Chapter 4

The Clause

This chapter describes the development of the various clause types. Section 4.1 outlines the structure of the various clauses in adult language. Section 4.2 presents the hypotheses concerning the development of clause structure in the language of Dutch children up to four years of age. Sections 4.3, 4.4 and 4.5 deal with developing sentence patterns: section 4.3 with the independent declarative sentence, section 4.4 with the interrogative and imperative sentences and section 4.5 with the multi-clause sentences with coordination and with subordination. These sections describe the emergence and frequencies of clause structures in the six developmental Syntactic Stages which were defined in chapter 3. In section 4.6 the hypotheses with regard to frequencies of structures are discussed, while section 4.7 deals with the hypotheses on variations and errors in the order of clause elements.

4.1 THE STRUCTURE OF THE CLAUSE IN ADULT SPEECH

In this section the elements of clause structure and their order in subordinate and independent clauses is described. I shall limit myself to the structures and to the issues relevant to the description of syntactic development in Dutch children under four.

4.1.1 Elements of clause structure

A clause is a unit that can be analysed into the elements subject, verb, complement, object and adverbial (Quirk et al. 1984: 342). The following clause elements are distinguished in the present study:
1. Subject (S). The subject is realised by noun phrases.
2. Verb phrase (V). This comprises all verbs in the clause. Verbs are finite (Vf) or nonfinite (Vnf).
3. Complement (C). This category comprises five subcategories: Direct object, Prepositional object, Indirect object, Complement to the subject (nominal part of the predicate) and Complement to the object. Complements are realised by noun phrases, prepositional phrases, adjectival phrases or complement clauses. Complement clauses may be nonfinite or finite. The subcategorization of the direct object, O, in the larger category of C deviates
from the traditional analyses. The reason is that for practical reasons the number of categories in the analysis of sentence structures must be limited (see also Crystal et al. 1976). In the description of word order the subcategory direct object, O, will be used as a category by itself.

4. Adverbial (A). The adverbial is realised by adverb phrases, prepositional phrases, noun phrases, and adverbial clauses. Adverbials are not distinguished as to whether they qualify the whole sentence or part of the sentence. An adverbial may be an obligatory argument to the verb. The symbol X is used to represent any possible element.

Additional categories of clause elements are distinguished in the earliest structures:

1. The particle of the separable prefix verb (PTL) is coded distinctively when it occurs without its verbal part in two-element utterances, because it cannot be analysed as an adverbial or a compliment due to the lack of context (for examples see section 4.3.2 (38)).

2. A negating word (NEG). Generally, negation is coded as an adverbial. Negation is coded separately in two-element utterances, because in the early stages the negating words are not always adverbials. Kaper (1975) and Ter Hedde (1987) describe early sentences with negation in which the interjection "nee 'no' constitutes the earliest negating element.

4.1.2 The order of clause-elements in subordinate and independent clauses

In Dutch the order of clause elements in subordinate and independent clauses differs. The order of elements in the subordinate clause is SOV. Theoretically this is considered the basic word order in Dutch according to transformational grammar (Koster 1975). In surface structure the basic order in the independent clause depends on the perspective taken. Frequency as an indicator of basic word order in the independent clause (Hawkins 1983) would result in different basic word orders depending on whether the finite verb or the lexical verb are indicative of basic word order. In *zij drinkt Vf thee* 'she drinks tea' the finite verb is the lexical verb, whereas in *zij wil Vf thee drinken Vf* 'she wants to drink tea' the modal verb is the finite verb and the lexical verb coincides with the nonfinite verb. If the position of the lexical verb, whether finite or nonfinite, is indicative of word order in Dutch, basic word order probably is SOV. If the finite verb is taken as a criterion, the basic order probably is SVO or VSO.

A language may have a fairly rigid word order, like English, or have a greater degree of flexibility in its word order. In Dutch there is a difference between the subordinate clause, which has a fairly rigid order, and the independent clause, which has a more flexible order. The various positions of the elements of clause structure, V, S, O and A, in subordinate and independent clauses is described in the following subsections. Instances are from adult interlocutors in the corpus of the present study.
The position of the verb

In the finite subordinate clause, V is rigidly in final position as in (1). In a complex verb phrase Vf may precede or follow Vnf as in (2) and (3).

(1) (je denkt) dat het mannetje S ook A loopt VI
    (you think) that the little man also walks

(2) (kijken) of ik S die O kan VI maken Vnf?
    (look) if I that can make (shall I see) if I can fix it?

(3) (en wat doet ie) als ie S de deur O weer A dichtgedaan Vnf heeft VI?
    (and what does he) when he the door again shut has
    (and what does he do) when he has shut the door again?

In the independent simple or main clause Vf is rigidly in first or second position: in second position in the declarative sentence as in (4), (5) and (6), and in the wh-question, as in (7); in first position in the yes/no question and the imperative sentence, as in (8) and (9). Vf is in first position in the declarative sentence if the first element is null. This is discussed below.

