embedded clauses, the lack of verb movement in this context in Standard Norwegian as well as Standard English may now be straightforwardly accounted for by a negative setting for the micro-parameters for verb movement to the Finº and Whº heads. Languages that do display V2 in these environments, e.g. German (for the Finº head, when this position is not filled by a complementizer, see (4a, b) above) or Belfast English (for the Whº head, see (18)) must then have set these microparameters for the positive value. Belfast English

1. This is presumably too simplistic, as there are only some types of exclamatives in Danish that appear with V2 word order. This means that the micro-variation is even finer than indicated here. Since exclamatives are not the focus of this book, this major distinction will do for our present purposes.
must additionally have a positive value for the parameter for verb movement to the \textsuperscript{Imp}\(^0\) head, illustrated in (19).

(18) They asked me \textit{was I} going to the party.  
\hfill (Belfast English, Henry 1997: 275)

(19) \textit{Bring you} that with you!  
\hfill (Belfast English, Henry 1997: 274)

Table 3.1 gives an overview of how a number of V2 languages differ from each other with respect to these micro-parameters, more specifically two varieties of Norwegian, two varieties of English as well as German and Danish (cf. Chapter 2, Section 3.1).

The asymmetric property of V2 in Icelandic, on the other hand, shown by the position of the finite verb in relation to the adverb in the embedded clause in (20), is not due to any of the heads in the split ForceP. As in most traditional work on Icelandic, I will simply assume that this word order is due to verb movement to a head in the IP domain, i.e. V-to-I movement (but see Wiklund et al. 2007 for an alternative view).

(20) Ég veit \([\text{af hverju Hedda kaupir oft skó}].\)  
\hfill I know why Hedda buys often shoes  
\hfill ‘I know why Hedda often buys shoes.’  \hfill (Wiklund et al. 2007: 204)

In previous work, there has been much discussion of the trigger for V2, normally understood as a feature in C that needs to be checked by lexical or, more specifically, verbal material (see the previous section). In Westergaard and Vangsnes (2005) there was also assumed to be an EPP head feature in the various functional heads, triggering verb movement to the different positions. In a recent study of the acquisition of V2 in Swedish, Waldmann (2008) proposes as many as three different

<table>
<thead>
<tr>
<th>Functional head \ Language</th>
<th>Standard Norwegian</th>
<th>Standard English</th>
<th>Nordmøre Norwegian</th>
<th>Belfast English</th>
<th>German</th>
<th>Danish</th>
</tr>
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<tbody>
<tr>
<td>Decl(^o)</td>
<td>+</td>
<td>–</td>
<td>+</td>
<td>–</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Int(^o)</td>
<td>+</td>
<td>+</td>
<td>–</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Pol(^o)</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Excl(^o)</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>+</td>
</tr>
<tr>
<td>Imp(^o)</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>+</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Fin(^o)</td>
<td>–</td>
<td>–</td>
<td>–</td>
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<td>+</td>
<td>–</td>
</tr>
<tr>
<td>Wh(^o)</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>+</td>
<td>–</td>
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</tr>
</tbody>
</table>
forces behind V2: First, in the spirit of Lightfoot (1999, 2006) Waldmann takes a cue-based approach to acquisition, specifying a number of cues for V2 word order. In addition, there is what he calls a ‘driving force’ behind V2, viz. a requirement that C is phonetically realized. Finally there is also a ‘big rule’ of V2 that that encompasses all the different environments where this word order appears and that children must also somehow acquire. In Section 4 below I restate the micro-parameters discussed in this section as a number of micro-cues in a model that takes care of the microvariation with respect to word order discussed in the previous chapter. In this model there is no need for any further trigger for V2 than the micro-cues themselves.

3.2 Further microvariation and the status of certain lexical elements

In this section I consider some of the further microvariation discussed in Section 3.2 of Chapter 2, mainly related to certain initial elements in non-subject-initial declaratives and wh-questions. In the former clause type, the adverb kanskje ‘maybe’ in initial position allows either V2 or non-V2, apparently without any distinction in meaning, illustrated in example (21).

(21) Kanskje kongen kommer. / Kanskje kommer kongen.
    maybe king.def come.pres
    ‘Maybe the king is coming.’

As mentioned in the previous chapter, the unusual word order with this adverb is the result of its historical origin as a verbal cluster, kan skje ‘may happen’. In some syntactic accounts, it is still treated as a verb, and it may therefore occupy the C position and prevent V2 word order. This has e.g. been suggested for Swedish by Platzack (1998) and Waldmann (2008). Present-day speakers obviously have no awareness of the history of this adverb, and in my view, it is highly unlikely that Norwegian native speakers have such an analysis of this adverb in their I-language grammars, especially since the pronunciation of the adverb is different from that of the two verbs in combination (with a retroflex rather than a dental or palatal nasal). I will therefore simply consider it an exception to the general word order of main clause declaratives. In Chapter 6 I show that children acquire this

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2. This analysis is somewhat more plausible for Swedish, as kanske may also appear in second position in this language, illustrated in (i). This word order is totally ungrammatical in Norwegian.

(i) Han kanske kommer.
    he maybe comes
    ‘Maybe he will come.’
exceptional word order very early, and this will be explained by its relatively high frequency in the input (see Chapter 4).

We then move on to the word order of main clause *wh*-questions, focusing on the difference between three varieties of Norwegian with respect to the status of different *wh*-elements. This distinction will be argued to have a more principled basis. The three varieties are Standard Norwegian, which is strictly V2 in all main clause *wh*-questions, the Nordmøre dialect, which allows non-V2 with all types of *wh*-elements, and the Tromsø dialect, which allows non-V2 only in questions with a monosyllabic *wh*-element. Relevant examples are provided in (22)–(24).

(22) a. Hvem **liker du** best?/*Hvem **du liker** best? (Standard Norwegian)
   who like you best
   ‘Who do you like best?’

   b. Hvilken bil **kjøpte du**?/*Hvilken bil **du kjøpte**?
   which car bought you
   ‘Which car did you buy?’

(23) a. Kem **like du** best?/*Kem **du like** best? (Tromsø)
   who like you best
   ‘Who do you like best?’

   b. Korsen **bil kjøpte du**?/*Korsen **bil du kjøpte**?
   how/which car bought you
   ‘Which car did you buy?’

(24) a. Kåin **du lika** best?/*Kåin **lika du** best? (Nordmøre)
   who you like best
   Who do you like best?

   b. Kåles **bil kjøpte du**?/*Kåles **bil kjøpte du**?
   which car you bought
   Which car did you buy? (Åfarli 1986: 98, 100)

As mentioned in Chapter 2, it has been argued that the variation across the dialects is due to a diachronic change in progress from V2 to non-V2 (see Vangsnes 2005, Westergaard 2009a). Due to the distribution of the dialectal variation, i.e. the existence of grammars such as Tromsø and Nordmøre and the non-existence of dialects where non-V2 is allowed with long *wh*-elements and not with the short ones, the change is assumed to have affected the short *wh*-elements first and then later spread to the long ones.

In order to account for the possibility of non-V2 word order in the Tromsø dialect, Taraldsen (1986) suggests that the short *wh*-words are head-like elements. Following this idea, the analysis adopted in Westergaard and Vangsnes (2005) is
that the monosyllabic wh-words ka 'what', kem 'who' and kor 'where' are non-projecting, and thus, that the crucial property of these elements is that they are monomorphemic, while longer wh-elements have a more complex morphological structure. In later work I have argued that the monosyllabic wh-words in the Tromsø dialect in fact are heads (see e.g. Westergaard 2009a). This is explained as a result of an economy principle introduced in van Gelderen (2004a), who points out that there is a tendency in historical language development for elements to change their status from phrases to heads, an example being relative that in English. Referring to Cardinaletti and Starke (1996), she also argues that in present-day languages, there is a tendency for weak pronouns or clitics to be preferred over strong pronouns. According to van Gelderen, pronouns may be either heads or phrases, but importantly, they will prefer to be heads. The economy principle responsible for this is called “Heads-over-Phrases”, which simply states that any element should be a head (if possible), see van Gelderen (2004a: 61). This means that they may move into head positions in the syntactic structure.

In my view, for this principle to be operative diachronically, it must reflect a preference in the acquisition process, as also pointed out in e.g. van Gelderen (2008). Much of children's non-target-consistent production is clearly the result of economy principles, and in that sense, this is a plausible development. One objection could be that if economy is a pervasive feature of child language, why do these things not happen all the time historically? The answer is of course that children are also very sensitive to input, and this will override economy in most cases. Nevertheless, the potential for change in this direction is always present in child language, but other factors must be favorable for such a change to also spread in a community.

Using this analysis for the monosyllabic wh-elements, one may now argue that they must at some point in history have changed from phrases to heads. In Westergaard and Vangsnes (2005) it was suggested that the longer wh-elements have a more complex morphological structure, which has prevented a similar reanalysis in these cases. Nevertheless, in certain dialects, e.g. Nordmøre, this process has spread also to the long wh-elements, see Westergaard (2005a, 2009a). This may also be related to frequency effects in the input, the long wh-elements being significantly less frequent than the short ones, see also Chapter 4. This means that the grammar of the very frequent short wh-elements may extend to the less frequent ones.

Since the children in this study are acquiring the Tromsø dialect, they are exposed to a language where there is a difference between long and short wh-elements with respect to word order, now argued to reflect a distinction between heads and phrases. Some support that this is a linguistically relevant distinction may be found in work on Italian dialects, e.g. Poletto and Pollock (2004). They show that the long and the short wh-elements behave differently with respect to certain doubling
phenomena, as illustrated in (25) and (26) from the Illasi dialect (Verona), and they argue that the short ones are *wh*-clitics.

(25) Ci alo visto ci?
whom has-he seen whom
‘Who has he seen?’

(26) *Parché e-lo partio parché?
why is-he left why
‘Why has he left?’ (Poletto and Pollock 2004: 242–3)

A similar distinction in certain German dialects is discussed in a recent paper by Bayer and Brandner (2008), who find that the length of the *wh*-element is important for the doubly filled COMP phenomenon in embedded questions. As shown in (27)–(28) from Eastern Bavarian, the insertion of *dass* ‘that’ is relatively unacceptable when the *wh*-element is short, while it is perfectly grammatical with a long *wh*-phrase.

(27) I woass aa ned, wer (?*dass) allas am Sunndoch in da Kiach gwen is.
I know too not who that all at Sunday in the church been is
‘I don’t know either who all has been to church on Sunday.’

(28) I frog-me, fia wos (dass)-ma an zwoatn Fernseher braucht.
I ask-refl for what that-one a second tv needs
‘I wonder what one needs a second tv for.’ (Bayer and Brandner 2008: 88)

Because of the status of the monosyllabic *wh*-elements as heads in the Tromsø dialect, they may now be argued to move into the head position of the IntP, the position that the verb is normally argued to move to in V2 constructions. This will prevent verb movement and make non-V2 word order possible. The ‘optional’ verb movement that we see with the monosyllabic *wh*-words must therefore involve a lower functional head, one to which movement is dependent on information structure. This is outlined in the next section.

3.3 Word order and information structure

In the discussion of V2 and non-V2 word order in *wh*-questions in the Tromsø dialect in Section 3.3 of the previous chapter, we saw that there is a strong correlation between the word order chosen and the information value of the subject. This was reflected in certain preference patterns for verbs and subject types in the two constructions. In sentences with V2 word order, the verb *være* ’be’ was extremely frequent and the subject most often a full DP. The word order without verb movement (non-V2), on the other hand, was chosen with pronominal subjects and any
other verb than *være* 'be'. In Westergaard (2003) this was interpreted as V2 word order being preferred when the subject is new information, and non-V2 when the subject is given, as illustrated in examples (29)–(30), repeated from Chapter 2.

(29) kor **er mitt fly?** *(INV, file Ole.17)*  
where is my plane  
‘Where is my plane?’

(30) kor **vi lande henne?** *(INV, file Ole.17)*  
where we land **LOC**  
‘Where should we land?’

In the previous section I argued that the monosyllabic *wh*-words can be heads in the Tromsø dialect, and may therefore move to the Int° head. This blocks verb movement to this position and accounts for the possibility of non-V2 word order. An important question is then what triggers verb movement and V2 word order in sentences such as (29). And how can we account for the fact that this type of verb movement is sensitive to the information value of the subject?

Since the given/new distinction corresponds to a formal syntactic difference in this case, information structure is considered to be part of the syntax in this split-CP model, as in Rizzi’s (1997, 2001) system. The two different word orders in *wh*-questions can thus be taken care of by another functional projection in the CP domain. More specifically, I argue that it is the Top(ic)P(hrase) which is responsible for the difference between V2 and non-V2, see the syntactic tree in (8) above. This projection attracts informationally light elements, either a given subject to its Spec position (typically a pronoun) or a light verb to its head position (typically *være* 'be'). In the former case this results in non-V2 and in the latter V2 word order. In this way the TopP puts focus on elements that appear lower in the clause structure, and it may therefore be said to function as a syntactic spell-out of the pragmatic principle of end focus, ensuring that informationally light elements occur as far as possible to the left and informationally heavier elements as far as possible to the right in a sentence (obviously within limitations imposed by syntactic constraints in other parts of the grammar).

Technically, I propose that there is a [±FOC] feature assigned to nominal elements in the initial numeration depending on their status in the linguistic and situational context. This corresponds to what is also claimed in Aboh (2007).

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3. In Westergaard and Vangsnes (2005), it was argued that the FocP was responsible for the choice of V2 vs. non-V2, while in later work, e.g. Westergaard (2008, 2009a) the projection used to explain this distinction was called the LowTopP (to distinguish it from the TopP, which in this book has been replaced by the DeclP). For present purposes, it is not necessary to decide whether it is the high or low TopP of Rizzi’s model that is involved in the Norwegian *wh*-questions.
Informationally given elements are then marked with the feature \([-\text{foc}]\), while informationally new elements are \([+\text{foc}]\). I will also assume that the TopP has a \([-\text{foc}]\) feature that will have to be checked by moving some element with low information value into its head or specifier position. Thus, when the subject is informationally given, i.e. marked \([-\text{foc}]\), it is attracted to the Spec of the TopP, while a subject marked \([+\text{foc}]\) will stay in a lower position, in the IP domain, more specifically SpecTP. In the latter case, it is the (normally informationally light) verb that will be attracted to the Topº head to check this feature, resulting in V2 word order. The syntactic structure of a V2 wh-question is provided in (31), while a corresponding non-V2 structure is illustrated in (32).\(^4\)

\(^4\). In these and the following trees, I ignore the vP.
Note that I have assumed that there is no verb movement at all in the non-V2 structure in (32). The reason for this is that the verb in these cases appears below negation or sentence adverbs, as illustrated in (33) from the corpus. Thus, I argue that the verb stays inside the VP in the adult language. According to Westergaard and Bentzen (2007), there is very sparse evidence in the input for the exact position of the verb in these \textit{wh}-questions. In the discussion of the child data, we will see that children in fact do move the verb in these cases, see Chapters 7, 9, and 10.

(33) \textit{kem som ikkje f\aa r kj\aa re?} \hspace{1cm} \text{(inv, file Ole.14)}
    \begin{flushleft}
    who that not gets drive
    \end{flushleft}
    ‘Who doesn’t get to drive?’

The subject movement in the structure in (32) is string vacuous, and one might ask whether it actually takes place in speakers’ grammars, given a tendency for economy of movement, see Chapters 1 and 10. The analysis is based on the argument in Pesetsky and Torrego (2001), accounting for subject questions in English, that a feature in the C domain may be checked either by subject movement or verb movement. Furthermore, certain syntactic facts also indicate that these subjects appear in a higher position, as there is absolutely no element that may intervene between the \textit{wh}-word and the subject in a non-V2 \textit{wh}-question, not even adverbs that have been argued to be adjoined higher than the IP domain. For example, Holmberg (1993) suggests that negation and some “light” adverbs may adjoin higher than TP. But not even negation may appear above the subject in a non-V2 \textit{wh}-question, as illustrated by (34a). By comparison, note that an exclamative such as (34b) may have the subject in either position.

(34) a. ‘Ka \textit{ikkje du vil gj\aa re?}’
    \begin{flushleft}
    what not you will do
    \end{flushleft}
    ‘What don’t you want to do?’

b. Ka (\textit{du}) \textit{ikkje (du)} vil gj\aa re for \textit{\aa f\AA oppmerksomhet!}
    \begin{flushleft}
    what you not you will do for to get attention
    \end{flushleft}
    ‘The things you’ll do to get attention!’

This means that the V2 word order in questions with simple \textit{wh}-elements is structurally different from other \textit{wh}-questions, in that V2 is not the result of verb movement to Int\(^\circ\), but to the head Top\(^\circ\). V2 in this clause type coincides with new subjects because the [-FOC] feature on the TopP triggers verb movement across the subject. The bracketed structures in (35) and (36) compare V2 word order in questions with short \textit{wh}-elements (heads) and long \textit{wh}-elements (phrases) respectively.

(35) \text{Int}[\text{Int}[\text{Kor TopP[TopP[er ... mitt f\y er ...]]]]}
    \begin{flushleft}
    where is my plane
    \end{flushleft}
Chapter 3. The syntax of V2 and a model of micro-cues

We may now use the $[\pm \text{foc}]$ feature to account for the syntactic structure of subject-initial declaratives with focus-sensitive adverbs such as bare ‘only, just’ and nesten ‘almost’, which may appear between the subject and the finite verb, as illustrated in (37) from the previous chapter. The position of the verb in relation to negation in (38) indicates that, unlike the non-V2 wh-questions, there is some verb movement involved here (cf. example (33)).

(37) Han bare smilte. / Han smilte bare. (Norwegian, non-V2/V2)

he just smiled

‘He just smiled.’

(38) Han bare svarte ikke.

he just answered not

‘He simply didn’t answer.

Nilsen (2003) provides a remnant movement analysis of V2, which entails that this adverb moves along with the verb, thus ending up in preverbal position. However, I will simply assume that focus-sensitive adverbs are very high adverbs, adjoined to the FocP in the CP domain, a projection that is argued by Rizzi (1997, 2001) to host focused material. When these adverbs are present, lexical verbs may stay in the Focº head and not move on to Declº. Note that this further movement is optional, as V2 word order is also grammatical with these adverbs. Such optional movement is not problematic for the model of micro-cues that is outlined in the next section, since there is, as mentioned above, no need for any further triggers for movement than the cues themselves. Thus, there is no feature in the Declº head that has to be checked, as in the case of the adverb kanskje ‘maybe’, discussed in the previous section. The syntactic structure of (37) may thus be illustrated as in (39), with bare adjoined to the FocP and the verb in Focº. This analysis of the focus-sensitive adverbs may also account for the observation that auxiliaries and be typically never follow these adverbs, see (40)–(41) from Chapter 2. These verbs are informationally so light that they are incompatible with the requirement of the FocP, and must thus move on to a higher projection.

(39) $\text{DeclP} [\text{Han FocP} [\text{bare Focº} [\text{smilte ...}]])$

(40) a. Hun er bare vakker. / *Hun bare er vakker.

she is just beautiful

‘She is simply beautiful.’
b. Hun bare er her, og gjør ingenting.
   she just is here and does nothing
   ‘She just is here and doesn’t do anything.’

(41) a. Han skal bare spise først. /*Han bare skal spise først.
   he shall just eat first
   ‘He’ll just eat first.’

   b. Han bare skal spise spinaten først.
   he just shall eat spinach.DEF first
   ‘He just has to eat the spinach first.’

To summarize, this section has provided a syntactic account for the word order variation outlined in Chapter 2. More specifically, the distinction between V2 and non-V2 in different clause types has been taken care of in a split-CP model where there are different types of ForceP dependent on illocutionary force, for example a declarative being a DeclP and a wh-question an IntP. Grammars may then differ with respect to which heads require V2. I have also discussed the syntactic structure of environments where there is word order variation based on individual lexical elements, e.g. the behavior of certain adverbs and the distinction between long and short wh-words, the latter argued to be due to a difference between phrases and heads. The optional V2 word order in wh-questions has been argued to be due to the TopP, a lower projection in the CP domain which ensures that informationally given elements occur higher in the structure than informationally heavier ones. Information structure has also been argued to play a role for the position of the verb in relation to focus-sensitive adverbs.

4. A model of micro-cues

4.1 Introduction

Lightfoot’s (1999, 2006) theory of cue-based acquisition and change was briefly introduced in Chapter 2, Section 2. Based on the syntactic model outlined in the previous section, I develop an extended version of Lightfoot’s theory in this section and formulate a number of micro-cues that take care of the word order variation attested. These ideas have also been discussed in some previous work, e.g. Westergaard (2008b), see also Lightfoot and Westergaard (2007). But first we will have a closer look at Lightfoot’s original model.

Generally, Lightfoot argues that in the acquisition process, children are sensitive to designated universal cues for particular syntactic configurations that may or may not be expressed in the input they are exposed to. Thus, a cue is a piece of
syntactic structure in the children’s I-language, e.g. _VP[DP V]_ for OV word order, or _SpecCP[wh-]_ for *wh*-movement to clause-initial position. The former is expressed in the input to children acquiring German (typically considered to be an OV language), but not to children acquiring English, while the latter is expressed both in German and English, but not in Chinese, which has *wh*-elements in situ. It is important to note, however, that cues are not surface strings. Rather, they are abstract pieces of structure that are formed in children’s I-language grammars in the acquisition process, and they are expressed by certain sentence types in the E-language that children hear around them. This means that a German child exposed to a sentence such as (42) may only be able to analyze this input string by using the _VP[DP V]_ cue, while an English-speaking child hearing sentences such as (43) may only form an I-language analysis of this by making use of the _SpecCP[wh-]_ cue.5

(42) Thomas hat die Milch getrunken. (German)
Thomas has the milk drunk
‘Thomas drank the milk.’

(43) What did Thomas drink?

Thus, the input sentences themselves are not the cues. Rather, the set of sentences a child hears is the triggering experience for cues, which are mental representations in the child’s I-language that result from parsing these sentences. In the words of Lightfoot (2006: 78), “a sentence expresses a cue if the cue is unambiguously required for the analysis of the sentence.” According to this model, then, input plays an important role, but language acquisition is not merely an input matching process.

As discussed in the previous chapter, V2 word order is typically assumed to be the result of a major parameter within traditional generative syntactic theory, and children only need to be exposed to a few examples of this word order to set the parameter to the right value. Lightfoot’s approach to V2 is based on a similar idea. According to Lightfoot (2006: 86) the cue for V2 syntax is a piece of structure “where a phrasal category occurs in the Specifier of a CP whose head is occupied by a verb”, formulated as (44). This cue is expressed in non-subject-initial clauses,

5. This means that cues are similar to parameters in that they are abstract properties of speakers’ internalized grammars. In fact, Lightfoot (2006: 78) argues that there is no need for an independent notion of parameter, given that variation between possible grammars may be taken care of by arguing that certain cues are found in only some languages and not others. He also suggests that if cues are stated more abstractly than in the current version of the model, then parameters may be used to state the metatheoretical relationship between cues, e.g. languages having complements to the left or to the right (Lightfoot 2006: 84).
The Acquisition of Word Order

since subject-initial clauses are ambiguous with respect to a V2 or an SVO grammar (i.e. whether the initial XP is in the CP or in the IP domain).

(44) \[ \text{CP}[XP \text{C} V...] \]

For learnability reasons, Lightfoot (1999: 93) argues that there must be a UG requirement that the verb is obligatorily in C in this syntactic configuration. If a child learning a classical V2 language, e.g. present-day Swedish or Dutch, adopts (44) as an optional structure and as a result produces V2 word order only sometimes, negative evidence in the form of correction of non-V2 structures would be required for this child to reach the target grammar. Since negative evidence is generally assumed not to be available to children in the acquisition process, Lightfoot thus considers this a typical poverty-of-stimulus situation, where UG must be invoked to explain the facts. With respect to the mixed V2 systems that are discussed in this book, the idea of an obligatory cue formulated as (44) is problematic, and in the remainder of this chapter, a number of micro-cues are formulated, which seem to better account for the facts.

The micro-cues are similar to Lightfoot’s cues in that they are considered to be part of children’s I-language grammar. Furthermore, micro-cues are formulated in terms of universal linguistic (sub-)categories and features. In this book I use familiar labels such as V, Decl, wh or \([±\text{FOC}]\), but the micro-cues (as well as Lightfoot’s cues) could be formulated in terms of whatever linguistic primitives current or future linguistic theory assumes that the genetic language faculty provides. Micro-cues are also different from Lightfoot’s cues in two crucial ways: First, given the word order variation attested in adult languages, the micro-cues must be formulated in terms of the specific linguistic context that a particular word order applies in, e.g. clause type, (sub-)category of the elements involved, information structure, etc. Second, the micro-cues are not considered to be part of the linguistic knowledge provided by UG, but assumed to be the result of the interaction between the genetic language faculty and the triggering experience in the input. This means that the micro-cues constitute an important ingredient in the acquisition process, together with the universal categories/features provided by UG and more general principles of economy, cf. Chapter 1, Section 2; see also Chapter 4, Section 2.

4.2 V2 in different clause types

In Chapter 2, we saw that V2 word order varies from clause type to clause type across different Germanic languages. In English, for example, wh-questions require this word order but not declaratives, while the opposite situation holds in certain dialects of Norwegian. A cue requiring the finite verb always to be in C would therefore massively overgenerate. In the split-CP approach outlined in this
book, all clause types have different heads expressing illocutionary force, what I have called different ‘flavors’ of Force. This means that it is now possible to formulate several cues expressing V2, one for each type of ForceP. That is, Lightfoot’s cue in (44) may be split up into several smaller cues, micro-cues.

For example, the cue for V2 in wh-questions is a structure with a wh-element followed by a finite verb filling the head position in the IntP, formulated as in (45), while the cue for V2 in declaratives must be a non-subject XP followed by a finite verb in the DeclP, formulated as (46). Children speaking Standard English will encounter the former expressed in the primary linguistic data, but not the latter, while children growing up in Nordmøre in Norway will have evidence for the latter and not the former.

(45) Micro-cue for V2 in wh-questions: \[ \text{IntP[wh IntºV...]} \]

(46) Micro-cue for V2 in declaratives: \[ \text{DeclP[XP DeclºV...]} \]

These micro-cues will be expressed by non-subject wh-questions and non-subject-initial declaratives respectively, illustrated for Standard Norwegian in examples (47) and (48), repeated here.

(47) Hvilken bok \textit{liker du} best?
    which book.DEF like you best
    ‘Which book do you like best?’

(48) Denne boka \textit{liker jeg} ikke.
    this book.DEF like I not
    ‘This book I don’t like.’

According to most syntactic analyses of V2, subject-initial declaratives also have the finite verb in the topmost head, i.e. in Declº in the model sketched above. In Lightfoot’s (1999) cue-based approach, it is assumed that subject-initial declaratives are ambiguous with respect to a V2 and an SVO grammar (i.e. the subject may be in SpecCP or SpecIP), and this sentence type therefore does not express the cue in (44), see Section 4.1. In the present model, I take a similar approach and assume that subject-initial declaratives do not express the micro-cue in (46). In Chapters 6 and 9 we will see that these sentences are in fact interpreted by children as expressing a cue for verb movement to a lower head (i.e. V-to-I movement, cf. the example for Icelandic below).

Furthermore, there must be cues for V2 also in other clause types. All varieties of the Germanic languages discussed in Chapter 2 have V2 in yes/no-questions, and children acquiring these languages must therefore produce a structure such as (49) in their I-language grammars on exposure to the relevant input, e.g. sentence (12) for Norwegian, repeated here. Italian children, on the other hand, will not be
exposed to this cue, as Italian has no verb movement in this clause type, and declaratives and yes/no-questions have exactly the same word order, see (50)–(51).

(49) Micro-cue for V2 in yes/no-questions: \( \text{PolP}[\text{Pol}ºV] \)

(12’) Har du vært i byen?

‘Have you been in town?’

(50) La casa è grande.

‘The house is big.’

(51) La casa è grande?

‘Is the house big?’

The micro-cue for V2 in exclamatives should be formulated as (52), and simplifying somewhat, Danish children will be exposed to input evidence that forces them to internalize this structure, e.g. (17) from Section 3, while children learning Norwegian or English will not encounter expressions of this cue in the primary linguistic data.

(52) Micro-cue for V2 in exclamatives: \( \text{ExclP}[\text{wh}º\text{Excl}V] \)

(17’) Hvor er han sød!

‘How nice he is!’

As discussed in Chapter 2, different varieties of English also display word order variation with respect to verb movement. Children acquiring Belfast English or Indian Vernacular English (IVE) will have positive evidence that the head involved in embedded questions (Whº) must be filled by the verb and they will consequently parse this input as in (53). The latter children will additionally be exposed to evidence for V2 in imperatives, formulated in (54). Relevant examples that express these micro-cues in the primary linguistic data are repeated from the previous chapter in (55) and (56).

(53) Micro-cue for V2 in embedded questions: \( \text{WhP}[\text{wh}º\text{Wh}V] \)

(54) Micro-cue for V2 in imperatives: \( \text{ImpP}[\text{Imp}ºV] \)

(55) They know who has Vijay invited tonight. (IVE, Bhatt 2004: 1020)

(56) Bring you that with you! (Belfast English, Henry 1997: 274)

Finally, since Icelandic is a so-called symmetric V2 language with verb movement across adverbs or negation in (subject-initial) embedded declaratives, children
acquiring this language must produce a cue for verb movement to a head lower than the CP domain, simply referred to as I in (57). That is, this cue represents the structure resulting from V-to-I movement (see also Lightfoot 1999).

(57) Micro-cue for V2 in (embedded) declaratives: [IP XP \_V]

Since this cue involves a syntactic domain that is common to all clause types, this configuration holds across the board. One may nevertheless ask the question whether this cue is also expressed in all clause types. In main clauses, where there is verb movement to an even higher position in most cases, the results of this cue are invisible. This means that the cue is clearly expressed only in subject-initial embedded declaratives, such as example (20), repeated here.\textsuperscript{6}

(20') Ëg veit \_af hverju Hedda kaupir oft skó].

\textit{I know why Hedda buys often shoes}

\textit{’I know why Hedda often buys shoes.’} (Wiklund et al. 2007: 204)

According to most analyses of V2, the verb is in the topmost head also in subject-initial declaratives, see Section 2, but because of the unclear status of these clauses in the input, they are not assumed to express the cue for verb movement to Decl\textsuperscript{0} (see above, this section). The question remains whether children might interpret these clauses as expressions of the cue in (57) instead. In Chapters 6 and 9 this is indeed what will be argued for Norwegian child language.

Table 3.2 illustrates how four of these micro-cues distinguish between five different V2 grammars. That is, Standard Norwegian and Standard English differ with respect to the cue for verb movement in declaratives, but share the other three cues. Nordmøre Norwegian is the opposite of English for the first two cues, in that this dialect expresses the cue for verb movement in declaratives, but lacks the cue involving the IntP. Simplifying somewhat, Belfast English is different from Standard English (and all the others) with respect to the cue for verb movement in embedded questions (WhP), while the cue involving exclamatives distinguishes Danish from Standard Norwegian (as well as all the others).

\textsuperscript{6} Note that this means that I do not adopt degree-0 learnability (see e.g. Lightfoot 1999), the argument that learners search for cues only in unembedded contexts. This idea is also briefly discussed in Chapter 4.
Table 3.2 Examples of micro-cues for V2 in a split-CP model

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According to this model, there is no ‘global’ cue for V2 syntax, but a separate micro-cue for each clause type. This takes care of the attested microvariation described in the previous chapter. It is also somewhat different from the microparameters outlined in Section 3 above, in that this model takes the perspective of the language-learning child. This means that when children scan the primary linguistic data for word order cues, this should be a selective process where only a particular clause type is relevant. When searching the input for possible cues for verb movement to the Declº head, for example, children only consider declaratives and ignore other clause types such as wh-questions or imperatives. That is, the word order of other clause types is irrelevant and should not constitute any counter-evidence for the micro-cue expressed in declaratives.

As the focus in this chapter is on formulating micro-cues for V2, we have so far only stated that the Norwegian children in this study are not exposed to cues expressing this word order in exclamatives, embedded questions, and embedded declaratives, i.e. (52), (53) and (57). This means that these children instead are exposed to micro-cues that express non-V2 word order in these contexts, which could be formulated in the following way:

(58) Micro-cues for non-V2 in exclamatives: ExclP[wh … VP[V]]

(59) Micro-cue for non-V2 in embedded questions: WhP[ wh … VP[V]]

(60) Micro-cue for non-V2 in embedded declaratives: IP[ XP … VP[V]]

It was pointed out in Chapter 2 that distinguishing between different clause types is not sufficient to account for the microvariation in V2 word order that is attested across languages. In the next section we therefore consider further micro-cues relevant for the variety of Norwegian acquired by the children in this study.

4.3 Further micro-cues for V2/non-V2

In the previous chapter, the difference between V2 and non-V2 word order was shown to be dependent on further minor distinctions in syntax and information.
structure. This means that some of the micro-cues introduced in the previous section are still too broadly formulated. In this section I reformulate the cues for word order in \textit{wh}-questions and declaratives in (45) and (46) above, based on the micro-variation discussed in Sections 3.2 and 3.3 in Chapter 2.

Let us start with English subject-auxiliary inversion in questions. As the term indicates, this kind of V2 word order is restricted to auxiliaries and \textit{be}. Strictly speaking, this is not a restriction on V2 in English, but rather a result of the fact that English has lost V-to-I movement for all other verbs than auxiliaries. Nevertheless, this information should be part of the cue for V2 in questions, which could be reformulated as (61). This cue specifies that only inflectional elements (here referred to as I) may be found in second position in questions, and it is expressed in sentences such as (62)–(63). The cue for the elements which may appear in the I position must be part of a separate cue (for V-to-I movement), which does not concern us here.

\begin{itemize}
  \item[(61)] Micro-cue for V2 in \textit{wh}-questions (English): IntP[wh_int^I...]
  \item[(62)] What \textbf{will you} wear tonight?
  \item[(63)] What kind of car \textbf{did you} buy?
\end{itemize}

The cue for V2 in \textit{wh}-questions in the Tromsø dialect must also be more specific. First and foremost, there must be a distinction between long and short \textit{wh}-elements, argued above to correspond to a difference between phrases and heads. Thus, the micro-cue in (64) specifies that the verb obligatorily appears in second position (Int") when the \textit{wh}-element is phrasal. The micro-cue in (65), on the other hand, contains a \textit{wh}-head which may appear in the head position of the IntP itself. The V2 word order that sometimes occurs in these cases is considered to be the result of a lower functional head, the TopP, which is argued to be sensitive to information structure and to attract the verb only when the subject is new or focused information, marked with the \([+\text{FOC}]\) feature. Relevant examples from the Tromsø dialect of the clause types that express these micro-cues in the input are repeated here.

\begin{itemize}
  \item[(64)] Micro-cue for V2 in questions with long \textit{wh}-elements: IntP[XP[+wh] Int^V]
  \item[(65)] Micro-cue for V2 in questions with monosyllabic \textit{wh}-elements: IntP[Int" wh_TopP[ Top^V ... XP[+FOC]]]
  \item[(23b')] \textit{Korsen bil kjøpte du?}
    \begin{itemize}
      \item how/which car bought you
      \item ‘Which car did you buy?’
    \end{itemize}
\end{itemize}
Recall from Chapter 2 that also subject *wh*-questions are special in most dialects that allow non-V2, in that the relative complementizer *som* is inserted after the fronted *wh*-constituent, illustrated in (66). *Som*-insertion is thus a type of purely syntactic non-V2 word order. In Westergaard and Vangsnes (2005), it was argued that *som* is first inserted in a lower head (for licensing reasons) and then moved to the Intº head. This was partly done to capture the similarity between *som*-insertion in some dialects with the general requirement for this element in embedded subject questions in all varieties of Norwegian (see Chapter 2). In the present model, however, different clause types are argued to be independent of one another, and such an analysis becomes unnecessary. The micro-cue for word order in subject questions can thus be formulated as in (67), with *som* in the Intº head.

(66) Kem *som ikkje* kommer til festen?/*Kem kommer ikkje til festen?  who *som* not comes to party.DEF  'Who is not coming to the party?'

(67) Micro-cue for word order in subject questions (Tromsø): IntºP[ XP[+wh] Intº[ som ]] We then move on to exceptions to the micro-cue for V2 in declaratives in (all varieties of) Norwegian. This concerns focus-sensitive adverbs such as *bare* ‘only, just’ and the clause-initial adverb *kanskje* ‘maybe’. In the former case, the exceptional adverbs may optionally intervene between a clause-initial subject and the verb, as in (38), repeated here. The syntactic analysis argued for in Section 3 involves these adverbs being adjoined to FocP and the verb moving to the Focº head. The corresponding micro-cue should therefore be formulated as in (68).

(38) Han *bare svarte* ikkje.  he just answered not  'He simply didn’t answer.'

(68) Micro-cue for word order in subject-initial declaratives with focus-sensitive adverbs: DeclºP[ XP FocºP[ Foc-Adv Focº[ V ]]] Finally, we turn to the optional V2/non-V2 word order involved in declaratives introduced by the adverb *kanskje* ‘maybe’, illustrated in (21), repeated here. Unlike all the other contexts considered so far, the word order in this case seems to be truly exceptional and not related to any significant linguistic distinction. This means that the non-V2 word order appearing with this adverb provides counter-evidence to the micro-cue for word order in other non-subject-initial declaratives, formulated as (46) above, also repeated here. The piece of I-language structure that
a child acquiring non-V2 with *kanskje* 'maybe' must produce would have to be something like that provided in (69), which will be in competition with the more general micro-cue in (46).

(21’)  

\[
\text{Kanskje} \text{kongen kommer.} / \text{Kanskje} \text{kommer kongen.}
\]

maybe king.def come.pres

‘Maybe the king is coming.’

(46’)  

Micro-cue for V2 in declaratives: \[ \text{\text{DeclP}[XP \text{DeclºV}]} \]

(69)  

Micro-cue for word order in declaratives with clause-initial *kanskje* 'maybe': \[ \text{\text{DeclP[ kanskje XP... VP[ V]]}} \]

One question that arises in this connection is whether (69) could be a micro-cue, since it involves a particular language-specific lexical item. This question is also relevant for the structure in (67). For Lightfoot (1999, 2006), a cue is a designated, pre-defined structure, provided by UG, and it would be difficult to argue that children are pre-wired to search for a piece of structure that involves a particular language-specific adverb or complementizer. Nevertheless, children must produce an I-language structure such as (69) in order to acquire this exceptional word order. In the micro-cue approach, cues are not predefined by UG, but children clearly need to be endowed with a rudimentary syntactic system in order to parse the input and formulate the cues. Thus, micro-cues are considered to be I-language structures which make very fine-grained distinctions and which make reference to linguistically relevant categories and subcategories that children are naturally sensitive to. The difference between (69) and the other I-language structures formulated here is that (69) refers to an exceptional case, applying to an individual lexical item only. And in such cases, I would argue, a high input frequency is required for acquisition. As we will see in Chapters 4 and 5, the structure that expresses (69) does indeed have a high input frequency, and it is consequently acquired early. In all other cases, the frequency of a micro-cue will be argued to be relatively unimportant, as children are able to make the relevant linguistic distinctions from early on.

5. **Summary**

In this chapter I have outlined a split-CP model of clause structure, where different clause types are argued to represent different projections expressing illocutionary force, e.g. DeclP, IntP, etc. Variation in V2 word order is considered to be the result of different requirements for verb movement to these head positions. Further variation is dependent on minor distinctions in syntax and information structure. Based on this syntactic model, a cue-based approach to acquisition is developed
and various micro-cues are formulated to account for the acquisition of this word order variation. This means that the search domain for word order cues in the input is only those contexts where the child may find evidence or counter-evidence for a particular word order.

This model is a generative approach that does not seek to explain children’s acquisition by reference to one major parameter. Instead, when learning word order in different contexts, children must acquire a set of smaller-scale cues. This differs from Lightfoot’s (1999, 2006) cue-based approach in that the micro-cues are not themselves provided by UG. Instead, children are assumed to be endowed with categories and structure, and thus the ability to detect fine linguistic distinctions in the input. The formulation of micro-cues in children’s grammars then takes place as an interaction between UG and the input. It is important to emphasize that this approach also differs from a constructivist model in that the micro-cues are not surface strings of word combinations, but pieces of hierarchical I-language structure that make reference to linguistically relevant distinctions.

The children in this study are acquiring the Tromsø dialect, which means that in order to learn the word order of their language, they have to discover the following micro-cues:

(46’) Micro-cue for V2 in declaratives: $\text{DecP}[\text{XP}_{\text{Dec}}\text{V}]

(49’) Micro-cue for V2 in yes/no-questions: $\text{PolP}[\text{Pol}\text{V}]

(58’) Micro-cues for non-V2 in exclamatives: $\text{ExclP}[\text{wh} \ldots \text{VP}(\text{V})]

(59’) Micro-cue for non-V2 in embedded questions: $\text{WhP}[\text{wh} \ldots \text{VP}(\text{V})]

(60’) Micro-cue for non-V2 in embedded declaratives: $\text{IP}[\text{XP} \ldots \text{VP}(\text{V})]

(64’) Micro-cue for V2 in questions with long wh-elements: $\text{IntP}[\text{XP}_{[+\text{wh}]}\text{Int}\text{V}]

(65’) Micro-cue for V2 in questions with monosyllabic wh-elements: $\text{IntP}[\text{Int}^{\text{wh}}\text{TopP}[\text{Top}\ldots \text{V} \ldots \text{XP}_{[+\text{FOC}]})]

(67’) Micro-cue for word order in subject questions: $\text{IntP}[\text{XP}_{[+\text{wh}]}\text{Int}^{\text{som}}]

(68’) Micro-cue for word order in subject-initial declaratives with focus-sensitive adverbs: $\text{DecP}[\text{XP}_{\text{FocP}}\text{Foc-Adv}_{\text{Foc}}^{\text{V}}]

(69’) Micro-cue for word order in declaratives with clause-initial kanskje ‘maybe’: $\text{DecP}[\text{kanskje} \ldots \text{VP}(\text{V})]

It should be noted that the way these micro-cues are formulated, specifying the exact context for their application, they are completely independent of one another. This means that there is no prediction that these micro-cues must be acquired in a particular order. That is, the acquisition of one of these cues is not dependent on prior acquisition of any of the other cues. This is the case also with respect to
micro-cues that may be said to be in competition with each other, such as (46) and (69). When searching for input evidence for these micro-cues, children should thus be equally receptive to these cues at all stages in the acquisition process.

Before considering the child data in Chapters 5–9, we will make an extensive investigation of samples of the adult data in the corpus in terms of the frequencies with which these micro-cues are expressed. This is what we turn to in the next chapter.
CHAPTER 4

The input

1. Introduction

In this chapter we study some samples of child-directed speech in order to investigate how frequently the different micro-cues are expressed in typical input to children. According to the model developed in the previous chapter, the children in this study have to internalize the following micro-cues in their I-language grammars in order to reach the target system:

1. Micro-cue for V2 in declaratives: $\text{DeclP}[\text{XP}_{\text{Decl}} V]$
2. Micro-cue for V2 in yes/no-questions: $\text{PolP}[\text{Pol} V]$
3. Micro-cues for non-V2 in exclamatives: $\text{ExclP}[wh \ldots \text{VP}(V)]$
4. Micro-cue for non-V2 in embedded questions: $\text{WhP}[wh \ldots \text{VP}(V)]$
5. Micro-cue for non-V2 in embedded declaratives: $\text{IP}[\text{XP} \ldots \text{VP}(V)]$
6. Micro-cue for V2 in questions with long $wh$-elements: $\text{IntP}[\text{XP}[+wh] \text{Int} V]$
7. Micro-cue for V2 in questions with monosyllabic $wh$-elements: $\text{IntP}[\text{Int} wh \text{TopP}[\text{Top} V \ldots \text{XP}[+FOC]]]$
8. Micro-cue for word order in subject questions: $\text{IntP}[\text{XP}[+wh] \text{Int} [som]]$
10. Micro-cue for word order in declaratives with clause-initial $\text{kanskje}$ ‘maybe’: $\text{DeclP}[\text{kanskje} \text{XP} \ldots \text{VP}(V)]$

The chapter is organized as follows: In the next section I briefly discuss the role of the input in language acquisition in general, comparing the present model of micro-cues both to a parameter theory within the generative framework and a constructivist model of language acquisition. In Section 3 I provide an overview of the frequency of the relevant clause types in a sample of child-directed speech, discussing what the relevant total is for the calculation of these frequencies. In Subsection 4.1 I discuss the frequency of word order variation that is dependent on individual lexical items in $wh$-questions and non-subject-initial declaratives, and Subsection 4.2 presents results from all the adults in the corpus on the optionality of V2 vs. non-V2 in $wh$-questions with monosyllabic question words, showing
that there is extreme variation in the proportions of each word order produced. Finally, Section 5 contains a brief summary of the chapter.

2. The role of the input

In the previous chapter I provided an account of the syntactic structures underlying V2 word order in several adult languages. These are the systems that children must internalize in the process of language acquisition. But as is well known, children are not taught a grammar. And given the considerable variation among languages, the structures discussed in the previous chapter cannot be provided by UG either. Thus, in order to arrive at the target grammar, children must to a large extent rely on the input.

In the previous chapter I also formulated a number of micro-cues for the acquisition of these word order patterns, just provided above. These are small pieces of syntactic structure that children produce in their I-language grammars on exposure to the relevant triggers in the input. This means that the micro-cues are not themselves given by UG, as in Lightfoot’s (1999, 2006) original cue-based model. Nevertheless, there is still a place for a genetic language faculty in the model of micro-cues. In Chapter 1, Section 2, I identified the important ingredients of the acquisition process as in (11):

(11) Children build syntactic structure based on:
    a. UG (universal categories/features and basic syntactic operations)
    b. input
    c. economy principles

That is, in order to be able to parse the incoming word strings, children must be endowed with a syntax. This linguistic system is assumed to consist of syntactic primitives in the form of (sub-)categories and features as well as general principles of structure building, i.e. whatever syntactic operations that linguistic theory assumes to exist (e.g. Merge and Move, i.e. internal Merge).¹ This enables the child to identify and label the individual components of the input and recognize the syntactic relationship between them. The acquisition process is thus an interaction between this rudimentary syntax and the input strings expressing the micro-cues, resulting in specific syntactic structures in the children's I-language grammars. That is, the micro-cues are part of a speaker's knowledge of a particular language, not part of the genetic endowment for language. In turn, the micro-cues trigger

¹. For the model of micro-cues, it is irrelevant exactly what these operations are. Hornstein (2009), for example, argues that the basic operations are Concatenate, Copy and Label.
the syntactic operations necessary to derive the syntactic structures that correspond to target-consistent output. Needless to say, this is a superficial sketch of how this interaction between UG and input might work in the acquisition process, and the actual procedure used by children when internalizing the micro-cues into their language-specific grammar is somewhat unclear. Similarly, the status of the micro-cues in an adult grammar is not completely worked out with respect to the syntactic operations that are triggered by micro-cues. Unfortunately, these issues must be left to further research.