The complex verb phrase in the independent clause is discontinuous, with Vf in first or second position and Vnf in final position, as in (5). A separated prefix verb, e.g. vasthouden 'to hold', has Vf in first or second position and the particle (PTL) in final position, as in (6).

(4) we S maken VI hem O nou A een beetje anders C
    we make him now a little bit different

(5) je S kunt VI het O straks A maken Vnf
    you can it presently make (you can make it in a minute)

(6) ik S hou VI 'm O vast PTL
    I hold it tight (I'll hold it)

(7) wat O ga VI je S dan A doen Vnf?
    what go you then do (What are you going to do?)

(8) lust VI je S wel A patatjes O?
    like you indeed chips (Are you sure you like chips?)

(9) pak VI jij S je potloden O maar A!
    take you your pencils just (you take your pencils!)

The position of the subject

The position of S in the subordinate clause is rigid in that it follows the subordinator and precedes V, as in (1), (2), and (3).

In the independent declarative sentence the canonical or neutral order is generally assumed to be SVO and the position of S in the prefield, before the finite verb, is unmarked. If O or A are fronted to first position S is in the middle field, following the finite verb. Fronting of O/A takes place mainly for reasons of (1) discourse cohesion (Levet 1989: 271; Quirk et al. 1984: 947) and (2) contrastive focus (Givón 1988: 275). The reason for fronting relates to the type of coding. According to Givón's code-quantity principle the degree of predictability/accessibility/continuity (focus) of referents relates to the amount of phonological material which is used (Givón 1988: 249). If fronting of O/A takes place to express discourse cohesion, the informational status of O/A is equal to or less than that of S. The expected codings according to Givón's
rating scale are:
- option a: zero anaphora. This option results in null objects/adverbials in initial position. The null object in (10) refers to the previous utterance of the interlocutor. In (11) it refers to the material context. In (12) the reference is identified as dan 'then' by the adverb wel 'indeed' and the intonational contour of the clause. The occurrence of null objects is not possible in German according to some linguistic theoreticians (cf. Hyams 1992), but is not uncommon in spoken Dutch.
- option b: unstressed/clitic pronoun, as in (13). Another frequent unstressed first element is the adverbial proform, as in (14).

(10) (Child interlocutor: moet hij geent hoed op? 'must he not wear a hat?')
   eO mag Vt je S zelf C weten
   may you self know (you can decide that for yourself)
(11) eO heb Vt ik S om mijn nek C geknoopt
    have I around my neck tied (I have tied it around my neck)
(12) eA schrijf Vt ik S het O wel A op
    write I it indeed down (I'll write it down)
(13) dat O weet Vt ik S niet NEG.A
    that know I not (I don't know)
(14) nou A moet Vt ik S hem O in bed A leggen Vnt, hê?
    now must I him in bed put, eh (I'll put him to bed. ok?)

If fronting takes place to mark O/A for contrastive focus there is less attention for S. The expected codings of O/A are:
- option c: stressed/independent/contrastive pronoun or proform. The example in (15) is of an adverbial proform.
- option d: full definite noun, as in (16).
- option e: restrictively-modified definite noun, as in (17).

(15) zo A blijft Vt ze S niet A lang A schoon, hê?
    so stays she not long clean, eh
(16) die planten O hebben Vt julie S
    those plants have you
(17) zo'n step O had Vt ik S vroeger A ook A
    such a scooter had I earlier too
    (I had a scooter like that when I was a child)

Zero coding of the subject in first position may occur for highly accessible, easily identifiable referents. This is a common phenomenon in spoken Dutch (see Kooij 1978, Geerts et al. 1984: 967, for English see Quirk et al. 1984: 545 ff, for Hebrew see Berman 1990b). Subjects are identified by the verbal context as in (18) or by a situational context, often referring to material within sight of speaker and addressee, as in (19). Uncoded subject + non-lexical finite verb are also commonly heard, as in (20).

(18) (in a discussion on whether the tail and the head of a model horse can be removed)
   eS kan Vt bij echte paarden C toch A ook A niet A?
   can with real horses yet also not
   (that is impossible with real horses, isn't it?)
(19) eS past VF niet NEG (referring to a piece of a jigsaw puzzle)
    fits not (it does not fit)
In the wh-question the first position is filled by the wh-word, as in (7) above. S follows Vf in the wh-question when the wh-word is not the S, as in (7) above, in the independent yes/no question as in (8), and in the imperative sentence, as in (9).

The position of the direct object

The position of O in the subordinate clause is in the middle field resulting in SOV, as in (2) and (3).

In the independent clause opening with S, O follows Vf in the middle field, preceding Vnf, resulting in SVO, as in (4) and (6) and SOV, as in (5). Various elements, mostly A’s may come between O and sentence-final Vnf, as in (5) and between Vf and O. O may also be in first position resulting in OVS, as we saw above.

The position of the adverbial

The position of A in the subordinate clause is mainly in the middle field between S and V; A may precede or follow O as in (3) above; some adverbials may be in the postfield, following Vnf, as in (23).

In the independent clause A’s position varies widely, depending on the type of adverbial and on informational status or focus. Its place is generally in the middle field, as in (5) above. Vf and S are penetrable under certain conditions as in (21). For reasons of contrasting focus, as in (21) above and to express cohesion, as we saw in (14) above, A may be fronted. However, the sentence-initial position of A, especially when indicating time or place, may be neutral, as in (22) (Geert et al. 1984: 946, Koo 1978).

The position of the negative adverb in the subordinate clause is in the middle field, between S and V. In the independent clause the position of NEG depends on the scope of the negation. The neutral position is at the end of the middle field, as in (13) and (15) above. NEG and a group of related adverbs indicating notions such as addition, occurrence and recurrence (e.g. ook ‘also’, eens ‘once’, weer ‘again’) cannot be in first position to express discourse cohesion in the independent declarative sentence.

The multi-clause sentence with coordination

Two clauses which have sufficient in common to justify their combination can be linked by coordination (Quirk et al. 1984: 560). The order of elements in coordinated clauses does not differ from the order in single independent clauses.
Ellipsis of clause elements does not change the order of elements. Ellipsis is possible under certain restraints. Ellipsis of the first clause element, of the first clause element and the subject, of the finite verb, of the verbal elements in the predicate, of the finite verb and (part of) a clause element, and of three or more clause elements is possible. An example of ellipsis of the first adverbial element is (24) (for other examples see Geerts et al. 1984: 1195). In clauses coordinated by want 'for' ellipsis is not possible.

(24) anders wordt het te vol en ELLIPSIS of A ga je kneuienen otherwise becomes it too full and go you make a mess (else it gets too full and you will make a mess)

Summary of the main patterns of clause elements

The main pattern of clause elements in the subordinate clause is:

Subordinator S (A) (O) (A) V (A)

The main patterns of clause elements in the independent declarative sentence are:

S VI (A) (O) (A) (Vnf) (A)
O VI (A) S (A) (Vnf) (A)
A VI (A) S (A) (O) (A) (Vnf) (A)

The degree of flexibility in the position of the clause elements in the independent clause may be summarized as follows: the adverbial is most flexible, the direct object is less flexible, but more flexible than the subject, the position of the verb is inflexible. This can be expressed in the following formula indicating relative flexibility in positioning clause elements:

A > O > S > V.

4.2 RESEARCH HYPOTHESES

In this section the research hypotheses with regard to the development of the clause are formulated. A first set of hypotheses deals with the increase in mature and the decrease in immature clause structures as children develop syntactically. A second set deals with the position of the clause elements V, S, O and A in the subordinate and independent clause.

4.2.1 Validity of the CEI: frequencies of mature and immature clause structures

In this investigation syntactic development has been indexed with the CEI, the Clause Element Index (see chapter 3). Generally, children are assumed to use more mature structures and fewer immature structures as their syntactic ability
develops. If the CEI is valid, children indexed to higher Syntactic Stages produce more mature and fewer immature structures than children indexed to lower Syntactic Stages.

Validation is a broad concept, which mainly deals with the question of the adequacy of measures. I have adopted Cronbach's point of view, as formulated in Essentials of Psychological Testing, that all validation is essentially construct validation (Cronbach 1984: 126). The first question with regard to the validity of the CEI concerns content validity: are we dealing with syntax when analysing clauses into clause elements? I assume that this is so on the basis of structuralist grammar tradition generally, and on the basis of English LARSP (Crystal et al. 1976), in which the first level of analysis deals with the clause element.

The main question of the validity of the CEI, and consequently of the Dutch scale of syntactic development as presented in TARSP (Schlichting 1993), concerns the element of clause structure as the basic unit in the indexation of developing syntactic ability. Do the populations indexed as Stage groups I - VI show development in their use of the syntactic system, and consequently, does the CEI have psycholinguistic reality? The main evidence for the validity of the CEI is internal (see Groot 1990). I find it in the changes in frequencies of the various structures. Children are expected to show a growing number of mature clause structures and a declining number of immature clause structures, as they develop syntactically according to the CEI. This is the first hypothesis which is tested in this chapter. Mature clause structures are defined as containing a verb phrase and as occurring with some frequency in adult Dutch; immature clause structures are defined as containing no verb phrase and as absent or infrequent in adult Dutch. (A subject is not considered essential to the early mature sentence in spoken language, as subjectless sentences are not uncommon in spoken Dutch; see section 4.1.)

Hypothesis 1.1
As children develop syntactically according to their indexation by CEI, clause structures which contain a verb and occur with some frequency in adult Dutch become more, and clause structures which do not contain a verb and are absent or infrequent in adult Dutch become less frequent.