The general approach to acquisition taken here is not only different from traditional parameter theory, but also models where children are assumed to compare different grammar types and discard those which are disfavored by the statistical frequencies in the primary linguistic data, e.g. Yang’s (2002) competition model. It is also distinct from constructivist acquisition theory (e.g. Tomasello 2003, 2006 or Theakston, Lieven, Pine, and Rowland 2004). In the latter framework, it is assumed that children store the input as linear chunks without any hierarchical structure. Furthermore, in constructivist accounts, input is given primary importance and frequency is often used as the major explanation for acquisition orders as well as children’s occasional non-target-consistent forms (e.g. Rowland and Pine 2000, 2003). In the model of micro-cues, on the other hand, input is seen as an important factor, but one that has an effect only in connection with other factors such as economy and syntactic complexity.

In Lightfoot’s (1999, 2006) model of cue-based acquisition, frequency also plays a role, particularly in relation to historical language change, which is Lightfoot’s major concern. Change can be explained by acquisition in terms of the frequency of the cues in the primary linguistic data. That is, Lightfoot argues that cues must be robustly expressed in the input for the corresponding structures to be acquired by children. If, on the other hand, the frequency of a cue falls below a certain threshold, children may ignore it and develop an I-language grammar that is different from that of the previous generation.

Lightfoot (1999: 156) also suggests a critical level of input frequency for V2, based on some historical data from English (attributed to Ans van Kemenade), which is traditionally assumed to have lost V2 word order in declaratives during the Middle English period, see e.g. van Kemenade (1987). In a text from the early 13th century (Sawles Warde), there is a frequency of V2 non-subject-initial declaratives (the clause type expressing the cue for V2) of only 17% (26/152). As V2 was lost in the middle of the following century, Lightfoot speculates that this percentage was not robust enough for children to pick up the cue. In comparison, Lightfoot (1999: 153) claims that “statistical counts for Dutch, German, Norwegian, and Swedish show that [the initial XP of the clause] is a subject about 70 percent of the time”, and that “presumably it is those 30 percent non-subjects which are a
crucial trigger for inducing children to postulate [a V2 grammar],” see also Lightfoot (1993). Based on these figures, Lightfoot suggests that the critical level of input frequency for the acquisition of V2 may be somewhere between 17 and 30% (of all matrix clauses).²

The investigation of child-directed speech in this chapter reveals that input frequencies for the micro-cues are considerably lower than this, and in the following chapters presenting the child language data, it will be shown that children nevertheless acquire the corresponding structures at an early age. Thus, one of the main arguments of this book is that input frequencies cannot be calculated on the basis of the total input, but must be considered in relation to relevant contexts that may provide evidence or counter-evidence for the cue in question, i.e. in terms of micro-cues. Furthermore, the critical level of input frequency must also be considerably lower than what was suggested in Lightfoot (1999).

3. Input frequencies of different clause types

In order to investigate the frequencies of V2 and non-V2 word orders in typical input to children, a sample of approximately 2,600 utterances of the adult material from the corpus of child language has been investigated in detail. A somewhat smaller sample of the adult data was investigated in Westergaard (2006). The present sample consists of the production of three adults taken from four one-hour files, two from one of the mothers at an early stage (age of child 1;10.23–1;11.22), and one each of the two investigators (age of the children 2;6.21 and 3;1.8). One-word utterances and sentence fragments have been excluded, while all remaining matrix and embedded clauses have been classified according to clause type and calculated in terms of input evidence for V2 or non-V2. Not all clause types are relevant for this distinction, however, e.g. imperatives or subject-initial declaratives without negation or an adverb, which provide evidence for neither word order. Because of this, percentages do not add up to 100%. At the end of Chapter 2, there was an overview of the clause types that require V2 and those that require or allow non-V2. Table 4.1 is a similar

². It should be noted that, according to Lightfoot (1999: 154), there is no reason to believe “that there is anything magical about the 30 percent figure”, nor that there is “a general, cross-cue definition of robustness.” This means that other cues may have a different threshold of input frequency for acquisition.
Table 4.1  Word order in a sample of child-directed speech (2,627 utterances), with percentages relative to the total number of clauses (matrix and embedded, N=2,097)

<table>
<thead>
<tr>
<th>Evidence for V2</th>
<th>Evidence for non-V2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject-initial declaratives with adverbs/negation</td>
<td>Subject-initial declaratives with focus-sensitive adverbs (e.g. bare 'just')</td>
</tr>
<tr>
<td>6.2% (130)</td>
<td>0% (0)</td>
</tr>
<tr>
<td>Non-subject-initial declaratives w/ &quot;kanskje 'maybe'&quot;</td>
<td>1.9% (39)</td>
</tr>
<tr>
<td>13.6% (286)</td>
<td></td>
</tr>
<tr>
<td>Yes/no-questions</td>
<td>Exclamatives</td>
</tr>
<tr>
<td>30.8% (645)</td>
<td>0.4% (9)</td>
</tr>
<tr>
<td>Wh-questions w/ phrasal wh</td>
<td>Embedded questions</td>
</tr>
<tr>
<td>0.3% (7)</td>
<td>1.6% (34)</td>
</tr>
<tr>
<td>Wh-questions w/ monosyll. wh + Su=new info</td>
<td>Embedded clauses with adverbs/negation</td>
</tr>
<tr>
<td>3.2% (66)</td>
<td>0.1% (3)</td>
</tr>
<tr>
<td>Embedded clauses with adverbs/negation</td>
<td>0.7% (14)</td>
</tr>
<tr>
<td>0.1% (3)</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>Total</td>
</tr>
<tr>
<td>54.2% (1,137)</td>
<td>10.1% (212)</td>
</tr>
</tbody>
</table>

Table, displaying frequencies of the clause types that provide evidence for the two word orders in the input sample.

If we combine the various types of V2 constructions, there is as much as 54.2% (1,137/2,097) evidence for V2 in the input sample, with yes/no-questions and non-subject-initial declaratives being the most frequent clause types, making up 13.6% and 30.8% of the total input respectively. A first conclusion from the figures in this table is thus that the first two micro-cues that Tromsø children have to discover, for V2 in non-subject-initial declaratives and yes/no-questions, repeated here, must be said to be very robustly attested. Some examples from the input sample are provided in (12)–(13).

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3. It should be noted that some of the utterances in the file have been counted twice, and occasionally even as three sentence types. For example, all main clauses with negation (or adverbs) have also been counted as one of the principal clause types listed in the first four rows of the table. Thus, the utterance in (i) has been counted both as an imperative and as an embedded clause with negation, while the utterance in (ii) has been counted as a subject-initial declarative as well as a yes/no-question.

(i) pass på at den ikkje faller over.  (inv, File Ole.14)
   watch on that it not falls over
   ‘Watch out so it doesn’t fall over.’

(ii) du lukke ingen oppi der var det det du sa?  (inv, File Ole.14)
    you close no-one up-in there was it that you said
    ‘You let no one in there – is that what you said?’
(1') Micro-cue for V2 in declaratives: $\text{DeclP}[\text{XP DeclºV}]$

(2') Micro-cue for V2 in yes/no-questions: $\text{PolP}[\text{PolºV}]$

(12) sånn # no  **skulle det fungere her.**
    such # now  should it  function here
    ‘Like this – now it should work.’

(13) **skal vi lukke den igjen?**
    shall we close  it  shut
    ‘Should we close it?’

It is somewhat unclear whether subject-initial declaratives such as (14), making up 6.2% of the input sample, may also function as a trigger for the cue in declaratives in (1). In most accounts of V2 in Norwegian, it is assumed that the finite verb in this clause type has also moved to C, the second position of the clause, and that the structure is the same as for non-subject-initial clauses. But this would require some generalization from non-subject-initial to subject-initial clauses in the child grammar, as in isolation, subject-initial declaratives only express that verbs move to some position above an adverb or negation, not that it necessarily moves to C. That is, when considered separately, these clauses could be parsed as having verb movement to a lower position only, e.g. to I as in Icelandic. Thus, they could be interpreted as expressing the cue for V-to-I movement in (15), cf. Chapter 3, Section 4.2.

(14) æ **trur ikkje det er plass til han …**
    I  believe not it  is room for him
    ‘I don’t think there is room for him…’

(15) **Micro-cue for V-to-I-movement: IP[ XP IºV]**

Note also that the total percentage of V2 word order is considerably higher than the 30% Lightfoot (1999) estimated as a typical proportion of V2 in the input to children acquiring present-day V2 languages. In fact, Lightfoot includes only main clauses in his calculations, as embedded contexts are argued never to provide cues for children, according to the concept of degree-0 learnability.\(^4\) If only main clauses are included here, the evidence for V2 is even more robustly attested: The total

\(^4\) Degree-0 learnability is an idea that learners scan the environment for cues only in simple syntactic domains, i.e. unembedded contexts (see e.g. Lightfoot 1999: 167–174, where this is used to explain the development of VO word order in the creole language Berbice Dutch, which is based on Dutch and Ijo, both OV languages with verb-second in main clauses). Degree-0 learnability is not adopted in this book, due to the microvariation found in embedded clauses, e.g. between Norwegian and Icelandic or between different types of embedded clauses (see above). If children were to only consider main clauses in the acquisition process, there would be no cues for these distinctions.
number of main clauses in the sample is 1,713, and the 1,134 examples with V2 (1,137 minus the 3 examples of V2 in embedded clauses in Table 1) make up as much as 66.2%. The reason for this discrepancy is presumably that Lightfoot’s calculations are based on conversations among adults and not child-directed speech, which, as we see in Table 4.1, contains an extremely high number of questions, especially yes/no-questions.

Comparing the overall percentages of the two word orders, we find that the evidence for non-V2 in the sample is much more sparse, altogether only 10.1% (212/2,097). Most of the non-V2 clause types are represented in the input with only minor percentages, e.g. exclamatives 0.4% or embedded questions 1.6%, expressing the micro-cues in (3) and (4), illustrated by examples from the corpus in (16) and (17).

(3’) Micro-cues for non-V2 in exclamatives: \( \text{ExclP}[wh \ldots \text{VP}[V]] \)

(4’) Micro-cue for non-V2 in embedded questions: \( \text{WhP}[wh \ldots \text{VP}[V]] \)

(16) så flink du er! (INV, Ole.14)
so/how clever you are
‘How good you are!’

(17) vet du ka slags farge det er? (INV, Ole.14)
know you what kind color it is
‘Do you know what color is is?’

Embedded declaratives, expressing the cue in (5), are also relatively infrequent, an example being provided in (18). In this case, there are also occasional examples with verb movement, illustrated in (19), cf. Chapter 2 (Bentzen 2005, 2007, Westergaard and Bentzen 2007).

(5’) Micro-cue for non-V2 in embedded declaratives: \( \text{IP}[XP \ldots \text{VP}[V]] \)

(18) da sitt den så langt unna at # den ikkje kommer borti. (INV, Ole.14)
then sits it so far away that it not comes touching
‘Then it sits so far away that it doesn’t touch it.’

(19) æ trur han må bare sitte der. (INV, file Ole.14)
I think he must only sit there
‘I think he just has to sit there.’

From the perspective of parameter setting, this means that V2 word order should be acquired early, and possibly overgeneralized to the less frequent non-V2 contexts. From the perspective of a usage-based model of acquisition, these frequency differences would also predict that V2 word order should be acquired before non-V2.
However, if cues are of a smaller scale than what was argued by Lightfoot (2006), then input frequencies expressing a particular micro-cue must be calculated in relation to a smaller set of utterances in the input, viz. the total number of sentences of the same clause type. This means that micro-cues for word order are much more robustly attested in the input than the percentages in Table 4.1 indicate. In fact, for most clause types, the cue is expressed in 100% of all relevant utterances. This is the case both in yes/no-questions and in exclamatives, despite their very different frequencies in the overall input (30.8% vs. 0.4%). This means that calculating input frequencies based on the total number of sentences is in fact irrelevant to the explanation of word order acquisition. On this perspective, it is also expected that children should acquire both word orders at an early stage and not overgeneralize from one clause type to another. As will be shown in the chapters on child language data, this is generally found to be the case.

4. Frequencies of mixed word order within clause types

4.1 Word order dependent on further micro-cues

In this section we consider word order that is dependent on even finer micro-cues than those expressed by different clause types. The most obvious distinction is the one related to the category of the initial element as phrases or heads in wh-questions, i.e. the long and short wh-elements. As discussed in the previous two chapters, the long wh-elements, which are phrases, require V2, while the monosyllabic ones, which are heads, allow either word order. The choice of the two word orders in the latter case is based on information structure. In the input sample, there is a very small number of questions introduced by disyllabic wh-elements, only 7 examples, one of which is provided in (20). This corresponds to as little as 0.3% of the overall input, and even when this number is related only to the relevant total, i.e. all wh-questions, the percentage is only 3.8% (7/183). This means that the micro-cue in (6) is expressed relatively rarely in the input.

(20) ja men korsen kan han kjøre bilen da # hvis han ikkje har fingran på rattet? (INV, Ole.14)

yes but how can he drive car.DEF then if he not has finger.DEF/PL on wheel.DEF

‘But how can he drive the car then, if he doesn’t have his hands on the wheel?’

(6’) Micro-cue for V2 in questions with long wh-elements: \[\text{IntP[ XP[+wh] IntºV]}\]

Furthermore, as mentioned in Chapters 2 and 3, some dialects also allow non-V2 word order after the long wh-elements, most notably dialects spoken in the western part of the country, e.g. Nordmøre. This has also been attested in certain rural
areas north of Tromsø, see Nilsen (1996) and Sollid (2003). This is marginally the case in the dialect area that the parents of one of the children (Ann) come from, Kåfjord, and they occasionally produce this word order themselves. In Westergaard (2005a), it was found that Ann's mother produces 14.1\% (13/92) non-V2 after long \textit{wh}-elements in the corpus as a whole, while the father produces 66.6\% (6/9). This means that one of the children is to some extent exposed to input where non-V2 word order also appears in this context.

Subject questions, which are different from other \textit{wh}-questions in that they require non-V2 word order in the form of the complementizer \textit{som} in second position, are also attested with a very low frequency in the input. The number of subject questions in the sample is 6, making up only 0.3\% of the total number of complete sentences.\footnote{In addition to the regular subject questions, there are a few examples of subject questions as clefts, and then either word order may appear, illustrated by V2 in (i) and non-V2 in (ii):}

(21) \textit{ka som} skjer da # huh? \hspace{1cm} (INV, Ole.14)

\hspace{1cm} what \textit{som} happens then huh

‘What happens then, huh?’

(8’ \textsuperscript{a}) Micro-cue for word order in subject questions: \textit{\text{IntP[XP [+wh] Intº[ som ]]}},

Even less frequent are subject-initial declaratives with focus-sensitive adverbs, expressing the micro-cue in (9), repeated here. In fact, there is not a single example in the input sample of such an adverb in a non-V2 construction in Table 4.1. For this reason, the whole corpus of the three adult speakers was checked with respect to these particular adverbs, and the result is displayed in Table 4.2, see (22) for an
example. It turns out that only one of these adverbs is attested at all, viz. ‘bare ‘only, just’, and as we see, the frequency of the non-V2 construction involving this adverb is extremely low across all files in the corpus, occurring only 0.07%, or once per 1,347 utterances.

(9’) Micro-cue for word order in subject-initial declaratives with focus-sensitive adverbs: $\text{DeclP[ XP $\text{FocP[ Foc-Adv Focº[ V ]]}$]}

(22) han bare leke med den ja. (INV, Ole.22)
He just plays with it yes
‘He is just playing with it.’

But also in this case, the overall number of utterances in the sample cannot constitute the relevant total to use for comparison. Instead, this number should be related to the number of subject-initial declaratives with adverbs/negation in the sample of 30,976 utterances in Table 4.2. This is an unknown figure, but based on the numbers in Table 4.1 (130 such examples out of 2,627, or 4.9%) it is possible to estimate it as 1,518 (4.9% of 30976). The relevant input frequency for ‘bare’ thus increases to 1.9% (29/1,518), which is of course considerably higher than 0.07%, but still quite low, especially compared to Lightfoot’s suggestion for the critical level for acquisition of V2 (17–30%).

Finally in this section, we consider the exceptional status of non-subject-initial declaratives introduced by ‘kanske ‘maybe’, which may appear with either V2 or non-V2 in the adult grammar. Sentences with the latter word order express the I-language structure in (10), and (23) provides an example from the corpus.

(10’) Micro-cue for word order in declaratives with clause-initial ‘kanske ‘maybe’: $\text{DeclP[ kanske XP... Vp[ V]]}

(23) kanske dem har spist opp all polsa. (INV, Ina.25)
maybe they have eaten up all sausage.DEF
‘Maybe they have eaten up all the sausage.’

As we see in Table 4.1, there are 39 examples in the input sample with non-V2 word order following this adverb, making up 1.9% of the total. In comparison,
there are only two examples with V2, which means that the three adults in the sample have a clear preference for non-V2 word order in these cases (95.1%, 39/41). Similar percentages are found in other adult corpora, e.g. 95.4% (125/131) in the NoTa corpus of spoken Norwegian (Oslo dialect), see Westergaard (2008b). 1.9% of the total input is relatively low, but as I have argued above, this is not an appropriate calculation. According to the micro-cue model, the relevant search domain is not all utterances or all complete clauses, but the total number of a specific clause type, in this case declaratives. Since it is also necessary to only consider the environments that may unambiguously provide evidence (or counter-evidence) for the micro-cue, the search domain must be further restricted to all non-subject-initial declaratives. There are 286 such examples in the sample (with V2) plus the 39 non-V2 examples with kanskje ‘maybe’. This means that the relevant total is 325, and the 39 examples thus make up 12%, considerably more than 1.9%. In Chapter 5 we will see that this is clearly a sufficient input frequency for early acquisition, even in this exceptional case.

4.2 Word order based on information structure

The perhaps most interesting aspect of the language being acquired by the children in this study is the ‘optional’ V2/non-V2 word order in questions with mono-syllabic question words, a result of the micro-cue in (7). All the adult data in the corpus have therefore been searched for these constructions, for all eight adults, and the results have been discussed in various publications, see Westergaard (2009a) for the most extensive account. Based on a study of only one of these speakers, Westergaard (2003) argued that the choice between the two word orders is based on information structure, non-V2 being chosen with informationally given subjects and V2 with informationally new or focused subjects, illustrated in (24a, b) from Chapter 2. Thus, V2 typically appears with full DP subjects and the verb be, while non-V2 is used with pronominal subjects and other verbs.

(7’) Micro-cue for V2 in questions with monosyllabic wh-elements:

\[ \text{IntP}\left[ \text{Int}^* \text{wh TopP}\left[ \text{Top}^* \text{V } \ldots \text{XP}[\text{FOC}] \right] \right] \]

(24) a. kor er skoan hannen henne? (INV, Ole.17) V2

where are shoe.DEF/PL his LOC

‘Where are his shoes?’

b. kor dem er henne? Non-V2

where they are LOC

‘Where are they?’
Unlike the optional word order in declaratives introduced by the adverb _kanskje_ 'maybe', which is surprisingly stable across speakers (see above), the word order in questions with monosyllabic question words varies considerably from speaker to speaker, from as little as 2.5% V2 to as much as 68.4%. This is illustrated in Table 4.3. Another striking feature of the adult production is that there seems to be considerably more non-V2 word order with _ka_ ‘what’ than with the other two question words.

As also discussed in Westergaard (2009a), the production of the eight adult speakers may also be divided into three distinct V2 grammars based on information structure; a mixed grammar, where the two word orders are clearly preferred in different contexts, a grammar where non-V2 is the default word order appearing with all subject types and V2 surviving only in special cases, and finally a default V2 grammar, where the status of the two word orders is the other way around. This is illustrated in Tables 4.4, 4.5, and 4.6 respectively, for three individual speakers. The remaining five speakers may all be considered to have a default non-V2 grammar, see Westergaard (2009a) for further information on this micro-variation.

### Table 4.3 Percentage of V2 produced by adult speakers, monosyllabic _wh_-words

<table>
<thead>
<tr>
<th>Speaker \ <em>wh</em>-word</th>
<th><em>ka</em> ‘what’</th>
<th><em>kor</em> ‘where’</th>
<th><em>kem</em> ‘who’</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>FAT Ann.01–21</td>
<td>1.1 (1/88)</td>
<td>– (0/17)</td>
<td>15.4 (2/13)</td>
<td>2.5 (3/118)</td>
</tr>
<tr>
<td>INV Ina.01–27</td>
<td>1.5 (9/598)</td>
<td>16.5 (13/79)</td>
<td>6.1 (12/196)</td>
<td>3.9 (34/873)</td>
</tr>
<tr>
<td>FAT Ina.01–27</td>
<td>6.1 (10/165)</td>
<td>36.4 (8/22)</td>
<td>12.5 (4/32)</td>
<td>10.0 (22/219)</td>
</tr>
<tr>
<td>MOT Ann.01–21</td>
<td>8.7 (46/527)</td>
<td>17.6 (23/131)</td>
<td>39.8 (45/113)</td>
<td>14.8 (114/771)</td>
</tr>
<tr>
<td>MOT Ole.01–22</td>
<td>12.5 (15/120)</td>
<td>42.9 (9/21)</td>
<td>11.8 (2/17)</td>
<td>16.5 (26/158)</td>
</tr>
<tr>
<td>MOT Ina.01–27</td>
<td>20.2 (68/336)</td>
<td>50.8 (30/59)</td>
<td>51.0 (49/96)</td>
<td>29.9 (147/491)</td>
</tr>
<tr>
<td>INV Ole.13–22</td>
<td>31.9 (58/182)</td>
<td>56.7 (38/67)</td>
<td>78.4 (40/51)</td>
<td>45.3 (136/300)</td>
</tr>
<tr>
<td>FAT Ole.01–22</td>
<td>51.9 (27/52)</td>
<td>81.8 (27/33)</td>
<td>92.9 (13/14)</td>
<td>68.4 (67/98)</td>
</tr>
</tbody>
</table>

### Table 4.4 Percentage of V2 with different subject and verb combinations in non-subject questions with monosyllabic _wh_-words, mixed grammar, 45.3% V2 (INV Ole, Tromsø)

<table>
<thead>
<tr>
<th>Subject \ Verb</th>
<th><em>være</em> ‘be’</th>
<th>Other V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full DP/det</td>
<td>82.6% (128/155)</td>
<td>20.8% (5/24)</td>
</tr>
<tr>
<td>Pronoun</td>
<td>20% (1/5)</td>
<td>1.7% (2/116)</td>
</tr>
</tbody>
</table>
Table 4.5  Percentage of V2 with different subject and verb combinations in non-subject questions with monosyllabic \textit{wh}-words, default non-V2 grammar, 16.5\% V2 (MOT Ole, Tromsø)

<table>
<thead>
<tr>
<th>Subject \ Verb \</th>
<th>\textit{være} ‘be’</th>
<th>Other V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full DP/det</td>
<td>33.3% (16/48)</td>
<td>17.9% (5/28)</td>
</tr>
<tr>
<td>Pronoun</td>
<td>– (0/4)</td>
<td>6.4% (5/78)</td>
</tr>
</tbody>
</table>

Table 4.6  Percentage of V2 with different subject and verb combinations in non-subject questions with monosyllabic \textit{wh}-words, default V2 grammar, 68.4\% V2 (FAT Ole, Tromsø)

<table>
<thead>
<tr>
<th>Subject \ Verb \</th>
<th>\textit{være} ‘be’</th>
<th>Other V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full DP/det</td>
<td>94.9% (37/39)</td>
<td>62% (18/29)</td>
</tr>
<tr>
<td>Pronoun</td>
<td>– (0/1)</td>
<td>40% (12/30)</td>
</tr>
</tbody>
</table>

All this variation means that it is impossible to know exactly what the input to the children is in terms of relative frequencies of the two word orders. Note, for example, that Ole’s parents produce very different proportions of V2. Furthermore, as mentioned in Chapter 1, all children have been in daycare from about the age of one, and they are exposed to the speech of several different adults and other children every day. This means that children are faced with a considerable challenge in the acquisition of the micro-cue in (7).

5. Summary

In this chapter we have studied samples of child-directed speech from the Tromsø corpus in order to investigate the frequency with which the micro-cues identified in Chapter 3 are expressed in the input. The findings show that clause types with V2 word order are attested quite frequently, with \textit{yes/no}-questions and non-subject-initial declaratives making up the majority. In fact, V2 is considerably more frequent than has previously been suggested, e.g. by Lightfoot (1999). The various clause types with non-V2 word order constitute approximately 10\% of the input, with declaratives with focus-sensitive adverbs, subject questions, and exclamatives being the least frequent ones. Non-subject-initial declaratives with the initial adverb \textit{kanskje} ‘maybe’, on the other hand, are attested relatively frequently in the input with exceptional non-V2 word order. With respect to the ‘optional’ word order in questions with monosyllabic \textit{wh}-elements, there is considerable variation across different speakers as to the proportion of V2 vs. non-V2, and three different grammars were identified based on information structure.
More important than the actual frequencies attested in this chapter is the argument that input frequencies should not be calculated on the basis of the total input. In order to acquire target-consistent word order in the different contexts, children must pay attention to fine distinctions in syntax and information structure. These are formulated as micro-cues. If children are sensitive to these cues, they will focus on the relevant contexts only, and all other contexts will be irrelevant for the acquisition of the I-language structure that constitutes a micro-cue. That means that input frequencies for the particular cues are relatively high, in many cases 100%. According to the model of micro-cues then, it is to be expected that children should acquire the word order of the different contexts more or less immediately. In the remainder of the book, we consider the Norwegian child data from the corpus with respect to the relevant constructions. Chapters 5 and 6 focus on the acquisition of word order in non-subject-initial and subject-initial declaratives respectively. Chapters 7 and 8 investigate the children’s behavior in *wh*- and *yes/no*-questions. And Chapter 9 discusses various non-V2 contexts. The last chapter considers the findings from the child data in relation to the model of micro-cues, patterns of information structure, and principles of economy.
CHAPTER 5

The acquisition of word order in non-subject-initial declaratives

1. Introduction

In this chapter I present the child data from the Norwegian corpus on word order in non-subject-initial declaratives. As shown in previous chapters, this clause type displays V2 in Standard Norwegian as well as the Tromsø dialect. The only exception to this is sentences introduced by the adverb *kanskje* ‘maybe’. This means that the relevant micro-cues are formulated as in (1) and (2), repeated from Chapter 3. These are expressed in sentences such as (3) and (4) from the input sample studied in Chapter 4.

(1) Micro-cue for V2 in declaratives: $\text{DeclP[XP}_{\text{Decl}} \text{V]}$

(2) Micro-cue for word order in declaratives with clause-initial *kanskje* ‘maybe’: $\text{DeclP[ kanskje XP... VP \{ V \}]}$

(3) sånn # no *skulle det fungere her.* (INV, Ole.14)
   such # now should it function here
   ‘Like this – now it should work.’

(4) *kanskje dem har* spist opp all pølsa. (INV, Ina.25)
   ‘Maybe they have eaten up all the sausage.’

According to the input sample investigated in the previous chapter (see Table 4.1), non-subject-initial declaratives with V2 are attested in the children’s input 13.6% (286/2,097), and the exceptional word order in sentences introduced by *kanskje* ‘maybe’ 1.9% (39/2,097). Both of these percentages are much lower than the critical level for acquisition suggested by Lightfoot, i.e. between 17% and 30% (of all matrix clauses). However, in the model of micro-cues outlined in previous chapters, it was argued that input frequencies should not be calculated on the basis of all utterances or all complete clauses, but on the number of relevant contexts only. For the two cues at hand, this means all non-subject-initial declaratives, the total of which is 325 (286+39). The relevant input frequency for the two micro-cues in (1) and (2) is thus 88% (286/325) and 12% (29/325) respectively. This means that there should at
least be ample evidence in the input for the former cue that non-subject-initial declaratives require verb movement and V2 word order in Norwegian.

In order to study the children’s production of non-subject-initial declaratives, an extensive hand search of the corpus was carried out. The target structures require at least a three-word string, consisting of an initial non-subject, a verb, and a subject. Therefore all child utterances containing three words or more were investigated. Due to the very high number of non-subject-initial declaratives in the later files, complete quantitative data have only been calculated for the first ten files of each of the three children, while all files have been searched for non-target-consistent forms. For the investigation of V1 structures as well as subjectless constructions (see Sections 3.4 and 3.3 below), all child utterances of two words or more in length have been used, from a selection of the relevant files.

This chapter is organized as follows: In the next section, I outline some previous research on the acquisition of V2 in other languages and discuss some of the predictions that can be made for Norwegian based on this. Then, in Section 3, I provide an overview of the children’s production of V2 word order, focusing on very early production, the question of finiteness, subjectless examples, and V1 constructions. Section 4 provides an overview of the children’s production of non-V2 word order, first the target-consistent forms involving clause-initial *kanskje ‘maybe’*, and then the non-target-consistent examples, which are discussed in terms of finiteness and information structure. Finally, Section 5 summarizes the chapter.

2. Previous research and predictions

2.1 Introduction: Acquisition vs. rote learning

In previous studies of the acquisition of word order, it has been shown that V2 is attested early in child language data, e.g. Clahsen (1986, 1988) and Poeppel and Wexler (1993) for German, de Haan (1987) and Jordens (1990) for Dutch, and Santelmann (1995), Platzack (1996) and Waldmann (2008) for Swedish. But opinions vary with respect to the question whether this word order reflects actual acquisition of verb movement. In much of the early work, e.g. Clahsen (1986), Jordens (1990), or Clahsen, Penke, and Parodi (1992), it is assumed that the earliest examples of V2 in child data (e.g. *wh*-questions involving *was ‘what’* or *wo ‘where’* and the verb *be*) were simply rote learned chunks and that verb movement was acquired relatively late. Also constructivist models, such as Tomasello (2003, 2006), take this approach and argue that children have no syntax or rules at all at an early stage, but simply imitate word combinations that are frequent in the input. This has especially been argued to hold for subject-auxiliary inversion in English questions, see
e.g. Rowland and Pine (2000, 2003). In work arguing for the continuity model, on the other hand, which generally assumes that the child grammar is no different from the adult grammar, V2 is typically claimed to be acquired more or less immediately. For example, Poeppel and Wexler (1993) argue for full competence in the grammar of the German child Andreas, investigated at age 2;1. And as mentioned in Chapter 2, Wexler (1999a) argues for early setting of parameters (VEPS), including V2, which means that verb movement should be in place in the children's syntax already before they start producing relevant utterances. In order to decide between these approaches, it is important to consider the variety of elements involved in these constructions in the child data at an early stage – the verbs, the subjects, as well as the initial non-subject. This is the focus of Section 3.1 below.

2.2 Economy

Ideas of economy have also frequently been used to explain processes of language acquisition in recent years, especially within minimalism, see Chomsky (1993, 1995). An important example of a minimalist approach to language acquisition is Platzack (1996), who discusses child data from Swedish and argues for what he calls the Initial Hypothesis of Syntax (IHS), which claims that children will start assuming that all syntactic features in the language they are acquiring are weak. Since movement is assumed to be triggered by strong features, the IHS entails that children initially assume that there is no movement. What children have to learn about their particular languages is which features are strong and therefore require movement of a category to be checked before spell-out. Platzack also assumes (with Kayne 1994) that there is only one underlying word order provided by UG, viz. SVO. Since English happens to have this word order, English-speaking children have no extra work to do with respect to the acquisition of basic word order: UG assumes underlying SVO, the IHS specifies that all features are weak – and target-consistent word order is in place immediately in English child language. For a V2 language such as Swedish, on the other hand, what children have to learn is that there is a strong feature in C that attracts the verb, and this will be learned from exposure to positive evidence in the input. Once that has been acquired, V2 should fall into place simultaneously in all clause types that require it.

According to the IHS, early child language in V2 languages should thus exhibit a stage where there is no verb movement, or at least traces of such a stage. Platzack supports his idea by providing occasional examples lacking verb movement from the early acquisition of Swedish, illustrated by the non-subject-initial
declarative in (5), from Platzack (1996: 376).\textsuperscript{1} According to Platzack, the occasional mistakes that children make are due to the parameter of verb movement not being completely automatized yet in the brains of very young children.

\begin{quote}
\begin{footnotesize}
\begin{align*}
\text{(5)}
\ & \text{där han bor.} \\
\ & \text{there he live.pres} \\
\ & \text{‘There he lives.’ Target form: Där bor han.}
\end{align*}
\end{footnotesize}
\end{quote}

Based on this, it is to be expected that target-consistent V2 word order should be attested in early non-subject-initial declaratives also in this Norwegian corpus, as well as some non-target forms, displaying non-V2. The Swedish children studied by Santelmann (1995) were found to make more word order mistakes in non-subject-initial declaratives than in \textit{wh}-questions – approximately 4.2\% compared to only 1.1\% in questions. Comparable findings are thus predicted in the Norwegian data, see Sections 3.1 and 4.2.

If the trigger for V2 is the existence of a strong feature in C, as argued for by Platzack (1996), then all V2 constructions should function as evidence for verb movement – e.g. the word order found in \textit{wh}-questions should also have an effect on verb movement in declaratives. Since the dialect spoken by the three children in this study also allows non-V2 \textit{wh}-questions, it could be said that the trigger for V2 in general is weaker than in Swedish, and it might be expected that these Norwegian children produce more word order mistakes in declaratives than the Swedish children studied by Santelmann. However, if Santelmann is right that the trigger for verb movement is different in the three constructions that require it, then we would not expect to see such a spill-over effect from one clause type to another. According to the syntactic model argued for in Chapter 3, V2 word order is the result of verb movement to different heads in the CP domain, and it is therefore assumed that the trigger for V2 has to be learned separately for different clause types. Thus, children are not expected to make generalizations across clause types.

\subsection*{2.3 Morphology and syntax: V2 and the acquisition of tense and agreement}

Since V2 word order only appears with finite verbs, the acquisition of verb movement has traditionally been linked to the mastery of verbal morphology. For example, Clahsen (1986) shows that verb inflections are attested early in German child language, but that the subject-verb agreement system is not fully mastered (at a 90\% level) until relatively late, around the age of 34–36 months. Furthermore,

\textsuperscript{1} In Platzack (2001) it is also argued that it is the C-domain that is vulnerable in learner languages (as well as in the language produced by SLI children and patients with Broca’s aphasia), while the syntax of the lower domains of the clause is in place immediately.
Clahsen (1986, 1988) and Clahsen and Muysken (1986, 1989) argue that the acquisition of verbal agreement is clearly related to the acquisition of V2, in the sense that syntactic verb movement is dependent on the acquisition of agreement markings on the verb. Clahsen and Penke (1992) corroborates findings from other studies, and based on new German data from the Simone corpus (Miller 1979), they argue that subject agreement (especially the 2sg ending –st) serves as a lexical trigger for the setting of the verb movement parameter in German child language. Clahsen and Penke briefly discuss the situation in the Scandinavian languages, where there is no agreement at all on the verb (see Chapter 2). They admit that the triggering relationship between subject-verb agreement and verb movement cannot hold universally, but conclude that in “languages without subject-verb agreement, generalized V2 … has to be triggered in a different way” (p. 215). In this connection one may note that Verrips and Weissenborn (1992), based on bilingual German-French data, argue that it is not agreement but finiteness that is of primary importance in this respect.

The relationship between verbal morphology and syntactic structure has been the topic of much debate not only in the field of language acquisition, but also within general syntactic theory as well as models of language change. Rohrbacher (1999) e.g. makes the strong claim that overt morphological variation is the cause of syntactic variation. If this is the case, then it may have an effect on the development of word order in Norwegian child language, as there is very meagre verbal morphology in this language as compared to e.g. German. A shown in Chapter 2, not only does Norwegian lack any type of agreement marking on the verb, but tense morphology is also extremely sparse, especially in the Tromsø dialect, where the present tense verb form overlaps with the infinitive for the majority of regular verbs. This mean that, if finiteness really serves as a trigger for verb movement, that triggering mechanism must be extremely weak in Norwegian. On this account, therefore, one might expect to see a certain delay in the acquisition of V2 in Norwegian, as compared with other Germanic languages.

Other accounts may not predict such a delay. The collection of papers in Lightfoot (2002) generally take a more skeptical approach to the strong correlation between word order and verbal morphology, and Bobaljik (2002) argues that morphology is simply a reflection of syntactic structure, not its cause. Citing Lardiere (2000) and Meisel (1994), he also claims that acquisition data in general do not support an approach where children use verbal morphology as a cue for syntactic parameter setting. If Bobaljik is right, Norwegian children should be able to realize that their language has verb movement simply by paying attention to the syntactic distribution of elements, and no delay in the acquisition of verb movement (compared to e.g. German children) would be expected. In this connection
it should be noted that the micro-cues outlined in Chapter 3 are formulated in terms of syntactic position, not morphology.

This would also correspond to claims made in Bentzen (2003, 2005, 2007) that there is occasional V-to-I movement in embedded clauses in certain Norwegian dialects, in the absence of the morphological cues often argued to be the trigger of such movement. These findings have also been compared to Icelandic in Wiklund, Hrafnbjargarson, Bentzen, and Hróarsdóttir (2007) and Bentzen, Hrafnbjargarson, Hróarsdóttir, and Wiklund (2007). The issue of verb movement in embedded clauses is discussed in Chapter 9 in relation to the children’s word order in non-V2 contexts.

On any account of the relationship between morphology and syntax, non-finite verbs should not occur in the V2 position, since only finite verbs undergo this type of movement. This is what has been found for other child languages investigated, and Platzack (1996: 398) claims that “there is hardly any trace of verb raising in non-finite sentences in early Swedish”. This is then also expected to be the case for Norwegian.

2.4 Optional infinitives and truncation

The continuity approach to language acquisition mentioned above must have some account of the fact that young children do not always produce language that is identical to that of adults. If there is nothing missing in their core syntax, then some other explanation is required for the non-target-consistent or incomplete structures that they typically produce. Perhaps the most well-known approach to this problem is the Grammatical Infinitive hypothesis of Poeppel and Wexler (1993), which has later been developed into the tense omission model of Wexler (1994, 1999a) and Schütze (1997). Basically this assumes that children go through an Optional Infinitive stage where they may leave the tense feature underspecified in the clausal representation. The result of this is the production of tenseless root clauses. Children typically produce these non-finite structures at the same time as they produce target-consistent finite clauses, and these Optional Infinitives disappear gradually.

According to Wexler (1999a), Optional Infinitives should not be attested in non-subject-initial declaratives or wh-questions in V2 languages. The reason is that the V2 parameter is set early and applies to finite verbs only. Thus, children should realize at an early stage that, in these clause types, there must be a finite verb in second position. In the clause type discussed in this chapter, we would thus expect to find no non-finite root clauses.

Rizzi (1993/94, 2000), on the other hand, assumes a truncation model to explain the non-target forms of early child language. Although the full set of
functional projections are assumed to be available from the onset of language acquisition, young children may optionally truncate a clausal structure at some point in the hierarchy (normally either IP or VP). When this happens, all projections above the truncation point will be missing. This means that, unlike the tense omission model, the truncation analysis predicts that when tense is missing, there will be no CP layer present in the clause either. This captures the fact that root infinitives are generally not found in \textit{wh}-questions and non-subject-initial declaratives in V2 languages. Truncation is argued to be possible in child grammar because children lack a principle, present in the adult grammar, requiring root clauses to be CPs. This principle is assumed to be subject to maturation, which, according to Rizzi, will take place around age 2;5.

Related to this is the question of subjectless examples in child language. Subject drop is strongly linked to non-finite verbs or the Optional Infinitive stage of e.g. Wexler (1999a), as only non-finite verbs license PRO subjects. Consequently, there should be little or no subject drop in such constructions. In the truncation model of Rizzi (1993/94) subject drop should in fact be impossible, since if the CP is present in the hierarchical structure, no lower functional projection can be omitted. According to these theories then, subjectless clauses are not predicted to occur in non-subject-initial declaratives in Norwegian child language. However, occasional subjectless examples have been attested for Swedish by Santelmann (1995), and it is therefore not impossible that they may also be found to a certain extent in the Norwegian child data.

2.5 Grammar competition and V1 structures

Finally, it is also relevant to investigate the production of V1 structures in Norwegian child language data and compare this to the study of the acquisition of Dutch carried out by Haegeman (1995) and used by Yang (2002) to argue for a variational model of language acquisition. According to Yang's model, children compare different grammars and use statistical frequencies in the input to discard the ones that do not match the input they are exposed to. This means that different grammars compete in children's hypothesis space for a considerable time, and the input will either favor or disfavor particular grammars, until all irrelevant grammars are discarded by the child. With respect to V2, Yang points out that a Hebrew type grammar is similar to a Germanic V2 grammar in many respects, except that it also allows V1 constructions. A Hebrew grammar type is therefore predicted to live for a relatively long time in the hypothesis space of children learning a V2 language. Haegeman (1995) found a high number of V1 constructions in Dutch child data – as much as 50% at age 2;6 for the child in her study. According to
Yang, this may be accounted for in the variational model by a Hebrew type grammar not having been discarded yet in the child’s I-language system.

To conclude, the predictions with respect to these Norwegian children’s word order in non-subject-initial declaratives can be summed up in the following way: acquisition vs. rote learning, economy of movement, a possible spill-over effect from the lack of V2 in certain wh-questions, the lack of root infinitives and subjectless examples, the production of V1 constructions, and various predictions related to finiteness on the verb. In the following sections, I provide an overview of the children’s early non-subject-initial declaratives related to these predictions.

3. Non-subject-initial declaratives in child Norwegian

3.1 Early examples of V2 word order

The study of the Norwegian child data shows that target-consistent V2 is attested in non-subject-initial declaratives from the very first files of the children, around the age of 1;9. Examples are provided in (6)–(8).

(6) der er mann. (Ina.01, age 1;8.20)
there be.pres man
‘There is (a/the) man.’

(7) der er stor stor Ole Brumm. (Ann.01, age 1;8.20)
there be.pres big big Ole Brumm
‘There is (a) big big Winnie the Pooh.’

(8) der var blomst. (Ole.01, age 1;9.10)
there be.past flower
‘There was (a) flower.’

As illustrated by these examples, the first non-subject-initial declaratives are of the same kind, typically with the initial element der ‘there’, the verb være ‘be’ and a full DP subject. Note that the element der ‘there’ is locative in most varieties of Norwegian, including the Tromso dialect, and does not correspond to the expletive ‘there’ in English. In addition to these frequent examples with initial der ‘there’, the children also use a high number of presentation constructions with expletive det ‘it’ at this stage, illustrated in (9)–(11). This word could also be a referring pronoun, or, if stressed, the demonstrative ‘that’.

2. The locative der ‘there’ and the expletive det ‘it’ are pronounced quite differently, /dær/ vs. /de/, and are thus relatively easily distinguishable in the recordings.
Chapter 5. The acquisition of word order in non-subject-initial declaratives

(9) det er vovva. (Ina.01, age 1;8.20)
    it be.pres doggie
    ‘It/that is (a) doggie.’

(10) det er dama! (Ann.01, age 1;8.20)
    it be.pres lady
    ‘It/that is (a/the) lady.’

(11) det var mann. (Ole.01, age 1;9.10)
    it be.past man
    ‘It/that was (a) man.’

The similarity of these early examples indicates that these could be rote-learned forms, without any underlying structure reflecting verb movement or the cue in (1). As mentioned above, this has been argued for early examples of V2 in German child language, see Clahsen, Penke, and Parodi (1993/94), and this is of course also a common assumption within the constructivist framework. However, the following examples illustrate that other initial elements also occasionally appear in these clauses, e.g. så ‘so/then’, her ‘here’, and nå/no ‘now’. Other verbs than være ‘be’ are also attested, both in present and past form, as are pronominal subjects. Thus, despite the frequency of examples such as (6)–(8), there is in fact a variety of elements involved in these constructions at an early age.

(12) så tegne æ mamma. (Ina.02, age 1;10.4)
    then draw.pres I mommie
    ‘Then I draw mommie.’

(13) no er det borte. (Ina.06, age 2;1.0)
    now be.pres it gone
    ‘Now it is gone.’

(14) her er sekken. (Ann.03, age 1;10.2)
    here be.pres backpack.def
    ‘Here is the backpack.’

(15) der har Ann føtter. (Ann.03, age 1;10.02)
    there have.pres Ann feet
    ‘There Ann has feet.’

(16) no er det den. (Ole.01, age 1;9.10)
    now be.pres it that
    ‘Now it is that one.’

(17) nå hørte æ en bil. (Ole.02, age 1;10.0)
    now hear.past I a car
    ‘Now I heard a car.’
Furthermore, there is also a small number of initial objects in the corpus at this early stage, shown in (18)–(20). Note that in example (19), Ann has produced a non-target-consistent verbal element with the negation *ikke* ‘not’ incorporated into the verb *ødelegge* ‘break’. The whole verb form appears in second position, and as this clearly does not appear in the input, this example indicates that the child grammar has internalized the cue in (1) and a corresponding process of verb movement.

(18) *det (s)kal Ina gjøre.*

that shall Ina do

‘That Ina should do.’

(19) *den ødeikkelegge Ann.*

that break.not. inf/pres? Ann


(20) *det banke Ole ned.*

that knock.pres Ole down

‘That one Ole is knocking down.’

Table 5.1 gives an overview of the children’s non-subject-initial declaratives in the first ten files, from the start of data collection until the age of approximately 2;4. Non-subject-initial declaratives are attested from the very beginning with target-consistent V2, and there are only occasional non-target forms, displaying XSV (non-V2) word order. There is also a considerable difference between the three children with respect to the total number of non-subject-initial declaratives used: Surprisingly, the most talkative child, Ina, has the lowest number of such declaratives.

Table 5.1 Non-subject-initial declaratives with V2 and non-V2 word order – three Norwegian children, files 1–10, age approximately 1;9–2;4

<table>
<thead>
<tr>
<th></th>
<th>V2</th>
<th>Non-V2</th>
<th></th>
<th>V2</th>
<th>Non-V2</th>
<th></th>
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<th>Non-V2</th>
</tr>
</thead>
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<td>Ina.01</td>
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<td>Ann.01</td>
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<td>Ole.01</td>
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</tr>
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<td>Ina.02</td>
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<td>Ann.02</td>
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<td>Ole.02</td>
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<td>Ole.03</td>
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<td>Ann.05</td>
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<td>Ole.07</td>
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<td>59</td>
<td>0</td>
<td>Ole.10</td>
<td>62</td>
<td>5</td>
</tr>
</tbody>
</table>

Total 134 8 (5.6%) Total 235 4 (1.7%) Total 325 29 (8.2%)
examples, altogether 142, while Ole produces as many as 354. Note that a high number of examples with target-consistent word order does not mean a correspondingly low number of non-target-consistent forms, as Ole also produces the highest percentage of non-V2 (8.2% vs. only 1.7% for Ann).

The figures in Table 5.1 and the variation in the above examples together indicate that all three children master verb movement in non-subject-initial declaratives and have made the cue in (1) a part of their L-language grammars already at this early stage. In the following subsections I look more closely at the children’s production in terms of finiteness, topic drop, and subject drop, and then return to the non-target examples with non-V2 word order in Section 4 below.