The hypothesis is subdivided into two subhypotheses. One deals with the increase of mature structures, the other with the decrease of immature structures. The two are not interdependent: children may use more structures with verbs, but retain their use of the verbless structures. As was stated in chapter 3, two types of frequency are distinguished, viz. Subject Frequency (SF) and Token Frequency (TF). The reader will recall that SF refers to the number of subjects within a Stage corpus in whose speech samples a particular structure occurs, and that TF refers to the number of tokens of a particular structure in a speech sample. Hypothesis 1.1 is operationalized in the following two subhypotheses:

1.1.1 Clause-element structures which contain a verb and occur with some frequency in adult Dutch, increase in Subject and Token Frequencies from the Stage in which they emerge up to Stage VI.
1.1.2 Clause-element structures which do not contain a verb, and which are
absent or infrequent in adult Dutch, show a decrease in Subject and Token Frequencies in Stage VI as compared to the earlier Stages.

The frequencies in Stages I - VI of the declarative, interrogative and imperative independent clause structures and the multi-clause sentences are presented in sections 4.3 - 4.5. It is not possible to compare the growing syntactic ability of children with the syntactic characteristics of the language of adults, because data from the spoken language of adults is generally not available. Therefore the frequencies in the most advanced stage of development, i.e. Stage VI, are assumed to have a predictive value as regards the structures occurring in adult speech.

Increase and decrease of frequencies are defined as follows:
- Evidence of an increase in SF is defined as a rise in percentages of subjects using the relevant structure, from Stage I to Stage VI (declines under 10% are ignored).
- Evidence of a decrease in SF is defined as a decline of 15% in Stage VI as compared to SF in a previous Stage, calculating from the Stage when the structure reaches the criterion of 50%.
- Evidence of an increase in TF is defined as a total rise of two in the mean TF in Stage VI as compared to the mean TF in the Stage when the structure reaches the criterion of 50%.
- Evidence of a decrease in TF is defined as a decline of two in the TF in Stage VI as compared to the highest mean TF in Stages I - V. By these definitions Stage-VI structures cannot show a rise or decline in Token Frequency; these structures will not be taken into account in the TF calculations.

Developmental patterns in SF and TF other than rise and decline are treated as 'stabilizing'. These include U-curves.

4.2.2 Order of clause elements

Correct word order

Word order is a major issue in the study of syntactic development. An assumption in generative child language research is that the child is able to use word orders which are not part of the adult system as a stage in the acquisition of verb placement (Clahsen and Muijsken 1986, Hyams 1992, Gawlitzeck-Maiwald, Tracy, and Fritzschmahn 1992, Meisel and Müller 1992). In contrast, the literature of the 1960s and 1970s shows that maintaining the correct word order with the omission of sentence elements was considered one of the major features of child language. The term used to characterize early child language was 'telegraphic speech' (Brown 1973: 74). Brown & Fraser (1963) described telegraphic speech in spontaneous utterances as follows:

For the striking fact about the utterances of the younger children, when they are approached from the vantage point of adult grammar, is that they are almost all classifiable as grammatical sentences from which certain morphemes have been omitted.

(as quoted by Brown 1973: 76).
Slobin (1973) formulated the same principle in his Operating Principle Universal C2 as follows:

Word order in child speech reflects word order in the input language.
(Slobin 1973: 197)

Klein concluded from his study of two Dutch children and their mothers that:

Dutch children in producing utterances mirror the order preferences of their mothers and do not go outside the range of orders that is offered to them.
(Klein 1974: 20)

The above three claims form the basis of hypothesis 1.2a.

Hypothesis 1.2a
The order of the elements of clause structure in Dutch children's independent declarative, interrogative and imperative sentences and in subordinate clauses is in agreement with the order in Child Directed Speech. (The order in Child Directed Speech is taken to be in agreement with the order in adult language.)

The canonical sentence schema

If an input language has several orders for a set of items, which order is acquired first by the child? The neutral order in Dutch surface structures is assumed to be SVfO. As we saw in section 4.1.2, declarative sentences in adult spoken language, including first sentences of a spoken or written text, may open with A or O, resulting in A/OVS. The reason for fronting varies, but is mostly prompted by discourse cohesion. Slobin and Bever (1982) assumed that children start out with one basic sentence pattern, a canonical sentence schema as the basic format for their sentence comprehension/production development. They proposed that: "... children construct a canonical sentence schema first, ...as a framework for the application of productive and perceptual strategies". This canonical schema is the neutral pattern of a language, as for example SVO for English. Slobin and Bever argue that the canonical form SVO is not the most frequent order in the input of English to children. Children are assumed to have a critical ability to identify canonical forms in their language. If Slobin and Bever's assumption with regard to early sentence patterns holds, early Dutch sentences may also be expected to have the SVO format. This leads us to hypothesis 1.2b. Because early sentence patterns in Dutch often have an A as a third element, the hypothesis is extended to sentences with A.

Hypothesis 1.2b
The first generally acquired order of S, Vf and O/A in Dutch child language is SVfO/A.

To judge the word order in a child's one-clause or multi-clause sentence, this sentence is paraphrased or inflated to form a complete sentence, while preserving the child's order of elements. This will be called the Principle of
Inflation. I shall rely on this Principle for the explanation of word orders and base my analyses on it. Thus, only structures deviating from the adult models in their ordering of clause elements require an explanation.

Technical Note
The child utterances in sections 4.3 - 4.4 exemplify the independent structures emerging in Syntactic Stages II - VI. Examples are given of all structures meeting the criteria of emergence. If a structure occurs in more orderings in the Stage in which it emerges, examples are given of these orderings. In section 4.5 a selection of the orderings in multi-clause sentences is exemplified.

All sentences without a finite verb (except for some wh-questions) are unmarked as to sentence type; they have been classed as declaratives. Sentences with declarative word order and interrogative or imperative intonation/function have also been coded as declaratives.

In the abbreviations of the verb phrase, V in first or second position always indicates a finite form. If VI has been realized, a possible nonfinite verbal complement (infinitive, past participle or particle) is not coded. V in final position is always nonfinite; in these cases the clause contains no finite verb. The notation Cop for Copula always indicates a finite verb form. Sentence-initial omissions of clause elements have been noted for most structures from Stage III. The symbol ‘+’ indicates that clause elements are combined in a structure without reference to the order of these clause elements.

Instances of structures in the forthcoming sections are from the Stage corpora in which these structures emerge, consequently they are early specimens of those structures. Glosses have been provided if necessary. The terms ‘structure’ and ‘construction’ are used as synonyms.

4.3 THE DEVELOPING DECLARATIVE SENTENCE

In this section the clause patterns of emerging declarative sentences are given. Generally, two-element structures emerge in Stage II, three-element structures in Stage III etc. up to Stage VI.

4.3.1 The declarative sentence in Stage II

In Stage II most two-clause-element structures emerge.

Subject + Complement
Both subject - object constructions, as in (25) and copular constructions, as in (26) occur. The subject is always the first element in these constructions.

(25) SC  mama koek  Pieter
mummy biscuit (mummy has a biscuit)

(26) SC  poppie leuk, hê?  Chantal
doll nice, right? (the doll is nice, isn’t it?)

Subject + Adverbial
Both possible orders of S and A occur, as in (27) and (28).

(27) SA  die hier  Pieter
that (one) here
(28) AS  
   hier die  
   here that (one)  

MaartenL

**Complement + Verb** (including Copula)

Direct object and prepositional object constructions occur with the order CV, as in (29) and (30); copular constructions occur with Cop as a first element, as in (31).

(29) CV  
   beertje pakken  
   little bear get (get the little bear)  

Julia

(30) CV  
   auto kijken  
   car look (I want to look at the car)  

Bob

(31) CopC  
   is een molen  
   is a mill  

MaartenV

Subject + Verb

In a few instances the deviant order VS is found (see section 4.7.1). Other constructions all have the order SV, as in (32). V is mostly nonfinite.

(32) SV  
   die happen (points at photograph)  
   that (one) eat (he/she is eating)  

MaartenL

Adverbial + X

The two-clause-element structures A + A, A + V, and A + S are coded as A + X. In the A + V constructions V is mostly nonfinite and final, as in (33).

(33) AV  
   hier zitten  
   here sit (I want to sit here)  

Pieter

In figures 4.1 and 4.2 Subject and Token Frequencies of the Stage-II declarative sentences are shown. The SF of the verbless S+C drops sharply after Stage III; it is typically an immature structure with a low frequency in adult language. Other SF’s show increases or stable frequencies across the Stages. The TF’s all show a decline from Stage III (A+X) or from Stage IV.

![Graph of Subject Frequencies](image)

**Figure 4.1 Subject Frequencies of Stage-II Declarative sentences.**

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4.3.2 The declarative sentence in Stage III

In Stage III two two-clause-element structures and a number of three-clause-element structures emerge.

**Subject + Verb + Complement**

In Stage III the direct object follows the finite verb, as in (34) or precedes the nonfinite verb as in (35). The direct object is between the finite and nonfinite verb, in (36). In the copular constructions the order is always SCopC, as in (37).