3.2 Non-subject-initial declaratives and finiteness

One of the predictions based on previous studies was that V2 word order should occur only with finite verbs. As mentioned in Chapter 2, this could be obscured in the Norwegian child data by the lack of verbal morphology in the dialect spoken by the children and adults in this study. Table 5.2 gives an overview of the verb forms involved in the complete (target-consistent) non-subject-initial declaratives in the child data, divided into clearly finite, clearly non-finite, and ambiguous verb forms, the latter being those of the weak verb classes where the infinitive and the present tense both end in -e in the dialect.

Table 5.2 Finite, ambiguous, and non-finite verb forms in non-subject-initial declaratives with V2, three Norwegian children, age approximately 1;9–2;4

<table>
<thead>
<tr>
<th>Files</th>
<th>Finite</th>
<th>Ambiguous</th>
<th>Non-finite</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ina</td>
<td>Ole</td>
<td>Ina</td>
</tr>
<tr>
<td>1</td>
<td>3</td>
<td>22</td>
<td>0</td>
</tr>
<tr>
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</tr>
<tr>
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<td>1</td>
</tr>
<tr>
<td>4</td>
<td>6</td>
<td>16</td>
<td>0</td>
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<tr>
<td>10</td>
<td>26</td>
<td>57</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>102</td>
<td>309</td>
<td>14</td>
</tr>
</tbody>
</table>

(62=er) (124=er) (200=er)

608 (93.3%) 30 (4.6%) 14 (2.1%)
Table 5.2 shows that as many as 93.3% of the verb forms are clearly finite and that there are only 2.1% non-finite forms attested. This is partly due to the extremely high frequency of the verb være ‘be’, especially in the present tense. In fact, the verb form er ‘is’ appears in 60.8% of Ina’s, 62.9% of Ann’s, and 64.7% of Ole’s finite forms. This was also illustrated by the early examples provided in the previous section.

With respect to the ambiguous verb forms, I will simply assume that they are finite, and they are therefore disregarded here. In addition, there is the occasional example involving a non-finite verb form, altogether fourteen examples (two for Ina and six each for the other two children). An example of this has already been given above, see (19) in the previous section. Further examples are provided in (21)–(22).

(21) der dætte dem. (Ann.09, age 2;2.19)
    there fall.INF/PRES? they
    ‘There they fall.’ Target: Der dætt dem.

(22) der ligge bamsen. (Ole.09, age 2;3.15)
    there lie.INF/PRES? teddy.DEF
    ‘There the teddy is lying.’ Target: Der ligg bamsen.’

However, these verb forms are presumably not true non-finite verbs. Instead, I would argue that they are overgeneralizations of the -e present tense ending of the weak verb classes, discussed in Chapter 2. A closer investigation of these non-finite verb forms reveals that all end in –e, making the overgeneralization story plausible. There is also quite a bit of overlap, in that the fourteen verb forms represent only nine different verbs. For example, Ann uses the verb dætte ‘fall’ twice, while Ole uses the verb ligge ‘lie’ four times, as in the above examples. The sentence used to illustrate this overgeneralization in Chapter 2 is repeated here as (23).

(23) kanske 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 and eating coffee.’
    Target: Kanskje han sitt og spis kaffe.

Given the existence of sentences like (23), where an irregular verb is used with the -e ending in a context that is clearly present tense, it seems natural to consider the fourteen non-finite verb forms in these examples to be overgeneralized present tense forms. Thus, we can conclude that verb movement in this clause type generally applies to finite verbs, and that the occasional non-finite verb forms can be explained as overgeneralization which makes the present tense identical to the infinitive. A similar behavior is attested for these particular verbs also in other V2 contexts, see Chapters 6–8.
3.3 Subjectless examples

As mentioned in Section 2, it has been argued that subjectless clauses should be rare or non-existent in non-subject-initial declaratives in V2 languages such as Norwegian. In Wexler's (1999a) tense omission model, null subjects are typically only licensed in Optional Infinitive constructions (OIs), i.e. non-finite root clauses. Null subjects may occasionally appear in finite sentences, but they are then the result of topic drop. This should be unlikely in non-subject-initial declaratives, since in these cases the initial element is presumably more topical than the subject, and thus more likely to be dropped. According to Rizzi's (1993/94) truncation model, subjects may be dropped only when they appear in the specifier of the root of the clause, i.e. the highest Spec position. As this position is occupied by the initial non-subject in these examples, null subjects should be impossible. Nevertheless, as illustrated by (24), subjectless examples are attested in Norwegian in non-subject-initial declaratives.

(24) sånn skal være.

such shall be

(This way (it) should be.)

These examples cannot be said to be frequent, as Ann produces hardly any, Ole just a few in the early files, while Ina's first ten files display between zero and 10 examples in each file. Table 5.2 gives an overview of subjectless examples in a selection of files in the corpus, with a specification of the verb forms they occur with, finite, non-finite, or ambiguous. As expected, there is a predominance of finite verbs. The files searched are 1, 6 and 10, and additionally the second and third files of the two girls, who produce extremely few relevant examples in the first file. These files are also checked for subjectless examples in non-topicalized declarative main clauses in the next chapter (cf. Table 6.3). Table 5.3 also compares the percentage of subjectless examples in the two types of declaratives.
Although there are not many subjectless examples attested, their frequency is not inconsiderable in the early files. Ann and Ole start out with approximately 20% subjectless examples in the first files, while Ina produces as many as 46.1%. These sentences seem to be a short-lived phenomenon, as they have disappeared by file 10 in Ole’s data and already in Ann’s file 3. Ina seems to keep them longer – in fact, she is at the 20% level in file 10, i.e. where the other two started out. Not surprisingly, the percentages for these clauses are somewhat lower than the frequency of subjectless examples in non-topicalized declaratives (both affirmative and negative). We also see that Ina is consistently dropping subjects more than the other two children. As we will see in Chapter 7, this also corresponds to the finding that subjectless *wh*-questions are attested only in Ina’s data.

### 3.4 The production of V1 structures

As discussed in Section 2, Yang (2002) argues for a variational model of language acquisition, where different possible grammars compete in the hypothesis space of young children’s I-language. Learners of V2 grammars are exposed to input that is compatible with several possible UG grammars, some of which are discarded early because of unambiguous input. However, a Hebrew type grammar, which also

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**Table 5.3 Subjectless examples in non-subject-initial declaratives, specified for finiteness, compared with the percentage of subjectless clauses in non-topicalized declaratives**

<table>
<thead>
<tr>
<th>File/Age</th>
<th>Fin</th>
<th>Amb</th>
<th>Non-fin</th>
<th>Total</th>
<th>%</th>
<th>Cp. non-top. decl.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ina.01 (1;8.20)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Ina.02 (1;10.4)</td>
<td>0</td>
<td>6</td>
<td>0</td>
<td>6/13</td>
<td>46.1%</td>
<td>60.0%</td>
</tr>
<tr>
<td>Ina.03 (1;10.23)</td>
<td>1</td>
<td>5</td>
<td>0</td>
<td>6/19</td>
<td>31.6%</td>
<td>37.0%</td>
</tr>
<tr>
<td>Ina.06 (2;1.0)</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>5/30</td>
<td>16.7%</td>
<td>29.4%</td>
</tr>
<tr>
<td>Ina.10 (2;3.12)</td>
<td>8</td>
<td>2</td>
<td>0</td>
<td>10/46</td>
<td>21.7%</td>
<td>23.9%</td>
</tr>
<tr>
<td>Ann.01 (1;8.20)</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>3/12</td>
<td>25%</td>
<td>43.1%</td>
</tr>
<tr>
<td>Ann.02 (1;9.18)</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>40%</td>
<td>31.4%</td>
</tr>
<tr>
<td>Ann.03 (1;10.2)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>–</td>
<td>–</td>
<td>41.3%</td>
</tr>
<tr>
<td>Ann.06 (2;0.17)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>–</td>
<td>–</td>
<td>11.8%</td>
</tr>
<tr>
<td>Ann.10 (2;3.9)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>–</td>
<td>–</td>
<td>6.1%</td>
</tr>
<tr>
<td>Ole.01 (1;9.10)</td>
<td>1</td>
<td>6</td>
<td>0</td>
<td>7/33</td>
<td>21.2%</td>
<td>37.1%</td>
</tr>
<tr>
<td>Ole.06 (2;1.5)</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>5/29</td>
<td>7.2%</td>
<td>21.4%</td>
</tr>
<tr>
<td>Ole.10 (2;4.6)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>–</td>
<td>–</td>
<td>9.0%</td>
</tr>
</tbody>
</table>

---

3. The total number of non-subject-initial declaratives used in the calculation includes not only the complete structures in Table 5.1, but also the V1 structures discussed in Section 3.4.
allows V1 word order, supposedly stays in the hypothesis space of young children learning a Germanic V2 language for a considerable time (until approximately age 3–3;3). In a study of a Dutch child (Haegeman 1995), Yang finds as many as approximately 50% V1 structures around age 2;6. Occasional V1 structures have also been found in Swedish child language (see Santelmann 1995).

Sentences with VS word order are also attested in this Norwegian corpus. They appear in the first files of all three children, and occasional examples persist throughout the period of data collection. Table 5.4 provides an overview of the number of V1 structures in selected files, together with the total number of non-subject-initial declaratives (from Tables 5.1 and 5.2) as well as the number of subject-initial declaratives (affirmative and negative), cf. Chapter 6. The percentage of V1 constructions of the total number of declarative main clauses is given in the last column.

It should be clear from these figures that none of these Norwegian children are anywhere near the percentage that Yang found for the Dutch child, even at this early stage. Although there is a certain decline in V1 constructions in the early data, the figures also show some ups and downs (in Ina’s production). In my view, it seems unlikely that these scattered examples should be the result of the

Table 5.4 Overview of non-subject-initial declaratives (V2+non-V2+XV), subject-initial declaratives (affirmative+negative) and V1 constructions in selected files in the corpus

<table>
<thead>
<tr>
<th>FILE NO./AGE</th>
<th>Non-subject-initial decl.</th>
<th>Subject-initial decl.</th>
<th>V1/Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ina.01 (1;8.20)</td>
<td>3+0+0</td>
<td>18+0</td>
<td>3/24</td>
<td>12.5%</td>
</tr>
<tr>
<td>Ina.02 (1;10.4)</td>
<td>6+0+6</td>
<td>39+1</td>
<td>1/53</td>
<td>1.8%</td>
</tr>
<tr>
<td>Ina.03 (1;10.23)</td>
<td>9+0+6</td>
<td>54+0</td>
<td>4/73</td>
<td>5.5%</td>
</tr>
<tr>
<td>Ina.06 (2;1.0)</td>
<td>13+3+5+5</td>
<td>260+2</td>
<td>9/292</td>
<td>3.1%</td>
</tr>
<tr>
<td>Ina.10 (2;3.12)</td>
<td>31+0+10</td>
<td>182+27</td>
<td>5/255</td>
<td>2.0%</td>
</tr>
<tr>
<td>Ann.01 (1;8.20)</td>
<td>5+1+3+3</td>
<td>65+0</td>
<td>3/77</td>
<td>3.9%</td>
</tr>
<tr>
<td>Ann.02 (1;9.18)</td>
<td>2+1+2+2</td>
<td>25+10</td>
<td>0/40</td>
<td>-</td>
</tr>
<tr>
<td>Ann.03 (1;10.2)</td>
<td>35+0+0+0</td>
<td>45+25</td>
<td>1/106</td>
<td>0.9%</td>
</tr>
<tr>
<td>Ann.06 (2;0.17)</td>
<td>25+0+0+0</td>
<td>120+32</td>
<td>0/177</td>
<td>-</td>
</tr>
<tr>
<td>Ann.10 (2;3.9)</td>
<td>59+0+0+0</td>
<td>174+39</td>
<td>4/276</td>
<td>1.4%</td>
</tr>
<tr>
<td>Ole.01 (1;9.10)</td>
<td>22+0+7+7</td>
<td>96+0</td>
<td>4/129</td>
<td>3.1%</td>
</tr>
<tr>
<td>Ole.06 (2;1.5)</td>
<td>59+5+5+5</td>
<td>264+21</td>
<td>9/363</td>
<td>2.5%</td>
</tr>
<tr>
<td>Ole.10 (2;4.6)</td>
<td>62+5+5+0</td>
<td>247+45</td>
<td>7/366</td>
<td>1.9%</td>
</tr>
</tbody>
</table>

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4. As mentioned above, a Hebrew-type grammar allows both SVO and XVSO, and is therefore compatible with a V2 grammar. It also allows V1, while OVS word order is clearly ungrammatical.
Norwegian children entertaining a Hebrew type grammar. Sentences (25)–(30) provide relevant V1 examples, mostly from early files but also one from Ole’s last recording (age 2;11.23).

(25) synge mamma sole. (Ina.04, age 1;11.22)  
   sing./pres?mommiesun  
   ‘(Now?) mommie sings (about the) sun.’

(26) kan ikkje (ka)ninnen det. (Ina.10, age 2;3.12)  
   can not rabbit.def that  
   ‘(Then?) the rabbit can’t do that.’

(27) har æ anna. (Ann. 07, age 2;1.7)  
   have.pres I other  
   ‘(Here?) I have another (one).’

(28) er han trøtt. (Ann.10, age 2;3.9)  
   be.pres he tired  
   ‘(Now?) he is tired.’

(29) dætt den ned. (Ole.01, age 1;9.10)  
   fall.pres it down  
   ‘(There?/Now?) it falls down.’

(30) blir det litt mer vegg. (Ole.22, age 2;11.23)  
   become.pres it little more wall  
   ‘(Here?) there will be more wall.’ (Child is building with Legos)

According to Yang (2002), the V1 structures are due to an extremely low input frequency of the sentence type distinguishing between a V2 and a Hebrew-type grammar, viz. object-initial declaratives: These are attested only 1.3% in the Dutch adult material. If Norwegian child-directed speech could be shown to contain more instances of OSV word order than Dutch, then the higher frequency of unambiguous data might cause Norwegian children to discard the Hebrew type grammar at an earlier stage, and Yang’s (2002) hypothesis could then possibly be upheld for Dutch. In a sample of adult speech, the production of the investigator in file Ole.14, there are 123 subject-initial main clauses and 142 non-subject-initial ones, making the relevant total 265. There are 26 examples of object-initial declaratives, some of which are illustrated in (31)–(33). This gives a percentage of 9.8%, considerably higher than what Yang calculated for the Dutch input data. This indicates that Norwegian children are in fact exposed to more frequent evidence that Norwegian is not a Hebrew type grammar.
However, it remains unclear whether Yang’s model can predict exactly how much evidence is necessary for this development to occur so much earlier in the grammar of children acquiring Norwegian, already at age 1;9. According to the model of micro-cues, on the other hand, there is no grammar competition, and given the cue in (1) and its input frequency, children should be able to acquire the right structure relatively early.

What is then the cause of these V1 structures illustrated in (31)–(33)? In my view, it seems likely that these examples should be interpreted as topic drop, as suggested by the translations. Consider also example (34), which shows how the child first omits the initial non-subject and then corrects himself.

(34) **ole:** og krasja han der. (Ole.14, age 2;6.21)
   and crashed he there

   **INV:** og så?
   and then

   **ole:** og krasja han der [/] og så krasja han der #
   and crashed he there and then crashed he there
   rett i lastebil.
   straight into truck
   ‘And he crashed there / and then he crashed there straight into (the) truck.’

A comparison with the adult language may be in order here: In the file studied for object-initial declaratives above (INV, Ole.14), there are 12 examples of topic drop, some of which are illustrated in (35)–(37). This means that V1 structures are attested 4.5% (12/265).

(35) **ja # kan vi fortsette å bygge.** (INV, Ole.14)
   yes can we continue to build
   ‘Yes – (now) we can continue to build.’
In this perspective, the children are performing at adult levels with respect to topic drop from the very beginning of their production of multi-word utterances. In fact, in file 10 (age approximately 2;4) all three children produce fewer V1 structures than the adult. Thus, I would claim that there is no evidence for a Hebrew type grammar in the data produced by Norwegian children, nor for a model where there is grammar competition in this respect. In the next section, I return to the production of non-V2 word order in the child data.

4. The production of non-V2 word order

4.1 Non-subject-initial declaratives with *kanskje* ‘maybe’

It may seem quite remarkable that these Norwegian children have V2 word order in place at such an early age. In this section it is shown that the children are also sensitive to exceptions to the micro-cue for verb movement. As shown in Chapters 2 and 3, the children must also acquire the structure reflecting the micro-cue in (2), specifying that non-V2 word order is possible in non-subject-initial declaratives introduced by the adverb *kanskje* ‘maybe’. According to the input sample investigated in Chapter 4, the evidence for this micro-cue is expressed in the input in 12% of relevant contexts.

\[(2')\] Micro-cue for word order in declaratives with clause-initial *kanskje* ‘maybe’:

\[
\text{DeclP}[\text{kanskje XP}\ldots\text{VP[V]}]
\]

Non-subject-initial declaratives with initial *kanskje* ‘maybe’ are not frequent in the child data. Nevertheless, all three children’s first example of this adverb in a non-subject-initial declarative displays this unusual, but target-consistent, word order. The crucial examples are illustrated in (38)–(40).

(38) *kanskje det var en anna dag.* (Ina.9, age 2;2.12)
maybe it be.PAST an other day
‘Maybe it was another day.’
(39) kanske 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.’

(40) kanske dem krangla. (Ole.14, age 2;6.21)
    maybe they fight.past
    ‘Maybe they were fighting.’

Furthermore, it was shown in the previous chapter that the adults have a clear preference for non-V2 in these cases, producing this word order 95.1% (39/41) of the time. A similar frequency was found in the NoTa corpus of adult Oslo Norwegian. Although the number of examples is small, the child data also display a clear preference, as out of the 28 relevant examples with initial *kanskje*, there is only one example with V2. This corresponds to a percentage of non-V2 of 96.4%, which is remarkably similar to the adult data and in stark contrast to the percentage of non-target-consistent non-V2 with other initial elements (cf. Table 5.1).

4.2 Non-target-consistent word order

4.2.1 Non-target-consistent word order and finiteness

As illustrated in Table 5.1 above, there are some examples of non-target-consistent word order attested in the child data, more specifically instances of non-V2 (XSV). There is quite a bit of variation with respect to the frequency of this among the three children, from only 1.7% (4/235) in Ann’s files to 8.2% (29/325) in Ole’s data. Note that the frequency of a construction does not necessarily correspond positively with its accuracy, as Ole, who produces more non-subject-initial declaratives than the two girls overall, also makes relatively more mistakes than they do. The average percentage for the three children in the first ten files is 5.6% (41/735), which corresponds relatively closely to the 4.2% Santelmann (1995) found for Swedish child language.

But it should be noted that some of the sentences with non-target-consistent word order in Table 5.1 are somewhat difficult to analyze, because it is unclear whether the verb form involved is finite or non-finite. In sentence (41), for example, the verb *tegne* ‘draw’ belongs to one of the weak verb classes, and therefore has identical forms in the infinitive and the present tense in the dialect (see Chapter 2). In (42), the verb form *finne* ‘find’ is the infinitive of an irregular verb, and the corresponding present tense in the dialect would be *finn*. But *finne* could also be an overgeneralization of the present tense ending –*e*, discussed in Section 3.2 for certain verbs appearing with V2 word order.
Out of the 41 verb forms appearing in these non-target examples, 14 are clearly finite, six are non-finite, and as many as 21 have identical forms in the infinitive and the present tense. This is very different from the distribution in the V2 examples illustrated in Table 5.2, where most of the verb forms were clearly finite (and approximately 60–65% were present tense of være ‘be’). In the non-V2 examples, on the other hand, the verb være ‘be’ is virtually non-existent, while activity verbs often occur, e.g. regular verbs such as kjøre ‘drive’, where the present tense and infinitive forms overlap, or irregulars such as lese ‘read’, which may be subject to the overgeneralization process.5

The question is therefore whether the 27 examples with unclear verb forms (21 ambiguous + 6 non-finite) are present tense forms or instances of true root infinitives. That is, in case these verb forms are interpreted as non-finite, these sentences may be analyzed with a modal missing, e.g. must or should, as indicated by the alternative translations for (41) and (42). According to predictions based on findings from other languages, root infinitives should in general not occur in non-subject-initial declaratives in V2 languages, see e.g. Wexler (1999a). The reason for this is that the V2 parameter only applies to finite verbs and children are argued to set this parameter very early.

According to the model of micro-cues developed in this book, there is no V2 parameter. And we know that auxiliaries are often missing in child language, especially in English, see e.g. Rowland and Pine (2000, 2003) or Westergaard (forthcoming/2009c). In the following example (not included in Table 5.5) the verb form is a past participle, and it seems reasonable to assume that the auxiliary ha ‘have’ is missing. Given that this is possible, there is in my view no reason to assume that modals could not be missing too, leaving bare infinitives in the position following the subject.

(43) togbane og skammel æ fått.  (Ole.07, age 2;1.26)
train.set and stool I get.PART
‘Train set and stool I (have) got.’

5. The verb lese ‘read’ is similar to the verb spise ‘eat’ in example (23) above, in that it is regular in the past tense (leste, spiste), but irregular in the present tense in the dialect, i.e. les, spis vs. leser, spiser in Standard Norwegian. See footnote 8 in Chapter 2.
This means that it is necessary to investigate each example in context in order to decide whether the verb form is (an overgeneralized) present tense ending in –e or a root infinitive. A close study of the children's production of these non-target-consistent forms reveals that a number of them indeed have a modal meaning, more specifically 4 in Ina's, 3 in Ann's and 6 in Ole's data, including the examples in (41) and (42). This means that there are 13 cases of root infinitives in these early non-subject-initial declaratives, and including (43) among the examples with non-finite verbs, this makes up 1.9% (14/735). These examples are not the result of failure of verb movement. The proportion of examples with truly non-target-consistent (non-V2) word order is thus down to 3.8% (28/735) for the three children – 2.8% (4/142) for Ina, 6.5% (23/354) for Ole, and only 0.4% (1/239) for Ann.

Because of these low numbers, the rest of the corpus has also been searched for this kind of non-target-consistent production, and it turns out that the children make 26 more such mistakes, Ina 16, Ole 8, and Ann only 2. In addition, Ole produces 9 more examples of non-finite root clauses, while the two girls do not make any. This means that there are altogether 23 examples of root infinitives in non-subject-initial declaratives in this Norwegian corpus (these 9 examples plus the 14 in the early files), contrary to predictions made by Wexler's (1999a) INFL-omission model.

With respect to the remaining clauses with non-V2, we now have altogether 54 examples, 28 in the early files (before age 2;4) and 26 in the later files. Of these, 20 (4+16) are produced by Ina, 3 (1+2) by Ann, and 31 (13+8) by Ole. Table 5.5 provides an overview of the verb forms involved in these non-target-consistent examples: The majority of verbs appearing with this word order are finite, and the few examples with non-finite verb forms are considered to be overgeneralized (finite) verbs. From these results we may conclude that morphological finiteness and syntactic movement are not directly linked in child language development, as argued in much previous work on V2.

Table 5.5 Verb forms in non-subject-initial declaratives with non-V2 word order, three Norwegian children, age approximately 1;9–3;0

<table>
<thead>
<tr>
<th>Files</th>
<th>Finite</th>
<th>Ambiguous</th>
<th>Non-finite</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ina.1–23</td>
<td>15</td>
<td>2</td>
<td>3</td>
<td>20</td>
</tr>
<tr>
<td>Ann.1–21</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Ole.1–22</td>
<td>15</td>
<td>12</td>
<td>4</td>
<td>31</td>
</tr>
<tr>
<td>Total</td>
<td>33</td>
<td>14</td>
<td>7</td>
<td>54</td>
</tr>
</tbody>
</table>

(61.1%) (25.9%) (13%) (100%)
In the next section I turn to a comparison of these non-V2 examples and the target-consistent ones in Table 5.2 above in terms of information structure.

### 4.2.2 Non-target-consistent word order and information structure

Despite the relative similarity between V2 and non-V2 clauses in terms of finiteness, there is a striking difference between the two types of examples with respect to the verb and subject types typically appearing with each word order. Recall that in the first non-subject-initial declaratives with V2 the verb was almost always *være* ‘be’ and the subject a full DP, illustrated by examples (6)–(8), repeated here.

(6)’ der er mann.  
there be.\textsc{pres} man  
‘There is (a/the) man.’

(7)’ der er stor stor Ole Brumm.  
there be.\textsc{pres} big big Ole Brumm  
‘There is (a) big big Winnie the Pooh.’

(8)’ der var blomst.  
there be.\textsc{past} flower  
‘There was (a) flower.’

In contrast to this, the verb is hardly ever *være* ‘be’ in the non-target forms, and the subject tends to be a pronoun, see examples (44)–(49). When the subject is a full DP in these non-V2 examples, it is almost always the child’s own name. That is, these subjects clearly represent given information with respect to the speech situation.

(44) der Ina (k)nyt.  
there Ina tie.\textsc{pres}  
‘There Ina is tying (it).’

(45) der Ina gjemte det.  
there Ina hide.\textsc{past} it  
‘There Ina hid it.’

(46) der Ann har et.  
there Ann have.\textsc{pres} one  
‘There Ann has one.’

(47) på øyen æ har solbrilla.  
on eye.\textsc{def/pl} I have.\textsc{pres} sunglasses  
‘On my eyes I have sunglasses.’
(48) *der Ole har pusla xx der.* (Ole.05, age 2;0.10)$^6$
there Ole have.pres puzzle.part xx there
‘There Ole has puzzled xx there.’

(49) *nå æ skal (s)t(r)ikkke litt til.* (Ole.10, age 2;4.6)
now I shall knit little more
‘Now I will knit a little more.’

This pattern is reminiscent of the subject and verb types attested in adult *wh*-questions in the Tromsø dialect. In Chapter 2 we saw that this dialect differs from the standard language in that it allows V2 and non-V2 in *wh*-questions with a monosyllabic *wh*-constituent. As argued there, the difference between the two word orders is dependent on the information structure of the sentence, V2 being chosen when the subject is informationally new and non-V2 when the subject conveys given information. This is reflected in the subject and verb types typically occurring with the two constructions: V2 is preferred when the subject is a full DP (or the expletive/demonstrative *det*) and the verb is *være* ’be’, while non-V2 is more often chosen when the subject is a personal pronoun and the verb is any other verb than *være* ’be’. Examples illustrating this pattern are provided in (50)–(51).

(50) *kor er pingvinen henne?* (INV, File Ole.16)
where be.pres penguin.def loc
‘Where is the penguin?’

(51) *kor du har fått det henne?* (INV, File Ole.22)
where you have.pres got it loc
‘Where did you get that?’

In Chapter 7, we will see that both V2 and non-V2 word orders are attested in *wh*-questions from early on in the child data, with patterns for subject and verb types exactly matching those found in the adult corpus, see (52)–(53).

(52) *kor e babyen?* (Ina.06, 2;1.0)
where be.pres baby.def
‘Where is the baby?’

(53) *ka ho har der # nedi?* (Ina.02, 1;10.4)
what she have.pres there down-in
‘What does she have in there?’

---

$^6$ The child is using the verb *pusle* ’do a puzzle’ as a transitive verb, where the object is always a description of the part of the picture that he just put in the right place. In this particular case the transcriber was unable to decipher what the object was.
Table 5.6  Subject and verb types in non-subject-initial declaratives with non-V2 word order, data from three Norwegian children, age approximately 1;9–3;0

<table>
<thead>
<tr>
<th>Files</th>
<th>DP+være ‘be’</th>
<th>pronoun+være ‘be’</th>
<th>DP+V</th>
<th>pronoun+V</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ina.1–23</td>
<td>0</td>
<td>0</td>
<td>5 (4=Ina)</td>
<td>15</td>
<td>20</td>
</tr>
<tr>
<td>Ann.1–21</td>
<td>0</td>
<td>0</td>
<td>1 (=Ann)</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Ole.1–22</td>
<td>0</td>
<td>3</td>
<td>7 (5=Ole)</td>
<td>21</td>
<td>28</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>0</td>
<td>3 (5.5%)</td>
<td>13 (24.1%)</td>
<td>38 (70.4%)</td>
<td>54 (100%)</td>
</tr>
</tbody>
</table>

Let us return to the children’s declaratives with non-target-consistent non-V2, illustrated in (44)–(49). Table 5.6 displays an overview of the choice of subject and verb types in these clauses. There is a clear preference for given subjects, i.e. pronouns or full DPs familiar from context (especially the child’s own name), and verbs other than være ‘be’. This corresponds to the pattern that occurs in the (target-consistent) non-V2 wh-questions produced by the children, cf. Chapter 7. On the other hand, the pattern that frequently occurs in the early wh-questions with V2, the verb være ‘be’ and a full DP subject, is virtually non-existent in the these non-target non-subject-initial declaratives.7

For comparison, an overview of the subject and verb types preferred in the early non-subject-initial declaratives with V2 is included in Table 5.7. In the first columns, we see that the pattern være ‘be’ and a full DP subject is the first to appear in the data of all three children, and it is also frequent throughout the ten first files. This means that this pattern constitutes an average of more than half of all V2 examples, while it hardly appears with non-V2. The patterns that tend to occur with non-target-consistent word order early on, DP+V and especially pro+V, increase relatively dramatically in frequency from the age of approximately 2;2–2;3 (files 9 and 10) for all three children. Not surprisingly, as these occur more frequently with target-consistent V2, the number of word order mistakes decreases (cf. Table 5.1 above).

---

7. In two of the three cases where non-target-consistent word order occurs with the verb være ‘be’, Ole seems to correct himself, and these should possibly not be counted as true non-target examples. In (i) the subject appears twice, first as a pronoun preceding the verb and then as a full DP following the verb. In sentence (ii) the child even puts more than just the finite verb between the topicalized element and the subject after the restart; instead of just the auxiliary, the whole verb form and an adverbial are placed before the subject den ‘it’.

(i) der han var han Ole Brumm.  (Ole.10, age 2;4.6)
   there he be.PAST DET Ole Brumm
   ‘There he was Winnie the Pooh.’

(ii) nå den er [//] har blitt snart den ferdig.  (Ole.10, age 2;4.6)
    now it be.PRES have.PRES become.PART soon it finished
    ‘Now it is…it has soon been finished.’
   Target: Nå er den ... har den snart blitt ferdig.
### Table 5.7 Subject and verb types in non-subject-initial declaratives with (target-consistent) V2 word order, data from three children, age approximately 1;9–2;4

<table>
<thead>
<tr>
<th>File/Age</th>
<th>vare 'be'+DP</th>
<th>vare 'be'+pronoun</th>
<th>V+DP</th>
<th>V+pronoun</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ina.01 (1;8.20)</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Ina.02 (1;10.4)</td>
<td>3</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Ina.03 (1;10.23)</td>
<td>6</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>Ina.04 (1;11.22)</td>
<td>4</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Ina.05 (2;0.5)</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>Ina.06 (2;1.0)</td>
<td>2</td>
<td>4</td>
<td>2</td>
<td>5</td>
<td>13</td>
</tr>
<tr>
<td>Ina.07 (2;1.23)</td>
<td>7</td>
<td>0</td>
<td>3</td>
<td>1</td>
<td>11</td>
</tr>
<tr>
<td>Ina.08 (2;1.29)</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Ina.09 (2;2.12)</td>
<td>30</td>
<td>1</td>
<td>3</td>
<td>8</td>
<td>42</td>
</tr>
<tr>
<td>Ina.10 (2;3.12)</td>
<td>6</td>
<td>2</td>
<td>6</td>
<td>17</td>
<td>31</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>61</td>
<td>8</td>
<td>22</td>
<td>43</td>
<td>134</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>File/Age</th>
<th>vare 'be'+DP</th>
<th>vare 'be'+pronoun</th>
<th>V+DP</th>
<th>V+pronoun</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ann.01 (1;8.20)</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Ann.02 (1;9.18)</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Ann.03 (1;10.02)</td>
<td>33</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>35</td>
</tr>
<tr>
<td>Ann.04 (1;11.0)</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Ann.05 (1;11.26)</td>
<td>19</td>
<td>7</td>
<td>5</td>
<td>5</td>
<td>36</td>
</tr>
<tr>
<td>Ann.06 (2;0.17)</td>
<td>16</td>
<td>1</td>
<td>5</td>
<td>3</td>
<td>25</td>
</tr>
<tr>
<td>Ann.07 (2;1.7)</td>
<td>16</td>
<td>2</td>
<td>8</td>
<td>1</td>
<td>27</td>
</tr>
<tr>
<td>Ann.08 (2;1.28)</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Ann.09 (2;2.19)</td>
<td>8</td>
<td>4</td>
<td>5</td>
<td><strong>16</strong></td>
<td>33</td>
</tr>
<tr>
<td>Ann.10 (2;3.9)</td>
<td>14</td>
<td>8</td>
<td>1</td>
<td><strong>36</strong></td>
<td>59</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>118</td>
<td>24</td>
<td>29</td>
<td>63</td>
<td>234</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>File/Age</th>
<th>vare 'be'+DP</th>
<th>vare 'be'+pronoun</th>
<th>V+DP</th>
<th>V+pronoun</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ole.01 (1;9.10)</td>
<td>18</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>22</td>
</tr>
<tr>
<td>Ole.02 (1;10.0)</td>
<td>20</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td>26</td>
</tr>
<tr>
<td>Ole.03 (1;10.22)</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Ole.04 (1;11.13)</td>
<td>15</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>16</td>
</tr>
<tr>
<td>Ole.05 (2;0.10)</td>
<td>11</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>12</td>
</tr>
<tr>
<td>Ole.06 (2;1.5)</td>
<td>46</td>
<td>1</td>
<td>6</td>
<td>6</td>
<td>59</td>
</tr>
<tr>
<td>Ole.07 (2;1.26)</td>
<td>49</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>52</td>
</tr>
<tr>
<td>Ole.08 (2;2.12)</td>
<td>21</td>
<td>1</td>
<td>4</td>
<td>5</td>
<td>31</td>
</tr>
<tr>
<td>Ole.09 (2;3.15)</td>
<td>12</td>
<td>9</td>
<td>7</td>
<td><strong>14</strong></td>
<td>42</td>
</tr>
<tr>
<td>Ole.10 (2;4.6)</td>
<td>11</td>
<td>14</td>
<td>6</td>
<td>31</td>
<td>62</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>205</td>
<td>30</td>
<td>30</td>
<td>60</td>
<td>325</td>
</tr>
</tbody>
</table>

**Note:**
- Values in bold indicate the most frequent types for each child.
- The percentages are calculated based on the total number of tokens for each child.
A question that arises in this connection is where these preferences come from. Do children have a natural tendency for patterns that conform to principles of information structure from early on? This would go against some traditional work on language acquisition, which argues that syntax is early but pragmatics is late, see e.g. Chien and Wexler (1990), Avrutin and Wexler (1992), or Batman-Ratiosyan and Stromswold (2002). Alternatively, the word order choice in these non-subject-initial declaratives could be a spillover effect from the patterns the children are exposed to in *wh*-questions. If this were the case, it would go against the micro-cue model presented in Chapter 3. According to the way the cues are formulated, no overgeneralization is expected from one clause type to another, since, when children scan the input for word order cues, this is a selective process where only the relevant context is considered. That is, in order for children to discover the cue for verb movement to Intº, they only consider *wh*-questions, and other clause types are ignored.

In order to answer this question, one would need to investigate children acquiring Standard Norwegian or some dialect where there is no word order choice in *wh*-questions. Unfortunately, there are no available child data from such varieties of Norwegian. Instead, we may briefly consider some Swedish child data.

As discussed in Section 2.2, Platzack (1996) cites a few examples of non-target-consistent word order produced by Swedish children. All of these in fact do follow the same pattern as those produced by Norwegian children, see (54)–(55). That is, the verb involved is not *være* ‘be’ and the subject is a pronoun or interestingly, the name of the child. Additionally, two examples produced by children with Specific Language Impairment also follow the same pattern, see (56)–(57). Obviously, there are too few examples here to draw any conclusions at all, so this may only be considered an interesting observation. Nevertheless, similar patterns are weakly attested also in Waldmann’s (2008) study of four Swedish children: He finds that the verb *be* is more frequent in children’s early V2 examples, while pronominal subjects are more frequent in the occasional non-V2 mistakes that the children make.

(54) **där han bor.** (Sara, age 2;3)

*there he live.*

(55) **julklapp Embla har.** (Embla, age 2;1)

*Christmas present Embla have.*

(56) **nu jag vill lyssna.** (Alfons, age between 5 and 6)

*now I will listen.*
(57) sen jag äta så många gånger. (Beda, age between 5 and 6)

afterwards I eat.INF so many times

‘Afterwards I ate/will eat(?) so many times.’

(Swedish; all examples taken from Platzack 1996: 383 and 400)

Santelmann (1995) found altogether 54 non-subject-initial declaratives with non-target-consistent word order in the Swedish data she studied, constituting the above-mentioned 4.2%, and she has kindly provided me with a full list of these examples. As many as 28 of them have a non-finite verb only – 21 infinitives and 7 past participle forms. Santelmann herself (p.c.) considers these examples to have a modal or other auxiliary missing, and they may as such not count as true word order mistakes (cf. Section 4.2.1, where I found 23 such examples in the Norwegian data). However, I do not have any context for these Swedish examples, nor do I know whether some of them could be overgeneralized (finite) forms. Because of this uncertainty, all examples are included in Table 5.8, which gives an overview of the subject and verb types involved. As in the Norwegian data, there is a predominance of pronominal subjects and verbs other than vara ‘be’, altogether 75.9% (41/54). In the 13 cases of the DP+V pattern, the typical subject is mamma ‘mom’, pappa ‘dad’, Nalle ‘Teddy’ or the child’s own name. This means that these subjects are presumably informationally given. Typical examples are provided in (58)–(60).

(58) Nu jag åker. (Ask.09, age 2;4)

now I go.PRES

‘Now I’m going.’

(59) Den jag skal ha. (Freja.20, age 2;7)

that I shall have

‘That one I want.’

(60) Där Pippi ramlar. (Freja.24, age 2;9)

there Pippi fall.PRES

‘There Pippi is falling.’

Table 5.8 Verb and subject types in non-subject-initial declaratives with non-V2 word order in the Söderbergh corpus (Swedish)

<table>
<thead>
<tr>
<th>Verb form</th>
<th>vara ‘be’+DP</th>
<th>vara ‘be’+pron</th>
<th>DP+V</th>
<th>pron+V</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finite</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>21</td>
<td>26</td>
</tr>
<tr>
<td>Infinitive</td>
<td>0</td>
<td>0</td>
<td>7</td>
<td>14</td>
<td>21</td>
</tr>
<tr>
<td>Participle</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>0</td>
<td>0</td>
<td>13</td>
<td>41</td>
<td>54</td>
</tr>
</tbody>
</table>

(24.1%) (75.9%)
Naturally, caution is in order here: We know that children tend to talk about familiar things in the ‘here and now’, and in this perspective, the subject types found in the non-V2 declaratives may not be special at all. In order to claim that, one would need to make a comparison with the subject and verb types in all non-subject-initial declaratives in the corpus, as was done for the Norwegian child data above. Thus, this evidence from Swedish is far from conclusive. Nevertheless, it does to some extent support the idea that there is a natural preference in child language for patterns that conform to information structure.

5. Summary and conclusion

In this chapter it has been shown that non-subject-initial declaratives with target-consistent V2 word order are attested from the onset of multi-word utterances in Norwegian child language, and these examples make up the majority of all relevant cases (see Table 5.1). In accordance with predictions from previous research, non-subject-initial declaratives occur mainly with finite verbs, and the few non-finite verb forms attested in V2 constructions can generally be explained as overgeneralization of the -e present tense ending. Contrary to predictions, occasional subjectless examples appear in the child data, as well as some V1 constructions scattered throughout the files. The latter are relatively infrequent and found not to provide support for Yang’s (2002) competition model of language acquisition.

Thus, it can generally be said that the micro-cue for V2 in non-subject-initial declaratives is in place in children’s I-language grammars from early on. The I-language structure necessary to produce the exceptional word order in declaratives introduced by the adverb *kanskje* ‘maybe’ is also acquired early, as the first relevant utterances from all three children display non-V2. In fact, the children seem to have exactly the same word order preference as adults in these cases (approximately 95% non-V2).

The children also produce some examples with non-target-consistent non-V2 word order. These are shown to be of two different kinds – a low number (23 examples) of non-finite root clauses with a modal or other auxiliary missing, and a slightly higher number (54 examples) of true non-target word order, appearing with finite verbs. These latter examples were found to differ from their V2 counterparts with respect to information structure: While V2 first appears with the verb *være* ‘be’ and full DP subjects, the non-V2 errors mainly occur with a pronominal subject and other verbs, i.e. they tend to appear only when the subject represents given information. This was linked to the patterns found for *wh*-questions in this dialect, discussed for the adult language in Chapters 2 and 3 and for the acquisition data in Chapter 7. Thus, in the early stages of first language
acquisition, verb movement is more likely to occur in sentences with a subject that conveys new information. This pattern, i.e. target-consistent V2 appearing with new subjects first and non-target-consistent word order occurring with given subjects only, corresponds to the pragmatic principle of end focus, a well-known tendency to put given information as early as possible in the sentence and push new information towards the end. This suggests that young children are very sensitive to patterns of information structure at an early age.

One question that was asked in this chapter is whether these patterns of information structure are due to children's natural preferences in early grammar development or whether the mixed V2/non-V2 word order in \textit{wh}-questions has spilled over to another clause type. Some similar child data from Swedish, where there is no mixed word order in \textit{wh}-questions in the adult language, was investigated and found to weakly support the former view. This also supports the split-CP clause structure outlined in Chapter 3 and the corresponding model of micro-cues, arguing that, when searching for word order cues, children focus on one clause type at a time and do not generalize from one to the other. The exceptional non-V2 word order with the adverb \textit{kanskje} ‘maybe’ is unlikely to have an effect either, as from the very beginning of relevant utterances children make a clear distinction between \textit{kanskje} and all other initial elements, producing exactly opposite proportions of the two word orders in these cases, 96.4% non-V2 in the former (see Section 4.1) and 96.2% V2 in the latter (see Section 4.2.1).

In the next chapter we turn to an investigation of word order in the children's subject-initial declaratives.
CHAPTER 6

The acquisition of word order in subject-initial declaratives

1. Introduction

In this chapter I investigate the development of word order in subject-initial declarative main clauses in the Norwegian corpus of child language. As shown in Chapters 2 and 3, these clauses display V2 in that the finite verb appears between the subject and adverbs or negation. This was illustrated in an example from the input data investigated in Chapter 4, repeated here.

(1) æ trur ikkje det er plass til han … (inv, Ole.14)
I believe not it is room for him
'I don’t think there is room for him…'

The micro-cue for verb movement in declaratives is formulated in (2), and as argued in Chapter 3, this is expressed in non-subject-initial declaratives in the primary linguistic data. In the input sample investigated in Chapter 4, this clause type is relatively frequent, attested 13.6% of the total number of complete sentences. And as shown in the previous chapter, V2 word order is acquired early in this clause type.

(2) Micro-cue for V2 in declaratives: $\text{Decl}_P[\text{XP}_{\text{Decl}}V...]$

Assuming that the cue in (2) may trigger the correct word order also in subject-initial main clauses, we would expect this to be early acquired too. But this requires that children ‘transfer’ the word order cue from non-subject-initial declaratives to subject-initial ones. Given the micro-cue approach, where there is assumed to be no other trigger for verb movement than the cues themselves (e.g. a feature in the Decl° head that needs to be checked), there is strictly speaking no reason why this kind of generalization should take place. Given a tendency for economy, it may also be that children initially assume that subject-initial declaratives express verb movement to a lower head than Decl°, e.g. a head in the IP domain, as is the case for Icelandic (embedded clauses). That is, children may interpret input such as (1) to express V-to-I movement, as in the micro-cue formulated in (3). If this is
the case, then this particular cue would also be expressed relatively frequently in the input, 6.2% according to the input sample studied in Chapter 4.

(3) Micro-cue for V-to-I movement: \(\text{IP}\left[\text{XP} \; \text{IºV}\right]\)

It is not possible to distinguish between the two types of verb movement in the production of subject-initial declaratives. If children produce target-consistent word order in sentences such as (1), we will generally not be able to tell whether the finite verb is in Declº or in Iº in their I-language grammars. If children move the verb to the lower head in these cases, this should only be visible as non-target-consistent word order in non-V2 contexts, e.g. embedded clauses and non-V2 wh-questions which also contain negation or an adverb. This question will therefore be returned to in Chapter 9.

Whether verb movement takes place at all in subject-initial declaratives in Norwegian child language is detectable in clauses which contain an adverb or negation. But sentence adverbs are extremely infrequent in early child speech, as also noted by e.g. Santelmann (1995). Young children produce few, if any, sentence adverbs until they have reached a relatively advanced stage. Since data collection for the Norwegian corpus was completed when the children were around the age of three, there are very few sentences with adverbs attested. These are scattered across the corpus and cannot give a clear picture of the development. The only element that is frequent enough in the child data to be used as an indication for verb movement is the negation \(\text{ikke/ikkje} \) ‘not’ and the discussion of word order in declarative main clauses in this chapter will therefore mainly focus on negative sentences.¹

In Chapter 4, we also saw that focus-sensitive adverbs such as \(\text{bare} \) ‘only, just’ are extremely rare in the primary linguistic data, attested only 0.07% in the overall input. These examples display a different word order than subject-initial declaratives in general, as focus-sensitive adverbs may appear between the subject and the finite verb (non-V2). The verb was argued to move to a lower head in the CP domain in these cases, to Focº. The micro-cue is formulated as in (4), and a relevant example is repeated from Chapter 4 in (5).

(4) Micro-cue for word order in subject-initial declaratives with focus-sensitive adverbs: \(\text{DeclP}\left[\text{XP}_{\text{FocP}}\left[\text{Foc-Adv}_{\text{Focº}}\left[\text{V}\right]\right]\right]\)

(5) \text{han bare leke med den ja.} \quad \text{(inv, Ole.22)}

‘He is just playing with it. ’

¹. The Standard Norwegian form of this word is \(\text{ikke}\), while the dialect form is \(\text{ikkje}\). There seems to be a change taking place in the Tromsø dialect, the speech of the younger generation moving in the direction of the standard form. The children in this study use both forms interchangeably.
Chapter 6. The acquisition of word order in subject-initial declaratives

This chapter is organized as follows: In Section 2, I review some previous research on verb movement, and based on these findings, I briefly outline some predictions for the acquisition of verb movement in subject-initial declaratives in Norwegian. In the subsequent section, the word order data from the child corpus are presented and discussed in relation to these predictions. First, Sections 3.1, 3.2 and 3.3 focus on the relative word order of the verb and negation with respect to finiteness and the possible connection between morphology and syntactic movement. Evidence for an Optional Infinitive stage is investigated in Section 3.4, and it is concluded that the non-finite clauses appearing in the data are not cases of lack of verb movement, but instead examples where there is an auxiliary missing, generally a modal. The following section discusses these examples in relation to subjectless clauses and the development of modals. In Section 3.6, I briefly consider the idea that there is gradual verb-by-verb learning of syntactic movement, based on semantic or morphological features. Finally, in Section 4 I discuss examples of subject-initial declaratives involving focus-sensitive adverbs such as bare ‘only, just’, which allow non-V2 in the target language.

2. Previous research and predictions

2.1 Finiteness and the development of modals

As discussed in the previous chapter, many acquisition studies from the 80s and early 90s argue that there is a connection between verb movement and agreement or finiteness. However, not all studies from this time agree on the causal interrelationship of word order and verbal morphology. For example, Jordens (1990) claims that there is simply a distributional difference between finite and non-finite verbal elements, the former predominantly appearing in first/second position and the latter in final position, as illustrated by the following examples from de Haan (1987), cited in Jordens (1990: 1415–1416).

(6) papa slaapt nog. (Tim, age 25.5–27.5) (Dutch)
   daddy sleep.PRES still
   ‘Daddy is still sleeping.’

(7) ik ook doen. (Tim, age 25.5–27.5)
   I also do.INF
   ‘I also (want to?) do (this).

Jordens also investigates the linguistic production of his daughter Jasmijn, and he finds that she systematically uses finite forms in second position (often modals and auxiliaries) and non-finite forms in final position (infinitives and participles),
already from an early age, approximately 23–24 months. He then argues that the early OV structures seen at this time in Dutch and German child language are precursors to complete predicates with discontinuous word order. This means that sentences like (7) with the verb in final position are not examples of a word order mistake where the children have failed to move the verb. Instead, there is a modal or other auxiliary missing, as the translation suggests. In a study of child Swedish, Josefsson (1999) comes to a similar conclusion. For the Dutch data, Jordens finds that these verb-final structures rapidly disappear from the child’s production at the stage where there is a simultaneous increase in clauses with modals and other auxiliaries.

In Sections 3.1–3.3 I investigate the Norwegian child data with respect to verb position and finiteness, and it will be shown that the findings in crucial ways correspond to the Dutch data.

2.2 Optional infinitives and subjectless clauses

The above approaches are different from the Optional Infinitive (OI) hypothesis advocated by Poeppel and Wexler (1993) and Wexler (1994) discussed in the previous chapter, which argues that children may produce root clauses with uninflected verbs due to an option in child grammar to leave tense underspecified. This has been found to be the case in various child languages, also V2 languages such as Dutch and German. In Harris and Wexler (1996), this hypothesis is also argued to hold for English, as they show that tense is used more often in affirmative than medial-NEG sentences (9.6% vs. 43%). They relate this finding to the OI stage and the lack of V2: as the tense feature is missing, *do* will not be inserted, and since English is not a V2 language, there is nothing that triggers verb movement across negation.

Wexler (1999a) argues for a maturational model where parameters are set early, whereas some universal principles emerge late. In the minimalist model of Chomsky (1995), subject movement (to INFL) is no longer due to case assignment, as in more traditional accounts, but is argued to be caused by the necessity to check an uninterpretable D(eterminer) feature on the Tense and Agreement heads against a corresponding D-feature on the subject. Using this model, Wexler (1999a) then explains the OI stage as young children’s adherence to a restriction in UG called the Unique Checking Constraint (UCC), which causes them to check the D-feature of the subject only once and thus to omit either Tense or Agreement.2 Thus, subjects move in OIs (e.g. across negation), but verbs don’t.

---

2. The UCC is defined in the following way (Wexler 1999a: 59):

> Unique Checking Constraint (UCC) (on kids in OI-stage)
>
> The D-feature of DP can only check against one functional category.
of V2 languages set the V2 parameter early, but the presence of this developmental UG constraint in their grammar (the UCC) makes it possible for them to optionally leave the verb non-finite. In the early work, the OI hypothesis seemed to contrast with an analysis with missing modals. However, Wexler (1999a: 55) seems to specifically include such cases within the OI stage, since an OI language is widely defined as “one in which in early development a substantial proportion of root clauses (that in the adult grammar are required to be finite) are produced by the child in non-finite form”. This means that when tense or agreement is omitted, verb inflections as well as auxiliaries will be lacking in children’s clauses.

Related to the question of non-finite root clauses is the issue of null subjects in child language, also discussed in the previous chapter. Null subjects have been widely attested in non-null-subject languages such as e.g. English and German and initially analyzed as a mis-setting of the null-subject parameter (Hyams 1986). It has been widely shown, however, that this cannot be the case, see e.g. Valian (1990). According to Wexler (1999a), null subjects are licensed by non-finite verbs, as in the adult language, and they should therefore be much more frequent in OIs than in finite clauses. When subjects are missing in finite clauses, these are examples of topic drop.

Claiming that root infinitives with overwhelming frequency receive a modal meaning in Dutch child language, Hoekstra and Hyams (1998) introduce what they call the modal reference effect. This is taken up by Blom and Wijnen (2000), who argue that this is due to a feature on modals in Dutch, formulated as [-realized], which is different from English, where the bare form may have other meanings than modal ones. Based on data from six Dutch 2–3 year-olds, they argue that early root infinitives in Dutch child language are due to infinitives being unanalyzed at this stage (like in English), but that there appears a ‘modal shift’ in the OI stage of the acquisition of Dutch. In more recent work, Blom (2007) shows that the difference between English and Dutch child language with respect to modal meaning is not as great as previously assumed. Wijnen, Kempen and Gillis (2001) also argue that the predominance of infinitives in early Dutch is due to input, as infinitives occur in final, i.e. salient positions.

In Sections 3.4–3.5 I show how the Norwegian child data fit into the picture of this previous research on Optional Infinitives, modality, and the connection with null subjects.

2.3 Verb movement as a verb-by-verb learning process

Despite the distributional difference found between finite and non-finite verbs in Dutch child language, Jordens (1990) does not consider the early V2 examples to be evidence that the children have acquired a verb movement rule. He argues that
The acquisition of verb movement is thus argued by Jordens to be a long process, where children first distinguish verb positions based on semantic categories. In accordance with the findings in the Dutch child data, he argues that verb movement is first learned with stative verbs, then with resultative verbs and finally with activity verbs.

Within the continuity approach to language acquisition, the idea of a verb-by-verb learning process has been dismissed for German by Poeppel and Wexler (1993). Häkansson and Collberg’s (1994) work on L1 and L2 Swedish resulted in a
modal hypothesis, which argues that target-consistent V-Neg word order should first appear with modals, and then be extended to other verbs. In more recent work within item-based approaches to language acquisition, e.g. Akhtar (1999) and Tomasello (2003), the idea of a verb-by-verb learning process again has a prominent place. In these approaches, however, it is typically the frequency of a particular verb in the input which is responsible for early vs. late acquisition, not its semantic category. Because of these ideas, the verbs found in early V2 structures in the Norwegian child data are analyzed with this question in mind, and a comparison is made to verbs occurring in non-V2 constructions (in Section 3.6).

In summary, the predictions based on findings from other studies for the acquisition of word order in subject-initial declaratives in Norwegian are generally related to finiteness, non-finite root clauses, modality and null subjects, and the question of a verb-by-verb learning process. In the following sections, these issues are the focus of the investigation of the child data.

3. Word order in subject-initial declaratives

3.1 Verb movement and finiteness

In order to investigate the children’s acquisition of word order in subject-initial declaratives, all child utterances in the corpus containing the negation ikke/ikkje ‘not’ have been identified according to word order (V-Neg or Neg-V) and the verb forms involved classified as finite, non-finite, or ambiguous. In general, the findings show that the children produce both V-Neg and Neg-V at an early stage, and gradually more target-consistent V-Neg. Perhaps surprisingly, even in a morphologically impoverished language like the Tromsø dialect, there is a clear difference between the two word orders with respect to finiteness, V-Neg mainly appearing with finite and Neg-V with non-finite verbs, shown in (13)–(18).

(13) ikke legge.  
not lay.INF
‘(X will) not go to bed.’  
(Ina.04, age 1;11.22)

(14) æ gjør ikke.  
I do.PRES not
‘I’m not doing (it).’

(15) ikke # ha # den!  
not have.INF that
‘(X will) not have that.’

(Ann.02, age 1;9.18)
(16) æ vet ikkje. (Ann.02, age 1;9.18)
    I know. pres not
    ‘I don’t know.’

(17) ikke være sånn. (Ole.02, age 1;10.0)
    not be. inf such
    ‘(It should) not be like that.’

(18) ho mamma er ikke på jobb. (Ole.02, age 1;10.0)
    det mom be. pres not on work
    ‘Mom is not at work.’

Table 6.1 Subject-initial declaratives with V-Neg and Neg-V word order in files Ina.01–23; with finite, non-finite, and ambiguous verb forms

<table>
<thead>
<tr>
<th>File No./Age</th>
<th>V+Neg (448/506 – 88.5%)</th>
<th>Neg+V (58/506 – 11.5%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fin</td>
<td>Amb</td>
</tr>
<tr>
<td>Ina.01 (1;8.20)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Ina.02 (1;10.4)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Ina.03 (1;10.23)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Ina.04 (1;11.22)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Ina.05 (2;0.5)</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Ina.06 (2;1.0)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Ina.07 (2;1.23)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Ina.08 (2;1.29)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Ina.09 (2;2.12)</td>
<td>17</td>
<td>4</td>
</tr>
<tr>
<td>Ina.10 (2;3.12)</td>
<td>17</td>
<td>0</td>
</tr>
<tr>
<td>Ina.11 (2;4.1)</td>
<td>10</td>
<td>3</td>
</tr>
<tr>
<td>Ina.12 (2;4.28)</td>
<td>32</td>
<td>0</td>
</tr>
<tr>
<td>Ina.13 (2;5.25)</td>
<td>21</td>
<td>2</td>
</tr>
<tr>
<td>Ina.14 (2;6.19)</td>
<td>10</td>
<td>0</td>
</tr>
<tr>
<td>Ina.15 (2;6.25)</td>
<td>13</td>
<td>0</td>
</tr>
<tr>
<td>Ina.16 (2;7.8)</td>
<td>40</td>
<td>0</td>
</tr>
<tr>
<td>Ina.17 (2;7.22)</td>
<td>40</td>
<td>0</td>
</tr>
<tr>
<td>Ina.18 (2;8.12)</td>
<td>46</td>
<td>0</td>
</tr>
<tr>
<td>Ina.19 (2;8.22)</td>
<td>42</td>
<td>0</td>
</tr>
<tr>
<td>Ina.20 (2;8.27)</td>
<td>26</td>
<td>2</td>
</tr>
<tr>
<td>Ina.21 (2;9.18)</td>
<td>31</td>
<td>0</td>
</tr>
<tr>
<td>Ina.22 (2;10.2)</td>
<td>55</td>
<td>1</td>
</tr>
<tr>
<td>Ina.23 (2;10.22)</td>
<td>32</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>432</td>
<td>15</td>
</tr>
</tbody>
</table>
Table 6.1 provides an overview of Ina’s subject-initial declaratives with negation up to the age of approximately three. All relevant examples are specified with respect to the type of verb form; clearly finite, clearly non-finite (typically the infinitive), or ambiguous (either the infinitive or the present tense of a regular verb, cf. Chapter 2).

Table 6.1 reveals that an overwhelming majority of these negative declaratives appear with target-consistent V-Neg, in as much as 88.5% of all examples. As already mentioned, there is a clear pattern with respect to finiteness, finite verbs generally occurring in front of negation (432 plus 15 ambiguous examples), while non-finite forms appear following negation (21 plus 35 ambiguous examples), as would be expected in the adult grammar. Only three examples contain an unexpected verb form, one non-finite form preceding negation and two finite forms following negation.

Tables A.3 and A.4 in the appendix illustrate similar patterns in the production of the other two children, Ann producing somewhat less and Ole somewhat more Neg-V word order (6.8% and 15.5% respectively). In Ann’s data only four examples occur with an unexpected verb form in relation to syntactic position, two non-finite verbs preceding negation and two finite verb forms following negation. In Ole’s data, there are seven examples of finite verb forms following negation, all appearing in relatively early files.

Furthermore, as mentioned in the introduction to this chapter, the children produce a few scattered examples of adverbs in subject-initial declaratives, mainly også ‘also, too’. These examples are similar to the examples with negation, i.e. non-finite verbs follow the adverb, while finite verbs precede it, illustrated in (19)–(20).

(19) Merete også pusle. Merete also puzzle.inf ‘Merete (should) also do a puzzle.’

(20) ja han Ole har også (k)napp +//. yes DET Ole have.pres also button ‘Ole also has a button.’

The data in Tables 6.1, A.3, and A.4 and the corresponding examples show that, despite the relatively impoverished nature of verbal morphology in Norwegian, children acquiring this language make a distinction between finite and non-finite verb forms with respect to verb movement at an early age, moving finite verbs to a position above negation. This corresponds to findings from other Germanic languages mentioned above. In the next section I take a closer look at the few examples which do not conform to this pattern.
3.2 Position vs. finiteness – non-target-consistent examples

Of the total number of subject-initial declarative main clauses with negation in the children's production, only 14 examples occur with an unexpected verb form, a non-finite verb preceding or a finite verb following negation. Ina produces one example of the former type and two of the latter, Ole seven examples of the latter, and Ann two of each. These examples are spread across the corpus and can hardly be argued to form a developmental pattern. It is thus unlikely that these examples constitute a stage where the children are unaware of the distinction between finite and non-finite verbs with respect to verb movement.

A closer investigation of the three non-finite forms preceding negation reveals that they can be explained by reference to morphology. As pointed out in Chapter 2, children acquiring the Tromsø dialect sometimes overgeneralize the present tense form -e of the weak verb classes to other verbs, so that it becomes identical to the infinitive. Given the context of these examples, all three of them may be explained as having overgeneralized finite verb forms, see example (21).

\[(21)\] ina: \textit{sette} \textit{ikkje} på xx han. (Ina.07, age 2;1.23)
\[\text{sit-INF/PRES? not on xx he} \]
\[\text{‘Not sitting on xx he.’} \]
\[\text{INV: ka han} \textit{sett} \textit{ikkje} på? \]
\[\text{what he sit.PRES not on} \]
\[\text{‘What is he not sitting on?’} \]

It is somewhat more difficult to explain the 11 occurrences of finite verbs in sentences with Neg-V word order. As shown by the examples in (22)–(24), these are all clearly finite: In addition to frequent verb forms such as \textit{var} ‘was’ and \textit{bli}r ‘becomes’, they involve modals or overgeneralized past tense forms (\textit{dætta} ‘fell’ (target \textit{datt}) in (22a) and \textit{sedde} ‘saw’ (target \textit{så}) in (24e)). Note, however, that in most of the examples the child starts out producing target-consistent word order, and in some cases even produces it several times before the opposite non-target-consistent word order appears.

\[(22)\] a. den her \textit{ikke} \textit{dætta} ned den der. (Ina.11, age 2;4.1)
\[\text{this here not fall.PAST down that there} \]
\[\text{‘This thing didn’t fall down.’} \]
\[\text{Target: Den her datt ikke ned, den her.} \]
b. <du må ikkj> [/] du ikke må tegne vinga på der.
   you must not… you not must draw wings on there
   (Ina.18, age 2;8.12)
   ‘You must not draw wings on that one.’

(23) …dem blir ikke kald.
   …they get.pres not cold
   ‘They don’t get cold.’
   nei ikke blir det. (Ann.12, age 2;4.23)
   … ikke blir det.
   not get.pres that

(24) a. ikke får sånn <melon> [?] (Ole.02, age 1;10.0)
   not get.pres such melon
   b. og var [/] det ikke var der. (Ole.03, age 1;10.22)
      and be.past it not be.past there
   c. ikke røre der.
      not touch.inf there
du må ikke røre der kassetten.
      you must not touch there cassette.def
   nei ikke røre kassetten
   no not touch.inf cassette.def
   A few lines later:
   han Ole ikke må røre den. (Ole.06, age 2;1.5)
   det Ole not must touch it
   d. ikke røre den
      not touch.inf it
du må ikke røre den.
      you must not touch it
   ikke må røre den. (Ole.07, age 2;1.26)
      not must touch it
   e. …æ ikke sedde du har gjort [/] æ ikke sedde du gjort f+ [/] æ ikke sedde du [/] du har gjort klar den din fly der. (Ole.16, age 2;8.5)
      … I not see.past you have made… I not see.past you made… I not see.past you…you have made ready that your plane there
      ‘I didn’t see that you have made… your plane ready.’
      Target: Æ så ikke at du har gjort klart flyet ditt der.

This corresponds to findings in earlier work on German child language, e.g. Clahsen (1986) or Meisel and Müller (1992), that non-finite verbs never appear in second position but that finite verbs occasionally occur in final position. The
number of examples is so small, only 0.8% (11/1425), that they could be disre-
garded as occasional slips. In Chapter 10, these findings will also be connected to
children’s general tendency for economy of movement.

3.3 Movement, finiteness, and negation

Harris and Wexler (1996) observed that tense is used more often in affirmative
than negative sentences in English, and relate this to the Optional Infinitive stage
and the V2 parameter: As there is no V2 in English declaratives, there is nothing
that triggers verb movement across negation. And as the tense feature is missing,
do will not be inserted either. For V2 languages, the opposite situation has been
claimed to hold in declaratives: Santelmann (1995) found a great difference be-
tween negative and affirmative sentences with respect to finiteness in Swedish
child language, tense occurring earlier in negative sentences. This has also been
attested for Dutch by Haegeman (1996).3 This is argued to be part of the general
property of V2 syntax that requires verb movement only with finite verbs. Thus,
this corresponds to the prediction that Optional Infinitives should be non-existent
in non-subject-initial declaratives and wh-questions (see also Chapters 5 and 7).

In order to investigate this, a comparison between affirmative and negative
sentences in some of the Norwegian children’s early data have been made, files 1,
6 and 10, and additionally files 2 and 3 for the two girls. All verbs in non-negative
declaratives have been classified as finite, non-finite or ambiguous. The findings
are displayed in Table 6.2 and compared to the verb forms involved in declarative
main clauses with negation from Tables 6.1 and A.3–4.

There is a relatively stable increase in the number of finite verb forms in af-
firmative declaratives throughout the files of the children, and a corresponding
decrease in non-finite forms. Disregarding Ina’s first file (which consists almost
exclusively of the verb form er ‘is’), the percentage of clearly finite forms starts
around 40–50% for Ina and Ole, and as low as 18.5% for Ann (presumably due to
this child producing more ambiguous verb forms in the early files). The number
of sentences with ambiguous verb forms varies, and this obviously obscures the
picture somewhat. Furthermore, some of the “clearly” non-finite forms could
be overgeneralizations of the -e present tense ending, so that they are in fact fi-
nite in the children’s grammars. Since this should affect affirmative and negative
sentences to the same extent, I have not tried to find out which ones could be-
long to this category. Since the figures for negative sentences are so low, however,

3. In the corpus that Haegeman investigated, only 6% of all negative sentences are root infini-
tives, while the figure for non-negative sentences is 17%.
Table 6.2 Verb forms in affirmative and negative subject-initial declaratives in selected files, three Norwegian children

<table>
<thead>
<tr>
<th>File no.</th>
<th>Affirmative subject-initial decl</th>
<th>Negative subject-initial decl</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Finite</td>
<td>Amb</td>
</tr>
<tr>
<td>Ina.01</td>
<td>14 (77.8%)</td>
<td>3 (16.7%)</td>
</tr>
<tr>
<td>Ina.02</td>
<td>16 (41%)</td>
<td>9 (23.1%)</td>
</tr>
<tr>
<td>Ina.03</td>
<td>25 (46.3%)</td>
<td>16 (29.6%)</td>
</tr>
<tr>
<td>Ina.06</td>
<td>119 (45.8%)</td>
<td>64 (24.6%)</td>
</tr>
<tr>
<td>Ina.10</td>
<td>125 (68.7%)</td>
<td>31 (17%)</td>
</tr>
<tr>
<td>Ann.01</td>
<td>12 (18.5%)</td>
<td>32 (49.2%)</td>
</tr>
<tr>
<td>Ann.02</td>
<td>7 (28%)</td>
<td>8 (32%)</td>
</tr>
<tr>
<td>Ann.03</td>
<td>16 (35.6%)</td>
<td>27 (60%)</td>
</tr>
<tr>
<td>Ann.06</td>
<td>91 (75.8%)</td>
<td>12 (10%)</td>
</tr>
<tr>
<td>Ann.10</td>
<td>158 (90.8%)</td>
<td>11 (6.3%)</td>
</tr>
<tr>
<td>Ole.01</td>
<td>47 (49%)</td>
<td>36 (37.5%)</td>
</tr>
<tr>
<td>Ole.06</td>
<td>183 (69.3%)</td>
<td>49 (18.6%)</td>
</tr>
<tr>
<td>Ole.10</td>
<td>188 (76.1%)</td>
<td>35 (14.2%)</td>
</tr>
</tbody>
</table>

overgeneralization of certain frequent verbs in a particular file will have more of an effect for the figures in negative sentences than in affirmative ones. Note also that the relative proportion of ambiguous verb forms decreases, indicating that some of them are possibly non-finite forms in the early files.

With respect to the question of finiteness being in place earlier in negative than affirmative sentences, the data in Table 6.2 give no clear answer. In Ina’s files, the number of negative sentences is so small in the early files that a comparison is only possible in file 10. And at this stage, the distribution of clearly finite vs. non-finite forms is very similar for affirmative and negative sentences. In Ann’s and Ole’s files, there could be said to be a weak tendency for negative sentences to be finite earlier than affirmative ones: While the 90% level of finiteness is reached for negative sentences already in file 6 for Ann (and possibly even as early as file Ann.02), and the percentage of non-finite forms drops to about 3%, this does not happen until file 10 in affirmative sentences.\(^5\) It is more difficult to detect such a

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4. It should be noted that all the fourteen finite verb forms in Ina.01 are *er* ‘is’, which means that the 77.8% figure for finite verbs at this stage is somewhat misleading.

5. The finiteness figure in Ann’s files 3 and 10 seems to have “dropped” to 73.1% and 77.1%. Since the percentage of non-finite forms has not increased accordingly, the explanation here is probably that most of the ambiguous verb forms are indeed finite in these files.
pattern in Ole’s data, but if we concentrate on the development of non-finite forms, the figure seems to drop somewhat earlier in negative sentences than in affirmative ones, to approximately 5% in files 6 and 10, while the corresponding percentage for affirmative sentences is 10–12%.

However, the numbers in Table 6.2 are extremely small, the patterns unclear at best, and there may be many other factors involved as well. Furthermore, the production of subjectless clauses is normally related to the lack of finiteness in child language. It is therefore relevant to note that a similar investigation comparing the number of subjectless sentences in affirmative vs. negative declarative main clauses in the same files reveals no significant differences. I would therefore conclude that there is no indication in the data that there should be a correlation between finiteness and the presence of negation. This also corresponds to other findings in these child data that finiteness morphology and syntactic movement are not causally related.

3.4 Lack of verb movement or missing auxiliaries

From the data presented in the previous sections, I concluded that verb movement is in place early in the children’s grammars. An important question that is addressed in this section is whether it is possible to detect a developmental pattern in the children’s acquisition of verb movement. More specifically, I investigate whether there is an early stage where they (more or less consistently) do not move the verb.

Considering Ina’s production, there is indeed one such indication: She does not produce a single instance of V-Neg word order until age 2;2.12, when she all of a sudden produces as many as 21 examples. This suggests that she “acquires” verb movement in this clause type at this stage. If this were the case, we would expect the relative frequency of Neg-V word order in her data to drop as a result of this development. But this word order does not seem to be particularly frequent before file 9 either, and more importantly, it does not decrease with the appearance of V-Neg word order in the data. On the contrary – there is in fact an increase of Neg-V word order also in files Ina.10–13. Consequently, there is no stage in Ina’s data where the word order Neg-V is produced instead of target-consistent V-Neg. Furthermore, the other two children produce V-Neg word order at the same time as Neg-V, i.e. already in the second files, corresponding to age 1;9.18 for Ann and 1;10.0 for Ole. They also produce a considerable number of sentences with target-consistent word order at an early stage, and this pattern is stable across all files.

From the figures in Tables 6.1 and A.3–4 it is obvious that the relative frequency of Neg-V word order gradually decreases. Given this developmental pattern, it is not possible to detect a stage where verb movement is completely absent from the children’s syntactic repertoire and replaced by another construction. Therefore, the
prediction that Norwegian children should acquire verb movement later than learners of other morphologically richer languages does not seem to hold.

Given these findings, we may ask why the children produce sentences with Neg-V word order at all. In this respect it is important to note that in these examples, the non-finite verb form is in fact not used inappropriately. The meaning expressed in these examples is modal, as can be seen from the translation in the relevant examples (see Section 3.1). That is, sentences with Neg-V word order are not examples of failure of verb movement. Instead, the context shows that these are constructions where there is an auxiliary missing, typically a modal. This is similar to what Jordens (1990) argued to be the case for Dutch and Josefsson (1999) for Swedish child data. In many cases of Neg-V word order in the data, the modal reading is clear from the immediate context, see examples (25)–(27).6

(25) **INA:** han kan ikke røre klossen. (Ina.11, age 2;4.1)

he can not touch brick.DEF

A few lines later:

**INA:** <han ikke r0+> [/] han ikke røre klossen.  
he not to+ he not touch.INF brick.DEF

**INV:** skal han ikkje røre klossen?  
should he not touch brick.DEF

(26) **ANN:** æ vil ikke på Ann. (Ann.04, age 1;11.0)

I will not on Ann

‘I don’t want to (have it) on Ann.’

**MOT:** huh?

**ANN:** ikke ha den på Ann.  
not have.INF it on Ann

(27) **OLE:** ikke røre der. (Ole.06, age 2;1.5)

not touch.INF there

**OLE:** du må ikke røre der kassetten.  
you must not touch there cassette.DEF

‘You mustn’t touch that cassette.’

Target: Du må ikke røre den der kassetten.

Similarly, in (28), the imperative in the line preceding the sentence with Neg-V word order indicates that the second sentence has a modal meaning. In examples (29)–(30), the presence of the auxiliary *have* in the context provides evidence that

---

6. When it is clear from the gloss what the child utterance means (or is attempting to mean), a full translation is not provided. Similarly, the full target form will not be given in those cases where the child utterance differs from it only in that certain lexical items are missing, if the omission of these items is discussed in the text or indicated by the translation.
the forms used with Neg-V are not simple past tense (as they could have been, judging only from the verb form), but participles. Thus, they are non-finite forms and appropriate in a position following negation. Finally, in Ole’s example of a restart in (31), he shows that he is aware that the verb *røre* ‘touch’ will follow negation in the infinitive, but precede it in the present tense form.

(28) **ikkje gjør** sånn.  
not do.IMP such  
‘Don’t do that!’
nei **ikkje gjøre** det.  
nor not do.INF that  
‘(You should) not do that.’

(29) **mamma** den har ikke æ og æ **har ikke spist** cornflakes.  
 **mom** that have not I and I have not eat.**PART** corn flakes  
‘Mom, that I don’t have and I haven’t eaten corn flakes.’
 ho **Ann ikke spisa** cornflakesa.  
det Ann not eat.**PART** corn flakes**.**PL**
‘Ann (has) not eaten corn flakes.’

(30) <**den ikke pusla**> /// vi har ikke pusla den [] no.  
that not puzzle.**PART** we have not puzzle.**PART** that now  
(Ole.13, age 2;6.2)

(31) <**æ må ikke rør+**> /// æ **røre ikke** mikrofonen.  
I must not tou+ I touch.**PRES** not microphone.**DEF**  
(Ole.13, age 2;6.2)

Given the context of these examples, I would argue that subject-initial declaratives with Neg-V word order in early child language are not the result of lack of verb movement, but constructions where there is a modal (or other auxiliary) missing. There are 142 examples of such non-finite root clauses in subject-initial declaratives with negation in the corpus (58+37+58 examples of Neg-V produced by Ina, Ann, and Ole respectively, minus the 11 finite examples), making up exactly 10% (142/1435). These are discussed in the next section.

7. In the second instance of this participle form, Ann is using an overgeneralized form *spisa* (large weak verb class) for *spist* ‘eaten’ (small weak verb class). According to Jensvoll (2002), children learning this dialect commonly overgeneralize the forms of the large weak class, also to the small weak class.
Chapter 6. The acquisition of word order in subject-initial declaratives

3.5 Optional infinitives, subjectless clauses, and the development of modals

According to findings from other languages, a relatively high percentage of non-finite root clauses should be lacking a subject, see Section 2.2 above. This is due to the common correlation between non-finite verb forms and null subjects in child language, explained by Wexler (1999a) in the following way: Optional Infinitives lack tense features and therefore license PRO subjects, while subjectless finite clauses (which are relatively rare) are the result of a pragmatic type of topic drop. The Norwegian data also turn out to display striking differences between sentences with V-Neg and Neg-V word order with respect to the occurrence of subjects. While sentences without subjects occur approximately 10% or less with V-Neg word order, subjectless sentences with Neg-V make up as much as approximately 60–70%, see Table 6.3.

Furthermore, behind the overall figures in Table 6.3 there is a clear development from a relatively high number of subjectless sentences with V-Neg word order (with finite verbs) in early files to almost none in later files. In Ina’s file 9 (age 2;2.12) for example, there are seven subjectless sentences with V-Neg word order compared to 14 sentences with subjects (33.3%), while in her file 22 (age 2;10.2), only two of the 67 sentences containing negation lack a subject (3%). This means that the occurrence of topic drop (null subjects with finite verbs) decreases gradually over time. The subjectless sentences with Neg-V word order, on the other hand, are scattered across the corpus, and no clear developmental pattern can be detected with respect to subject drop. That is, the lack of subjects in these non-finite constructions is a stable feature.

However, there is one clear development in the children’s production of subject-initial declaratives, viz. the gradual decrease of non-finite root clauses and Neg-V word order. Given the analysis with a missing modal adopted here, it is interesting to compare the number of these non-finite root clauses with the number of overt modals produced in declaratives with V-Neg word order. As the children

Table 6.3 Main clause declaratives with V-Neg and Neg-V word order with and without subjects

<table>
<thead>
<tr>
<th>Files</th>
<th>V-Neg</th>
<th></th>
<th>Neg-V</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>+Subject</td>
<td>-Subject</td>
<td>Total</td>
<td>+Subject</td>
</tr>
<tr>
<td>Ina.01–23</td>
<td>399</td>
<td>49</td>
<td>448</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>(89.1%)</td>
<td>(10.9%)</td>
<td>(100%)</td>
<td>(29.3%)</td>
</tr>
<tr>
<td>Ann.01–21</td>
<td>452</td>
<td>55</td>
<td>507</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>(89.2%)</td>
<td>(10.8%)</td>
<td>(100%)</td>
<td>(30.8%)</td>
</tr>
<tr>
<td>Ole.01–22</td>
<td>301</td>
<td>16</td>
<td>317</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>(95.0%)</td>
<td>(5.0%)</td>
<td>(100%)</td>
<td>(43.1%)</td>
</tr>
</tbody>
</table>
Table 6.4 The production of modals in declaratives with V-Neg word order correlated with the number of occurrences of Neg-V

<table>
<thead>
<tr>
<th>File</th>
<th>V-Neg w/ Modals</th>
<th>Neg-V</th>
<th>File</th>
<th>V-Neg w/ Modals</th>
<th>Neg-V</th>
<th>File</th>
<th>V-Neg w/ Modals</th>
<th>Neg-V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ina.01</td>
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<td>0</td>
<td>Ann.01</td>
<td>0</td>
<td>0</td>
<td>Ole.01</td>
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<td>1</td>
</tr>
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<td>Ina.02</td>
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<td>Ann.02</td>
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<td>2</td>
<td>Ole.02</td>
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<td>1</td>
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<td>0</td>
<td>Ann.03</td>
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<td>Ole.03</td>
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<td>3</td>
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<td>Ann.04</td>
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<td>13</td>
<td>Ole.04</td>
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<td>4</td>
</tr>
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<td>Ann.05</td>
<td>3</td>
<td>1</td>
<td>Ole.05</td>
<td>1</td>
<td>3</td>
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<td>2</td>
<td>Ann.06</td>
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<td>1</td>
<td>Ole.06</td>
<td>5</td>
<td>10</td>
</tr>
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<td>2</td>
<td>Ann.07</td>
<td>9</td>
<td>4</td>
<td>Ole.07</td>
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<td>6</td>
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<td>0</td>
<td>Ann.08</td>
<td>3</td>
<td>0</td>
<td>Ole.08</td>
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<td>1</td>
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<td>Ann.09</td>
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<td>Ole.09</td>
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<td>8</td>
<td>Ann.10</td>
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<td>6</td>
<td>Ole.10</td>
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<td>5</td>
<td>Ann.11</td>
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<td>Ole.11</td>
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<td>4</td>
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<td>6</td>
<td>Ann.12</td>
<td>11</td>
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<td>Ole.12</td>
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<td>12</td>
<td>Ann.13</td>
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<td>Ann.14</td>
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<td>0</td>
<td>Ole.14</td>
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<td>0</td>
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<td>4</td>
<td>Ann.15</td>
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<td>Ole.15</td>
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<td>1</td>
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<td>Ole.17</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
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<td>1</td>
<td>Ann.18</td>
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<td>Ole.18</td>
<td>11</td>
<td>1</td>
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<td>Ann.19</td>
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<td>0</td>
<td>Ole.19</td>
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<td>1</td>
</tr>
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<td>8</td>
<td>1</td>
<td>Ann.20</td>
<td>4</td>
<td>0</td>
<td>Ole.20</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Ina.21</td>
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<td>1</td>
<td>Ann.21</td>
<td>12</td>
<td>0</td>
<td>Ole.21</td>
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<td>0</td>
</tr>
<tr>
<td>Ina.22</td>
<td>31</td>
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<td>Ole.22</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Ina.23</td>
<td>11</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

use more and more modals, the incomplete constructions should be replaced by clauses with a complete functional structure. An investigation of the data reveals a certain correlation between the frequency of modals in the child data and the occurrences of Neg-V word order, see Table 6.4. A possible interpretation of the data is that when the production of modals has reached a certain level, the number of Neg-V constructions decreases in the files of all three children. This seems to take place around files 16–17 for Ina, files 13–14 for Ann and files 12–14 for Ole. However, there is no evidence for a clear causal relationship between the frequency of modals and the production of Neg-V word order, as modals are produced at a relatively high frequency for a considerable time before there is a decrease in the number of Neg-V structures. Thus, there is a stage where the realization of modals
(or auxiliaries in general) is truly optional, possibly due to economy factors in acquisition (see Chapter 10).

3.6 Verb movement and type of verb

An issue discussed in Section 2 was the question whether there could be gradual verb-by-verb learning of verb movement taking place in the development of word order, as e.g. argued by Jordens (1990). He claimed that in the process of acquiring V2, Dutch children go through a stage where stative verbs are used in second position only, activity verbs in final position, and resultative verbs in either position, with finite morphology in second and past participle morphology in final position. This means that verb movement should be learned first with stative verbs, then with resultative verbs, and finally fall into place with activity verbs. It could also be the case that children learn verb movement in a completely item-based fashion, as argued in usage-based models of language acquisition.

I have already classified the examples with non-target Neg-V word order as non-finite root clauses with missing auxiliaries (mainly modals). Thus, the children do not seem to have a problem with verb movement \textit{per se}. Nevertheless, learning a linguistic process such as verb movement in a piecemeal fashion is perfectly compatible with the model of micro-cues, where children are assumed to make fine syntactic distinctions from early on. It is thus not impossible that they learn verb movement with one verb class first and then extend it to others.

When considering the verbs which occur with target-consistent V-Neg word order in the first columns of Tables 6.1 and A.3–4, it is surprising that so many of them are unambiguously finite forms, especially considering the lack of verbal morphology in Norwegian in general, and the Tromsø dialect in particular. Out of a total of 448 sentences with this word order in Ina’s data, as many as 432 (96.4%) occur with a clearly finite verb form. As there is a slightly higher number of ambiguous verb forms with this word order in Ann’s and Ole’s data, the corresponding percentages for their production are a little lower – 89% for Ann (451/507) and the same for Ole (282/317). By comparison, there is a considerably higher number of ambiguous verb forms in the sentences with Neg-V word order. This indicates that the verbs in the early sentences with target-consistent word order could in fact be of a special kind.

A closer investigation of the individual verb forms reveals that this is indeed the case. This is shown in Table 6.5, where the number of different verb types in sentences with V-Neg word order is relatively low compared to the total number
of tokens, so that the type/token ratio is quite high, while the situation for the sentences with Neg-V word order is very different. The verbs in sentences with target-consistent word order appear on average 8–9 times in the data of the two girls and somewhat less frequently in Ole’s production (ratio 5.56), while the verbs used in sentences with Neg-V are only used approximately 1.9 times. These data could suggest that verb movement is learned with some verbs before others.

Second, the verbs in sentences with V-Neg word order turn out to be mainly of two kinds: either very frequent irregular verbs such as være ‘be’, ha ‘have’, vite ‘know’ etc. or modals, e.g. kan ‘can’, må ‘must’ or få ‘get’, used as the sole verb in the sentence or together with a main verb, both of which are grammatical options in the target language. In fact, some of these verbs are so frequent in the corpus that the five most frequent verbs make up approximately half of all declaratives with V-Neg in the data of two of the children, 51.9% for Ann and 51.3% for Ole, and as much as 67% for Ina. Table 6.6 gives an overview of the seven most frequent verbs in the corpus, together with a cumulative percentage, and except for Ann’s preference for the verb vite ‘know’, the data show that the three children are extremely similar with respect to verb choice.

---

8. When the number of types and tokens has been counted in these sentences, different forms of the same verb, e.g. present and past tense, have been counted as separate types.
Table 6.6 Number and cumulative percentage of the seven most frequent verb forms in subject-initial declaratives with V-Neg word order, data from three Norwegian children

<table>
<thead>
<tr>
<th>Verb form</th>
<th>N</th>
<th>cum. % of total</th>
<th>Verb form</th>
<th>N</th>
<th>cum. % of total</th>
<th>Verb form</th>
<th>N</th>
<th>cum. % of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>er</td>
<td>96</td>
<td>21.4%</td>
<td>vet</td>
<td>76</td>
<td>15%</td>
<td>er</td>
<td>45</td>
<td>14.2%</td>
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<tr>
<td>be.pres</td>
<td></td>
<td></td>
<td>know.pres</td>
<td></td>
<td></td>
<td>be.pres</td>
<td></td>
<td></td>
</tr>
<tr>
<td>har</td>
<td>62</td>
<td>35.3%</td>
<td>kan</td>
<td>54</td>
<td>25.6%</td>
<td>har</td>
<td>37</td>
<td>25.9%</td>
</tr>
<tr>
<td>have.pres</td>
<td></td>
<td></td>
<td>can</td>
<td></td>
<td></td>
<td>have.pres</td>
<td></td>
<td></td>
</tr>
<tr>
<td>kan</td>
<td>57</td>
<td>48%</td>
<td>har</td>
<td>53</td>
<td>36.1%</td>
<td>fár</td>
<td>31</td>
<td>35.6%</td>
</tr>
<tr>
<td>can</td>
<td></td>
<td></td>
<td>have.pres</td>
<td></td>
<td></td>
<td>get.pres</td>
<td></td>
<td></td>
</tr>
<tr>
<td>fár</td>
<td>56</td>
<td>60.5%</td>
<td>er</td>
<td>42</td>
<td>44.4%</td>
<td>vil</td>
<td>31</td>
<td>45.4%</td>
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<tr>
<td>get.pres</td>
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<td>will</td>
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<tr>
<td>må</td>
<td>25</td>
<td>66.1%</td>
<td>vår</td>
<td>34</td>
<td>51.1%</td>
<td>skal</td>
<td>22</td>
<td>52.4%</td>
</tr>
<tr>
<td>must</td>
<td></td>
<td></td>
<td>get.pres</td>
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<tr>
<td>vil</td>
<td>31</td>
<td>73%</td>
<td>vil</td>
<td>31</td>
<td>57.2%</td>
<td>må</td>
<td>22</td>
<td>59.3%</td>
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<tr>
<td>will</td>
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<td>will</td>
<td></td>
<td></td>
<td>must</td>
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<tr>
<td>skal</td>
<td>13</td>
<td>75.9%</td>
<td>må</td>
<td>29</td>
<td>62.9%</td>
<td>kan</td>
<td>18</td>
<td>65%</td>
</tr>
<tr>
<td>shall</td>
<td></td>
<td></td>
<td>must</td>
<td></td>
<td></td>
<td>can</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In comparison, the verbs occurring in sentences with Neg-V word order are mainly regular verbs denoting activity, e.g. tegne 'draw', ødelegge 'break' or gjøre 'do', and except for the verb røre 'touch', which occurs relatively frequently in the child data, most of these verbs do not appear more than once or twice, as illustrated by the ratios in Table 6.5. Thus, there are relatively few verbs that occur in both positions (preceding and following negation) – 10 in Ina’s, 11 in Ann’s, and 13 in Ole’s production. These obviously occur in different forms in the two positions, either present or past tense in sentences with V-Neg and generally the infinitive form in sentences with Neg-V.

However, on further inspection, a semantic distinction such as the one proposed by Jordens (1990) turns out not to be relevant for the Norwegian data. Recall

9. Even in adults’ speech to children, this Neg+V\textit{infinitive} construction is frequent and seems to function as an imperative, presumably because the actual imperative form (\textit{ikke rør!}) is too direct and unfriendly in a parent-child situation.

(i) \textit{ikke rør!}
    
    not touch.\textit{INF}
    
    'Don't touch!'

10. It is somewhat misleading to compare these figures with Table 6.5, as that table also counts several verb forms of the same verb as different types (see previous footnote).
that in his approach, verb movement is in place immediately with stative verbs, then resultative verbs, and finally activity verbs. Although stative verbs are rare in sentences with Neg-V word order, they do appear in the data, illustrated by the early example from Ole's second file in (32). And although activity verbs are mainly found in sentences with Neg-V word order, they also appear early with V-Neg, as shown by (33).

(32) **ikke være** sånn.  
    not be-INF such  
    ‘(It should) not be like that.’

(33) **tegne ikke** (s)tolen.  
    draw.PRES not chair.DEF  
    ‘(I’m) not drawing the chair.’

Two other verb-by-verb learning hypotheses may therefore be considered: Given the predominance of modals in sentences with V-Neg word order, Håkansson and Collberg’s (1994) modal hypothesis seems to be relevant. As mentioned in Section 2, this hypothesis claims that verb movement should appear with modals first and then be extended to other verbs. A variant of this hypothesis also suggests itself from the data in Table 6.6, viz. a model where early verb movement is not based on the semantics of the verb (as suggested by Jordens), but on morphology. That is to say, the argument could be that children would first learn verb movement with modals, other auxiliaries and frequent irregular verbs, i.e. those that have clear finite forms different from the infinitive (see Chapter 2), and then later learn to generalize the rule to regular verbs.

However, both these hypotheses are unlikely, and the existence of V-Neg with regular main verbs from very early files provides evidence against both of them. Such examples are attested already in Ann's file 2 and Ole’s file 4, illustrated in (34)–(35). It is also the case that those verbs that occur both preceding and following negation in the child data do not necessarily appear in sentences with Neg-V word order first. This is illustrated in (36)–(37), where the verb **tegne** ‘draw’ first occurs in a sentence with V-Neg word order and only later with Neg-V.

(34) **klar ikke den**.  
    manage.PRES not that  
    ‘(I) can’t do it.’

(35) **huske ikke det**.  
    remember.PRES not that  
    ‘(I) don't remember that.’
(36) **tegne ikke Ole Brumm.**

\[ \text{draw.pres not Ole Brumm} \]

‘(I’m) not drawing Winnie the Pooh.’

(37) **ikkje tegne den.**

\[ \text{not draw.inf that} \]

‘(We should) not draw that.’

Furthermore, it seems to be the case that at the time that V-Neg word order appears in the three children’s data, there is already a variety of verbs involved. Although in Ole’s production, there is a predominance of *være* ‘be’ (both present and past forms) in files 2 and 3, Ann has a variety of verb types represented already in file 2 – modals, ‘be’, irregular as well as regular verbs. And in Ina’s file 9, where V-Neg order appears for the first time, she has the following variety of verb tokens: 5 modals, 3 examples of ‘be’, 8 irregular, and 5 regular verbs.

Thus, despite the different distribution of verb types across the two positions (V-Neg and Neg-V), illustrated in Tables 6.5 and 6.6, there does not seem to be any evidence in this corpus that there is a stage in the acquisition of Norwegian when this process is restricted to a certain type of verb. It therefore seems safe to conclude that if such a stage exists, it is either extremely short-lived, or it appears even earlier than age 1;9, when the recordings of these children started. This latter idea is weakened by the fact that none of the children produced sentences with V-Neg word order in their first files.

How, then, can we explain the difference in verb types appearing in sentences with the two word orders? The answer could be relatively simple: If we accept the idea that the Neg-V word order attested in the children’s data is not due to failure of verb movement, but rather is a result of a missing modal (or in some cases, another auxiliary), then in sentences with Neg-V word order we would only expect to find those verbs that normally appear after modals. That is, we would certainly not expect to find the verb type that is so frequent in sentences with V-Neg, viz. other modals. Instead, in the register found in child-adult interactions, we expect to find verbs that express activities that the child either can or must or wants to do, and this is of course exactly what was attested above. In sentences with V-Neg word order, on the other hand, the frequent occurrence of modals, *være* ‘be’, and irregular verbs may simply be explained by their overall frequency in the language.

In this section it has been shown that there is a clear difference between sentences with V-Neg and Neg-V word order with respect to the type of verb that occurs in the two positions. Nevertheless, a closer inspection of the child data does not support a verb-by-verb learning hypothesis of verb movement, and the different distribution of verb types is presumably mainly the result of there being a modal (or other auxiliary) missing in the Neg-V constructions.
4. Word order in subject-initial declaratives with focus-sensitive adverbs

Finally, we consider the non-V2 construction involving focus-sensitive adverbs such *bare* ‘only, just’ and *nesten* ‘almost’, which may appear between the subject and the verb in subject-initial declaratives. The micro-cue for this word order was formulated in Chapter 3 as (4), repeated from the Introduction to the present chapter.

\[(4') \text{ Cue for word order in subject-initial declaratives with focus-sensitive adverbs: } \text{DeclP[XP \_FocP[ Foc-Adv \_Focº[ V ]]]} \]

It was shown in Chapter 4 that only one of these adverbs appeared at all in the corpus of child-directed speech, viz. *bare* ‘only, just’. Furthermore, this adverb must be said to be extremely infrequent, as it was attested only 0.07% in a sample of approximately 31,000 utterances investigated. Nevertheless, all three children are apparently sensitive to this unusual word order in the input, as in addition to producing regular V2 examples with this adverb, they very early use target-consistent non-V2, illustrated in (38)–(40).

\[(38) \text{ æ bare gjør sånn. (Ina.05, age 2;0.5)} \]
\[\text{I just do.pres such} \]
\[\text{‘I am just doing like this.’} \]

\[(39) \text{ æ bare låne han. (Ann.10, age 2;3.9)} \]
\[\text{I just borrow.pres him} \]
\[\text{‘I just borrow him/it.’} \]

\[(40) \text{ de bare datt av. (Ole.08, age 2;2.12)} \]
\[\text{they just fall.past off} \]
\[\text{‘They just fell off.’} \]

In fact, the children are also in this case extremely similar to the adults, in that they produce altogether 29 such examples in the corpus of 46,685 utterances, corresponding to 0.06%. This finding corroborates other findings from this corpus that the children are very sensitive to input. It should also be noted that this word order does not appear with any other adverbs in the child corpus.