(34) SVC  

\[ \text{SVC} \quad \text{jij hebt meisje} \quad \text{you have girl} \quad \text{Blanca} \]

(35) SCV  

\[ \text{SCV} \quad \text{Kimm poppie pakken} \quad \text{Kimm wants to get the doll} \quad \text{Kimmi} \]

(36) (aA)VSC  

\[ \text{(aA)VSC} \quad \text{ga ielje koken} \quad \text{go I little egg boil} \quad \text{Jaap,Jan} \]

(37) SCopC  

\[ \text{SCopC} \quad \text{auto is kapot} \quad \text{car is broken} \quad \text{Claudia} \]

**Subject/Complement/Adverbial + PTL**

In two-clause-element structures containing PTL are coded S/C/A + PTL. In (38) the function of the clause element other than the PTL cannot be determined, it may be S or C. In three-element-clause structures PTL is coded as A, as in (40), or C. PTL is always the second element in these constructions.

(38) S/CPTL  

\[ \text{S/CPTL} \quad \text{mut(s)je op} \quad \text{hat on (he has his hat on/the hat is on)} \quad \text{Wouter} \]
Subject + Verb + Adverbial
This construction occurs in all orders which are possible in Dutch.

(39) SAV mama even drinken Claudia
mama just drink (mama must have a drink)
(40) SVA deze kan aan Marije
this can on (you can put on this sock)
(41) SVA dat kan niet Danny
that cannot (that can't be done)
(42) (eA)VSA gaat ie zo JeffreyV
goest it so
(43) AVS nou moet die andere Eliette
now must the other (now the other bead should be put on)

X + Negation
Two-element-clause structures with a negation are coded as X + Neg, as in (44) and (45). In three-element-clause structures NEG is coded as A, as in (41) above. In constructions with a verb, NEG follows the finite verb and precedes the nonfinite verb.

(44) VNEG kan niet lopen JeffreyV
cannot walk
(45) S/CNEG paardje niet Lude
little horse not

Adverbial + Adverbial + X
Some of these combinations are verbless, as in (46). Mostly the verb is finite and in first position, as in (47), or nonfinite and in final position, as in (48).

(46) SSA die ook nog JaapJan
that (one) also yet (that one must be put in also)
(47) (eS)VAA kan niet in Johnny
cannot in (you cannot put it in/it does not fit)
(48) AAV nog even/ies pakken Claudia
yet just get

Subject + Adverbial + Complement
The two orders occurring are SAC, as in (48), or the less frequent ASC, as in (49).

(48) SAC mama ook schwa bee beetje Vanetta
mamma also eh little bit (mummy also wants a little bit)
(49) ASC nou Marije nat Marije
now Marije wet (now Marije is wet)

Verb + Adverbial + Complement
The so called 'prodrop' constructions with a null subject, as in (50) and (51), have a finite verb as their first element. The other constructions in which the subject as well as the finite verb are null have a nonfinite verb as their last clause element, as in (52).

(50) (eS) is ook klaar r Desmond
CopAC is also finished
Figures 4.3 and 4.4 show Subject and Token Frequencies of the Stage-III declaratives. The SFs of structures containing S and V reach 100% in Stage IV. The SF of verbless S+A+C drops sharply after Stage III; it is typically an immature structure with a low frequency in adult language. The SFs of other structures, including subjectless V+A+C, are 60% or more in Stage VI. The TFs of structures containing S and V show a steady increase towards Stage VI. Other structures show frequencies from 2 - 4 across the Stages.

Figure 4.3 Subject Frequencies of Stage-III Declarative sentences, with the legend showing the order of emergence.

Figure 4.4 Token Frequencies of Stage-III Declarative sentences, with the legend showing the order of emergence.
4.3.3 The declarative sentence in Stage IV

In Stage IV two four-clause-element structures emerge.

**Subject + Verb + Adverbiai + Complement**

Six orders with a finite verb occur, as in (57) - (62). Apart from sentences opening with a null complement, they constitute all the orders that occur in adult language. Constructions without a finite verb occur only in the order, SACV as in (63).

(57) SVAC  
    *jij mag ook een*  
    you may also one (you can have one too)  
    Famke

(58) SVCA  
    *ik ga Snoopy niet opdrinken*  
    I go Snoopy not finish (a drink in a mug with a Snoopy picture)  
    (I won’t finish my drink)  
    Joram

(59) ACopSC  
    *nou is ster weg*  
    now is star gone  
    Floortje

(60) CVSA  
    *dat kan ie niet*  
    that can he not  
    Wilger

(61) (eA)VSCA  
    *heeft eentje allemaal sneeuw in de oog*  
    has one all snow in the eye (one has snow in his eye)  
    Wilger

(62) (eA)VSAC  
    *moet je ook een tas*  
    need you also schwa bag (do you also need a bag)  
    Jan

(63) SACV  
    *ik even anner (=ander) bakje pakken*  
    I just other dish take  
    Gemma

**Subject + Verb + two Adverbials**

All the orders that are possible in adult language occur, as in (64) - (66).