Moreover, as discussed in Chapter 2, this exceptional S-Adv-V word order is not grammatical if the verb is *være* ‘be’, a modal, or another auxiliary (unless the verb is stressed). The children also seem to be aware of this, as when these verbs are involved, target-consistent V2 word order is generally chosen, illustrated in (41)–(42).

\[(41) \text{ vi kan bare se. (Ann.09, age 2;2.19)} \]
\[\text{we can only look} \]
\[\text{‘We can just have a look.’} \]
(42) det er bare ho Merete. 
   it be.pres only def Merete 
   ‘It is just Merete.’ 

5. Summary

In this chapter it has been shown that V2 word order is attested early in subject-initial declaratives, in that the verb appears in front of negation (and occasionally an adverb) in the child data from early on, with only approximately 10% non-target word order produced across the corpus as a whole. There is a clear correspondence with finiteness, V-Neg word order occurring with finite and Neg-V with non-finite verbs. The non-finite Neg-V pattern was argued not to constitute evidence for a stage where children fail to move the verb, but rather to be the result of an auxiliary (usually a modal) missing in the sentences produced by these young children. As expected, these non-finite root clauses have a considerably higher percentage of subjectless clauses than sentences with target-consistent word order and finite verbs. Furthermore, a gradual developmental pattern was found in the data with no indications for abrupt changes in the children’s grammars, and it was concluded that verb movement is available from the very beginning of multi-word utterances. Thus the prediction that V2 should be acquired later in Norwegian than in morphologically richer languages does not seem to hold, and this further supports the claim that finiteness is not relevant as a trigger for verb movement.

The children were found to make a few errors in terms of finiteness vs. syntactic position, and the unexpected non-finite verb forms in V2 constructions were explained as overgeneralization of the present tense -e ending, making them only appear to be infinitive forms. A gradual verb-by-verb learning development of verb movement was considered, and it was shown that there is a substantial difference in the distribution of verb types in the two positions. Nevertheless, no evidence for an item-based development was found. Finally, based on the children’s behavior with respect to focus-sensitive adverbs requiring non-V2, which is target-consistent from early on, it was argued that they are extremely sensitive to input, even when exceptional word orders are attested with very low frequencies in child-directed speech.

Finally, target-consistent word order is generally in place early in subject-initial declaratives. However, it is not clear to which position the verb moves – to the IP or the CP domain. The standard assumption for the adult language is that the verb moves to C, also in these clause types, corresponding to the Decl head in the present model. Nevertheless, the input does not provide any clear evidence that the verb moves any further than I (i.e. across negation or adverbs, not across
subjects). Given economy principles in acquisition, it is therefore possible that in children's grammars, the verb only moves to the IP domain. This issue will be returned to in Chapter 9. In the next two chapters, we consider children's acquisition of word order in questions.
The acquisition of word order in \textit{wh}-questions

1. Introduction

In this chapter, the development of word order in \textit{wh}-questions is investigated. As discussed in Chapters 2 and 3, Standard Norwegian displays V2 word order in this clause type, while there is considerable variation between V2 and non-V2 in many dialects. In the Tromsø dialect, spoken by the children in this study, the word order distinction is related to the length and function of the \textit{wh}-element. While V2 word order is obligatory in questions with long \textit{wh}-constituents, as illustrated in (1), subject questions require non-V2 in the form of \textit{som}-insertion in second position, shown in (2), both examples taken from the input sample investigated in Chapter 4. The corresponding micro-cues for the acquisition of word order in these question types were formulated in Chapter 3 as (3) and (4) respectively. Both of these micro-cues are attested in the input with very low frequencies, see Chapter 4, Section 4.1.

(1) ja men korsen \underline{kan} \underline{han} kjøre bilen da # hvis han ikkje har fingran på rattet? yes but how can he drive \underline{car}.def then if he not has finger.def/pl on \underline{wheel}.def

‘But how can he drive the car then, if he doesn’t have his hands on the wheel?’

(INV, Ole.14)

(2) kem \underline{som} ikkje får kjøre? who \underline{som} not get drive

‘Who doesn’t get to drive?’

(INV, Ole.14)

(3) Micro-cue for V2 in questions with long \textit{wh}-elements: $\text{IntP} \left[ XP_{wh} \text{Int}^V \right]$

(4) Micro-cue for word order in subject questions: $\text{IntP} \left[ XP_{wh} \text{Int}^V \left[ \text{som} \right] \right]$

Questions with the short (monosyllabic) \textit{wh}-words \textit{ka}, \textit{kem} and \textit{kor} (‘what’, ‘who’ and ‘where’) may appear with either V2 or non-V2 in the dialect. As shown by the study of the adult material in the corpus, reported in Chapter 4, both word orders are used regularly by the adult speakers investigated, with very different frequencies. Moreover, the choice between the two word orders was found to be sensitive to the information structure of the sentence: V2 is preferred when the subject is new or focused information, while non-V2 is used when the subject is interpreted as given information. This situation gives rise to some interesting predictions with respect to the order of acquisition of these two word orders, and sentences such as
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(5a, b), repeated from Chapter 4, will therefore be the focus of the investigation in this chapter. The micro-cue that children need to acquire in this case is formulated in (6).

(5) a. kor **er** skoan hannes henne? (INV, Ole.17) V2
   where are shoe.DEF/PL his LOC
   ‘Where are his shoes?’

b. kor **dem** er henne? Non-V2
   where they are LOC
   ‘Where are they?’

(6) Micro-cue for V2 in questions with monosyllabic wh-elements:

\[ \text{Int}[^*wh\text{Top}\ldots\text{XP}^{+\text{FOC}}]\]

The chapter is organized as follows: In the next section I discuss some previous research and identify predictions for the acquisition of word order in wh-questions, based on findings from similar studies of other languages and some theoretical considerations. The predictions are related to finiteness, economy, information structure, item-based learning, and possible overgeneralization. Sections 3, 4, and 5 provide an overview of the findings in the child data. Section 3 focuses on the two word orders in questions with monosyllabic wh-constituents, addressing issues such as finiteness, information structure, and order of development. Furthermore, certain non-target forms are identified, including wh-questions lacking the wh-constituent. Sections 4 and 5 consider possible overgeneralization, the former presenting the child data on subject questions, and the latter discussing the children’s production of questions with disyllabic wh-words.

2. Some previous research and corresponding predictions

2.1 Inversion in child English

Previous child language research that is especially relevant for the acquisition of variable word order in wh-questions in the Tromsø dialect is work on the acquisition of subject-auxiliary inversion in English. As first discussed in Klima and Bellugi’s (1966) seminal work, some children have been found to invert auxiliaries in yes/no questions, but not consistently in wh-questions. This is illustrated in the examples in (7)–(8), from Adam in the Brown corpus (CHILDES database, Brown 1973, MacWhinney 2000). This is very similar to the word order patterns of the adult grammar in the Tromsø dialect of Norwegian.
This phenomenon has been widely discussed in the acquisition literature, by e.g. Labov and Labov (1978), Stromswold (1990), Radford (1994), Guasti (1996), and Berk (2003). In the latter work, it is argued that there is no general problem with word order in questions in child English and that the main cause of the apparent distinction between the two question types is that why is significantly different from other wh-elements, occurring more frequently without verb movement. In Guasti (1996) it is pointed out that it is the presence of negation in questions that causes the problem for English-speaking children: While they in general produce target-consistent word order in affirmative questions, they make a considerable number of verb-movement errors in negative questions. Both of these issues are discussed in Westergaard (forthcoming/2009c) in terms of the model of micro-cues.

Radford (1994) discusses various analyses of the non-inverted word order in wh-questions. One of these involves movement of the wh-element to C, thereby blocking auxiliary movement to this position. Although it is somewhat unlikely that a phrase would move to a head position, Radford suggests that this could be due to the children mis-analyzing wh-elements as heads. In this connection he refers to Taraldsen's (1986) discussion of the North Norwegian data, where it was suggested that non-V2 word order is allowed because the monosyllabic wh-elements are head-like elements. Radford then speculates that, if wh-elements can be heads in North Norwegian, then they may very well be heads in child English too. Nevertheless, Radford discards this analysis, partly for theoretical reasons related to head movement and partly because of the existence of non-inverted examples where the wh-element is clearly a phrase and thus cannot have moved to C, as in the following sentence (quoted from Radford 1994: 228).

(9) **Which way they should go?**

Note that this head analysis of wh-elements in child English corresponds to the account adopted for the adult grammar of the Tromsø dialect in Chapter 3. If van Gelderen (2004a, b) is right that there is a UG preference for elements to behave as heads rather than phrases (Head Preference Principle), then it is to be expected that children would try out this option first. For the Norwegian child data, this predicts that the head analysis of wh-elements should be a preferred structure, and correspondingly, that non-V2 should be a relatively early acquisition.

In some recent work on the acquisition of word order in English wh-questions, an attempt has been made to explain the variable word order in the child data by using a constructivist approach. Rowland and Pine (2000, 2003) and Ambridge,
Rowland, Theakston, and Tomasello (2006) argue that young English children have no rule of subject-auxiliary inversion, and that the *wh*-questions with target-consistent word order that they produce are linguistic frames consisting of a *wh*-word and an auxiliary. Recall from Chapter 5 that the earliest *wh*-questions with V2 in child German were also considered to be formulaic by Clahsen, Penke, and Parodi (1993/94). Investigating Adam’s production in detail and making a comparison with his mother’s data, Rowland and Pine (2000, 2003) argue that the frames that are learned first are the ones that are frequent in the input, while the non-target-consistent forms without inversion occur with *wh*-elements and auxiliaries that less frequently appear in combination. Thus, in examples (8a, b), the combination *what* + *can* is argued to be infrequent in the input and Adam thus produces non-target-consistent word order, while the combination *where* + *did* is more frequent and the child therefore gets word order right. In Westergaard (forthcoming/2009c), I have argued against this approach for the English data and also questioned the actual calculations. Nevertheless, this is an issue that needs to be considered for the Norwegian data, and this is therefore addressed in Section 3.4 below.

2.2 Economy and the order of acquisition

The perhaps most interesting question for the acquisition of word order in *wh*-questions in the Tromsø dialect concerns the order of development of V2 and non-V2. Will children acquire one word order first – presumably the simplest or most frequent one – and then the other, or will both be acquired simultaneously? And how early are children sensitive to distinctions related to the two word orders, both with regard to syntax and information structure?

In case there is no simultaneous development, one possible order of acquisition would be that children learn the ‘true’ dialect version with non-V2 word order first, and only later begin to produce sentences with verb movement. This would correspond to Platzack’s (1996) idea of an Initial Hypothesis of Syntax described in Chapter 5, Section 2.2, which claims that children start out assuming that all syntactic features are weak. Children should thus initially assume that verbs do not move, and later revise this initial hypothesis based on positive evidence in the input. This could lead to a brief period where Norwegian children produce structures with the verb inside the VP, i.e. *wh*-questions with non-V2 word order.\(^1\) As we saw above, this has been attested in English child language, and there are also

1. It should be noted that Platzack (1996) does not argue that this brief period in children’s development is a clearly detectable stage in child data, as structures with verb movement are attested so early in V2 languages. However, traces of this initial stage of language development should be attested, manifested as occasional mistakes in children’s early production where verb movement has failed.
occasional examples of this word order found in early Swedish, see Platzack (1996), Santelmann (1995), and Waldmann (2008). For children learning the Tromsø dialect, where there is additionally non-V2 word order in the input, such a stage could be expected to be easier to detect, as it might last longer than in other Germanic languages where V2 is more consistent.

A similar finding is reported by Hulk and Zuckerman (2000), who have studied children’s and adults’ preferences for word order in French, which is similar to the Tromsø data in that it allows both inverted and uninverted word order in wh-questions. In an elicitation task, Hulk and Zuckerman found that, although the inverted version is the one preferred by adult speakers (62% overall), the children in the study (age 4;0–5;9) overwhelmingly preferred the option without movement (89%). They therefore conclude that children pay attention to economy-based markedness (see Zuckerman 2001) – i.e. they prefer the less costly operation. In addition, Hulk and Zuckerman argue that children treat the different wh-elements individually, which is interesting in relation to the micro-cue approach.

According to these findings and theoretical considerations, it is predicted that the Norwegian children would have a preference for non-V2 word order at an early stage.

2.3 Verb movement and finiteness

In Chapters 5 and 6, previous research and corresponding predictions were discussed with respect to finiteness and the occurrence of subjectless clauses. As mentioned there, syntactic movement has often been linked to the acquisition of finiteness morphology on the verb. Thus, verb movement should apply only to finite verbs in child language (as in the adult grammar). Likewise, subjectless examples should not be attested at all or at least to a much lesser extent than in declarative main clauses. According to Rizzi’s truncation model (e.g. Rizzi 1993/94, 2000), null subjects should be impossible in wh-questions, since, if SpecCP is filled by the wh-element, all other functional projections below CP must also be present. According to the Optional Infinitive model of Wexler (1994, 1999a), subjectless wh-questions are possible (e.g. in English), but predicted not to occur in V2 languages. This is due to children’s early setting of the V2 parameter, which only applies to finite verbs. This connection between syntax and morphology may also be related to an argument expressed by Van Valin (2002) within the framework of Role and Reference grammar. Discussing the English child data referred to in Section 2.1, he argues for an analysis where inversion is the result of a rule ensuring that the expression of interrogative force is taken care of by placing tense in what he calls core-initial position. Non-target-consistent word order, which is found to occur mainly with modals and negative auxiliaries (cf. the findings of Guasti 1996), is
argued to be due to children not immediately realizing that these auxiliaries are tensed in English (as modals appear in only one form).

According to these ideas, predictions for Norwegian children’s production of *wh*-questions with respect to finiteness are the same as for other clause types involving V2. That is, disregarding the possible complication caused by the lack of verbal morphology in Norwegian, V2 should only appear with finite verbs. And if there is a correlation between syntactic movement and verbal morphology, as has often been argued (see Chapters 5 and 6), then it might be expected that *wh*-questions with non-V2 sometimes appear with non-finite verbs.

2.4 Word order and information structure

In the language acquisition literature, it has often been argued that syntax is early, but pragmatics is late. The reason for this is presumably that, in a traditional generative account with a rich UG, much of the syntax is assumed to be provided by the innate language faculty (see Chapters 2 and 3). Pragmatic principles, on the other hand, would have to be learned by language in use. To start out with an example involving Norwegian, this is claimed in Simonsen (1983), who studies the language use of a Norwegian five-year-old compared to that of an adult. While the syntactic structures produced by the child are found to be more or less identical to those produced by the adult, it is claimed that the communicative function of these structures is somewhat different and more limited than in the adult language.

Aspects of child language that remain unexplained by syntactic principles are often referred to as children’s problems with pragmatics, e.g. the Optional Specificity analysis of Hyams (1996). Other examples of this are Chien and Wexler (1990), who, reporting on experiments done with English-speaking children on the binding of reflexives and pronouns, argue that children’s early grammars have all the relevant syntactic principles. To explain younger children’s non-target-consistent performance on the binding of pronouns, they suggest that children lack a pragmatic principle, thus arguing for a dissociation between syntax and pragmatics. In similar work on the acquisition of binding principles in Russian, Avrutin and Wexler (1992) identify a pragmatic principle (Principle P), which is responsible for the contraindication of pronouns with potential antecedents. They show that children’s behavior with respect to the syntactic elements of the Binding Theory is adult-like, while young children have major problems with the interpretation of sentences where Principle P is involved. Again, this is taken as evidence for the modular structure of the language faculty, and they claim that “the syntactic submodule is far ahead of its pragmatic counterpart” (p. 303).

Schaeffer (1995), working on the acquisition of scrambling in Dutch, finds that young children sometimes fail to scramble (especially pronominal) objects when it is
required in the target grammar. In Schaeffer (2000), scrambling is argued to be driven by referentiality, which can only be grammatically marked if a distinction is made between discourse-related and non-discourse-related objects. In order to make this distinction, it is necessary to take the knowledge of the interlocutor into account, which requires what Schaeffer calls the Concept of Non-shared Knowledge. This is a pragmatic principle which young children (2-year-olds) are argued to lack, accounting for their failure to produce target-consistent word order in scrambling contexts.

Furthermore, Batman-Ratyosyan and Stromswold (2002), in experimentation studies on word order in Turkish, find that while the inclusion of discourse context in the examples improves the performance of older children (three-, four- and five-year-olds), it has the opposite effect on younger children (two-year-olds). On the other hand, the two-year-olds benefit from morphosyntactic cues (case marking). Referring to the concept of Theory of Mind, the authors suggest that “acquiring discourse/pragmatics requires that one be aware of the intentions and knowledge states of others” (p. 803), and conclude that learning morphosyntax is easy, while discourse/pragmatics is hard.

However, some recent studies come to different conclusions with respect to certain aspects of pragmatics, more specifically information structure. One example is De Cat’s (2003) study of French acquisition data, where word order in the target grammar is dependent on the topicality of an element. She shows that French children abide by pragmatic requirements on syntactic structure, and argue that the competence to encode topics is available to them from the earliest stages of language acquisition.

Gordishevsky and Avrutin (2004) report similar findings. Studying the acquisition of Russian, where the distribution of null elements is dependent on contextual requirements, they find that these pragmatic constraints are mastered by very young children. Referring to Avrutin (2004), they argue that linguistic discourse is available to children from early on. Nevertheless, in order to explain a certain overuse of null subjects found in early child language, they hypothesize that young children lack a pragmatic principle, which they take to be Schaeffer’s (2000) Concept of Non-shared Knowledge. For the data they discuss, this means that young children tend to treat arguments as given information, even when that is inappropriate in the discourse situation - that is, the children are assuming that these are given information also for their interlocutors. If the Norwegian children were to have problems with the same principle, one might expect them to overuse non-V2, since this is the word order appropriate for informationally given subjects.

In other work on the acquisition of Russian, Diakonova (2003) shows that scrambling of direct objects is an extremely early acquisition in child Russian, unlike Schaeffer’s (1995, 2000) findings for Dutch. The predicted stage in the acquisition of word order where children would use basic word order (SVO) instead...
The Acquisition of Word Order

of the scrambled word order (SOV) is generally unattested in her data, especially with pronominal direct objects. Diakonova therefore concludes that the “pragmatics of a language is plausibly acquired in concord with syntax” (p. 93).

Finally, it should be mentioned that Anderssen (2006) has investigated the development of noun phrase structure in the corpus of one of the three Norwegian children in the present study (Ina). She has found that the child’s production of definite articles is clearly target-like from early on, indicating that she is aware of the distinction between given and new information in the context of the conversation.

For the investigation of the development of word order in Norwegian, these issues are especially important, as the two possible word orders in wh-questions are distinguished by the information value of the subject. If it is the case that pragmatic principles are acquired late, we would expect children to experience problems in the acquisition of these subtle word order distinctions. On the other hand, if information structure is an early acquisition, this predicts that children should master these word order patterns relatively quickly. The findings from the Norwegian child data in Sections 3, 4 and 5 below will be shown to support the latter view.

2.5 Overgeneralization

The final prediction discussed here concerns the question of possible overgeneralization of one word order over the other. Overuse of non-V2 could be expected to occur in questions with phrasal wh-elements, which require V2. Overgeneralization of V2, on the other hand, could be found in subject wh-questions, which require non-V2 in the form of som-insertion in the dialect, or embedded questions, normally also displaying non-V2. The latter context is discussed in Chapter 9.

According to the Split-CP model of clause structure and the model of micro-cues outlined in Chapter 3, there should be little or no overgeneralization between clause types or other contexts for the two word orders. First and foremost, in the syntactic model, V2 is argued to be the result of verb movement to different heads in the CP domain, triggered by cues that distinguish between different clause types. This means that the micro-cues for different CP heads should be acquired in isolation, and no overgeneralization is expected. When children acquire the micro-cue for verb movement to e.g. the Polº head, they are not predicted to transfer this to other CP heads, e.g. Intº or Topº. The only exception would be overgeneralizations between functional projections that are shared by the different clause types. Transfer of feature values is thus expected in the IP domain, where all clause types are assumed to have an InTopP and a TP. This is discussed in Chapter 9.

To summarize, the predictions for these Norwegian children’s acquisition of wh-questions are related to economy and order of acquisition, finiteness and the occurrence of subjectless clauses, the question of usage-based learning, sensitivity
to information structure, and possible overgeneralization of one word order over the other. In the next sections, the child data on the production of \textit{wh}-questions are investigated, Section 3 focusing on the acquisition of word order in questions with monosyllabic \textit{wh}-elements, Section 4 on subject questions, and Section 5 on questions with longer \textit{wh}-constituents.

3. Questions with monosyllabic \textit{wh}-constituents

3.1 The production of V2 and non-V2 word order

In questions with monosyllabic \textit{wh}-elements, the children are exposed to both V2 and non-V2. As discussed in Chapters 2 and 3, the choice is dependent on information structure, non-V2 appearing when the subject is given information and V2 when the subject is new or focused information. The micro-cue that children have to acquire and two relevant examples from the input sample were provided in the Introduction, and are repeated here.

\begin{itemize}
\item[(5')]\begin{itemize}
\item a. kor \textit{er} sko\textit{an} hannes henne? (INV, Ole.17) V2
\end{itemize}
\end{itemize}

\begin{itemize}
\item Where are \textit{his} shoes?
\end{itemize}

\begin{itemize}
\item b. kor \textit{dem} er henne? Non-V2
\end{itemize}

\begin{itemize}
\item Where are \textit{they}?
\end{itemize}

\begin{itemize}
\item[(6')]\begin{itemize}
\item Micro-cue for V2 in questions with monosyllabic \textit{wh}-elements:
\end{itemize}
\end{itemize}

\begin{itemize}
\item\textit{IntP}\[\text{Intº\textit{wh TopP}[TopºV … XP[+FOC]]}]
\end{itemize}

The children in this study produce relatively few \textit{wh}-questions compared to the number of other clause types involving verb movement, i.e. declaratives and yes/no-questions (see Chapters 5, 6 and 8). Although occasional examples are attested in the earliest files of the children, the majority of \textit{wh}-questions do not appear until after the 10th file, around age 2;4. Some examples illustrating both V2 and non-V2 from the children’s relatively early files are provided in (10)–(12).

\begin{itemize}
\item[(10)]\begin{itemize}
\item a. kor \textit{e} babyen? (Ina.06, age 2;1.0)
\end{itemize}
\end{itemize}

\begin{itemize}
\item Where is the baby?
\end{itemize}

\begin{itemize}
\item b. ka \textit{ho} har \textit{der # nedi}? (Ina.02, age 1;10.4)
\end{itemize}

\begin{itemize}
\item What does she have in there?
\end{itemize}
The Acquisition of Word Order

(11) a. kor er Ann sin dukke hen? (Ann.04, age 1;11.0)
    where be.pres Ann poss doll loc
    ‘Where is Ann’s doll?’

b. ka du gjør? (Ann.10, age 2;3.9)
    what you do.pres
    ‘What are you doing?’

(12) kor var mannen? (Ole.01, age 1;9.10)
    where be.past man.def
    ‘Where was the man?’

The children produce altogether 504 complete non-subject $wh$-questions with the monosyllabic question words $ka$, $kor$ and $kem$ (‘what’, ‘where’ and ‘who’). An overview of this production is presented in Table 7.1, and the figures show that both V2 and non-V2 are attested to a considerable extent in child data before the age of three.

Table 7.1 Percentage of V2 in $wh$-questions, three Norwegian children

<table>
<thead>
<tr>
<th>Wh-Word</th>
<th>Ina.01–23, age 1;8.20–2;10.12</th>
<th>Ann.01–21, age 1;8.20–3;0.1</th>
<th>Ole.01–22, age 1;9.10–2;11.23</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>$ka$ ‘what’</td>
<td>34.7% (43/124)</td>
<td>25.4% (18/71)</td>
<td>100% (3/3)</td>
<td>198</td>
</tr>
<tr>
<td>$kor$ ‘where’</td>
<td>88.7% (126/142)</td>
<td>78.3% (65/83)</td>
<td>100% (42/42)</td>
<td>267</td>
</tr>
<tr>
<td>$kem$ ‘who’</td>
<td>69.2% (18/26)</td>
<td>63.6% (7/11)</td>
<td>100% (2/2)</td>
<td>39</td>
</tr>
<tr>
<td>Total</td>
<td>64.0% (187/292)</td>
<td>54.5% (90/165)</td>
<td>100% (47/47)</td>
<td>504</td>
</tr>
</tbody>
</table>

It is worth noting that the two girls produce more V2 than non-V2, and Ole does not produce a single non-V2 structure as a full $wh$-question. However, he does produce examples without verb movement in so-called $wh$-less questions, see examples (13a, b). These are discussed in Section 3.5 below. He also produces considerably fewer $wh$-questions than the girls on the whole, and the ones he does produce are mainly questions with the question word $kor$ ‘where’. The $kor$-questions also have a much larger proportion of V2 in the girls’ production.

(13) a. er doktoren? (Ole.02, age 1;10.0)
    be.pres doctor.def
    ‘(Where) is the doctor?’ Target: Kor er doktoren?

b. den gjør der? (Ole.02, age 1;10.0)
    that do.pres there
    ‘(What) is that doing there?’ Target: Ka den gjør der?
Recall that the adults in the corpus produce very different proportions of the two word orders in this context, from as little as 2.5% V2 to 68.4%. Nevertheless, there was a tendency for more non-V2 with *ka* ‘what’, see Chapter 4, Table 4.3. Thus, there is a clear similarity between the children and the adults with respect to the proportion of V2 vs. non-V2 with the three question words, in that non-V2 is more common with *ka* ‘what’, Ina producing only 34.7% V2 with this question word compared to 88.7% with *kor* ‘where’, and Ann 25.4% and 78.3% respectively.

One of the questions discussed in Section 2 concerned the order of acquisition of the two word orders. A striking finding in the data is therefore that there is no clear development from one word order to the other. In the production of the two girls, where both word orders occur in the production of complete *wh*-questions, both V2 and non-V2 are attested from relatively early files, for all question words. To illustrate that, Figure 7.1 plots Ina’s production of *ka*-questions (‘what’) across the 23 files.

![Figure 7.1](attachment:image.png)

**Figure 7.1** *Ka*-questions (‘what’) with V2 and non-V2, Ina.1–23, age 1;8.20–2;10.12
When considering Ina’s production of kor-questions, on the other hand, it might seem that V2 appears earlier in the child data than non-V2, see Figure 7.2. However, the early appearance of V2 is presumably linked to the type of question that the children typically ask at an early stage, viz. kor er DP ‘where is DP’. This subject and verb type requires V2 also in the adult data, see Chapter 3.

A similar development can be found in Ann’s production, even though she on the whole produces fewer wh-questions than Ina, see Figures A.1–2 in the Appendix. Ole doesn’t produce a single example of a complete wh-question with non-V2 word order, which again might lead one to expect that it is V2 that is first acquired. But as also mentioned above, his questions are mainly introduced by kor, which appear predominantly with V2 also in the production of the two girls (and the adults). It was also shown that Ole does produce verb movement across the subject in wh-less questions. Thus, there is nothing in the child data that clearly shows that one word order is acquired before the other.
3.2 Word order and finiteness

As discussed in Section 2, the prediction with respect to finiteness in the child data is that only finite verbs should undergo movement, as in the adult grammar. Table 7.2 provides an overview of the children’s production across the corpus. Despite the lack of verbal morphology in this variety of Norwegian, the verb forms occurring in *wh*-questions in the child data are almost exclusively finite, or they are ambiguous, meaning that they belong to one of the weak verb patterns described in Chapter 2, where the infinitive and the present tense forms are identical. There are only three non-finite forms, all produced with non-V2 word order. The only difference between *wh*-questions with V2 and non-V2 is that the latter type occurs much more often with ambiguous verb forms. In the next section this will be shown to be a function of V2 being preferred with the verb *være* ‘be’, while non-V2 is chosen when the verb is any other verb, often one which belongs to the weak verb classes.

The questions with the three non-finite verb forms and all the ambiguous ones have been studied in context, in order to determine whether they are truly non-finite or overgeneralized finite forms, see Chapter 2. It turns out that all the ambiguous forms are finite, i.e. there is no modal meaning involved and the verbs seem to be present tense. The three non-finite forms, on the other hand, are in fact non-finite,

Table 7.2 The number of finite, ambiguous and non-finite verb forms in the three children’s *wh*-questions across the corpus, with V2 and non-V2 word order

<table>
<thead>
<tr>
<th>Files</th>
<th>V2</th>
<th></th>
<th>Non-V2</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fin</td>
<td>Amb</td>
<td>Non-fin</td>
<td>Fin</td>
</tr>
<tr>
<td>Ina.01–10</td>
<td>43</td>
<td>6</td>
<td>0</td>
<td>12</td>
</tr>
<tr>
<td>Ina.11–16</td>
<td>89</td>
<td>2</td>
<td>0</td>
<td>17</td>
</tr>
<tr>
<td>Ina.17–23</td>
<td>47</td>
<td>0</td>
<td>0</td>
<td>31</td>
</tr>
<tr>
<td>Total</td>
<td>179</td>
<td>8</td>
<td>0</td>
<td>60</td>
</tr>
<tr>
<td>Ann.01–10</td>
<td>11</td>
<td>0</td>
<td>0</td>
<td>9</td>
</tr>
<tr>
<td>Ann.11–16</td>
<td>42</td>
<td>1</td>
<td>0</td>
<td>16</td>
</tr>
<tr>
<td>Ann.17–21</td>
<td>36</td>
<td>0</td>
<td>0</td>
<td>34</td>
</tr>
<tr>
<td>Total</td>
<td>89</td>
<td>1</td>
<td>0</td>
<td>59</td>
</tr>
<tr>
<td>Ole.01–10</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Ole.11–16</td>
<td>7</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Ole.17–22</td>
<td>37</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>47</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
illustrated in (14)–(16). All three are produced by Ina, and one contains an infinitive, while the other two have past participle forms. In all three cases it seems reasonable to assume that there is an auxiliary missing, a modal in (14) and the perfective have in (15)–(16), as suggested by the translations.

(14) kor æ legge den hen? (Ina.16, age 2;7.8)
    where I lay-INF it LOC
    ‘Where (should) I put it?’

(15) ka reven gjort? (Ina.18, age)
    what fox-DEF done
    ‘What (has) the fox done?’

(16) ka æ fått den? (Ina.22, age 2;10.2)
    what I got that
    ‘What (have) I got there?’

According to the Optional Infinitive and Truncation models discussed above (Wexler 1999a, Rizzi 1993/94), non-finite wh-questions should be non-existent in V2 languages. According to the former theory, this is because children set the V2 parameter early and target-consistently only apply it to finite verbs, and according to the latter because the presence of overt material in the CP domain ensures that no projection below may be missing. As such these three examples may be seen as counterevidence to these models. On the other hand, the number of non-finite root clauses is very low, making up only 0.6% (3/504), and could possibly also be interpreted as unimportant slips.

Crucially, however, we should note that there is no difference between questions with V2 and non-V2 with respect to finiteness, which might have been expected if finiteness morphology is a trigger for syntactic movement (see Chapters 5 and 6). Finiteness is not only a feature of early wh-questions with V2, as questions with non-V2 also mainly appear with finite verbs. Thus, we may conclude that verb movement applies exclusively to finite verbs in wh-questions in Norwegian child language.

2. There is also one example in Ina’s data and one in Ann’s involving the verb si ‘say’, where the children have produced the bare form instead of the standard present tense si(e)r with non-V2, see example (i). However, this bare form is also occasionally found in the data of some the adults in the corpus and may thus be considered a dialect variant of the present tense of this verb.

(i) ka du si? (Ann.11, age 2;4.0)
    what you say-PRES
    ‘What are you saying?’
3.3 Word order and information structure

As shown by Figure 7.1, the child data more or less parallel the figures in the sample of adult production with respect to the word order preference for individual wh-elements. In this section the distribution of subject and verb types occurring with the two word orders is investigated. Recall from Chapters 2 and 4 that the findings in the adult data show that word order is dependent on information structure, non-V2 being chosen when the subject is informationally given and V2 when it is informationally new or focused. This was reflected in the subject and verb types appearing with the different word orders, V2 typically with full DP subjects and the verb være ‘be’ and non-V2 with pronominal subjects and all other verbs. Generally, the child data correspond to the findings in the adult data, and common examples from Ina’s and Ann’s files are provided in (17)–(20).

(17) ka du skal finne? (Ina.5, age 2;0.5)
what you shall find
‘What do you want to find?’

(18) ka du gjør? (Ann.10, age 2;3;9)
what you do.pres
‘What are you doing?’

(19) kor er babyen? (Ina.06, age 2;1.0)
where be.pres baby.def
‘Where is the baby?’

(20) kor er Ann sin dukke hen? (Ann.04, age 1;11.0)
where be.pres Ann poss doll loc
‘Where is Ann’s doll?’

An important question is whether the children are simply making a distinction between full DPs and pronouns, or whether they are truly sensitive to information structure. In this respect, it is important to note that, just like adults, the children also produce the respective word orders with other combinations of subject and verb types. Sentence (21), for example, which has non-V2 and a full DP subject, is uttered in a situation where løva ‘the lion’ was mentioned in the immediately preceding context (thus given information), while example (22), which has V2 and a pronominal subject, is produced in a situation where the child is pointing, and the subject han der ‘he there’ is focused. This indicates that the distinction between the information value of the subject as given or new information is one that the children are sensitive to from their earliest production of wh-questions.
In this section, I provide tables which illustrate the similarity between the adult and child preferences. Recall from Chapter 4 that the adults were found to display evidence for three different V2 grammars based on information structure. First and foremost, there is the mixed grammar illustrated in Table 4.4, where the two word orders are clearly preferred in different contexts, V2 with full DP subjects or det ‘it, that’ and the verb være ‘be’, and non-V2 with pronominal subjects and all other verbs. Tables 4.5 and 4.6 illustrate a default non-V2 and a default V2 grammar, where one word order is preferred in all contexts, but where the other order survives to some extent with the most typical subject and verb choice. In Westergaard (2009a), it is also shown that some adults may have different V2 grammars for individual wh-words, especially ka ‘what’ being different from the others.

Table 4.4 Percentage of V2 with different subject and verb combinations in non-subject questions with monosyllabic wh-words, mixed grammar, 45.3% V2 (INV Ole, Tromsø)

<table>
<thead>
<tr>
<th>Subject \ Verb</th>
<th>være ‘be’</th>
<th>Other V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full DP/det</td>
<td>82.6% (128/155)</td>
<td>20.8% (5/24)</td>
</tr>
<tr>
<td>Pronoun</td>
<td>20% (1/5)</td>
<td>1.7% (2/116)</td>
</tr>
</tbody>
</table>

Table 4.5 Percentage of V2 with different subject and verb combinations in non-subject questions with monosyllabic wh-words, default non-V2 grammar, 16.5% V2 (MOT Ole, Tromsø)

<table>
<thead>
<tr>
<th>Subject \ Verb</th>
<th>være ‘be’</th>
<th>Other V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full DP/det</td>
<td>33.3% (16/48)</td>
<td>17.9% (5/28)</td>
</tr>
<tr>
<td>Pronoun</td>
<td>– (0/4)</td>
<td>6.4% (5/78)</td>
</tr>
</tbody>
</table>

Table 4.6 Percentage of V2 with different subject and verb combinations in non-subject questions with monosyllabic wh-words, default V2 grammar, 68.4% V2 (FAT Ole, Tromsø)

<table>
<thead>
<tr>
<th>Subject \ Verb</th>
<th>være ‘be’</th>
<th>Other V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full DP/det</td>
<td>94.9% (37/39)</td>
<td>62% (18/29)</td>
</tr>
<tr>
<td>Pronoun</td>
<td>– (0/1)</td>
<td>40% (12/30)</td>
</tr>
</tbody>
</table>
Tables 7.3 and 7.4 display the subject and verb choice in wh-questions with the two word orders in the production of the two girls. The patterns are clearly those of a mixed grammar (cf. Table 4.4), where the two word orders are chosen in different contexts, i.e. a preference for V2 when the subject is a full DP and the verb være ‘be’, and for non-V2 when the subject is a pronoun and the verb is any other verb.

Nevertheless, there are some aspects of the two children’s production that should be pointed out. First, the somewhat higher proportion of V2 with pronominal subjects and other verbs than ‘be’ in Ina’s data compared to Ann’s (as well as the adult data), 25.3% vs. 4.5%, is due to a number of examples of identical sentences repeated many times, illustrated in (23)–(24). In all these examples, the subject is a third person pronoun, and Ina seems to be using these deictically, pointing to people present in the context, e.g. in a book. The frequent use of the locative particle der ‘there’ in these situations indicates that this is the case. Therefore, although it is possible that these sentences are examples of a higher preference of V2 on the part of this child, an alternative explanation could be that these pronouns are not considered given information in this context, as they have to be pointed out to the listener. Thus, V2 would be the appropriate word order, also in the mixed grammar.

(23) ka **hete** han (der)? (Ina.07–09, age 2;1.23–2;2.12)
what is-called.pres he (there)
‘What is he called?’

(24) ka **har** han/ho (der)? (Ina.16–23, age 2;7.8–2;10.22)
what have.pres he/she (there)
‘What does he/she have?’

**Table 7.3** Percentage of V2 with different subject and verb combinations in non-subject wh-questions, 64.0% V2, files Ina.1–23, age 1;8.20–2;10.12

<table>
<thead>
<tr>
<th>Subject \ Verb</th>
<th>være ‘be’</th>
<th>Other V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full DP/det</td>
<td>87.6% (148/169)</td>
<td>40% (10/25)</td>
</tr>
<tr>
<td>Pronoun</td>
<td>47.4% (9/19)</td>
<td>25.3% (20/79)</td>
</tr>
</tbody>
</table>

**Table 7.4** Percentage of V2 with different subject and verb combinations in non-subject wh-questions, 54.5% V2, files Ann.1–21, age 1;8.20–3;0.1

<table>
<thead>
<tr>
<th>Subject \ Verb</th>
<th>være ‘be’</th>
<th>Other V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full DP/det</td>
<td>83.1% (69/83)</td>
<td>11.1% (2/8)</td>
</tr>
<tr>
<td>Pronoun</td>
<td>85.0% (17/20)</td>
<td>4.5% (2/44)</td>
</tr>
</tbody>
</table>
On closer inspection, there also seems to be even more differentiation in Ina’s grammar with respect to the individual *wh*-elements. Just like for some of the adults, she can be said to have a default non-V2 grammar for the question word *ka* ‘what’, while she has a mixed grammar for the other two question words. This is illustrated in Tables 7.5 and 7.6 for *ka* ‘what’ and *kor* ‘where’ respectively. In the former question word, we see that non-V2 is preferred with all subject and verb combinations (i.e. less than 50% V2), while in the latter we see a clear relationship between the context (subject and verb type) and word order preference.

In comparison, Ann seems to have a mixed grammar for both question words *ka* ‘what’ and *kor* ‘where’, where word order is dependent on context, see Tables A.5–6 in the Appendix. Nevertheless, also in Ann’s production, there is a clear difference between the two question words, in that *ka* has a much lower proportion of V2.

Finally, the *wh*-questions produced by Ole should be considered. He differs from the other two children in that he does not produce a single example of non-V2 as a full *wh*-question, with any of the three *wh*-words. He also produces considerably fewer questions than the two girls on the whole, a total of only 47. However, a closer investigation of the distribution of subject and verb types reveals that Ole does not exhibit a completely different behavior than the other two children, see Table 7.9. He simply produces fewer patterns than they do, basically just one: questions with the *wh*-word *kor* ‘where’, the verb *vere* ‘be’, and a full DP subject, i.e. the V2 combination that is also used more by the other two children.

**Table 7.5** The percentage of V2 with different subject and verb combinations in *ka*-questions (‘what’), files Ina.1–23, age 1;8.20–2;10.12

<table>
<thead>
<tr>
<th>Subject \ Verb</th>
<th><em>vere</em> ‘be’</th>
<th>Other V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full DP/det</td>
<td>48.4% (15/31)</td>
<td>41.7% (10/24)</td>
</tr>
<tr>
<td>Pronoun</td>
<td>–</td>
<td>26.1% (18/69)</td>
</tr>
</tbody>
</table>

**Table 7.6** The percentage of V2 with different subject and verb combinations in *kor*-questions (‘where’), files Ina.1–23, age 1;8.20–2;10.12

<table>
<thead>
<tr>
<th>Subject \ Verb</th>
<th><em>vere</em> ‘be’</th>
<th>Other V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full DP/det</td>
<td>96.6% (115/119)</td>
<td>0/1</td>
</tr>
<tr>
<td>Pronoun</td>
<td>64.3% (9/14)</td>
<td>25% (2/8)</td>
</tr>
</tbody>
</table>
Table 7.7 Subjects and verbs in wh-questions - all with V2, Ole.1–22, age 1;9.10–2;11.23

<table>
<thead>
<tr>
<th>Subject</th>
<th>ka ‘what’</th>
<th>kor ‘where’</th>
<th>kem ‘who’</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>være</td>
<td>Other V</td>
<td>være</td>
</tr>
<tr>
<td>Full DP/det</td>
<td>1 0 36 1 2 0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pronoun</td>
<td>0 2</td>
<td>2 3</td>
<td>0 0</td>
</tr>
<tr>
<td>Total</td>
<td>1 2</td>
<td>38 4</td>
<td>2 0</td>
</tr>
</tbody>
</table>

The data discussed in this section show that the children have a mixed V2 grammar in terms of information structure and produce more or less the same patterns for subject and verb types with the two word orders as the adult with the same grammar (INV Ole.13–22). Thus, apart from a slight preference for V2 in the child data, it seems difficult to detect any development in these children’s grammars with regard to word order, as both types of wh-questions are attested early in the files of all three children (when Ole’s wh-less questions are taken into account). It therefore seems possible to conclude that not only do the children acquire the two word orders more or less simultaneously, but they also seem to be aware of the subtle distinction in information structure between the two word orders from their earliest production of wh-questions.

3.4 Usage-based vs. rule-based learning

In this section, I briefly discuss the constructivist idea mentioned in section 2.1, which claims that children’s early wh-questions with target-consistent word order should be the result of learning syntactic frames consisting of very frequent combinations of a wh-word and a following verb (see Wessegaard forthcoming/2009c for a more extensive treatment of this issue). This would mean that there is no rule of verb movement in early child grammar. Within this framework, Rowland and Pine (2000, 2003) have argued that certain non-target-consistent wh-questions (without inversion) produced by English-speaking children always involve unusual and infrequent combinations of wh-words and auxiliaries. For Norwegian, the existence of both V2 and non-V2 in the adult grammar means that we cannot detect clear word order mistakes in the Norwegian child data, and it is not possible to study the frequency of input in relation to target and non-target-consistent forms, as was done for English. Nevertheless, it is clear that the Norwegian children produce certain very frequent word combinations in their early wh-questions, e.g. kor er ‘where is’. A usage-based approach of the Norwegian data would have to claim that children’s early wh-questions are the result not only of combinations of wh-words and all types of verbs (as verb movement is not restricted to auxiliaries,
as in English), but also *wh*-word and subject combinations in the non-V2 questions e.g. *ka du* ‘what + you’. This means that the possible two-word combinations in initial position in Norwegian *wh*-questions would be much higher than in English, which would also be the case in the input. This fact alone could make a constructivist approach to these child data less plausible. But that depends of course on how many combinations are actually produced at an early stage.

Investigating Adam’s data (see Section 2.1), Rowland and Pine (2000, 2003) find that during what they call the uninversion period (age 2;11.19–3;8.14), he produces 26 different *wh*-word + auxiliary combinations with inversion. For comparison, I consider data from only one of the Norwegian children, Ina, who has been recorded slightly longer than the other two (until 3;3). In addition to 292 *wh*-questions with the monosyllabic *wh*-words (cf. Table 7.1), Ina produces 187 further main clause non-subject *wh*-questions in the corpus, making the total 479 (see Section 5 below). A study of these questions reveals that she produces 63 *wh*-word + verb combinations. In Ina’s data there are also 40 different *wh*-word + subject combinations, making the total number of initial two-word combinations 103 (attested on average 4.65 times, 479/103). This is of course considerably higher than Adam’s 26 target-consistent combinations, but in itself, this number cannot be evidence of rule-based acquisition.

Given the number of possible subjects, it seems somewhat odd to assume that a *wh*-word and a subject should be a collocation that children pay attention to. An alternative approach to these non-V2 cases could be that they are the result of a process where the *wh*-word alone is stuck onto initial position, while the rest of the sentence remains as before (subject before verb). However, if this were the case, the choice of element(s) to place clause-initially would still have to be dependent on the type of subject. This would be necessary to ensure that *wh*-words appear clause-initially mainly when the subject is a pronoun, and *wh*-word + verb combinations when the subject is a full DP. That is, the Norwegian children would need to be sensitive to longer combinations than the two first words. This is not in principle problematic for a constructivist account: In order to explain some of the data that do not conform to their expectations, Rowland and Pine (2000: 178) and Ambridge et al. (2006: 544) suggest that the children in their studies are sensitive to larger formulae in the input, e.g. *why don’t you* or *what do you*. But for the Norwegian data this would have to hold for virtually all the complete (three-word) *wh*-questions produced, of which there are several hundred different ones attested in the data. To my mind, this seems more than unlikely.

A possible constructivist objection to this might be to say that Ina’s grammar does consist of syntactic categories at this stage, but no movement rules. This would make it possible to argue that the grammar contains two schemas for *wh*-questions, something like *[WH+be+DP]*, producing V2, and *[WH+pronoun+V]*,
resulting in non-V2. However, the children are not just sensitive to the category of the subject as DP or pronoun, as we saw in examples (21)–(22) in the previous section. Another possible objection could be that, although Ina’s grammar seems to be rule-based when the entire period is investigated, this does not exclude the possibility that there is item-based learning taking place at an early stage. A study of the earliest files (Ina.01–10, up to age 2;3.12) reveals that she produces only 72 wh-questions, and as many as 43 (59.7%) involve the combination *kor + er* ‘where + is’. Nevertheless, Ina produces 13 distinct initial two-word combinations during this time, attested on average 5.54 times, not very different from the overall average (4.65). Thus, despite the existence of some very frequent combinations, there is no indication that Ina’s early grammar is fundamentally different from what it is at later stages.

3.5 Non-target-consistent forms

In addition to the complete wh-questions discussed in the previous section, the children also produce some non-target-consistent forms. These are mainly incomplete structures where some constituent is missing - the verb, the wh-word, or occasionally the subject. One of the children also sometimes produces questions where the verb occurs twice, both preceding and following the subject.

*Wh*-questions where the verb is missing occur in the production of all three children, although admittedly not to a very large extent in Ole’s data, where only one such example is attested, illustrated in (27). The low number of complete wh-questions in his data, illustrated in Section 3.1, therefore cannot be due to uncertainty with respect to verb placement. Ina produces 22 examples of verbless wh-questions and Ann five - examples are given in (25) and (26). The number of incomplete structures produced by the individual children thus corresponds somewhat to the number of complete wh-questions (Ina 292, Ann 165, and Ole 47 – see Table 7.1): the more complete structures the children produce, the more incomplete structures also appear in their data.

(25) **ka det?** (Ina.03, age 1;10.23)

what that
‘What (is) that?’

(26) **kor dem?** (Ann.07, age 2;1.7)

where they
‘Where (are) they?’

(27) **kor bil?** (Ole.02, age 1;10.0)

where car
‘Where (is the) car?’
Although most of these verbless questions are attested in the children’s early files (18 of Ina’s 22 examples in files 3–9), they do not seem to be the reflection of a developmental pattern where one form takes over for another. A high number of complete structures does not mean a correspondingly low number of incomplete structures. Furthermore, the incomplete structures are not more frequent with one question word than another. Occasional examples also occur relatively late. The verb missing in these verbless questions is in all cases the copula. In Sections 3.2 and 3.3 above, it was shown that the verb være ‘be’ is very frequent in the children’s production and also appears extremely early. This was also the case non-subject-initial declaratives, see Chapter 5. These verbless clauses therefore cannot be argued to be the result of a problem with this particular verb either, but seem simply to be occasional performance errors, possibly due to a general principle of economy.

The second type of non-target-consistent form attested in the Norwegian child data is the production of wh-questions where the subject is missing. Recall that, according to the predictions referred to in Section 2, subjectless wh-questions are not supposed to occur at all in V2 languages, either because of truncation (Rizzi 1993/94) or the lack of Optional Infinitives in such contexts (Wexler 1999a). Nevertheless, occasional examples are attested in the corpus of one of the children. While Ann and Ole do not produce a single such example, Ina produces altogether 39 subjectless wh-questions, 38 of which appear in files 4–10, i.e. before the age of 2;4. All these 38 examples occur with the question word ka ‘what’, and as many as 30 of them are lumped together in files 9 and 10, when Ina is asking numerous questions about what various things in the immediate environment are called (discussed in more detail below). The remaining examples are eight instances of the same question, occurring in files 4–5, illustrated in (28). This means that the non-target-consistent forms tend to occur relatively early. Note also that the verb in these cases is finite.

(28) ka gjør? (1 example in Ina.04, age 1;11.22, 7 examples in Ina.05, age 2;0.5) what do.pres
‘What is (X) doing?’

Furthermore, Ina produces two subjectless examples in a relatively late file, where the subject missing is the expletive det ‘it’ and the wh-element is part of a possessive constituent, kem sin XP ‘whose XP’. This must be considered to be a relatively complex construction, and perhaps not surprisingly, the child produces a reduced
structure, as illustrated in (29). Note, incidentally, that the word order in the adult grammar could be either V2 or non-V2 in these cases.\(^3\)

\[(29)\] kem er sin pappa? (Ina.21, age 2;9.18)
who is poss daddy
‘Whose daddy is (it)?’
Target: Kem er det sin pappa?/Kem det er sin pappa?

The third type of incomplete structure that these children produce in \(wh\)-questions is one where the question word is missing. Such \(wh\)-less questions have also been attested in Swedish child data by Santelmann (1995, 1997). These questions appear especially in the early files, but continue to be produced at a certain level long after target-consistent forms have become frequent in the data. Again, Ina is the child who produces most of these non-target-consistent examples, a total of 129, while only two examples are attested in Ann’s files, see Table 7.8.\(^4\)

Table 7.8 \(Wh\)-less questions with V2 and non-V2, three Norwegian children

<table>
<thead>
<tr>
<th>(wh)-word</th>
<th>Ina 1;8.20–2;10.12</th>
<th>Ann 1;8.20–3;0.1</th>
<th>Ole 1;9.10–2;11.23</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Non-V2 V2</td>
<td>Non-V2 V2</td>
<td>Non-V2 V2</td>
</tr>
<tr>
<td>ka ‘what’</td>
<td>117 1 (+5?)</td>
<td>0 0</td>
<td>11 1 (+15?)</td>
</tr>
<tr>
<td>kor ’where’</td>
<td>6 0 (+2?)</td>
<td>2 0</td>
<td>2 3 (+6?)</td>
</tr>
<tr>
<td>Total</td>
<td>123 1 (+7?)</td>
<td>2 0</td>
<td>13 4 (+21?)</td>
</tr>
</tbody>
</table>

3. A few months later, a similar \(wh\)-question which includes the subject is attested twice, illustrated in (i). A handful of similar examples are also found in the data of Ann and Ole, in relatively late files.

(i) kem er det sin? (2 examples in Ina.24, age 2;11.26)
who is it poss
‘Whose is it?’

4. The numbers in parentheses refer to unclear examples in the corpus, as they all start with a form that is pronounced \([e:\]. This could either be the present tense form of \(være\), \(er\) ’is’, or a question particle \(E\) (and has been transcribed sometimes as \(er\) and sometimes as \(E\) in the corpus). Question particles like this have also been attested in Swedish child data by Santelmann (1997). The existence of examples like the following, where there is both \(E/er\) as well as another verb present, suggests that at least in Ole’s early production, this should be analyzed as a particle:

(i) E/er den hete? (Ole.08, age 2;2.12)
Q-PRT/is that is-called.pres
‘(What) is that is called?’ [?]
Two examples from Ole’s data were provided in Section 3.1 and are repeated here. As mentioned above, these show that even though this child does not produce a single non-V2 construction as a full wh-question, he does produce questions both with and without verb movement from a very early age.

(13’) a. er doktoren? (Ole.02, age 1;10.0)
   be.PRES doctor.DEF
   ‘(Where) is the doctor?’ Target: Kor er doktoren?

   b. den gjør der? (Ole.02, age 1;10.0)
      that do.PRES there
      ‘(What) is that doing there?’ Target: Ka den gjør der?

One striking feature of these wh-less questions is that word order seems to be in place with respect to the choice of subject and verb types preferred, even when the monosyllabic wh-word is not expressed. Thus, (13a) with V2 has the verb være ‘be’ and a full DP subject, while (13b) with non-V2 has a pronominal subject and another verb. And in Ina’s production of wh-less ka-questions (‘what’) with non-V2, as many as 105 of the 117 examples have the expected pattern, a pronominal subject and another verb than være ‘be’.

It could also be noted that, while there seemed to be a certain preference for V2 in the children’s production of full wh-questions, there is a considerably higher number of non-V2 in the questions without wh-words. In Ina’s production, there are as many as 123 wh-less questions with non-V2, while there are only 8 (and in fact, possibly just one, see footnote 5) with V2. The V2 examples all occur in the earliest files, while the non-V2 questions are distributed across the corpus. Corresponding numbers for Ina’s complete wh-questions (cf. Table 7.1) are 187 V2 and 105 non-V2. This difference is presumably related to the fact that most of the complete wh-questions appear with the question word kor ‘where’, while the wh-less examples mainly lack the question word ka ‘what’. As discussed in Westergaard (2009a), ka seems to be somehow simpler in terms of features than the other question words and may therefore be dropped more often. This is found to be the case also in adult languages, e.g. dialects of German.

On closer inspection, there also turns out to be a connection between Ina’s wh-less questions and the ones lacking a subject. In the two files with the highest number of wh-less examples (around age 2;2–2;3) Ina produces 76 non-V2

---

5. When the wh-word is missing, the verb is of course in first position when it has moved and in second when there is no verb movement, making a sentence such as (13b) surface V2. However, as the focus here is on the position of the verb in relation to the subject, the word orders in (13a, b) will still be referred to as V2 and non-V2 respectively.
questions, all with the verb *hete* ‘is-called’. A typical example is given in (30), while a V2 example is provided in (31). Note incidentally that the given/new distinction is in place, indicated by pronominal subjects in all non-V2 cases and a full DP appearing with V2. These two files also exhibit many similar questions where the *wh*-word is in place, but where the subject is missing, illustrated in (32). There are altogether 28 such examples, and additionally 20 sentences where both the *wh*-element and the subject are lacking. Table 7.9 shows the distribution of the different questions with this particular verb in the two files.

(30) den/han/ho hete? (Ina.09, age 2;2.12, 21 examples)  
that/he/she is-called.pres  
‘(What) is that/he/she called?’ Target: Ka den/han/ho hete?

(31) E hete farga? (Ina.09, age 2;2.12)  
prt is-called.pres color.def  
‘(What) is the color called?’ Target: Ka hete fargen?

(32) ka hete? (Ina.09, age 2;2.12, 17 examples)  
what is-called.pres  
‘What is (X) called?’

Thus, it looks like *either* the *wh*-word or the subject may be deleted. These subject-less sentences are presumably underlyingly structures without verb movement, since it is more likely that the subject will be deleted when it is given information. Furthermore, according to Wexler (1999a), subjectless clauses with finite verbs

Table 7.9 The number of *wh*-questions with the verb *hete* ‘is-called’, with/without *wh*-words and with/without subjects in files Ina.9–10

<table>
<thead>
<tr>
<th>Structure</th>
<th>Word Order</th>
<th>Example</th>
<th>Ina.09–10, age 2;2.12–2;3.12</th>
</tr>
</thead>
<tbody>
<tr>
<td>S V / wh S V</td>
<td>Non-V</td>
<td>(ka) Pron hete?</td>
<td>76 / 4</td>
</tr>
<tr>
<td>V S / wh V S</td>
<td>V2</td>
<td>(ka) hete DP?</td>
<td>2 / 6</td>
</tr>
<tr>
<td>wh V</td>
<td>?</td>
<td>ka hete?</td>
<td>28</td>
</tr>
<tr>
<td>V</td>
<td>?</td>
<td>hete?</td>
<td>20</td>
</tr>
</tbody>
</table>

6. In the same two files there are only two examples of a V2 question without a *wh*-word, but 27 full *wh*-questions with V2. In comparison, there are 9 full *wh*-questions with non-V2.

7. One indication that null subjects in *wh*-questions mainly occur in constructions that correspond to non-V2 word order is the following example from Ann. Here she utters the question without the subject first and then corrects herself, producing non-V2 word order.

(i) ka [/] <ka hete> [/] ka han hete? (Ann.11, age 2;4.0)  
what what is-called.pres what he is-called.pres  
‘What is he called?’
are instances of topic drop, which means that the subject is deleted when it is somehow given in the context. In any case, it is clear that Ina prefers to drop the leftmost element (the wh-word) more often than the subject (76 vs. 28 examples).

Finally, there are a few examples where the verb appears twice, both preceding and following the subject. Again, Ina is the only child displaying such behavior. Two examples involving the verb hete ‘is-called’ occur in files 16 and 17, illustrated in (33)–(34), and seven identical examples with være ‘be’ are attested in file 13, see example (35). It is not unlikely that these examples reflect some uncertainty with respect to verb placement at this stage in Ina’s development.

(33) ka hete han hete? (Ina.16, age 2;7.8)
    what is-called.pres he is-called.pres
    ‘What is he called?’

(34) ka hete de der hete? (Ina.17, age 2;7.22)
    what is-called.pres they there is-called.pres
    ‘What are they called?’

(35) kem er ho er? (Ina.13, age 2;5.25, 7 examples)
    who be.pres she be.pres
    ‘Who is she?’

This concludes the discussion of verb movement in questions with monosyllabic wh-elements in the child data, where two different word orders are allowed in the target grammar. In the next two sections, I present the children’s production in contexts where there is no word order choice in the adult language. This should allow us to address the issue of possible overgeneralization of one word order over another: Section 4 presents the child data on subject questions (which require non-V2 in the form of som-insertion) and Section 5 discusses the children’s production of questions with disyllabic wh-words (which require V2).

4. Subject questions

As noted in the introduction, subject questions are different from non-subject wh-questions in the Tromsø dialect in that they require the presence of the complementizer som immediately following the wh-constituent. Consequently, there is no verb movement in these questions, and this could therefore be considered a type of truly syntactic non-V2 word order. An example from the input sample and the micro-cue that children need to acquire in this context are repeated here.
Chapter 7. The acquisition of word order in *wh*-questions

(2’) kem som ikkje får kjøre? (inv, Ole.14)  
who som not get drive  
‘Who doesn’t get to drive?’

(4’) Micro-cue for word order in subject questions: \( \text{IntP}\left[\text{XP[+wh]}\text{Intº[som]}\right] \)

It was mentioned in Chapter 4 that subject questions are less frequent than non-subject questions, and in the adult speech sample this clause type was attested only 3.2%. Therefore, it is not surprising to find that there are few examples of this question type also in the child corpus, only seven in Ann’s and 12 in Ina’s data (the majority in the late files, after the age of three), and only one in Ole’s data (which is a repetition of an adult utterance. This means that the children produce a similar (or slightly lower) proportion of subject questions than the adult, the children’s percentages being 1.4% (4/296) for Ina (considering files Ina.01–23 only), 4.1% (7/172) for Ann, and 2.1% (1/48) for Ole (cf. Table 7.1). An overview of the children’s subject questions, with and without the functional element *som*, is provided in Table 7.10.

While Ann’s subject questions always have the target-consistent form (with *som*), illustrated in (36)–(37), Ina’s early subject questions appear without *som*. That is, these subject questions, illustrated in (38)–(39), are identical in form to Standard Norwegian, where V2 word order is required in this question type. Thus, a certain development seems to be attested, indicating that subject questions without *som* are somehow simpler syntactically. However, in sentences without *som* it is not possible to state whether verb movement has taken place instead.

<table>
<thead>
<tr>
<th>File</th>
<th>(-\text{som})</th>
<th>(+\text{som})</th>
<th>File</th>
<th>(-\text{som})</th>
<th>(+\text{som})</th>
<th>File</th>
<th>(-\text{som})</th>
<th>(+\text{som})</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ina.10</td>
<td>1</td>
<td>0</td>
<td>Ann.14</td>
<td>0</td>
<td>1</td>
<td>Ole.06</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Ina.18</td>
<td>1</td>
<td>0</td>
<td>Ann.16</td>
<td>0</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ina.19</td>
<td>1</td>
<td>0</td>
<td>Ann.17</td>
<td>0</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ina.20</td>
<td>0</td>
<td>1</td>
<td>Ann.19</td>
<td>0</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ina.24</td>
<td>1</td>
<td>0</td>
<td>Ann.21</td>
<td>0</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ina.25</td>
<td>0</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ina.25</td>
<td>0</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ina.27</td>
<td>0</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Total</td>
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<td>8</td>
<td>Total</td>
<td>0</td>
<td>7</td>
<td>Total</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

Table 7.10 Subject questions with and without the complementizer *som*, three Norwegian children
The Acquisition of Word Order

(36) kem som kjem no? (Ann.14, age 2;6.0)
who som come.pres now
‘Who is coming now?’

(37) ka som er der? (Ann.19, age 2;9.17)
what som be. pres there
‘What is there?’

(38) ka skjedde? (Ina.10, age 2;3.12)
what happen.past
‘What happened?’ Target: Ka som skjedde?

(39) kem skal drage på den her litt? (Ina.19, age 2;8.22)
who shall pull on this here little
‘Who should pull this a little?’ Target: Kem som skal drage på den her litt?

This indicates that som is a somewhat late acquisition, and that children at an early stage prefer to produce subject questions without this element. Further evidence of this is Ole’s one example, which clearly is an imitation of a subject question produced by an adult (functioning as an exclamation): Although the adult has uttered the question with the complementizer, Ole repeats it without som, as shown in (40).

(40) a. INV: nei og nei ka som skjer der.
no and no what som happen.pres there
‘Oh no, what is happening there!’

b. OLE: nei og nei ka skjer der. (Ole.06, age 2;1.5)
no and no what happen.pres there
‘Oh no, what is happening there!’

This finding does not constitute evidence that children prefer V2 to non-V2 word order. A more likely interpretation is that, being a functional element, som is simply somewhat delayed, just like other functional elements such as auxiliaries or determiners, which are often missing in early child data.

Finally, there is one example in the corpus of a subject question which includes negation. In this case, verb movement seems to have taken place to a position below som (which is argued to be in Int, see Chapter 3), i.e. a position in the IP domain. This is illustrated by the V-Neg word order in (41). We return to examples such as this in Chapter 9, which discusses verb movement in contexts that do not require it in the target language.

(41) kem som vil ikkje være ilag med han? (Ina.25, age 3;1.08)
who som will not be together with him
‘Who doesn’t want to be with him?’
Target: Kem som ikkje vil være i lag med han?
5. Questions with disyllabic wh-constituents

In this section, we consider the children’s production of questions that require V2 word order in the Tromsø dialect. These are questions introduced by disyllabic wh-elements and full wh-phrases. The example from the input sample and the corresponding micro-cue are repeated here.

(1’) ja men korsen kan han kjøre bilen da # hvis han ikkje har fingran på rattet?
yes but how can he drive car.DEF then if he not has finger.DEF/PL on wheel.DEF
‘But how can he drive the car then, if he doesn’t have his hands on the wheel?’

(3’) Micro-cue for V2 in questions with long wh-elements: \[ \text{IntP} \[ \text{XP}^{+[wh]} \text{Int}^\text{V} \]

Unfortunately, the children do not produce a high number of questions with the wh-words katti, korsen and korfor (‘when’, ‘how’ and ‘why’). In fact, there are no instances of katti/ka tid ‘when’, only one example of korsen ‘how’, and a somewhat higher number of examples of korfor ‘why’, most appearing in late files. In addition, there are a handful of examples with wh-phrases produced by Ina. Table 7.11 gives an overview of all questions with long wh-words in the corpus, and examples are provided in (42)–(43).

(42) koffer har han fått den? (Ina.22, age 2;10.2)
why have.pres he got that
‘Why did he get that?’

(43) korfor får den ikkje mat? (Ole.16, age 2;8.5)
why get.pres it not food
‘Why doesn’t it get any food?’

<table>
<thead>
<tr>
<th>File (Age) \ wh-word</th>
<th>korsen ‘how’</th>
<th>korfor ‘why’</th>
<th>wh-phrases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ina.13–27 (2;5.25–3;3.18)</td>
<td>0</td>
<td>71/73</td>
<td>5/6</td>
</tr>
<tr>
<td>Ann.17–21 (2;8.4–3;0.1)</td>
<td>1/1</td>
<td>0/1</td>
<td>0</td>
</tr>
<tr>
<td>Ole.16–22 (2;8.5–2;11.23)</td>
<td>0</td>
<td>22/22</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>1/1</td>
<td>93/96</td>
<td>5/6</td>
</tr>
</tbody>
</table>

8. Some additional examples of these question words include sentences lacking either a subject or a verb (or both), so that it cannot be determined whether verb movement has taken place.
In addition, Ina produces three examples with the question word kor ‘where’ with the locative particle hen immediately following the question word. This is a grammatical option also in the target language, but because this makes the wh-constituent disyllabic, non-V2 is no longer possible. Ina’s three examples all occur with target-consistent V2, illustrated in (44)–(45).

(44) kor hen er elva hen? (Ina.07, age 2;1.23)
where LOC be.PRES river.DEF LOC
‘Where is the river?’

(45) kor hen er buksa? (Ina.20, age 2;8.27)
where LOC be.PRES pant.DEF
‘Where are the pants?’

According to Table 7.11, there are altogether 103 examples of questions with long wh-elements in the child data, and 99 (96.1%) appear with target-consistent V2. The four non-target-consistent examples are produced by the two girls, one by Ann and three by Ina. Recall from Chapters 2 and 4 that Ann’s parents speak a dialect where non-V2 is marginally allowed also in these wh-questions. Thus, Ann is to a certain extent exposed to this word order in the input, and we therefore cannot draw any conclusions about early preferences or possible overgeneralization based on her one example, provided in (46).

(46) <kor> [/] koffør den står der? (Ann.18, age 2;8.24)
where why it stand.PRES there
‘Why is it standing there?’

The three examples produced by Ina are somewhat unclear. The context in (47a) seems to suggest that this example could be an exclamative instead of a question, and in that case, non-V2 word order is of course expected in the target language (see Chapters 2 and 3). The investigator does not seem to interpret this utterance as a question. For the two (virtually identical) instances of non-V2 in (47b), we may note that the investigator does not seem to understand the question, possibly indicating that what the child said was unclear and that the transcriber has “overinterpreted” the sentence.

(47) a. INA: korsn hus det her er med taket? (Ina.19, age 2;8.22)
how house it here be.PRES with roof.DEF
‘What kind of house is this with the roof?/What a house this is with the roof?’

INV: ja, se her.
yes look here
b. INV: det er ei sånn klipa sånn at du kan sette den fast.
    it is a such pin such that you can set it tight
    ‘It is a pin so that you can attach it.’

INA: korfor det der er klipa? (Ina.24, age 2;11.26)
    why it there be.pres pin
    ‘Why is that (a) pin?’

INV: hæ?
    huh?

INA: korfor det der der er klipa?
    why it there there be.pres pin
    ‘Why is that thing there (a) pin?’

Despite these occasional examples of non-V2 in the children’s production, it seems possible to conclude that the data presented in this section provide evidence that the children treat questions with the long \textit{wh}-elements differently from questions with the short ones, i.e. they do not overgeneralize word order from one context to another. Thus, they are able to distinguish between the two micro-cues in (3) and (6) from an early age.

6. Summary

In this chapter it has been shown that the children in this study produce both V2 and non-V2 in questions with monosyllabic \textit{wh}-elements from a very early age, with more or less the same frequency and distribution across the three question words as in the adult data. The non-target-consistent production that is attested is mainly incomplete structures where one element is missing; the verb, the \textit{wh-constituent} or, in rare cases, the subject. The prediction with respect to finiteness seems to be borne out, in that, with the exception of three examples with a missing auxiliary, all the children’s \textit{wh}-questions appear with finite verbs. However, finiteness does not seem to be directly linked to verb movement, as also \textit{wh}-questions with non-V2 appear exclusively with finite verbs.

Furthermore, the children seem to be aware of the distinction between informationally given and new subjects from early on, as they display the same preference patterns for subject and verb types with the two word orders as adults. Despite a somewhat higher frequency on the part of the children for the V2 construction, especially with the question word \textit{kor} ‘where’, it is difficult to conclude anything about the order of acquisition of the two word orders on the basis
of these data. One of the children produces only V2 in complete *wh*-questions, and
all three produce a higher number of *wh*-less questions without verb movement.

In Section 4 an overview of the children’s production of subject questions showed that they are considerably less frequent. These include the functional element *som* in the adult language, and thus require non-V2 word order. They occur relatively late in the child corpus, and in the few examples attested, subject questions are produced without *som* initially, i.e. with a word order that is similar to Standard Norwegian. This presumably does not indicate a preference for V2, but simply reflects the fact that there is a certain delay in the acquisition of functional elements such as *som*. Section 5 focuses on the children’s production of questions with long *wh*-elements. These are also shown to appear relatively late and, with the exception of a couple of (unclear) examples from Ina’s data, with target-consistent V2 word order. This means that we may conclude that children are very sensitive to fine distinctions in the language at an early stage, providing further evidence for the model of micro-cues.
1. Introduction

This chapter provides a description of the development of word order in yes/no-questions in the Norwegian corpus of child data. There are no specific predictions for the acquisition of word order in Norwegian that concern yes/no-questions only. The general predictions discussed in previous chapters for the acquisition of verb movement in other V2 constructions are also relevant in this respect, e.g. the issue of finiteness, the possible appearance of subjectless examples, and the question whether verb movement could be acquired as a verb-by-verb learning process. In Chapters 5 and 7 we have also seen that information structure is important in the early acquisition process (in wh-questions and non-subject-initial declaratives), and it is therefore relevant to investigate whether similar patterns can be found in yes/no-questions. Furthermore, possible differences between yes/no-questions and wh-questions in the acquisition data would support the syntactic model outlined in Chapter 3, where word order in the two question types is analyzed as being the result of verb movement to different heads in the CP domain.

As described in Chapters 2 and 3, yes/no-questions in Norwegian involve verb movement: The finite verb appears in initial position, preceding the subject, as illustrated in (1). In the syntactic model outlined in Chapter 3 it is argued that the finite verb in yes/no-questions moves to the head of the Pol(arity)Phrase, and the corresponding micro-cue is formulated as in (2). This is the most frequent clause type in the input, and the cue is attested as much as 30.8% in the input sample investigated in Chapter 4.

(1) skal vi lukke den igjen? (inv, Ole.14)
shall we close it shut
‘Should we close it?’

(2) Micro-cue for V2 in yes/no-questions: \[ \text{PolP} \[ \text{PolºV} \]

The chapter is organized as follows: In the next section, I provide a brief overview of the general development of yes/no-questions, dividing them into three different types depending on word order and finiteness on the verb. Section 2.1.2 discusses
the Type 1 questions, which are non-finite root clauses, while Section 2.1.3 focuses on examples of intonation questions (called Type 2), which are argued not to be more frequent in the children’s production than in adult data. In Section 2.1.4, I discuss yes/no-questions with target-consistent word order and focus on the few examples in the corpus where verb movement seems to have applied to non-finite verb forms. These are argued to be the result of overgeneralization of the present tense -e ending, as also seen in other clause types in previous chapters. Then, in Section 2.2, I present some of the children’s non-target-consistent forms, which are mainly errors of omission. Section 2.3 focuses on the question whether verb movement in yes/no-questions could be a verb-by-verb learning process, investigating a possible correlation between verb movement and verb types. Although modals are found to be extremely frequent in early yes/no-questions, there is no clear indication that verb movement is learned for this verb type before other verbs. The subject types occurring in the different yes/no-questions are considered in Section 2.4, but no patterns of information structure are detected in the children’s early data on these questions. Finally, Section 3 summarizes the findings of the chapter.

2. Yes/no-questions in the child data

2.1 Types of yes/no-questions: General development

The total number of yes/no-questions in the Norwegian child corpus is 872 – approximately half of them, 428, are produced by Ina, 315 by Ann, and 129 examples are attested in Ole’s files. This means that all three children produce more yes/no-questions than wh-questions, while the proportions match, Ina producing the highest number and Ole the lowest (see Chapter 7, Section 3.1). The yes/no-questions found in this corpus can generally be divided into three main types: 1. questions with a non-finite verb where there seems to be an auxiliary (normally a modal) missing, 2. intonation questions with declarative (S)VX word order (also possible in the adult grammar), and 3. questions with target-consistent VSX word order. Examples of these three types are provided in (3)–(11).

Type 1: (S)-V_{non-fin}-X

(3) tegne den? (Ina.05, age 2;0.5)

‘(Can I) draw that?’

(4) Merete ha? (Ann.08, age 2;1.28)

Merete have.INF
Chapter 8. The acquisition of word order in yes/no-questions

‘(Would) Merete like to have (some)?’

(5) Brumm være der?
   Brumm be-INF there
   ‘(Should) Winnie the Pooh be there?’

Type 2: Intonation questions, (S)-Vfin-X

(6) han hete bøtta?
   he is-called bucket.DEF
   ‘Is it called a bucket?’ Target: Hete det bøtta?

(7) Ann kan få se?
   Ann can get see
   ‘Does Ann get to see?’

(8) æ får lov å se på rattet?
   I get.PRES allowed to look on wheel.DEF
   ‘Am I allowed to look at the wheel?’

Type 3: Target-consistent word order, V-S-X

(9) er det båt?
   be.PRES it boat
   ‘Is that (a) boat?’

(10) ser du nokka?
    see.PRES you something
    ‘Do you see anything?’

(11) skal æ sende på verksted?
    shall I send on shop
    ‘Should I send (it) to the shop?’

Note that not only an auxiliary, but also the subject is often missing in Type 1 questions. This corresponds to what was found in Chapter 6 in subject-initial declaratives with Neg-V word order, that subjectless examples are typically found in non-finite root clauses. Subject drop is also occasionally attested in Type 2 yes/no-questions. Since the verb in these cases is finite, this is similar to what was to a certain extent attested in subject-initial declaratives with V-Neg word order and occasionally in non-subject-initial declaratives and wh-questions, i.e. topic drop. Since verb movement in yes/no-questions is movement across the subject, the subject has to be present in order for us to be able to claim that verb movement has taken place. Therefore, the question type classified as Type 3 never has a missing subject.
Table 8.1 displays the development of these question types in the production of the three children across the corpus. There are examples of target-consistent word order (Type 3) with verb movement from a very early stage – already in Ann’s first file and in the second files of the other two children. The number of these yes/no-questions is relatively low in the early files, increasing gradually, with a sharper rise around files 9–10 for Ina (age approximately 2;3) and slightly earlier for the other two children.
Despite the low number of yes/no-questions with verb movement in the early files, it does not seem to be the case that the other two question types are used instead of the target-consistent questions at any stage of development, as they only disappear gradually. The data here therefore do not indicate that the children have any problem with the acquisition of verb movement per se and consistently replace it by other constructions at a certain stage of development. Note also that Ann is again the child producing the most target-consistent forms, with more than 90% Type 3 questions in the overall data. And as in subject-initial declaratives with negation (see Chapter 6), Ole is again the child producing the highest proportion of non-finite examples (Type 1).

In the next three sections, I discuss these question types in the child data in more detail.

2.2 Type 1 yes/no-questions

The Type 1 yes/no-questions are spread across the corpus, but because of the dramatic increase in target-consistent word order (Type 3) in later files, the proportion of these examples decreases sharply towards the end of data collection. As already mentioned, these questions seem to be sentences where there is an auxiliary missing, in most cases a modal, as suggested by the translations of sentences (2)–(4) above. Thus, the non-finite verb forms appearing in Type 1 questions are normally infinitives without the infinitive marker å ‘to’, i.e. the verb form that would follow a modal. The infinitive marker has been included in only two examples, both in Ann’s file 7 (age 2;1.7), one of which is given in (12). Additionally, there are two cases, both in Ann’s file 2 (age 1;9.18), where the non-finite verb form is a participle, which means that the auxiliary missing is være ‘be’ (alternatively ha ‘have’), illustrated in (13).

(12) å være litt kaffe? (Ann.07, age 2;1.7)

to be.inf little coffee

‘(Would you like) to have some coffee?’ Target: Skal det være litt kaffe?

(13) pappa gått? (Ann.02, age 1;9.18)
daddy go.part

‘(Has) daddy gone?’ Target: E(r)/Har pappa gått?
Table 8.2 Percentage of non-finite root clauses in subject-initial declaratives w/negation and in yes/no-questions, three Norwegian children

<table>
<thead>
<tr>
<th>Files</th>
<th>Subject-initial declaratives w/neg</th>
<th>Type 1 yes/no-questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ina.01–23</td>
<td>11.5% (58/506)</td>
<td>17.8% (76/428)</td>
</tr>
<tr>
<td>Ann.01–21</td>
<td>6.8% (37/544)</td>
<td>5.1% (16/315)</td>
</tr>
<tr>
<td>Ole.01–22</td>
<td>15.5% (58/375)</td>
<td>22.5% (29/129)</td>
</tr>
</tbody>
</table>

As mentioned in the previous section, this Type 1 construction therefore seems to be similar to the declarative main clauses with non-finite verbs and Neg-V word order discussed in Chapter 6 (see Tables 6.1 and A.3–4). Because of the gradual and corresponding development of Types 1 and 3, it seems that the children’s problem is not failure of verb movement, but rather that they occasionally leave out inflectional elements, in this case an auxiliary. Thus, Type 1 yes/no-questions are examples of what in Wexler (1999a) would be classified as Optional Infinitives. If we compare the three children’s proportion of these non-finite yes/no-questions to their production of negative declaratives with non-finite verbs (Neg-V) from Chapter 6, we see that the numbers match, in that Ann produces the lowest number of such clause types and Ole the highest, illustrated in Table 8.2.

The relatively high percentage of non-finite yes/no-questions may be somewhat surprising, especially given the lack of non-finite verbs in wh-questions (see Chapter 7, Section 3.2). This means that it cannot be the V2 requirement that excludes Optional Infinitive constructions, as argued by Wexler (1999a). The V2 requirement holds even more consistently in yes/no-questions than in wh-questions in the Tromsø dialect, and yet, it is the former clause type which displays a high number of non-finite examples. Moreover, recall from Chapter 7 that not only wh-questions with V2 had finiteness in place immediately, but also questions with non-V2 appeared with finite verbs only. Thus, we may conclude that Optional Infinitives occur in subject-initial declaratives and yes/no-questions, and only rarely in non-subject-initial declaratives and wh-questions. This suggests that it is not verb movement that distinguishes between these clause types. Some further speculations on this issue are offered in Chapter 10.

The optionality of the non-finite Type 1 examples becomes clear when we consider (14a, b). In the first sentence the child produces a complete Type 3 yes/no-question, while in the following sentence, both the subject and the modal are missing from the main clause. One possible reason why the main clause is simplified here could be that the example in (14b) contains an embedded clause. There seems to be a tendency in the children’s data that complexity in one part of the utterance may cause simplification in another.
Table 8.3  The percentage of subjectless clauses in declarative main clauses w/Neg-V word order and Type 1 yes/no-questions

<table>
<thead>
<tr>
<th>Files</th>
<th>Subject-initial declaratives w/neg</th>
<th>Type 1 yes/no-questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ina.01–23</td>
<td>70% (41/58)</td>
<td>53.9% (41/76)</td>
</tr>
<tr>
<td>Ann.01–21</td>
<td>69.2% (27/39)</td>
<td>43.8% (7/16)</td>
</tr>
<tr>
<td>Ole.01–22</td>
<td>57.9% (33/58)</td>
<td>37.9% (11/29)</td>
</tr>
</tbody>
</table>

(14) a. skal vi se nokka?  
   shall we see something  
   ‘Should we look at something?’

   b. se [/] se Ann gjør nokka?  
   see see.pres Ann do.pres something  
   ‘…look at Ann doing something?’

As mentioned above, the Type 1 questions often lack the subject, see example (3). In fact, 53.9% of Ina’s Type 1 questions are subjectless, while the percentages for Ann and Ole are 43.8% and 37.9% respectively. This means that, if we again compare with subject-initial declaratives with negation (cf. Table 6.7), the number of subjectless clauses is slightly lower in yes/no-questions, illustrated in Table 8.3.

Nevertheless, the patterns for the individual children correspond to what was found in Chapter 6, in that Ina produces the highest proportion of subjectless clauses and Ole the lowest. Recall that Ina produces more subjectless examples than the other two children also in finite clauses such as non-subject-initial declaratives and wh-questions (see Chapters 5 and 7). This suggests that there is a correlation between subjectless clauses in finite and non-finite constructions, indicating that they are not completely different phenomena.

2.3  Type 2 yes/no-questions

Table 8.1 showed that the intonation questions (Type 2) are scattered across the corpus, without any clear developmental pattern. The Type 2 yes/no-questions appear in the child data around the same time as the target-consistent Type 3 questions. Below is an example from Ole’s data, where he first uses three intonation questions, the first two with the wrong modal (må ‘must’ instead of få (lov) ‘may, be allowed to’), and then finally produces an adult-like yes/no-question with verb movement.
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(15) a. <æ må> [/] æ må be [/] se på rattet? (Ole.06, age 2;1.15)
   I must I must ask look at wheel.DEF
   ‘May I look at the wheel?’ Target: Får æ (lov å) se på rattet?

   b. må se på rattet?
   must look at wheel.DEF

   c. æ får lov å se på rattet?
   I get.pres allowed to look at wheel.DEF
   A few lines later:

   d. Merete får æ lov å se på rattet?
   Merete get.pres I allowed to look at wheel. DEF
   ‘Merete, may I look at the wheel?’

These intonation questions are of course not ungrammatical, and such questions also occur in the speech of adults. In fact, investigating a sample of adult speech (INV Ole.14), we find 11% (23/210) intonation questions (SVX word order). It is possible that the children occasionally use intonation questions instead of the word order with verb movement, as it may be somehow simpler or more economical. That is, in (15), Ole may be working his way to the target word order via the simpler intonation questions. There are also occasional examples in the data where the children seem to start out with an intonation question, and then change their mind and produce a structure with verb movement instead, as in (16).

(16) æ [/] kan æ få sånn? (Ina.16, age 2;7.8)
   I can I get such
   ‘I…can I have one of those?’

However, if we compare the adult percentage of intonation questions to the child data, illustrated in Table 8.4, we see that the children’s behavior is not very different from that of the adult. In fact, the two girls produce fewer Type 2 questions than the adult, and Ole’s percentage is not much higher. It is therefore possible that, when children produce intonation questions, they are not substituting target forms, but simply producing these questions at (more or less) adult levels. This means that, except for the lack of subjects in certain cases, Type 2 questions are not examples of non-target-consistent production. The percentages of subjectless examples is also included in Table 8.4, and as expected, these are considerably lower than for the non-finite Type 1 questions, cf. Table 8.3. Again, Ina produces more subjectless clauses than the other two children.
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Table 8.4  Percentage of Type 2 yes/no-question in the adult sample and the children’s production + percentage of subjectless Type 2 questions in the child corpus

<table>
<thead>
<tr>
<th>Files</th>
<th>Type 2 yes/no-question</th>
<th>Subjectless Type 2 question</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adult (INV Ole.14)</td>
<td>11.0% (23/210)</td>
<td>–</td>
</tr>
<tr>
<td>Ina.01–23</td>
<td>10.5% (45/428)</td>
<td>24.4% (11/45)</td>
</tr>
<tr>
<td>Ann.01–21</td>
<td>4.8% (15/315)</td>
<td>6.7% (1/15)</td>
</tr>
<tr>
<td>Ole.01–22</td>
<td>13.9% (18/129)</td>
<td>16.7% (3/18)</td>
</tr>
</tbody>
</table>

2.4  Type 3 yes/no-questions

As mentioned in Section 2.1, the yes/no-questions with target-consistent word order and verb movement (Type 3) appear early in the corpus and constitute the most frequent question type in the child data. According to Table 8.1, Ina produces 71.7% Type 3 questions, Ann as much as 90.2%, and Ole 63.6%. Since these involve verb movement, it is expected that they should mainly appear with finite verbs. This also turns out to be the case, as illustrated by examples (9)–(11), repeated here.

(9') er det båt?  
be.pres it boat  
‘Is that (a) boat?’  
(Ina.03, age 1;10.23)

(10') ser du nokka?  
see.pres you something  
‘Do you see something?’  
(Ann.07, age 2;1.7)

(11') skal æ sende på verksted?  
shall I send on shop  
‘Should I send (it) to the shop?’  
(Ole.08, age 2;2.12)

This is again similar to what we have seen in previous chapters: Verb movement applies to finite verbs only, and this is something children are aware of from the earliest utterances with V2. There are only three possible exceptions to this in the corpus, two in Ann’s files and one produced by Ina. The relevant examples are given in (17)–(19):

(17) gå Ina der?  
go.inf? Ina there  
‘Does Ina go there?/Should Ina go there?’  
Target: Går Ina der?/Skal Ina gå der?  
(Ina.11, age 2;4.1)
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(18) ha dama den? (Ann.01, age 1;8.20)
    have.INF? lady that
    ‘Does the lady [=INV] have that?/Does the lady want to have that?’
    Target: Har dama den?/Vil dama ha den?

(19) …holde du den? (Ann.07, age 2;1.7)
    …hold.INF? you that
    ‘Are you holding that?/Will you hold that?’
    Target: Hold(er) du den?/Vil du holde den?

In previous chapters, non-finite verb forms that have undergone verb movement have generally been explained as overgeneralizations of the -e present tense ending, making the present tense and infinitive verb forms identical (see Chapter 2). This is most likely the explanation for example (19) with the verb holde ‘hold’, where the present tense form in the dialect is either holder or simply hold. Sentences (17) and (18) both have a monosyllabic verb, which in the Tromsø dialect should appear with the -r ending in the present tense, i.e. går and har. It is possible that the relative infrequency of this ending in the dialect is the cause of a morphological learning problem, as these monosyllabic verbs were also represented among the verbs appearing in unexpected positions in the V2 constructions discussed in previous chapters. Thus, these verb forms are presumably finite in the children’s grammars. In any case, the negligible number of examples with non-finite verb forms undergoing verb movement (0.4%, 3/672) makes it possible to simply disregard these as occasional performance errors. There is thus no evidence in the data that the children do not make a distinction between finite and non-finite verbs with respect to verb movement in yes/no-questions.

2.5 Other non-target-consistent forms

As in the other V2 constructions investigated in previous chapters, the non-target-consistent examples children produce in yes/no-questions are mainly errors of omission. The most frequent examples of this are of course the Type 1 questions discussed in Section 2.2, which are analyzed as missing an auxiliary. In addition to these non-finite root clauses, the children also produce some verbless questions. In the child data there are also a few examples where there seems to be a question particle present, as well as the occasional sentence where the verb or the subject appears in two positions, possibly indicating some uncertainty in the child grammar about verb movement.

The verbless questions mainly occur in Ina’s data, who produces altogether 15 examples, in early as well as late files, while Ann produces three and Ole only two such sentences. The verb missing seems in most cases to be være ‘be’, which
corresponds to the findings for verbless *wh*-questions discussed in Chapter 7, Section 3.5. Relevant examples are given in (20)–(22).

(20) der han Ole Brumm? (Ina.05, 2;0.5))
there DET Ole Brumm
‘(Is) that Winnie the Pooh?’ Target: Er det der han Ole Brumm?

(21) æ også tyggis? (Ann.17, age 2;8.4)
I also chewing gum
‘(May) I also (have) chewing gum?’ Target: Får æ også tyggis?

(22) mamma i stu? (Ole.03, age 1;10.22)
mommie in living room.DEF
‘(Is) mommie in the living room?’ Target: Er ho mamma i stu?

In addition to these verbless questions, Ina produces four and Ole three examples where the verb as well as an expletive subject is missing in a possessive construction, illustrated by examples (23) and (24).

(23) Lille My sin huset? (Ina.18, age 2;8.12)
little My poss house.DEF
‘(Is that) Little My’s house?’ Target: Er det lille My sitt hus?

(24) Ole sin (ka)settspiller? (Ole.08, age 2;2.12)
Ole poss cassette recorder
‘(Is that) Ole’s cassette recorder?’ Target: Er det Ole sin kassettspiller?

The children all produce one example each where there is no verb movement, but where the element *E* or *er* (corresponding to present tense of *være* ‘be’) seems to function as some kind of inflection or question particle in initial position, illustrated in (25)–(27). This element was also attested in *wh*-questions in Chapter 7. An analysis in terms of a question particle seems appropriate for sentence (28), where Ina produces a *yes/no*-question with this particle as well as a finite verb in front of the subject.

(25) E Mummi-pappa holde sæ fast? (Ina.18, 2;8.12)
E mummi-daddy hold.INF refl tight
‘Is the Mummi-troll dad holding on (to it)?/Will the M hold on to it?’
Target: Hold(er) Mummi-pappa sæ fast?/Skal M holde sæ fast?

(26) E dama tegne? (Ann.01, age 1;8.20)
E lady.DEF draw.INF
‘Will the lady draw?’ Target: Vil dama tegne?
(27) er Milla og Martin legge på bordet? (Ole.07, age 2;1.26)
be.pres Milla and Martin lie.inf on table.def
‘Are Milla and Martin lying on the table?/Will M&M lie on the table?’
Target: Ligg Milla og Martin på bordet?/Skal M&M ligge på bordet?

(28) E har han ikkje fota her? (Ina.13, age 2;5.25)
E have.pres he not foot.pl here
‘Doesn’t he have feet here?’

Finally, there are two examples in the corpus where the children may be expressing some uncertainty with respect to verb movement, one produced by Ann and one by Ole. In (29), Ole produces a structure where the subject appears both preceding and following the verb, while in (30), Ann has a verb both preceding and following the subject.

(29) <du har> [/] du har du med
you have pres you have. pres you with
din kassettpiller? (Ole.18, age 2;9.15)
your cassette recorder
‘You have…do you have your cassette recorder with you?’

(30) mamma skal vi skal spise pizza? (Ann.16, age 2;7.14)
mommie shall we shall eat pizza
‘Mom, are we going to eat pizza?’

2.6 Verb movement and verb types

In previous chapters, it was investigated whether verb movement could be acquired not as a rule applying to all verbs, but as a verb-by-verb learning process. It should then appear with certain types of verbs first, e.g. modals (Håkansson and Collberg 1994) or verbs of a particular semantic category (Jordens 1990). Although certain verbs were found to be more frequent than others in V2 constructions, there was no clear evidence in other chapters that there could be a verb-by-verb learning process involved in the acquisition of verb movement. However, in Chapters 5 and 7 it was argued that være ‘be’ was extremely frequent in early wh-questions and non-subject-initial declaratives. Table 8.5 displays the verb types involved in the target-consistent Type 3 questions across the corpus, divided into three categories – være ‘be’, modals, and other verbs.
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Table 8.5 Verb types in Type 3 yes/no-questions (VSX), three Norwegian children

<table>
<thead>
<tr>
<th>File</th>
<th>være</th>
<th>Mod</th>
<th>V</th>
<th>File</th>
<th>være</th>
<th>Mod</th>
<th>V</th>
<th>File</th>
<th>være</th>
<th>Mod</th>
<th>V</th>
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<tbody>
<tr>
<td>Ina.01</td>
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<td>0</td>
<td>0</td>
<td>Ann.01</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>Ole.01</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
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<td>0</td>
<td>Ann.02</td>
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<td>0</td>
<td>Ann.03</td>
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<td>0</td>
<td>0</td>
<td>Ole.03</td>
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<tr>
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<table>
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<tr>
<th>Total</th>
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<th>107</th>
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<th>32</th>
<th>188</th>
<th>64</th>
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<tbody>
<tr>
<td>%</td>
<td>24.4</td>
<td>40.7</td>
<td>34.9</td>
<td>%</td>
<td>11.3</td>
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<td>22.5</td>
<td>%</td>
<td>20.7</td>
<td>58.6</td>
<td>20.7</td>
</tr>
</tbody>
</table>

Modals are the most frequent verbs in Type 3 yes/no-questions, ranging from 40.7% in Ina's production to 66.2% in Ann's data. The reason for this high figure in Ann's production could simply be a reflection of the extremely low number of non-finite constructions in her data (where I have argued that a modal is missing). As illustrated in Table 8.2 above, only 5.1% of her yes/no-questions are of Type 1, compared to 17.8% and 22.5% for the other two children. Furthermore, there is no clear developmental pattern from modals to other verbs in the children's production: All three verb types appear in relatively early files, and there is a gradual increase in all types as yes/no-questions become more frequent in the children's production.