(64) SVAA  
    *die mag ook op tafel*  
    that may also on table (we’ll put that also on the table)  
    Floortje

(65) AVSA  
    *hier ga ik weer*  
    here go I again  
    Jeroen

(66) (eA)VSAA  
    *gaan die weer gauw weg*  
    go those again quickly away  
    Wilger

In figures 4.5 and 4.6 Subject and Token Frequencies of the Stage-IV declaratives are shown. The SF's of both structures increase towards 100% in Stage VI. The TF's show a steady increase, with S+V+A+C being more frequent than S+V+A+A.
Figure 4.5 Subject Frequencies of Stage-IV Declarative sentences, with the legend showing the order of emergence.

Figure 4.6 Token Frequencies of Stage-IV Declarative sentences, with the legend showing the order of emergence.

4.3.4 The declarative sentence in Stage V

In Stage V five-clause-element structures emerge and four- or five-element structures with two complements.

Subject + Verb + Complement + two Adverbials

All the orders that are possible in sentences with an overt first element occur, as exemplified in (67) - (72). Two orders with a null first element occur, as in (73) and (74).

(67) SVACA    ik heb nou een kam d'bij
            I have now a   comb as well

Ramon
(68) SVAAC  we gaan nu even (er)mee spelen  Debbie
we go now just (it)with play (we'll play with it now)
(69) SVCAA  hij kan (kent) mij ook niet  Wendy
he knows me also not (he doesn't know me either)
(70) AVSCA  een keertje heb ik wat in mijn schoen gedaan, hè?  Mark
one time have I something in my shoe done, what?
(71) CVSAA  die lust(l) je toch wel?  Priscil
that like you indeed indeed? (you like that, don't you?)
(72) AVSAC  nou doe ik even de ruit  Sofie
now do I just the window pane
(73) (eA)  kan je zo sleutel in stoppen  Marscha
VSACA  can you so key in put (you can put a key in it like that)
(74) (eA)  kan je die nog niet d'rop  Amerens
VSCAA  can you that not yet there-on (you can't put it on yet)

Subject + Verb + two Complements (+ Adverbial)
Alternative codings for C have been added: Od (direct object), Oi (indirect object), Cs (Complement to the subject), Co (Complement to the object). The orders that are possible in adult language are all found, as in (75) - (79). Constructions with a null first element do not occur.

(75) SVCAC  wij eten 't niet met een sausje  Yvette
(SVODACo)  we eat it not with a sauce
(76) SVCCA  ze gaan allemaal wat in de schoen doen, hè?  Mark
(SVCsoD)  they go all something in the shoe put, won't they?
(77) SVACC  ik ga even een doekje pakken voor m'n vieze kleren  Kees
(SVACoDc)  I go just a rag take for my dirty clothes
(78) CVSAC  dat hangje vind ik niet leuk  Jurre
(OdVSACo)  that dog think I not nice (I don't like that dog)
(79) AVSCC  dan moet ik mama een handje geven  Carola
(AVSOCoD)  then must I Mummy a hand give (I have to hold Mummy's hand)

Subject + Verb + three Adverbials
All commonly used orders of S+V+A+A+A occur. Examples with overt fronted adverbials are (81) and (82). Some possible orders with a fronted null adverbial occur, as in (83) and (84).

(80) SVAAA  die moet ook maar weg  Amerens
that must also just away
(81) AVSAA  nou zijn we weer thuis  Kees
now are we again home
(82) AVAAS  daar zit toch ook stekker  Debbie
there sits yet also plug (there's a plug too, isn't there?)
(83) (eA)  moet er weer hier een tje  Mark
(VAAAS)  must there again here one (one should go there)
(84) (oC)  doe ik zo weer d'in doen  Debbie
VSAAC  do I so again there-in put (I'll put it in again)

Figures 4.7 and 4.8 show Subject and Token Frequencies of the Stage-V declaratives. The SF's increase towards 76-88% in Stage VI. The TF's increase towards means of 2 - 4.
4.3.5 The declarative sentence in Stage VI

Structures with six clause elements emerge in Stage VI.

Six clause elements
This category comprises all six-or-more-element declarative structures. The clause elements are: subject + verb, a maximum of two complements, and a maximum of five adverbials. The total of these structures in the Stage-VI corpus is 26; they show 12 different patterns. Out of these 26 structures 21 have VS order as in (85) - (87); 14 open with (en) dan 'and' then, as in (86), 3 open with (en) 'and now', 2 open with other adverbials, 1 opens with a null adverbial and 1 opens with a complement; 5 have SV order.
4.4 THE DEVELOPING YES/NO QUESTION, WH-QUESTION AND IMPERATIVE SENTENCE

4.4.1 The developing yes/no question

In Stages II and III the frequency of the yes/no question is too low to reach the criterion for emergence.

The yes/no question in Stage III

Tag: hē?
In Stage III the tag-construction takes some of the functions of the yes/no question, as in (88) and (89).