Given the high number of modals and være 'be' in the corpus, it might still be possible that these verbs undergo verb movement earlier than lexical verbs in
children’s development. A comparison with the adult production should then reveal a difference, in that modals should be less frequent and other verbs more frequent than in the child data. In the sample of adult speech mentioned in Section 2.3 (INV Ole.14), there are 187 yes/no-questions attested, 43 examples with være ‘be’ (23%), 62 with modals (33.2%), and 82 lexical verbs (43%). This means that the adult sample does have a somewhat different distribution of verb types than the child data, in that there are fewer modals (33.2% for the adult compared to 40.7%-66.2% for the children) and a higher proportion of other verbs (43% for the adult compared to 20.7%-34.9% for the children). This could possibly be interpreted as a tendency for children to use V2 word order with modals earlier than with lexical verbs. However, the sample of adult data is too small to make such a claim and the differences among the three children too big. Moreover, the percentages from the adult data are relatively similar to the distribution produced by Ina, and it is therefore difficult to argue that this comparison reveals a real difference between the adult and child grammars.

A comparison with the verb types used in intonation questions (Type 2) is also relevant in this respect. If it were the case that verb movement applies to modals first, then we would expect to find fewer modals and more lexical verbs in the intonation questions than in the Type 3 questions with verb movement. Table 8.6 provides an overview of the verb types in Type 2 questions, and although there are slightly fewer modals (28.9%-55.6% compared to 40.7%-66.2% for Type 3 questions), there is no corresponding increase in the use of lexical verbs in this question type (16.7%-37.8% compared to 20.7%-34.9% for Type 3 questions). In fact, the intonation questions have a relatively even distribution of the three verb types in the data of the two girls, while Ole actually uses approximately the same proportion of modals as in Type 3 questions (55.6% compared to 58.6%) and fewer lexical verbs (16.7% compared to 20.7%). Note also that the verb være ‘be’, which was shown to appear very early in clause types that involve verb movement, is in fact more frequent in intonation questions than in Type 3 questions (27.8%-33.3% compared to 11.3%-24.4%). Needless to say, the numbers are very small here, but there is no indication that there should be a correlation between verb movement and verb types. It therefore seems possible to conclude that as soon as children realize that there is verb movement in yes/no-questions in Norwegian – which seems to be an extremely early acquisition – this syntactic process applies to any kind of verb.
Table 8.6 Percentages of different verb types used in intonation questions (Type 2, SVX), three Norwegian children

<table>
<thead>
<tr>
<th>Files</th>
<th>være</th>
<th>Modals</th>
<th>Lexical V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ina.01–23</td>
<td>33.3%</td>
<td>28.9%</td>
<td>37.8%</td>
</tr>
<tr>
<td></td>
<td>(15/45)</td>
<td>(13/45)</td>
<td>(17/45)</td>
</tr>
<tr>
<td>Ann.01–21</td>
<td>33.3%</td>
<td>33.3%</td>
<td>33.3%</td>
</tr>
<tr>
<td></td>
<td>(5/15)</td>
<td>(5/15)</td>
<td>(5/45)</td>
</tr>
<tr>
<td>Ole.01–22</td>
<td>27.8%</td>
<td>55.6%</td>
<td>16.7%</td>
</tr>
<tr>
<td></td>
<td>(5/18)</td>
<td>(10/18)</td>
<td>(3/18)</td>
</tr>
</tbody>
</table>

2.6 Verb movement and subject types

Finally, this section focuses on the subject types in early yes/no-questions. In Chapters 5 and 7 on non-subject-initial declaratives and wh-questions, we have seen that young children are sensitive to patterns of information structure. Consequently, V2 word order tends to appear first with subjects that convey new information (mainly full DPs), indicating that the pragmatic principle of end focus is operative in children’s early grammars. It was therefore argued that the initial function of verb movement is to put focus on an informationally new subject. In wh-questions, which allow both V2 and non-V2 in the Tromso dialect, it was shown that V2 is in place extremely early and that children distinguish between the two word orders with respect to subject types: Non-V2 occurs with informationally given subjects and V2 with new subjects, as in the adult data. This was reflected in pronominal subjects being preferred in non-V2 constructions, while full DPs were more frequent in questions with verb movement. In non-subject-initial declaratives, where there is no such distinction in the adult grammar, the children nevertheless produced sentences with verb movement with full DP subjects first, while the errors they make almost always involved pronouns, i.e. informationally given subjects. If this pattern were carried over to yes/no-questions, we would expect to find more full DP subjects than pronouns in early questions with target-consistent word order (Type 3), while the intonation questions (Type 2) should occur more often with pronominal subjects. Table 8.7 compares the subjects in the two types of yes/no-questions in the first ten files of child data.

As shown in this table, there is no difference between the two construction types with respect to the subjects involved. In both intonation questions (Type 2) and yes/no-questions involving verb movement (Type 3) there is a majority of pronominal subjects and a corresponding lack of DPs. Thus, it does not seem to be the case that patterns of information structure are involved in the acquisition of verb movement in yes/no-questions.
Table 8.7 Different subject types (pronouns, null subjects, full DPs) in Type 2 yes/no-questions (all files) and Type 3 yes/no-questions (files 1–10), three Norwegian children

<table>
<thead>
<tr>
<th>Child</th>
<th>Type 2 (all files)</th>
<th>Type 3 (files 1–10)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pronoun Null DP</td>
<td>Pronoun DP</td>
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<tr>
<td>Ina</td>
<td>66.7% (30/45) 26.7% (12/45) 6.6% (3/45)</td>
<td>85.7% (24/28) 14.3% (4/28)</td>
</tr>
<tr>
<td>Ann</td>
<td>80% (12/15) 6.7% (1/15) 13.3% (2/15)</td>
<td>90.9% (30/33) 9.1% (3/33)</td>
</tr>
<tr>
<td>Ole</td>
<td>66.7% (12/18) 22.2% (4/18) 11.1% (2/18)</td>
<td>86.7% (13/15) 13.3% (2/15)</td>
</tr>
</tbody>
</table>

3. Summary and conclusion

In this chapter I have presented the child data on the acquisition of word order in yes/no-questions in Norwegian. There are in general three major types of these questions in the corpus; 1) Non-finite examples with a missing auxiliary (normally a modal), 2) intonation questions, which have declarative word order, and 3) questions with target-consistent VSX. The Type 1 yes/no-questions often occur without a subject, although to a slightly lesser extent than other non-finite constructions (see Table 8.3). Subjectless clauses are also occasionally attested in Type 2 yes/no-questions (see Table 8.4). In addition to the non-finite examples (Type 1), most of the children's non-target forms are errors of omission. The intonation questions (Type 2) were found to be produced at more or less adult levels and were not considered to be substitutions for target-consistent word order in the child grammar. Type 3 questions with target-consistent word order occur exclusively with finite verbs, and the most frequent verbs are modals. Nevertheless, there is no clear developmental pattern indicating that verb movement is acquired earlier with modals than with lexical verbs. Furthermore, there is no evidence that patterns of information structure are involved in the acquisition of verb movement in yes/no-questions or that the information value of the subject has any influence on whether children produce an intonation question or one with target-consistent VSX word order.

Finally, we may briefly compare the acquisition of word order in yes/no-questions to what was found in other clause types in previous chapters. The children's behavior with respect to yes/no-questions is more similar to that found in subject-initial declaratives than in non-subject-initial declaratives or wh-questions. Not only is there no effect of information structure in yes/no-questions, as was found in wh-questions and non-subject-initial declaratives; the proportion of non-finite examples in yes/no-questions, and correspondingly subjectless clauses, was also more similar to what was found in children's early subject-initial declara-
tives. As mentioned briefly in Section 2.2, this indicates that it is not the process of verb movement *per se* that is crucial for the issue of finiteness in these clause types. The different acquisition paths for *wh*-questions and *yes/no*-questions also provide further support for the model of micro-cues, which postulates different functional structure for these clause types and predicts that children should not generalize word order from one to the other in the acquisition process.
The acquisition of word order in non-V2 contexts

1. Introduction

In previous chapters, a few non-V2 contexts have already considered, e.g. non-subject-initial declaratives introduced by *kanskje* ‘maybe’ in Chapter 5, subject-initial declaratives involving focus-sensitive adverbs such as *bare* ‘only, just’ in Chapter 6, and two different contexts in *wh*-questions in Chapter 7, subject questions and questions with monosyllabic *wh*-elements involving informationally given subjects. In all cases, it was shown that the children have the target-consistent word order in place as soon as relevant utterances appear in the child data, and it was argued that they are sensitive to the appropriate micro-cues from early on.

In this chapter the focus is on word order in clause types that require non-V2, i.e. exclamatives and embedded questions, illustrated in examples (1) and (2), where there the verb appears following the subject, as well as embedded declaratives, illustrated in (3), where there is generally no verb movement across negation or sentence adverbs.

(1) så flink du er! (INV, Ole.14)
   so/how clever you are
   ‘How good you are!’

(2) vet du ka slags farge det er? (INV, Ole.14)
   know you what kind color it is
   ‘Do you know what color is?’

(3) da sitt den så langt unna at # den ikkje kommer borti. (INV, Ole.14)
   then sits it so far away that it not comes touching
   ‘Then it sits so far away that it doesn’t touch it.’

These examples are taken from the input sample investigated in Chapter 4, and they express the micro-cues provided in (4)–(6). It was noted in Chapter 4 that these are very infrequent clause types in the input, exclamatives being attested 0.4%, embedded questions 1.6%, and embedded clauses with adverbs or negation 0.6%. In the latter case, there is also some variation in the input, in that a small number of embedded clauses actually display the opposite word order (V-Neg/Adv), see (7).
(4) Micro-cues for non-V2 in exclamatives: $\text{ExclP}[wh \ldots \text{vp}[V]]$

(5) Micro-cue for non-V2 in embedded questions: $\text{WhP}[wh \ldots \text{vp}[V]]$

(6) Micro-cue for non-V2 in embedded declaratives: $\text{IP}[\text{XP} \ldots \text{vp}[V]]$

(7) æ trur han må bare sitte der. (INV, file Ole.14)
   I think he must only sit there
   ‘I think he just has to sit there.’

According to the syntactic model outlined in Chapters 1 and 3, it is argued that children’s grammars pay attention to different contexts in the sense that there are distinct micro-cues for different clause types. This is possible due to the Split ForceP, where illocutionary force is expressed as different heads in the topmost projection of the clause. More specifically, this means that the micro-cue for V2 in $wh$-questions involves verb movement to the IntP, while the micro-cue for V2 in declaratives is formulated as a requirement for the finite verb to appear in the DeclP. These projections are not present in embedded clauses, and contexts such as (2) and (3) are therefore excluded from the micro-cues formulated for main clauses. Thus, if children target-consistently produce non-V2 in the contexts in (1)–(3) without any overgeneralization from main clauses, this would be further support for the model of micro-cues.

Data from the children’s subject-initial declarative main clauses with negation were investigated in Chapter 6. These require verb movement across negation, as shown in (8) from the input sample. Verb movement in declaratives should generally be triggered by the cue in (9), which is expressed in non-subject-initial declaratives such as (10).

(8) æ trur ikkje det er plass til han … (INV, Ole.14)
   I believe not it is room for him
   ‘I don’t think there is room for him…’

(9) Micro-cue for V2 in declaratives: $\text{DeclP}[\text{XP} \text{DeclºV} … ]$

(10) sånn # no skulle det fungere her. (INV, Ole.14)
   such # now should it function here
   ‘Like this – now it should work.’

It was shown in Chapter 6 that the children produce subject-initial declaratives with target-consistent V-Neg word order from early on, see (11). However, it is unclear if the trigger for this word order is really the cue in (9). Given economy of movement, it may be that children instead focus on subject-initial declaratives such as (8) and produce I-language structures where the verb has moved only as high as necessary for this V-Neg word order to result. That is, children may interpret input such as (8) as expressing V-to-I movement, the cue for which was
formulated in Chapter 3 as (12). In the subject-initial main clauses discussed in Chapter 6 it was impossible to know whether the landing site for the verb in the children’s grammars was Declº or Iº. But if it is the lower position (in the IP domain) that is involved, then the children should produce V-Neg word order in embedded clauses and other non-V2 contexts as well (where the verb does not move to the CP domain). This is therefore a relevant issue in this chapter.

(11) æ vet ikkje. (Ann.02, age 1;9.18)
    I know.pres not
    ‘I don’t know.’

(12) Micro-cue for V-to-I movement: \[IP [XP IºV]\]

The chapter is organized as follows: In the next section I briefly outline some previous research relevant for these contexts and discuss certain predictions that follow from this. In Section 3 I present the Norwegian children’s production of the contexts in (1) and (2), focusing on embedded questions. Section 4 discusses the children’s word order in embedded clauses, especially the issue whether there could be transfer across clause types in the IP domain. The section also includes certain examples from other non-V2 contexts. Section 5 contains a brief summary and conclusion.

2. Previous research and predictions

The main prediction with respect to these non-V2 contexts concerns possible overgeneralization of V2 word order. According to most studies on the acquisition of German, where the finite verb appears in final position in the adult language, there is no overgeneralization of verb movement to embedded clauses, see e.g. Clahsen and Smolka (1986). Nevertheless, occasional examples of non-target-consistent verb movement in German embedded clauses are attested in Gawlitzek-Maiwald, Tracy, and Fritzenschaft (1992) and Meisel and Müller (1992), who used such sentences to argue for verb movement to the IP domain in the child grammar (from Meisel and Müller 1992: 128).

(13) [wenn da komm andere schiffe] dann gehen die dagegen.
    when there come other ships then go.3pl these it-against
    (Ivar, age 3;04.23)
    ‘When other ships come there, then they run against this one.’
    Target: Wenn da andere Schiffe kommen, dann gehen die dagegen.’
(14) weiss du [warum da sind so böse tiere]. (Ivar, age 4;04.21) 
know you why there be.3pl such vicious animals
‘Do you know why there are such vicious animals?’
Target: Weißt du warum da so böse Tiere sind?’

Penner (1992) reports on data from a Bernese Swiss German child, which indicate that there is correct verb placement in embedded contexts (clause-finally) until about the age of 3;2, but that this stage is followed by a period of a few months when the child produces embedded clauses both with and without verb movement. Furthermore, Schönenberger (2000a, 2000b, 2001) found that her two Lucernese Swiss German subjects consistently moved the finite verb in a non-target-like manner in embedded clauses, also across the subject. This pattern persisted until the age of 4;11, when the verb-final pattern gradually took over. An example is provided in (15), from Schönenberger (2000b: 298).

(15) Weisch du [dass t’Rahel hät drü Chind]? (Swiss German)
know.pres you that det Rahel have.pres three children
‘Do you know that Rahel has three children?’
Target: Weisch du dass t’Rahel drü Chind hät?

It has also been shown that Swedish-speaking children move verbs across negation and adverbs in embedded clauses. According to Håkansson and Collberg (1994), this word order should generally be related to modals, corresponding to their finding that V-Neg word order in main clauses first appears with modals. The developmental lag of the Neg-modal sequence in embedded clauses is explained by a parametric preference for modals as an inflectional category (as in English) instead of a regular verbal category (as in adult Swedish). The eventual acquisition of target-consistent word order is achieved through categorial reanalysis of auxiliaries as elements of the category V. Waldmann (2008) has done an extensive study of some Swedish child-directed speech, and finds that V-Neg word order is also attested in the input to a certain extent (as in Norwegian, see above). Furthermore, his findings show that the proportion of this word order is dependent on the type of embedded clause. Interestingly, the data show that the children are sensitive to these minor distinctions in the input, in that they produce corresponding frequencies, with only slightly higher proportions of verb movement in each case (see Waldmann 2008: 225). In my view, this supports the model of micro-cues argued for in this book. Waldmann’s findings also go against Håkansson and Collberg’s modal hypothesis, in that he finds no higher percentage of verb movement with modals in these cases than with lexical verbs.

The word order of children’s embedded clauses has also been studied within the constructivist framework of Tomasello (2003, 2006), see also Theakston, Lieven,
Pine and Rowland (2004). Investigating a large number of English-speaking children up to the age of 5;2, Diessel and Tomasello (2001) argue that children’s earliest sentential complement utterances do not have any hierarchical structure. The main clause part typically consists of one of a very small number of similar verbs, e.g. ‘think’ or ‘know’, and these utterances are argued to be linear constructions where the matrix verb is a formula that is simply stuck onto the beginning of the sentence, which remains an unembedded structure. One would consequently expect to find main clause word order in these cases. In English declaratives there is no word order difference between main and embedded clauses. Questions, on the other hand, where there is inversion in main but not in embedded clauses, would be a test case for this hypothesis. And inversion has in fact been attested in some English-speaking children’s embedded questions. The following example is taken from Westergaard (forthcoming/2009c), who shows that this inverted word order is not a general pattern in these cases, being attested only 5.8% (6/103) in Adam’s data.

(16) I don’t know [what are they].

(Adam, 2;11.28)

These findings of non-target-consistent verb movement in embedded clauses run counter to predictions solely based on economy, which would assume that children only produce structures that are the result of movement if there is evidence for this in the input. This has been argued e.g. by Gavarró (2003), who has investigated English-Dutch bilingual data. The two languages differ with respect to the word order of embedded clauses, Dutch being verb-final. She finds that the child investigated produces verb-final embedded clauses in English, as shown in (17), from Gavarró (2003: 73), but no embedded clauses in Dutch with an English-type word order.

(17) I want that he in the box sits.

(Samuel, age 4 – 4;6)

Gavarró’s argument is therefore that, when children make mistakes, it will always be in the direction of a less costly operation; i.e. they will prefer no movement to a structure that involves movement. However, it should be noted that Gavarró recognizes putative counterexamples found e.g. in Döpke (1998), who has investigated several German/English bilingual children. This makes Gavarró conclude that “economy plays a role in the development of word order, although it is not the only determining factor” (p. 77). In this chapter such verb movement errors are analyzed in a way that is compatible with economy principles, see Section 4.

Previous findings are thus inconclusive, some studies suggesting that verb placement in embedded clauses is unproblematic, whereas others report this to be an area where children make mistakes for an extended period of time. In the next two sections, we consider the word order produced by the Norwegian children in
the relevant cases; contexts without verb movement across the subject in Section 3, and contexts without verb movement across negation or an adverb in Section 4.

3. Subject-Verb word order: Exclamatives and embedded questions

As discussed in Chapters 2 and 3, exclamatives and embedded questions do not display V2 word order in any variety of Norwegian, thus expressing the cues in (4)–(5). The relevant examples from the input sample are also repeated here, see (1)–(2). Given that these constructions are both complex and infrequent in the input (see above and Chapter 4, Section 3), we cannot expect to find many relevant examples in the child corpus, since data collection only lasted until about the age of three.

(4’) Micro-cues for non-V2 in exclamatives: $\text{ExclP}[wh \ldots \text{VP}[V]]$

(5’) Micro-cue for non-V2 in embedded questions: $\text{WhP}[wh \ldots \text{VP}[V]]$

(1’) så flink du er! (inv, Ole.14)

so/how clever you are

‘How good you are!’

(2’) vet du ka slags farge det er? (inv, Ole.14)

know you what kind color it is

‘Do you know what color is is?’

Exclamatives are attested only 0.4% in the input sample. Correspondingly, there are only a couple of examples of exclamatives in the child data where V2 vs. non-V2 can be determined (i.e. including both a subject and a verb), attested in Ina’s late files. These appear with target-consistent non-V2 word order, see (18)–(19). This shows that children are extremely sensitive to minor syntactic distinctions in the input, not overgeneralizing from one clause type to another. And this again provides support for the model of micro-cues.

(18) så fint det var. (Ina.23, age 2;10.22)

so nice it be.past

‘How nice it is!’

(19) kor store mage han har. (Ina.27, age 3;3.18)

where/how big stomach he have.pres

‘What a big stomach he has!’

Moving on to embedded questions, there are a total of 108 examples in the corpus. As many as 91 of these are produced by Ann, while 13 are produced by Ina and 4 by Ole. The distribution of these embedded clauses across question type is displayed in Table 9.1, for the relevant files in the corpus.
Chapter 9. The acquisition of word order in non-V2 contexts

Table 9.1 Overview of embedded questions, three Norwegian children

<table>
<thead>
<tr>
<th>File No./Age</th>
<th>ka 'what'</th>
<th>kor 'where'</th>
<th>kem 'who'</th>
<th>korsen 'how'</th>
<th>korfor 'why'</th>
<th>om 'if, whether'</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ina.03 (1;10.23)</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ina.04 (1;11.22)</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ina.05 (2;0.5)</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ina.12 (2;4.28)</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ina.16 (2;7.8)</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ina.20 (2;8.27)</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ina.22 (2;10.12)</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ina.27 (3;3.18)</td>
<td>1*</td>
<td></td>
<td></td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ann.09 (2;2.19)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Ann.10 (2;3.9)</td>
<td>1</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Ann.11 (2;4.0)</td>
<td>4</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ann.12 (2;4.23)</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ann.13 (2;5.10)</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Ann.14 (2;6.0)</td>
<td>1</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ann.15 (2;6.21)</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ann.16 (2;7.14)</td>
<td>12</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Ann.17 (2;8.4)</td>
<td>13</td>
<td>3</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ann.18 (2;8.24)</td>
<td>1</td>
<td></td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ann.19 (2;9.17)</td>
<td>6</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ann.20 (2;10.13)</td>
<td>2</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ann.21 (3;0.1)</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ole.18 (2;9.15)</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Ole.19 (2;10.0)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Ole.20 (2;10.15)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Ole.22 (2;11.23)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>62</td>
<td>27</td>
<td>3</td>
<td>9</td>
<td>1</td>
<td>6</td>
</tr>
</tbody>
</table>

The matrix verbs involved in these embedded questions are typically *se ‘look’, vite ‘know’, and vise ‘show’. In that sense, this is similar to what was found by Diessel and Tomasello (2001) for English. What is striking about these embedded questions, however, is that they all occur with target-consistent non-V2 word order. This means that, apart from one possible exception discussed below, there is no overgeneralization of verb movement, which would be expected if these structures were not really embedded clauses. Examples are provided in (20)–(25), both from relatively early and relatively late files in the corpus.
The Acquisition of Word Order

(20) se here ka Ina gjør.
look.imp here what Ina do.pres
‘Look here what Ina is doing.’

(21) skal æ vise dæ korsn æ klatre oppå?
shall I show you how I climb.pres up
‘Shall I show you how I climb up?’

(22) Ann vet ikke kor han er henne.
Ann know.pres not where he be.pres loc
‘Ann doesn’t know where he is.’

(23) du må spørre ka æ har i handa?
you must ask what I have in hand.def
‘You must ask me what I have in my hand.’

(24) æ vet ikkke kor den er.
I know.pres not where it be.pres
‘I don’t know where it is.’

(25) skal æ vise # korsen man trekke på knappen?
shall I show how one push.pres on button.def
‘Do you want me to show (you) how you push the button?’

Ann also produces a couple of examples of embedded subject questions. Like main subject questions in the Tromsø dialect, these require non-V2 (in all varieties of Norwegian) in the form of the presence of the relative complementizer som in second position. As in the case of main clause questions (see Chapter 7, Section 4), all of Ann’s examples are produced with target-consistent non-V2 word order, see (26).

(26) se kem som kommer.
look.imp who som come.pres
‘Look who is coming.’

The one possible case of overgeneralization of V2 in embedded questions is the example marked with an asterisk in Table 9.1, from Ina’s last file. This is provided in (27). A possible explanation is that Ina is here producing a bi-clausal structure, i.e. that there should be a restart between the question word ka ‘what’ and the preceding part of the sentence, as illustrated by the alternative translation.

(27) du, ser du ka er det der sånn der der?
you see.pres you what be.pres that there such there there
‘You, do you see what that is/do you see: what is that?’
This analysis is not completely implausible, especially given the context of this example. It is clear that the investigator has interpreted this as a *wh*-question and not as a *yes/no*-question, the reply to (27) being a specification of what “that” refers to. Strictly speaking, however, also a *yes/no*-question could call for such an answer. Nevertheless, the fact that there is only this one example in the corpus, making up only 0.9% (1/108), shows that there is no general pattern of overgeneralization of V2 in this context in the child grammar. Furthermore, while the early examples of embedded questions all have target-consistent word order, this example is attested very late in the corpus and may be disregarded as simply a slip. Finally in this section, let us note that Ann at one stage displays a curious pattern of double *wh*-words in this context, see examples (28)–(29).

(28) vet du ka ka æ kan gjøre no? (Ann.19, age 2;9.17)
know.pres you what what I can do now
‘Do you know what I can do now?’

(29) vet du ka kor æ har elefanten? (Ann.19, age 2;9.17)
know.pres you what where I have.pres elephant.def
‘Do you know what where I have the elephant?’

This seems to be purely idiosyncratic behavior, quite frequent at a particular stage, but which mainly occurs only in one file (with an occasional example in the two preceding files). The main clause verb is always *vite* ‘know’, and the string *vet du ka* (‘Do you know what?’) seems to simply form some kind of linguistic chunk here. It also occurs many times by itself in the same file. However, there must be some internal structure to this chunk, causing target-consistent non-V2 word order in the embedded clause. This provides further evidence against the constructivist account of early embedded clauses as non-hierarchical.

4. **Neg/Adv-Verb word order: Embedded clauses**

As mentioned in the Introduction, embedded clauses with adverbs or negation are attested relatively rarely in the children’s input, only 0.6% in the sample studied in Chapter 4. As in the case of exclamatives or embedded questions, we therefore do not expect to find many relevant examples in the child data. Furthermore, the input is not completely consistent, in that 17.6% of these examples (3/17) are produced with a word order that indicates verb movement, see examples of both word orders in (3) and (7), repeated here.
As expected, there are only a few relevant examples in the corpus, mainly found in the late files: six produced by Ina, 11 by Ann, and 12 by Ole, altogether 29 embedded clauses with negation or another adverb. The most common word order, found in 12 (41.4%) of these embedded clauses, is one where the negation ikke/ikkje ‘not’ occurs in a position immediately following the complementizer (if present), i.e. above both the subject and the verb, making it impossible to detect if verb movement has taken place. This Neg-S word order is also possible in the adult grammar, although it is somewhat dispreferred compared to S-Neg. According to Garbacz (2004), this word order appears only 7% in a spoken corpus and as little as 2% in a written corpus of adult Norwegian. Examples are provided in (30)–(35).1 The fact that young children seem to prefer this word order will be related to a principle of economy discussed in Chapter 10. Note that there is a variety of subject and verb types present in these clauses; pronouns, full DPs, ‘be’, modals and main verbs, as well as different complementizers, also null, which is non-target-consistent in this case.

(30) nei ho skal passe på mæ ikke reven komme å ta mæ. (Ina.18, age 2;8.12)
no she shall watch on me not fox.DEF come.PRES to take me
‘She is to watch out so the fox doesn’t come and take me.’
Target: Ho skal passe på mæ så ikke reven kommer og tar mæ.

(31) ...ho si at ikke det er min kjæreste. (Ina.27, age 3;3.18)
...she say.PRES that not it be.DEF my sweetheart
‘She says that it isn’t my sweetheart.’

(32) ho måtte bare (s)krike litt når ikke pappa kom og henta ho. (Ann.12, age 2;4.23)
... she must.PAST just cry little when not daddy come.PAST and pick-up.PAST her
‘She just had to cry a little when daddy didn’t come to pick her up.’

1. Some of these utterances are quite long in the child data and contain irrelevant material for the discussion here. This material has therefore been deleted and marked by ellipsis dots in the examples.
(33) xxx så ikke dem går ut igjen. (Ann.16, age 2;7.14)
    ‘xxx so not they go.pres out again
    ‘xxx so they won’t go out again.’

(34) må stå sånn ikke det kommer spray <ut av> [?] på bordet +/-.
    must stand such not it come.pres spray out of on table.def
    ‘(It) has to stand this way so the spray doesn’t come out on the table.’
    Target: (Den) må stå sånn så det ikke kommer spray ut av (den) på bordet.

(35) og # [/] og pinna <så> [?] ikke dem skulle knekkes. (Ole.19, age 2;10.0)
    and ….and stick.pl. so……not they should break
    ‘… so they won’t break.’

In addition, there are three other examples that cannot provide true evidence for
lack of verb movement in embedded clauses. These are illustrated in (36)–(38).
Although they display target-consistent non-V2, the verb involved is non-finite,
and judging from the context, there seems to be a modal missing, cf. Chapter 6 on
similar non-finite examples in main clauses.

(36) pappa sa at æ ikke leke mere den. (Ann.12, age 2;4.23)
    daddy say.past that I not play.inf more it
    ‘Daddy said that I (should) not play with it any more.’
    Target: Pappa sa at æ ikke må leke mere med den.

(37) …at pappaen min ikke reparere den. (Ann.17, age 2;8.4)
    …that daddy.def mine not repair.inf it
    ‘That my daddy (could) not repair it.’

(38) æ [/] æ vil ho Merete ikke være. (Ole.11, age 2;4.21)
    I I will det Merete not be.inf
    ‘I don’t want Merete to be (there).’
    Target: Æ vil at ho Merete ikke skal være (der).

True examples of target-consistent non-V2 word order in embedded contexts
may only be observed in four cases. These are illustrated in (39)–(42), where ne-
gation appears between the subject and the verb, indicating that no verb move-
ment has taken place. Again, there seems to be no pattern with respect to subject
or verb types.

(39) ja # at det ikke dætt. (Ann.10, age 2;3.9)
    yes that it not fall.pres
    ‘… that it doesn’t fall.’
(40) …som xx <som ikkje> [/] som ikke vil xx xx. (Ann.17, age 2;8.4)
…which xx which not which not will xx xx
‘…which doesn’t want xx.’

(41) ikke da [/] at det da ikke blir stramt. (Ole.18, age 2;9.15)
not then that it then not become.\text{pres} tight
‘…that it doesn’t get (too) tight.’

(42) bare når dem ikke hold på da dette dem xxx.
only when they not hold.\text{pres} on then fall.\text{pres} they xxx
(Ina.27, age 3;3.18)
‘Only when they are not holding on, then they fall.’

We then turn to six examples of embedded clauses that are complements to bridge verbs, all with a word order indicating that the verb in fact has moved. In two of these, there is verb movement also across the subject, see (43)–(44). The first is an example of embedded topicalization which would be ungrammatical with non-V2, and the second seems to be a restart, the second half of the sentence really functioning as a main clause yes/no-question. These are only included here for the sake of completeness.\textsuperscript{2}

(43) han sir det får ikke æ lov til. (Ole.12, age 2;5.18)
he say.\text{pres} it get.\text{pres} not I allowed to
‘He says that I am not allowed to do it.’

(44) …sa du har ikke han føtter? (Ole.13, age 2;6.2)
…say.\text{past} you have.\text{pres} not he foot.\text{pl}
‘Did you say he doesn’t have feet?’

The remaining four examples are provided in (45)–(48). As noted above, V-Neg/Adv word order is also possible in the adult grammar in this context, but clearly dispreferred. The children, on the other hand, seem to prefer the structure with verb movement, producing this in all (four) relevant cases.

(45) han ropa han vil ikke desse. (Ina.20, age 2;8.27)
he yell.\text{past} he will not swing
‘He yelled that he didn’t want to swing.’

\textsuperscript{2} The position of the pronominal subject following negation in these sentences is somewhat unusual. Examples like these are briefly mentioned in Chapter 10 in relation to economy of movement.
Chapter 9. The acquisition of word order in non-V2 contexts

(46) han sa han ville ikke spise <han> [?]. (Ann.17, age 2;8.4)
    he say.PAST he would not eat him
    ‘He said he wouldn’t eat him.’

(47) …og han sir xx hjalp mæ ikke. (Ole.13, age 2;6.2)
    …and he say.PRES xx help.PAST me not
    ‘…and he says xx didn’t help me.’

(48) trur det er jo litt tungt. (Ole.18, age 2;9.15)
    believe.PRES it be.PRES PRF little hard
    ‘I think it is a little hard.’

It could of course be the case that these examples are also restarts - i.e. that they are biclausal structures with two main clauses. However, given that the option not to move the verb should be available to the children (as they do produce some embedded clauses with target-consistent word order), it is surprising from the point of view of economy that they seem to prefer the least economical structure in these cases. This indicates that economy interacts with other factors in the acquisition of word order.

The last four examples are clearly ungrammatical as a result of verb movement having taken place in an embedded context. These are provided in (49)–(52). Note that sentence (46) is strictly speaking no declarative, but functions as a wh-question, in that Ann is using the dialect structure ka for at instead of korfor ‘why’. But this construction involves an embedded clause with the complementizer at ‘that’, where the expected word order would be Neg-V. We may also note that Håkansson and Collberg’s (1994) prediction that any overgeneralization of V2 in embedded clauses should involve modals does not seem to hold, as only two of the four verbs in these sentences are modals.

(49) 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’s mommie who has also drawn.’

(50) han [/] at han skjønne ikke. (Ann.10, age 2;3.9)
    he that he understand.PRES not
    ‘…he … that he doesn’t understand.’

(51) æ trur at Ann skal bygge også kråkeslott. (Ann.11, age 2;4.0)
    …I believe.PRES that Ann shall build also crow’s castle
    ‘I think that Ann will also build a crow’s castle.’

(52) ka for at du har ikke sokka på? (Ann.20, age 2;10.13)
    what for that you have.PRES not socks on
    ‘Why don’t you have socks on?’ Target: Korfor har du ikke sokka på?
Excluding the 12 examples where negation is placed clause-initially, the three where there is no finite verb, and the two that clearly have a main clause structure, we are left with only 12 relevant examples. Of these, only four appear with target-consistent non-V2, while 8 have a word order that indicates that the verb has moved. This is clearly different from the adult input, and from the point of view of economy, it seems odd that children should prefer this word order. However, as indicated above, it could be the case that children are misinterpreting the input in subject-initial main clause declaratives as having verb movement to the IP-domain; i.e. they produce an I-language structure in their grammars where there is V-to-I movement. That means that it is the micro-cue in (9) that is involved, repeated here.

\[(12') \quad \text{Micro-cue for V-to-I movement: } \text{IP}\left[ \text{XP} \quad \text{IºV} \right]\]

If this is the case, we would expect to see V-Neg word order also in other non-V2 contexts where the verb does not move to the CP domain. These could be non-V2 wh-questions or declaratives introduced by *kanskje* ‘maybe’. Unfortunately, there are hardly any examples of these constructions in the corpus which also include an adverb or negation. The only relevant example is the subject wh-question illustrated in (53).

\[(53) \quad \text{kem som vil ikke være ilag med han?} \quad \text{(Ina.25, age 3;1.08)}
\]

*who* som *will not be together with him*

‘Who doesn’t want to be with him?’

Target: Kem som ikkje vil være i lag med han?

Recall from Chapter 7 that in the Tromsø dialect, non-V2 is required in this context in the form of the insertion of the relative complementizer *som*. Thus, the verb is prevented from moving to second position. But interestingly, the verb *has* moved to a position above negation, further indicating that the children are in fact assuming that there is V-to-I-movement in the language. It should be noted that similar examples are found in the speech of somewhat older Tromsø children in Bentzen (2003), see also Westergaard and Bentzen (2007).

Finally, there is also a relevant example of a non-subject-initial declarative in the corpus appearing with non-target-consistent non-V2. These examples were discussed in Chapter 5, Section 4.2. In example (54), the verb has not moved across the subject, as required in the adult grammar. But it does appear above negation, showing that verb movement has taken place to the IP-domain.

\[(54) \quad \langle \text{ogs}+\rangle[/] \quad \text{og så du } \text{kan ikke tegne mer sånn.} \quad \text{(Ann.17, 2;8.4)}
\]

*and so you can not draw more such

‘And then you can’t draw more like that.’

Target: Og så kan du ikke tegne mer sånn.
5. **Summary and conclusion**

This chapter has investigated the children’s acquisition of word order in non-V2 contexts such as exclamatives, embedded questions, and (all) embedded clauses with negation or adverbs. These are infrequent contexts, both in the input and in the child data. The children were nevertheless found to produce target-consistent non-V2 word order in exclamatives and embedded questions, clearly not moving the verb to the CP domain in these cases. In embedded clauses with negation or adverbs, on the other hand, the majority of relevant cases (8/12, 66.7%) were found to have non-target-consistent V-Neg/Adv word order. A couple of similar examples were also attested in other non-V2 contexts. Naturally, there are too few examples in this corpus for any clear conclusions to be drawn about verb movement in embedded contexts. The existence of examples such as (53)–(54) nevertheless suggests that the acquisition of Norwegian embedded word order patterns may be different from what has been generally attested for German, but more similar to what is found in Swiss German and Swedish. However, given the explanation suggested here, viz. that children misanalyze the input in main clauses as the cue for V-to-I movement makes it possible to preserve an analysis of this in terms of economy, cf. Gavarrò (2003). This means that children’s uneconomical behavior in non-V2 contexts is due to an economy principle operative in main clauses, causing them to move the verb only as high up in the clause structure as there is evidence for in the input (i.e. to I instead of all the way to the CP domain). The data discussed in this chapter also provide further support for the model of micro-cues, showing that children do not overgeneralize word order across clause types (which have different heads in the CP domain), but that this kind of transfer does take place in the IP domain, which is shared by all clause types.
1. Introduction

In this chapter the child data from the acquisition study in Chapters 5–9 are discussed in terms of the syntactic model of word order that was outlined in Chapter 3, a split-CP clause structure and a number of micro-cues. In the next section, the most important findings from the investigation of the acquisition of word order are summarized. In the three subsequent sections, these findings are discussed in more detail with respect to important aspects of the acquisition process – micro-cues, information structure, and economy. In Section 3, the findings of early target-consistent V2 and non-V2 are used to support the model of micro-cues, arguing that children are extremely sensitive to minor syntactic distinctions from early on. The acquisition of word order is thus considered to be much more complex than simply setting a parameter. Section 4 considers the children’s early target-consistent behavior with respect to word order that is dependent on information structure in wh-questions. In light of early non-target-consistent behavior in non-subject-initial declaratives, which also conforms to such patterns, it is argued that children have an early preference for word orders that are the result of principles of information structure. This is used to support a syntactic model where information structure is integrated into the syntax in terms of topic and focus projections. Finally, in Section 5, the children’s non-target-consistent behavior is discussed in terms of principles of economy. These seem to be able to account for children’s errors of omission (e.g. non-finite root clauses, subjectless examples, or lack of movement). A principle of economy is also used to analyze the children’s overgeneralization errors involving verb movement in non-V2 contexts, arguing that children move an element only as far as there is evidence for in the input. This causes V-to-I movement in main clauses in early child grammar, and it is the result of this that is visible as overgeneralization in embedded clauses and other non-V2 contexts.
2. **Summary of findings**

In Chapters 5–9, the Norwegian child data on the acquisition of word order in various contexts were discussed and related to predictions based on certain theoretical considerations and findings from previous acquisition studies of other languages. It was shown that V2 word order was attested from the earliest occurrences of multi-word utterances in the data from all three children – in non-subject-initial declaratives, in subject-initial declaratives with negation, in *wh*-questions with long *wh*-elements, and in *yes/no*-questions. Relevant examples are repeated here as (1)–(4).

1. \( \text{der er stor stor Ole Brumm.} \) \( (\text{Ann.01, age 1;8.20}) \)
   
   ‘There is (a) big big Winnie the Pooh.’

2. \( \text{æ vet ikkje.} \) \( (\text{Ann.02, age 1;9.18}) \)
   
   ‘I don’t know.’

3. \( \text{korfor får den ikkje mat?} \) \( (\text{Ole.16, age 2;8.5}) \)
   
   ‘Why doesn’t it get any food?’

4. \( \text{er det båt?} \) \( (\text{Ina.03, age 1;10.23}) \)
   
   ‘Is that (a) boat?’

At the same time, non-V2 word order was also attested as soon as the relevant contexts appeared in the data. Examples (5)–(9) show that this is the case in non-subject-initial declaratives introduced by *kanskje* ‘maybe’, subject-initial declaratives with focus-sensitive adverbs such as *bare* ‘only, just’, *wh*-questions with monosyllabic *wh*-elements and informationally given subjects (typically pronouns), exclamatives, and embedded questions.

5. \( \text{kanskje det var en anna dag.} \) \( (\text{Ina.09, age 2;2.12}) \)
   
   ‘Maybe it was another day.’

6. \( \text{æ bare gjør sånn.} \) \( (\text{Ina.05, age 2;0.5}) \)
   
   ‘I am just doing like this.’

7. \( \text{ka ho har der # nedi?} \) \( (\text{Ina.02, age 1;10.4}) \)
   
   ‘What does she have there down-in?’
Verb movement and V2 word order was found to be clearly linked to finiteness in all contexts, which is similar to what has been found in studies of the acquisition of other Germanic languages, e.g. Clahsen (1986) for German, Jordens (1990) for Dutch, and Santelmann (1995) for Swedish. That is to say, only finite verbs undergo movement. However, also contexts that require non-V2 word order generally appear only with finite verbs, e.g. non-V2 wh-questions (see Chapter 7). This means that verbal morphology cannot be causally connected to verb movement, as was argued to be the case for other languages in the early work on the acquisition of V2, e.g. Clahsen (1986, 1988), Clahsen and Muysken (1986, 1989), and Clahsen and Penke (1992). Thus, the lack of verbal morphology in Norwegian, and in the Tromsø dialect in particular, does not seem to cause any delay in the acquisition of verb movement compared to findings from other languages. It was therefore concluded that finiteness cannot be the trigger for V2 in Norwegian. This is in accordance with the model of micro-cues outlined in Chapter 3, where the specific word order cues are formulated in terms of the syntactic position of the verb, not in terms of morphology.

However, the children do produce sentences without a finite verb, especially in subject-initial declaratives with negation, producing what is typically referred to as Optional Infinitives, see Wexler (1994, 1999a). A relevant example of this is provided in (10), while (11) shows that a finite verb appears in the position preceding negation.

(10) ikkje # ha # den! (Ann.02, age 1;9.18)
    not have-INF that
    ‘(X will) not have that.’

(11) æ vet ikkje. (Ann.02, age 1;9.18)
    I know.NOT
    ‘I don’t know.’

According to Wexler (1999a), the fact that these non-finite root clauses typically appear in this clause type is linked to the V2 phenomenon: As the V2 parameter is set early and only applies to finite verbs, children will not produce them in non-subject-initial declaratives and wh-questions, which clearly involve verb movement. However, in Chapter 6 it is argued that these examples are not the result of lack of verb movement, but that there is an auxiliary missing, normally a
modal. Non-finite clauses occasionally also appear in non-subject-initial declaratives and wh-questions in the Norwegian data, see (12)–(13). Furthermore, there are even some examples of this in embedded clauses, see (14), making the term root infinitive (Rizzi 1993/94) somewhat inappropriate. And finally, non-finite clauses are quite frequent in yes/no-questions, shown in (15), although the requirement for verb movement in the target language holds even more strictly in this context than in wh-questions. Thus, there seems to be no direct connection between morphology and syntax in the Norwegian child grammar.

(12) og så dama tegne. (Ann.01, age 1;8.20)
and then lady draw.INF/PRES
‘And then the lady (should/must) draw.’
Target: Og så skal dama tegne.

(13) kor æ legge den hen? (Ina.16, age 2;7.8)
where I lay.INF it LOC
‘Where (should) I put it?’
Target: Kor æ skal/skal æ legge den hen?

(14) pappa sa at æ ikke leke mere den. (Ann.12, age 2;4.23)
daddy say.PAST that I not play.INF more it
‘Daddy said that I (should) not play with it any more.’
Target: Pappa sa at æ ikke må leke mere med den.

(15) Merete ha? (Ann.08, age 2;1.28)
Merete have.INF
‘(Would) Merete (like to) have (some)?’
Target: Vil/skal ho Merete ha?

The children also produce some non-target-consistent forms that are related to verbal morphology, attested in all clause types. Most of these are argued to be due to overgeneralization of the present tense ending -e to irregular verbs, as discussed in Chapter 2, which for many verbs make the infinitive and the present tense forms identical. This means that these non-target-consistent forms are caused by uncertainty about verbal morphology and consequently do not constitute evidence that the children do not distinguish between finite and non-finite verbs with respect to verb movement. However, a few examples of clearly finite verbs following negation were attested in subject-initial declaratives, illustrated in (17). This indicates either that there is a lack of verb movement in these cases or that the verb has not moved up high enough in the clausal structure.

(16) der dætte dem. (Ann.09, age 2;2.19)
there fall. INF/PRES? they
‘There they fall.’ Target: Der dætt dem.
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(17) han Ole *ikke må* røre den. (Ole.06, age 2;1.5)
    *(Det Ole not must touch it)*
    ‘Ole mustn’t touch it.’ Target: Han Ole må ikke røre den.’

Lack of movement was also attested in embedded clauses, where the children show an early preference for the word order where negation precedes both the subject and the verb, illustrated in (18). In such cases, the adult grammar clearly favors a word order with the subject above negation, and this is also much more frequent in the input. This indicates that the subject does not move up high enough in the child grammar.

(18) …ho si at *ikkje det er* min kjæreste. (Ina.27, age 3;3.18)
    *(…she say.pres that not it be.pres my sweetheart)*
    ‘She says that it isn’t my sweetheart.’

Furthermore, the children were found to produce *wh*-questions without verb movement (non-V2 word order) from a relatively early stage, with the same preference patterns for subject and verb types as in the adult sample described in Chapters 2 and 3. While V2 word order tends to appear with the verb *være* ‘be’ and a full DP subject, non-V2 is preferred with all other verbs and pronominal subjects, illustrated in examples (19) and (20). This suggests that children are sensitive to patterns of information structure from early on, as they clearly make a syntactic distinction between subjects conveying given and new information.

(19) ka du skal finne? (Ina.05, age 2;0.5)
    *(what you shall find)*
    ‘What do you want to find?’

(20) kor *er Ann sin dukke hen? (Ann.04, age 1;11.0)
    *(where is Ann poss doll loc)*
    ‘Where is Ann’s doll?’

Related to this is the non-target-consistent word order found in non-subject-initial declaratives in Chapter 5. All three children produce occasional examples with non-V2, and these were found to be substantially different from the children’s early V2 non-subject-initial declaratives with respect to subject and verb types. That is, while V2 first occurs with the verb *være* ‘be’ and full DP subjects, as illustrated in sentence (1) above, repeated here, the non-target-consistent forms with non-V2 mainly occur with pronominal subjects and other verbs, as illustrated in (21). When the subject is a full DP in these non-target constructions, it is almost always the child’s own name, as in (22). The non-target forms therefore seem to occur only when the subject conveys given information. This finding indicates that not only are children sensitive to principles of information structure in the primary linguistic data that they are exposed to (in *wh*-questions); they also seem to
extend these patterns to situations where there is no evidence for them in the input.

(1’) der er stor stor Ole Brumm. (Ann.01, age 1;8.20)
there be.pres big big Ole Brumm
‘There is (a) big big Winnie the Pooh.’

(21) nå skal (s)t(r)ikke litt til. (Ole.10, age 2;4.6)
now I shall knit little more
‘Now I will knit a little more.’

(22) der Ina gjemte det. (Ina.06, age 2;1.0)
there Ina hide.past it
‘There Ina hid it.’

In addition to this occasional non-V2 word order in non-subject-initial declaratives, the children were found to produce certain other non-target-consistent forms, generally errors of omission. These are incomplete structures of the following type, where some of the functional material expected in the left periphery of the clause is missing: First and foremost, there are the non-finite clauses, illustrated in (10) and (12–(15) above, where it has been argued that an auxiliary is missing. The children sometimes also produce questions without wh-words, and these are mainly of the non-V2 type, although occasional examples appear with verb movement, see (23)–(24). Subject questions are infrequent in the corpus, but it is still possible to argue that the early cases appear without the functional element som, illustrated in (25). And in non-subject-initial declaratives, children occasionally produce so-called V1 structures, which were analyzed as topic drop in Chapter 5, see (26).

(23) den gjør der? (Ole.02, age 1;10.0)
that do.pres there
‘(What) is that doing there?’ Target: Ka den gjør der?

(24) er doktoren? (Ole.02, age 1;10.0)
be.pres doctor.def
‘(Where) is the doctor?’ Target: Kor er doktoren?’

(25) ka skjedde? (Ina.10, age 2;3.12)
what happen.past
‘What happened?’ Target: Ka som skjedde?

(26) datt du over. (Ina.10, age 2;3.12)
fall.past you over
‘(There) you fell over.’ Target: Der datt du over.
Corresponding to findings from many other non-null-subject languages, subjectless clauses are also attested in the Norwegian child data. As predicted by Wexler (1999a), these are mainly found in non-finite root clauses, i.e. in subject-initial declaratives and yes/no-questions, see (27)–(28). However, occasional examples also appear in (finite) non-subject-initial declaratives and wh-questions, illustrated in (29)–(30).

(27) ikke røre der. (Ole.06, age 2;1.5)  
not touch.INF there  
‘(You must) not touch (that) there.’

(28) tegne den? (Ina.05, age 2;0.5)  
draw.INF that  
‘(Can I) draw that?’ Target: Kan æ tegne den?

(29) sånn skal være. (Ina.10, age 2;3.12)  
such shall be  
‘This way (it) should be.’ Target: Sånn skal det være.

(30) ka gjør? (1 example in Ina.04, age 1;11.22, 7 examples in Ina.05, age 2;0.5)  
what do.PRES  
‘What is (X) doing?’ Target: Ka han/ho gjør?

Finally, some cases of overgeneralization of verb movement are attested in non-V2 contexts. This is generally found in embedded clauses with negation, illustrated in (31)–(32), but also in a subject question, see (33). This contrasts with the lack of overgeneralization of verb movement across the subject in embedded questions, illustrated in (9) above and repeated here, where the expected S-V word order appears.

(31) han ropa han vil ikkje desse. (Ina.20, age 2;8.27)  
he yell.PAST he will not swing  
‘He yelled that he doesn't want to swing.’

(32) han [//] at han skjonne ikkje. (Ann.10, age 2;3.9)  
he that he understand.PRES not  
‘…he [//] that he doesn't understand.’

(33) kem som vil ikkje være ilag med han? (Ina.25, age 3;1.08)  
who SOM will not be together with him  
‘Who doesn't want to be with him?’  
Target: Kem som ikkje vil være i lag med han?

(9’) se her ka Ina gjør. (Ina.04, age 1;11.22)  
look.IMP here what Ina do.PRES  
‘Look here what Ina is doing.’
The general findings from the child data can thus be summarized in the following list:

- Early acquisition of V2 in relevant contexts.
- Early acquisition of non-V2 in relevant contexts.
- Verb movement linked to, but not caused by, finiteness.
- Early sensitivity to principles of information structure in wh-questions.
- Preference for patterns of information structure in early non-subject-initial declaratives.
- Production of certain incomplete structures (errors of omission).
- Occasional examples of lack of verb movement with finite verbs.
- Non-finite and subjectless clauses considerably more frequent in subject-initial main clauses and yes/no-questions than in non-subject-initial declaratives and wh-questions.
- Overgeneralization of verb movement in non-V2 contexts – across negation but not across the subject.

3. Micro-cues

Given the model of micro-cues outlined in Chapter 3, it was expected that children should be able to acquire different word orders early. The findings in the child data therefore provide support for this model. That is, there is no evidence in the Norwegian data that the children are setting a major word order parameter or that two different parameter settings (V2 vs. non-V2) are in competition. Instead children immediately zoom in on the syntactic distinctions that are relevant for the target grammar. First and foremost, this concerns the different clause types, in the syntactic model reflected as different types of ForceP. Children do not seem to have any problem distinguishing e.g. declaratives and yes/no-questions, since these are natural subcategories of ForceP, viz. Decl(ative)P and Pol(arity)P. Thus, children immediately produce separate cues for these clause types in their I-language grammars, illustrated in (34)–(35).

(34) Micro-cue for V2 in declaratives: $\text{DeclP}[XP \text{Decl}^\text{V}]$

(35) Micro-cue for V2 in yes/no-questions: $\text{PolP}[\text{Pol}^\text{V}]$

This means that children are also able to distinguish DeclP and PolP from other clause types, e.g. Excl(amative)P, immediately producing V2 in the former cases and non-V2 in the latter. Thus, no transfer of word order is predicted from one clause type to another. That is to say, realizing that there is verb movement to e.g. PolP does not make children automatically assume that the same applies to other heads in the
CP domain, e.g. Int° or Decl°. This explains that languages and dialects may have different word order requirements based on clause type, as discussed for various Germanic languages in Chapter 2. This also accounts for certain historical word order changes that have affected only one clause type and no others, e.g. the loss of V2 in declaratives in the history of English, see Westergaard (2009b).

Furthermore, children are clearly able to make even finer syntactic distinctions than just clause types. Recall that word order in wh-questions also depend on the nature of the initial wh-element, whether it is a subject or non-subject, and whether it is short (monosyllabic) or long (disyllabic or a full phrase). The latter distinction was argued to correspond to a natural difference between heads and phrases, also attested in other languages, e.g. Italian dialects (Poletto and Pollock 2004). Thus, children are able to distinguish between the short and long wh-elements from early on, producing mixed word order in the former case and exclusively V2 in the latter, as required by the target grammar, see (3) and (19)–(20), repeated here. Thus, they must be formulating distinct micro-cues for the two contexts in their I-language grammars, as in (36)–(37).

(3’) korfor får den ikkje mat? (Ole.16, age 2;8.5)  
why get.pres it not food
‘Why doesn’t it get any food?’

(19’) ka du skal finne? (Ina.05, age 2:0.5)  
what you shall find
‘What do you want to find?’

(20’) kor er Ann sin dukke hen? (Ann.04, age 1;11.0)  
where is Ann poss doll loc
‘Where is Ann’s doll?’

(36) Micro-cue for V2 in questions with long wh-elements: \[ \text{IntP}[XP[+[wh] \text{Int}°\text{V}]] \]
(37) Micro-cue for V2 in questions with monosyllabic wh-elements:

\[ \text{IntP}[\text{Int}°wh \text{TopP}[\text{Top}V \ldots XP[+[FOC]i]]] \]

In Chapter 4 we saw that the micro-cues for the various contexts were expressed in the input with very different frequencies. Yet, this does not seem to have any effect on the order of acquisition or the proportions of errors in the child data. A comparison of the percentages found in the input sample in Chapter 4 with the general findings in the child corpus shows that, while e.g. yes/no-questions are extremely frequent in the input, making up 30.8% of the total number of complete sentences, this clause type often appears with functional material missing. That is, non-finite and subjectless examples are mainly found in yes/no-questions and subject-initial declaratives, the latter attested 6.2%. This is illustrated in (15) and (10), repeated here. The second most frequent clause type is non-subject-initial declaratives,
attested 13.6%, but the children are nevertheless found to produce a certain number of word order mistakes (i.e. non-V2) in these cases, illustrated in (21).

\[(15')\] Merete ha?  
Merete have.INF  
‘(Would) Merete (like to) have (some)?’  
Target: Vil/skal ho Merete ha?

\[(10')\] ikkje # ha # den!  
not have.INF that  
‘(X will) not have that.’

\[(21')\] nå æ skal (s)t(r)ikke litt til.  
now I shall knit little more  
‘Now I will knit a little more.’

In comparison, only 0.4% of all sentences in the input sample are exclamatives, and although this clause type is also infrequent in the child data, exclamatives are produced with target-consistent non-V2 as soon as they appear in the children’s own production, as shown in (8). Furthermore, subject-initial declaratives with focus-sensitive adverbs are attested as little as 0.07% in the input data, and yet they appear with target-consistent non-V2 at a very early stage, see (6).

\[(8')\] så fint det var.  
so nice it be.PAST  
‘How nice it is!’

\[(6')\] æ bare gjør sånn.  
I just do.PRES such  
‘I am just doing like this.’

This means that in the model of micro-cues, input frequency should not be considered in relation to the overall input (e.g. all complete sentences) as was done in Table 4.1 in Chapter 4. Instead, frequency should be calculated in relation to the context for a particular micro-cue, e.g. individual clause types. In the acquisition process, children clearly distinguish between the different micro-cues and do not overgeneralize from one to the other. For example, realizing that there is verb movement to the Polº head, children do not transfer this process to other clause types but wait until they have positive evidence for this in the input. Consequently, frequency is only relevant in connection with the specific context of a micro-cue and will therefore be much higher than the percentages in Table 4.1 indicate. This means that for word order in exclamatives and yes/no-questions, for example, the input frequency for the target word order is virtually 100% in both cases, despite the different frequencies in the total input. Similarly, this is the case for wh-questions with long (phrasal) wh-elements, despite the extremely low frequency in the overall input.
There are also exceptions to the general word order in a particular clause type. An example of this is the initial adverb *kanskje* ‘maybe’ in non-subject-initial declaratives, which may appear with non-V2 word order in the target language. In Chapter 3, a child’s I-language structure for this was formulated as in (38), and in Chapter 4, it was found that this was expressed only 1.9% in the input sample. However, in relation to the relevant input, all non-subject-initial declaratives, this was attested as often as 12%. This presumably accounts for the early and error-free acquisition of this unusual word order, shown in (5).

(38) Micro-cue for word order in declaratives with clause-initial *kanskje* ‘maybe’:

\[ \text{DecP}[ \text{kanskje} \text{ XP} \ldots \text{VP}[ \text{V}]] \]

(5’) *kanskje* det var en anna dag. (Ina.09, age 2;2.12)

maybe it be.PAST an other day

‘Maybe it was another day.’

The model of micro-cues may also account for children’s generally conservative approach to the acquisition of syntax. As is well known, children are typically found to make surprisingly few mistakes in syntax, see Snyder (2007) for a recent discussion. In my view, this is related to the fact that they are somehow ‘wired’ to make fine syntactic distinctions. Thus, when they discover that a particular word order applies in one context, they do not immediately extend it to other contexts without positive evidence in the input. To the extent that children make mistakes, they generally seem to do less than the target grammar. For example, certain English children’s lack of subject-auxiliary inversion in *wh*-questions has been found to correspond to even smaller micro-cues in their grammars, making finer distinctions than the target language, see Westergaard (forthcoming/2009c). This to some extent also corresponds to what is argued in Roeper (1999, 2007), that children pay attention to frequency only in relation to relevant categories (e.g. certain classes of verbs) and only overgeneralize within such classes. For verb movement in English, which only applies to auxiliaries and ‘be’, children are generally not found to extend this process to other verb types, see Radford (1992). However, Roeper has attested overgeneralization to the verbs *mean* and *call* for an extremely brief period, as illustrated in (39)–(40). Note that the meaning and function of these verbs is very similar to ‘be’, which is the verb that typically appears first with V2 in child language also in other languages, e.g. in Swedish child data, see Waldmann (2008), or in the Norwegian acquisition data discussed in the previous chapters of this book.

(39) What means that?

(40) What calls that? (Roeper 2007: 34)
In the next two sections, I discuss how the micro-cues interact with children’s sensitivity to information structure and the general tendency for economy in the acquisition process.

4. Word order and information structure

4.1 Verb movement in wh-questions

As shown in Chapter 7, the children in this study produce wh-questions with V2 word order relatively soon after multi-word utterances appear. But at a very early stage children also produce wh-questions without verb movement in a systematic way, i.e. only after those wh-words which allow it, and with the same preference patterns for subject and verb types as adults (pronominal subjects, other verbs than være ‘be’). Moreover, there is a very high frequency of sentences with V2 in the early files with the opposite preferences, the verb være ‘be’ and a full DP subject. These patterns were illustrated in (19)–(20) above and are repeated here. This indicates that the children distinguish between given and new subjects with respect to verb movement and produce patterns that correspond to pragmatic principles such as end focus and end weight at a very early stage.

(19’) ka du skal finne? (Ina.05, age 2:0.5)
what you shall find
‘What do you want to find?’

(20’) kor er Ann sin dukke hen? (Ann.04, age 1;11.0)
where is Ann poss doll loc
‘Where is Ann’s doll?’

It was argued in Chapter 3, Section 3.3, that the general requirement of the TopP in the adult grammar is that informationally light subjects move up in the structure and subjects that carry more focus stay lower. The head Topº attracts the verb when the subject conveys new information, i.e. when it has the feature [+FOC], causing V2 word order. In those cases, the informationally new subject stays in SpecTP. Subjects that have a [-FOC] feature, on the other hand, are attracted to the specifier of the TopP.

The children’s target-consistent production in these contexts suggests that they are extremely sensitive to patterns of information structure and that the requirement imposed by the TopP is acquired very early. According to the above analysis, the (partial) syntactic representation for sentence (20) should be as illustrated in (41), with InTopº and Tº as intermediate landing sites for the verb. The structure for (19), on the other hand, would be as in (42), with the [-FOC] subject appearing in SpecTopP. Subject movement to SpecTopP is vacuous movement,
and it is therefore possible that this is not immediately acquired by children and that the subject for a while stays in a lower specifier position.

Note also that I have assumed verb movement to InTop° also in the wh-question with non-V2 word order. This is a type of verb movement that is not argued to be part of the adult grammar, due to the position of the verb in relation to negation or sentence adverbs in these cases. In Chapter 3 the evidence for this was illustrated by the following subject question with negation from the adult corpus. However, this was shown to be very infrequent in the input (see also Westergaard and Bentzen 2007).

(43) kem som ikkje får kjøre? (INV, file Ole.14)
    who that not gets drive
    ‘Who doesn’t get to drive?’
Given children’s economical approach to movement and structure building, this proposal about the child grammar may therefore seem somewhat surprising. But in Chapter 9 it was suggested that verb movement does take place to the IP domain in non-V2 contexts, due to a principle of economy operative in main clause declaratives, causing children to misinterpret the input evidence as V-to-I movement. This is then transferred to IPs in all contexts, including wh-questions. Recall that this is argued to be possible, as the IP domain is identical in all clause types.

Unfortunately, wh-questions with adverbs or negation are rare also in the child data. There is only one example of a subject question with negation in Ina’s production, provided in (33) and repeated here. The word order in this example shows that the verb has in fact moved. I return to a discussion of this in Section 5.

(33’) kem som vil ikkje være i lag med han? (Ina.25, age 3;1.08)
    who som will not be together with him
    ‘Who doesn’t want to be with him?’
    Target: Kem som ikkje vil være i lag med han?

4.2 Verb movement in non-subject-initial declaratives

As in wh-questions, the children produce target-consistent V2 word order in non-subject-initial declaratives as soon as multi-word utterances appear in the data. In fact, this clause type is produced even earlier than wh-questions, as it is attested in all three children’s first files and continues to appear regularly. In addition, non-subject-initial declaratives are in general much more frequent than wh-questions in the child data.

As shown in Chapter 5, the earliest non-subject-initial declaratives display a special pattern with respect to subject and verb types, i.e. they occur with the verb være ‘be’ and full DP subjects, as illustrated in sentence (1), repeated here.

(1’) der er stor stor Ole Brumm. (Ann.01, age 1;8.20)
    there be.pres big big Ole Brumm
    ‘There is (a) big big Winnie the Pooh.’

The occasional examples of non-target-consistent word order in the child data, on the other hand, show a different distribution of subject and verb types. These sentences mainly occur with other verbs than være ‘be’, and the subject is typically either a pronoun or a full DP familiar from context, often the child’s own name. This was illustrated in examples (21)–(22) in Section 2, also repeated here.

(21’) nå æ skal (s)t(r)ikke litt til. (Ole.10, age 2;4.6)
    now I shall knit little more
    ‘Now I will knit a little more.’
This situation is very similar to what we saw for early \textit{wh}-questions in the previous section and seems to warrant an identical analysis of the two clause types. In early non-subject-initial declaratives, children presumably do project the DeclP, as required by clause typing in UG. However, they do not necessarily realize immediately that there is verb movement to the Declº head. This may be linked to the fact that the children arguably do not move the verb to this position in subject-initial declaratives either, see Chapter 9 and Section 5 below. Thus, I would argue that children initially misinterpret the input as verb movement to a lower head, to Topº, the position the verb moves to in \textit{wh}-questions. On this account, early non-subject-initial declaratives such as sentence (1) would have a syntactic representation as in (44), with the finite verb in Topº. Declaratives with non-target-consistent word order would then have a syntactic representation as in (45), with the subject in SpecTopP. Apart from the topmost projection, these structures exactly parallel the \textit{wh}-questions discussed in the previous section.

(44) \[
\begin{aligned}
\text{DeclP} & \quad \text{Decl'} \\
\text{der} & \quad \text{there} \\
\text{there} & \quad \text{Declº} \\
\text{Topº} & \quad [-\text{FOC}] \\
\text{Topº} & \quad \ldots \\
\text{er} & \quad \text{InTopº} \\
\text{is} & \quad \text{InTopº} \\
\text{ef} & \quad \text{TP} \\
\text{stor} & \quad \text{stor OB} \\
\text{big} & \quad \text{big WP} \\
\text{[+FOC]} &
\end{aligned}
\]
The claim here is therefore that V2 word order in early Norwegian child language is in fact taken care of by the focus feature, which ensures that the verb moves to the head Topº, in wh-questions as well as non-subject-initial declaratives. Thus, word order mistakes in the latter clause type should only occur in the absence of the trigger for V-to-Topº, i.e. only in cases with given subjects, at a stage before the syntactic requirement for a filled Declº head in Norwegian is fully acquired. It is often argued that, when the syntax allows two word orders in adult languages, information structure typically takes over and affects the choice of the two, see e.g. Bresnan and Nikitina (2003, 2007) and Bresnan, Cueni, Nikitina, and Baayen (2007). The child data discussed in Chapter 5 indicate that this is also the case in child language. That is, at a stage when the child grammar allows some optionality of verb movement to the DeclP, information structure principles take over and ensure that verb movement takes place (to Topº) when the subject is new or focused information. This directly corresponds to the word order pattern found in declaratives in Old and Middle English, see e.g. van Kemenade (1987), Kroch and Taylor (1997), Bech (2001), or Westergaard (2009b). Thus, child languages do not seem to be any different from adult languages with respect to information structure.

As the adult grammar is consistently V2 in non-subject-initial declaratives (except for clauses with initial kansjke ‘maybe’), there is no input that should cause the children to produce these declaratives with non-V2 word order. Given the micro-cue approach, there should in general be no overgeneralization or transfer of syntactic movement from one clause type to another, e.g. from wh-questions to declaratives. This means that verb movement to the TopP must be somehow fa-
vored by UG, possibly because it is more economical than verb movement to the DeclP; there is verb movement in fewer cases (i.e. only with new or focused subjects) and movement involves a lower head (see the next section). One argument in favor of this is the indication that similar patterns are found in non-subject-initial declaratives in Swedish child language, where there is no evidence in the input that verb movement is dependent on pragmatic factors in any context (see Chapter 5, Section 4.2.2). Given the young age of these children and the fact that these distinctions must be said to be relatively subtle and complex, these early preferences for word order could be argued to be due to general economy principles.

This means that Norwegian children need to learn that the syntax of the DeclP overrides the patterns of information structure caused by the requirements of the TopP. The cue for general V2 in this clause type should be quite robustly attested in the input, as shown by the relatively high frequency of non-subject-initial declaratives in the sample of child-directed speech investigated in Chapter 4 (13.6% of the total, 88% of relevant contexts). As children realize that verb movement takes place in all non-subject-initial declaratives, also the ones which have informationally given subjects, they revise their initial analysis from a structure where verb movement is dependent on the information value of the subject, illustrated in (44), to a syntactic requirement which applies across the board. Given the high frequency of non-subject-initial declaratives in child-directed speech and the relatively consistent nature of the input, this should be acquired very early. It is possible that it is place as soon as multi-word utterances appear in the data, and that the occasional non-target forms are simply traces of an earlier hypothesis. It seems to be fully acquired by approximately age 2;3, as this is when the non-target-consistent forms generally disappear and the children begin to produce a large number of target-consistent examples with informationally given subjects (see Chapter 5, Tables 5.1 and 5.7).

To summarize; the word order errors children produce in non-subject-initial declaratives indicate that they make a distinction between informationally given and new subjects also in this clause type at an early stage. This finding goes against what has often been argued in the literature, that syntax is acquired early, but pragmatics is late. Not only do these children learn patterns that are dependent on information structure at an extremely early age (in questions with the monosyllabic wh-words), these patterns also emerge in clause types where there is no evidence for them in the input. This suggests that information structure is integrated into the syntactic component of the language system and not part of a separate pragmatic module with requirements that have to be learned solely from experience. In this way the findings in the child data also support the Split-CP model outlined in Chapter 3, where certain aspects of word order that are dependent on information structure are taken care of by a syntactic projection in the CP domain, the TopP.
5. **Economy**

5.1 **Introduction**

Throughout this book, aspects of economy have been referred to in connection with general approaches to language acquisition and related to several of the findings in the child data in Chapters 5–9. The economy principles introduced in Chapter 1 were concerned with economy of structure building and economy of movement, see (46a, b), where the latter is presumably subsumed under the former, given the requirement that movement (internal Merge) always extends the syntactic structure, see Chomsky (2001).

(46) Structural economy

a. only build as much structure as there is evidence for in the input
b. only move elements as far as there is evidence for in the input

In Chapter 3, an economy principle was also used to explain the diachronic change in the categorial status of the monosyllabic *wh*-elements in the Tromsø dialect from phrase to head, viz. Head Preference (van Gelderen 2004a, b). In Chapter 7 this economy principle was argued to be operative in acquisition, causing a preference for heads over phrases. This was considered to simply be part of a larger economy principle of structure building, viz. (46).

In the Norwegian child data, we have also seen a general pattern of missing elements, and no additions of extra material. This means that the children produce errors of omission rather than errors of commission, which corresponds to what is typically found in other child languages. In this section, I discuss three aspects of economy in the acquisition data; incomplete structures and missing elements in 5.2, economy of movement in 5.3, and the effect this has on verb movement in non-V2 contexts in 5.4.

5.2 **Incomplete structures and missing elements**

The children’s non-target-consistent production generally involves incomplete structures, where some element is missing. Examples of this were listed in Section 2, repeated here, and include missing *wh*-elements, as in (23), the lack of the relative complementizer *som* in subject questions in (25), and topic drop illustrated in (26). As often found in acquisition data from non-null-subject languages, subjects are also often lacking in the Norwegian child data, illustrated in (29).
(23’) den gjør der?

(25’) ka skjedde?

(26’) datt du over.

(29’) sånn skal være.

I would argue that economy is the general cause of all these incomplete structures. Economy alone can of course not predict which elements are more vulnerable for omission, subjects and functional elements being typical cases. In order to explain that, one needs to take into account facts of syntax and information structure that, to some extent, lie outside the scope of this book. However, it seems clear that syntactic complexity and semantic saliency play a role, both resulting in functional elements often being dropped. Elements with low information value (typically subjects) are also missing to a larger extent than informationally more prominent elements. But given that there is typically optionality in children’s production with respect to the presence of these elements, there is arguably no fundamental difference between the child and adult grammars. That is, all the functional structure is accessible and children generally seem to be sensitive to the relevant syntactic distinctions.

The perhaps most discussed feature of early child language concerns the production of non-finite root clauses, typically referred to as Optional Infinitives (Wexler 1994, 1999a) or Root Infinitives (Rizzi 1993/94, 2000), see also Radford’s (1990) small clause analysis or the weak continuity approach advocated by e.g. Clahsen, Penke, and Parodi (1993/94). An example of this from the Norwegian data was provided in (10), repeated here.

(10’) ikke # ha # den!

Examples such as (10) are often given very technical syntactic explanations, e.g. the Unique Checking Constraint of Wexler (1999a). Rizzi’s (1993/94, 2000) Truncation analysis, on the other hand, seems to me to be an attempt to capture the simple fact that children’s grammars are somehow ‘smaller’ than the corresponding adult systems. However, also the Truncation analysis makes predictions that do
not always hold up when compared to children's production. For example, non-finite root clauses should not appear in V2 contexts, but occasional examples of this are found in the Norwegian corpus, illustrated in (12), (13) and (15) for non-subject-initial declaratives, wh-questions and yes/no-questions respectively. They are also attested in embedded clauses, see (14).

(12’) og så dama tegne. (Ann.01, age 1;8.20)
and then lady draw.\text{pres}
‘And then the lady (should/must) draw.’
Target: Og så skal dama tegne.

(13’) kor æ legge den hen? (Ina.16, age 2;7.8)
where I lay.\text{inf} it \text{loc}
‘Where (should) I put it?’
Target: Kor æ skal/skal æ legge den hen?

(15’) Merete ha? (Ann.08, age 2;1.28)
Merete have.\text{inf}
‘(Would) Merete (like to) have (some)?’
Target: Vil/skal ho Merete ha?

(14’) pappa sa at æ ikke leke mere den. (Ann.12, age 2;4.23)
daddy say.\text{past} that I not play.\text{inf} more it
‘Daddy said that I (should) not play (with) it any more.’
Target: Pappa sa at æ ikke må leke mere med den.

In my view, these examples are not fundamentally different from the sentences in (23), (25), (26), and (29) above, where there is other material missing (wh-elements, complementizers, topics, and subjects). That is, in all the present examples, there is a functional element missing, more specifically an auxiliary, often a modal. And the cause of this may again simply be economy. From studies of English child language, e.g. Stromswold (1990), we know that auxiliaries are vulnerable and often dropped, and these data indicate that Norwegian is no different. Again, economy may not explain why these auxiliaries tend to be missing more often in some contexts than in others. It is typically argued that finiteness on the verb is related to syntactic movement, and these examples should therefore not be attested in V2 contexts. The Norwegian data discussed in this book show that there is no direct relationship between morphology and syntax in this respect, and an account of the relationship between finiteness and clause type should be sought elsewhere. This is also outside the scope of this book, but Westergaard (submitted) is an attempt to link this phenomenon to some very simple correlations between the verb types that typically appear in the different clause types, early non-subject-initial declaratives and wh-questions typically being used with være ‘be’ (see Chapters 5 and 7),
while subject-initial declaratives with negation and yes/no-questions predominantly appear with modals (see Chapters 6 and 8). And it is in the latter cases that these non-finite structures (argued to have missing auxiliaries) are mainly attested in the child data.

5.3 Economy of movement

The economy principles in (46) state that children only build as much structure as is necessary according to the input data, and as a consequence, that the landing site for syntactic movement will only be as high up in the clause structure as there is clear evidence for in the input. This means that children should initially assume that there is no movement, which is similar to Platzack’s (1996) Initial Hypothesis of Syntax. This assumption may cause certain non-target-consistent forms in children’s production in the sense that an element simply is not moved or not moved far enough. We have already seen an example of this in the non-subject-initial declaratives in Section 4.2, where verb movement targets a lower head than in the adult grammar, the Top⁰, see (21)–(22). There were also occasional examples of subject-initial declaratives with a finite verb following negation, discussed in Chapter 6. This was illustrated in example (17), repeated here. Assuming that sentence adverbs and negation generally appear between InTopP and TP, this example may be an instance of verb movement to the T⁰ head only. Non-target-consistent word order such as this is so infrequent that it cannot be considered to reflect stable properties of the child grammar. Nevertheless, these slips seem to all go in the same direction, i.e. caused by general principles of economy.

(17) han Ole ikke må røre den. (Ole.06, age 2;1.5)
    det Ole not must touch it
    ‘Ole mustn’t touch it.’ Target: Han Ole må ikke røre den.’

Economy of movement is also visible in other parts of these children’s grammars, which are outside the focus of this book. This is for example the case in object shift constructions, illustrated in (47), where the target language requires movement of a pronominal object across negation. Similar findings have been attested for Dutch, German, and Swedish (see Barbier 2000, Schaeffer 2000, Josefsson 1996), and the findings from the Norwegian children in the present corpus are discussed in Anderssen, Bentzen, Rodina, and Westergaard (submitted). Similar patterns are found in so-called subject shift constructions, illustrated in (48), see Westergaard (2008a). The same economy principle may now account for the children’s word order preference in embedded clauses, where the subject has failed to move across negation, illustrated in (18), see also Chapter 9.
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(47) eg finn ikkje han.  
I find not him  
'I can't find him.'  
Target: Eg finn han ikkje.

(48) har ikkje han fota her?  
have not he feet here  
'Doesn't he have feet here?'  
Target: Har han ikkje fota her?

(18') ...ho si at ikkje det er min kjæreste.  
...she say that not it be my sweetheart  
'She says that it isn't my sweetheart.'

In Chapter 6 it was speculated whether the word order of subject-initial declaratives with negation expresses the micro-cue in (34), or whether only non-subject-initial declaratives have this function. According to Lightfoot (1999), only the latter clause type expresses the cue for V2, since subject-initial declaratives are ambiguous with respect to the position of the subject, which may be in SpecCP or SpecIP.

(34’) Micro-cue for V2 in declaratives: DeclP[XP DeclºV]

This is the case also within the model of micro-cues. That is, there is no clear cue in subject-initial declaratives that the verb (and accordingly also the subject) moves all the way to the DeclP. Nevertheless, there should be ample evidence in the input that there is verb movement in these sentences, as illustrated by the relatively high frequency of main clauses with negation in the sample of child-directed speech investigated in Chapter 4 (6.2% of the total input). Therefore, children realize very early that finite verbs move across negation (and other adverbs) in subject-initial declaratives, and they produce target-consistent forms from the onset of the appearance of relevant constructions, such as sentence (2) above, repeated here.

(2’) æ vet ikkje.  
I know not  
'I don't know.'

Given the economy approach to language acquisition taken here, which assumes that children do not move constituents any farther than they have to, it will be argued that they initially pick a lower head as the target for verb movement in these constructions, viz. a head in the IP domain. As mentioned above, sentence adverbs and negation normally occur in a position between the InTopP and TP. In order for the verb to appear in front of negation in (2), it would thus minimally have to move to the head of the InTopP, the highest functional projection in the IP domain. Since the InTopP is the lowest possible projection in the clause structure...
that ensures that the verb occurs to the left of negation, this is in accordance with
the children’s economy principle of shortest move. In other words, the children
initially assume that there is verb movement to the head InTopº, corresponding to
V-to-I movement in traditional terminology. This is illustrated by the micro-cue
in (49), argued in Chapter 3 to be responsible for the symmetric V2 word order in
Icelandic (where there is verb movement also in embedded clauses).

(49) Micro-cue for V-to-I movement: $\text{IP}[\text{XP} \text{r} \text{V}]$

This means that the syntactic representation of a sentence like (2) will differ from
that of the target grammar, in that the child version of the sentence has verb move-
ment to InTopº, as illustrated in the partial representation in (50), while the corre-
sponding adult structure has verb movement to Declº, illustrated in (51). The re-
sult of this is nevertheless target-consistent word order in this context in the child
data. In the next section we turn to the consequences of this, which are visible in
other clause types.

(50)

\[
\begin{array}{c}
\text{DeclP} \\
\text{Declº} & \ldots \\
\text{InTopP} & \\
\text{æ} & \text{InTop’} \\
I & \text{vet} \\
\text{TP} & \text{ikkje} \\
\text{TP} & \ldots
\end{array}
\]

(51)

\[
\begin{array}{c}
\text{DeclP} \\
\text{æ} & \text{Decl’} \\
I & \\
\text{Declº} & \ldots \\
\text{vet} & \text{know} \\
\text{InTopP} & \text{vet} \\
\text{TP} & \text{ikkje} \\
\text{TP} & \ldots
\end{array}
\]
5.4 Verb movement in non-V2 contexts

If the representation of the child grammar in (50) is correct, the children in fact assume that there is V-to-I movement in Norwegian. According to the model of micro-cues, there should be no overgeneralization across clause types at the CP level. But this type of movement involves the IP domain, which is identical in all clause types. We would therefore expect to see some verb movement to the InTopP in other clause types too, i.e. in all non-V2 contexts. In V2 contexts, the verb of course moves to the CP domain, and the effect of V-to-I movement is invisible. The prediction is thus that children should move the verb past negation and other adverbs in all non-V2 contexts, i.e. embedded clauses, non-V2 *wh*-questions, non-subject-initial declaratives introduced by *kanskje* ‘maybe’, etc.

Unfortunately, there are not many relevant examples in the child data. Nevertheless, the majority of embedded questions do display V-Neg word order, as does the only example of a non-V2 *wh*-question which includes negation. This was illustrated in (32)–(33), both repeated here.

(32') han [//] at han *skjønne* ikke. (Ann.10, age 2;3.9)
he that he understand.pres not
‘...he [//] that he doesn’t understand.’

(33') *kem som* vil ikkje være i lag med han? (Ina.25, age 3;1.08)
who som will not be together with him
‘Who doesn’t want to be with him?’
Target: *Kem som ikkje vil være i lag med han?*

An additional example from the corpus was discussed in Chapter 9, illustrated in (52). This is a non-subject-initial declarative where the verb has failed to move across the subject to Declº, which means that this is one of the non-target examples discussed in Chapter 5 and Section 4.2 above. Note that, although the verb has failed to move to the position above the subject, as required by the target grammar, it does appear above negation. This word order thus indicates that the verb has moved to the head of the InTopP.

(52) <ogs+[\/] og så du *kan ikke* tegne mer sånn. (Ann.17, age 2;8.4)
and s+.... and so you can not draw more such
‘And then you can’t draw more like that.’
Target: Og så kan du ikkje tegne mer sånn.

Moreover, similar examples are attested in the speech of somewhat older children in Bentzen (2003) and Westergaard and Bentzen (2007). This is illustrated by the word order of the relative clause in (53) (from Bentzen 2003: 585).

(53) *ogs+[\/] og så du* leker med *kjempe* blei? (Ann.17, age 2;8.4)
and s+.... and so you play with friend
‘And then you play with friend?’
Target: Og så leker du med kjempe blei.
(53) Æ skal bare gjøre sann som du har aldri gjort før.
I shall only do such som you have never done before

(Henning, age 4;5.0)

‘I’m just going to do something that you have never done before.’
Target form: Æ skal bare gjøre sånn som du aldri har gjort før.

Under the present account, the non-target-consistent word order in these examples is considered to be the result of verb movement to InTopPº. Thus, the children’s overgeneralization patterns in embedded clauses provide some support for the analysis that initially in child language there is verb movement to a lower head in main clause declaratives. This means that the children’s choice of an uneconomic word order in non-V2 contexts (involving verb movement) is actually caused by an economy principle operative in main clauses.

In Westergaard and Bentzen (2007) it is shown that this word order persists in the children’s grammars for an extended period of time, possibly until the age of six. This means that the original cause of the non-target-consistent behavior is the economy principle in (46) together with the lack of clear evidence in the input for the exact landing site of the verb in subject-initial declaratives. The persistence of these mistakes is then due to the fact that non-V2 contexts which also include negation or an adverb are vanishingly rare in the input (see Westergaard and Bentzen 2007). This type of input seems to be the evidence that children need in order to revise the initial hypothesis that there is verb movement to InTopº.

It has been argued in this section that Norwegian children’s early subject-initial clauses display verb movement to a lower functional head than in the target grammar. More specifically, given economy principles in language acquisition, the child grammar is argued to target the lowest head that will ensure that the verb appears to the left of negation. This is assumed to be the head of the InTopP. Support for this analysis is found in certain overgeneralizations of V-Neg word order in non-V2 contexts.

6. Summary

In this chapter I have provided an overview of the child data and given an analysis of the findings within the model of micro-cues and the Split-CP clause structure outlined in Chapter 3. It has also been shown that children have an early sensitivity to information structure and that their non-target-consistent production can generally be accounted for in terms of economy principles in acquisition.

In Chapters 5–9 it was found that the children produce target-consistent word order (V2 or non-V2) in appropriate contexts as soon as the relevant clause types
appear in the child data. This finding supports the model of micro-cues, according to which the children are argued to be sensitive to fine syntactic distinctions immediately, e.g. different clause types, different functions (subject vs. non-subject), different levels of structure (heads vs. phrases), etc. It was also proposed that when children scan the input for micro-cues, this is a selective process where only the relevant context will be in the search space. This predicts that there should be no overgeneralization between contexts, e.g. from one clause type to another. This accounts for the enormous variation that is attested across languages and dialects with respect to word order (see Chapter 2) as well as the extremely early acquisition of this word order variation.

The variable word order in wh-questions in the dialect that the children in this study are exposed to was expected to cause a certain acquisition delay, since these are dependent on subtle distinctions in information structure. However, the children were found to produce both word orders in appropriate contexts from early on. Furthermore, these information structure patterns were also found in certain non-subject-initial declaratives at an early stage. This shows that young children are not only extremely sensitive to information structure, but also that they initially have a preference for such patterns. This finding thus supports the Split-CP model outlined in Chapter 3, where information structure is integrated into the syntactic structure in the form of a projection in the CP domain which attracts informationally light elements (the TopP).

Finally, principles of economy were found to be important to account for children’s non-target-consistent behavior, which was found mainly to constitute errors of omission. That is, children typically drop wh-elements, complementizers, topics, and other functional or informationally light elements. The children’s production of non-finite root clauses (and some embedded ones) was argued to be the result of the same process, viz. omission of auxiliaries. This was related to the finding that there is no direct relationship between finiteness and syntactic movement in these cases. An economy principle of shortest move was also found to be operative in the child grammar, causing (among other things) the verb in subject-initial declaratives to move to the lowest functional projection that ensures that the verb appears to the left of negation, a head in the IP domain. This type of movement is in most cases canceled by verb movement to the CP domain, but is visible in embedded clauses and other non-V2 contexts.

In conclusion, this means that the findings from the Norwegian child data on word order in V2 and non-V2 contexts may be accounted for in terms of a model of micro-cues, a syntactic structure that integrates information structure, and general principles of economy.
References

Aboh, Enoch. 2007. Information structuring begins with the numeration. Ms, University of Amsterdam.
Bentzen, Kristine. 2003. ‘V-to-I movement in the absence of morphological cues: Evidence from Northern Norwegian.’ In Peter Svenonius, Anne Dahl & Marit R. Westergaard (eds), Nordlyd:


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Garbacz, Piotr. 2004. Bisatsstrukturer som man kan inte bortse från (om bisatsordföljd i de fastlandsskandinaviska språken). (Embedded clause structures which cannot be ignored (on embedded clause word order in the Mainland Scandinavian languages)). Ms, University of Lund.


References

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References


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Westergaard, Marit. In progress. The syntax-morphology interface: Finiteness and word order in Norwegian and English child language.


## Appendix

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Meaning</th>
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<tbody>
<tr>
<td>xx</td>
<td>unintelligible word</td>
</tr>
<tr>
<td>xxx</td>
<td>unintelligible words</td>
</tr>
<tr>
<td>#</td>
<td>pause (within an utterance)</td>
</tr>
<tr>
<td>+/-</td>
<td>interruption</td>
</tr>
<tr>
<td>+/-?</td>
<td>self-interrupted question</td>
</tr>
<tr>
<td>[/]</td>
<td>repetition of preceding word or material given in angled brackets</td>
</tr>
<tr>
<td>[//]</td>
<td>restart</td>
</tr>
<tr>
<td>[?]</td>
<td>uncertainty of preceding word or material in angled brackets</td>
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<tr>
<td>[!]</td>
<td>emphasis</td>
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<td>incomplete word</td>
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<td>Ina.12 (2;4.28)</td>
<td>2.73</td>
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<tr>
<td>Ina.13 (2;5.25)</td>
<td>2.52</td>
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<td>Ina.14 (2;6.19)</td>
<td>2.15</td>
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<td>Ina.15 (2;6.25)</td>
<td>3.04</td>
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<td>Ina.16 (2;7.8)</td>
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<td>Ina.17 (2;7.22)</td>
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<td>Ina.18 (2;8.12)</td>
<td>3.05</td>
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<td>Ina.19 (2;8.22)</td>
<td>3.31</td>
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<tr>
<td>Ina.20 (2;8.27)</td>
<td>3.20</td>
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<tr>
<td>Ina.21 (2;9.18)</td>
<td>3.28</td>
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<tr>
<td>Ina.22 (3;2.5)</td>
<td>3.46</td>
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<td>Ina.23 (3;3.18)</td>
<td>3.30</td>
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<tr>
<td>File No./Age</td>
<td>V+Neg (507/544 – 93.2%)</td>
</tr>
<tr>
<td>-------------</td>
<td>--------------------------</td>
</tr>
<tr>
<td></td>
<td>Fin</td>
</tr>
<tr>
<td>Ann.01 (1;8.20)</td>
<td>0</td>
</tr>
<tr>
<td>Ann.02 (1;9.18)</td>
<td>8</td>
</tr>
<tr>
<td>Ann.03 (1;10.02)</td>
<td>14</td>
</tr>
<tr>
<td>Ann.04 (1;11.0)</td>
<td>14</td>
</tr>
<tr>
<td>Ann.05 (1;11.26)</td>
<td>13</td>
</tr>
<tr>
<td>Ann.06 (2;0.17)</td>
<td>29</td>
</tr>
<tr>
<td>Ann.07 (2;1.7)</td>
<td>20</td>
</tr>
<tr>
<td>Ann.08 (2;1.28)</td>
<td>8</td>
</tr>
<tr>
<td>Ann.09 (2;2.19)</td>
<td>34</td>
</tr>
<tr>
<td>Ann.10 (2;3.9)</td>
<td>27</td>
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<tr>
<td>Ann.11 (2;4.0)</td>
<td>23</td>
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<td>Ann.12 (2;4.23)</td>
<td>40</td>
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<td>Ann.14 (2;6.0)</td>
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<td>Ann.15 (2;6.21)</td>
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<td>Ann.16 (2;7.14)</td>
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<td>Ann.17 (2;8.4)</td>
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<td>Ann.18 (2;8.24)</td>
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<tr>
<td>Ann.19 (2;9.17)</td>
<td>23</td>
</tr>
<tr>
<td>Ann.20 (2;10.13)</td>
<td>9</td>
</tr>
<tr>
<td>Ann.21 (3;0.1)</td>
<td>25</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>451</strong></td>
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Table A.4  Subject-initial declaratives with V-Neg and Neg-V word order in files Ole.01–22; with finite, non-finite, and ambiguous verb forms

<table>
<thead>
<tr>
<th>File No./Age</th>
<th>V+Neg (317/375 – 84.5%)</th>
<th>Neg+V (58/375 – 15.5%)</th>
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<tbody>
<tr>
<td></td>
<td>Fin</td>
<td>Amb</td>
</tr>
<tr>
<td>Ole.01 (1;9.10)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Ole.02 (1;10.0)</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Ole.03 (1;10.22)</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Ole.04 (1;11.13)</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Ole.05 (2;0.10)</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Ole.06 (2;1.5)</td>
<td>9</td>
<td>1</td>
</tr>
<tr>
<td>Ole.07 (2;1.26)</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Ole.08 (2;2.12)</td>
<td>17</td>
<td>0</td>
</tr>
<tr>
<td>Ole.09 (2;3.15)</td>
<td>21</td>
<td>3</td>
</tr>
<tr>
<td>Ole.10 (2;4.6)</td>
<td>28</td>
<td>5</td>
</tr>
<tr>
<td>Ole.11 (2;4.21)</td>
<td>18</td>
<td>0</td>
</tr>
<tr>
<td>Ole.12 (2;5.18)</td>
<td>23</td>
<td>1</td>
</tr>
<tr>
<td>Ole.13 (2;6.2)</td>
<td>18</td>
<td>5</td>
</tr>
<tr>
<td>Ole.14 (2;6.21)</td>
<td>12</td>
<td>1</td>
</tr>
<tr>
<td>Ole.15 (2;7.20)</td>
<td>14</td>
<td>2</td>
</tr>
<tr>
<td>Ole.16 (2;8.5)</td>
<td>17</td>
<td>3</td>
</tr>
<tr>
<td>Ole.17 (2;8.24)</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>Ole.18 (2;9.15)</td>
<td>14</td>
<td>1</td>
</tr>
<tr>
<td>Ole.19 (2;10.0)</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>Ole.20 (2;10.15)</td>
<td>19</td>
<td>2</td>
</tr>
<tr>
<td>Ole.21 (2;11.5)</td>
<td>22</td>
<td>0</td>
</tr>
<tr>
<td>Ole.22 (2;11.23)</td>
<td>11</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>282</td>
<td>35</td>
</tr>
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</table>
Figure A.1  *Ka*-questions ('what') with V2 and non-V2, Ann.1–21, age 1;8.20 to 3;0.1
Figure A.2  *Kor*-questions (‘where’) with V2 and non-V2, Ann.1–21, age 1;8.20 to 3;0.1

Table A.5 The percentage of V2 with different subject and verb combinations in *ka*-questions (‘where’), files Ann. 1–21, age 1;8.20–3;0.1

<table>
<thead>
<tr>
<th>Subject \ Verb</th>
<th>være ‘be’</th>
<th>Other V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full DP/det</td>
<td>65.4% (17/26)</td>
<td>7.1% (1/14)</td>
</tr>
<tr>
<td>Pronoun</td>
<td>–</td>
<td>– (0/31)</td>
</tr>
</tbody>
</table>

Table A.6 The percentage of V2 with different subject and verb combinations in *kor*-questions (‘where’), files Ann.1–23, age 1;8.20–2;10.12

<table>
<thead>
<tr>
<th>Subject \ Verb</th>
<th>være ‘be’</th>
<th>Other V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full DP/det</td>
<td>95.7% (45/47)</td>
<td>25% (1/4)</td>
</tr>
<tr>
<td>Pronoun</td>
<td>85% (17/20)</td>
<td>16.7% (2/12)</td>
</tr>
</tbody>
</table>
The most central issues discussed in this book, e.g. *micro-cues, information structure, or economy*, have not been included in this index. The same applies to certain clause types (declaratives, *wh*-questions, etc.). For these and other frequently used terms, the reader should consult the Table of Contents.

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HOGEWEG, Lotte, Helen de HOOP and Andrej MALCHUKOV (eds.): Cross-linguistic Semantics of Tense, Aspect and Modality. vii, 403 pp. + index. Expected October 2009


ROEHRIS, Dorian: Demonstratives and Definite Articles as Nominal Auxiliaries. 2009. xii, 196 pp.

HICKS, Glyn: The Derivation of Anaphoric Relations. 2009. xii, 309 pp.


60 TRIPS, Carola: From OV to VO in Early Middle English. 2002. xiv, 359 pp.

LUTZ, Uli and Jürgen PAFEL (eds.): On Extraction and Extraposition in German. 1996. xii, 315 pp.