(88) ja, hē? yes, right? NickyV
(89) een toren bouwen, hē? a tower build, right? (we are going to build a tower, aren’t we?) Sjors

The yes/no question in Stage IV

Verb + Subject (+ X)
The order in this construction is VS(X) by definition, as in (90) - (93). The two-element yes/no question, as in (93) is infrequent, due to the frequently required presence of an obligatory argument or the frequent addition of an adverbial.

(90) VCopSC is-t-ie zwart? is it black? Floortje
(91) VSC wil jij huisje maken? will you little house make (will you make a house?) Nico
(92) VSA mag ik nog? may I yet (can I have another one?) Gemma
(93) VS komt papa? comes daddy Kevin

The yes/no question reaches the criterion in Stage IV. In Stage III only 3 out of 20 subjects produce a yes/no question. This requires an explanation, because the main elements of yes/no questions seem to have been acquired already in
Stage III: declarative sentences containing a subject and a finite verb in VS order are produced regularly, as in (36) and (43) above. The yes/no question is also frequent in the input. I conclude that yes/no questions are more complex than declarative sentences with VS order. This may be only a matter of syntactic complexity, but also of a social-cognitive development. As the child develops she gradually becomes more communicative, and more aware of her interlocutor as a person who may be questioned. In terms of the ‘theory of mind’ (Baron-Cohen 1996), the child must learn that her interlocutor thinks differently than she herself does, and that his mind may be questioned.

The yes/no question in Stage V

Verb + Subject + two X’s
The yes/no question with two clause elements following verb and subject emerges in this Stage. An instance with two adverbials is (94). The ordering of complement and adverbial varies, as in (95) and (96).

(94) VSAA  
yais ikeens zo doen?  
shall I once so do (shall I do like this?)

(95) VSCA  
gaan we er nog een een uit de auto halen?  
go we yet one (rep) out the car get?

(96) VSAC  
moet ik dan rood gooien?  
must I then red throw (should I throw red?)

The yes/no question in Stage VI

Verb + Subject + three/four X’s
A variety of possible orderings is found, as in (97) - (101).

(97) VSACA  
yais ikeens hier een helicopter van maken?  
shall I once here a helicopter from make

(98) VSAACG  
heb jij wel eens op televisie gezien, dat ze deze stokken hadden?  
have you ever once on television seen that they these sticks had

(99) VSCAA  
zullen we dit even opzij zetten?  
shall we this just aside put

(100) VSCAC  
vind je dat niet leuk?  
find you that not nice

(101) VSAAA  
zal we stiekem even da’n dopen?  
shall we secretly just therein put

Figures 4.9 and 4.10 show Subject and Token Frequencies of the yes/no questions. The SF’s of the tag question and of four- and five- element questions show a steady rise. The SF of the two/ three-element yes/no question shows a dip in Stage V. The TF of yes/no questions generally show an increase, with a fall of the Tag in Stage VI. The reason is probably that by then the syntactic yes/no questions are more readily available and that the child needs no longer to rely so much on the Tag to ask yes/no questions.
Figure 4.9 Subject Frequencies of yes/no questions, with the legend showing the order of emergence.

Figure 4.10 Token Frequencies of yes/no questions, with the legend showing the order of emergence.

4.4.2 The developing wh-question

In Stages II and III the frequency of the wh-question is too low to reach the criterion for emergence.

The wh-question in Stage IV

Wh + X (+ X)

Wh-questions in Stage IV open with wat 'what' (SF=14), waar 'where' (SF=13), and wie 'who' (SF=4). In Stage IV only Chantal produces an utterance consisting of a single wh-element, as in (104), immediately following her full question (103). The one-element wh-question is by definition elliptical
and therefore probably more complex than the full wh-question. Sometimes the wh-element is dropped as in (118) (for frequencies of wh-dropping see figures 4.11 and 4.12 and section 4.7). The ᵇwh-question never reaches the criterion for emergence. This type of question also occurs in adult language under certain constraints. Question inversion is always applied, as in (102), (103) and (106). Only one ordering of the Wh-word, V and S is possible; only this order occurs.

(102) WhCopS wat zijn dat? what are they? Joyce
(103) WhVS waar is ie? (looking for a brick) Chantal
(104) Wh waar? Chantal
(105) WhVA wie zit daarop who sits thereon Eliette
(106) (eWh)VS moet ie? (where does it go?) Vanetta

The wh-question in Stage V

**Wh + three X's**
The wh-question with three clause elements usually has verb and subject following the wh-word. In these structures only one order of wh-word, V and S are possible, as in (107) and (108). The adverbial in final position is mostly nou 'now', as in (107).

(107) WhVSA hoe kan dat nou? how can that now Amerens
(108) WhVSC waarom heb je deze meegenomen? why have you this taken Ramona

The wh-question in Stage VI

**Wh + four X's**
Two clause elements follow verb and subject in this construction, as in (109) - (111). In Stage VI most questions still open with wat 'what' and waar 'where', but children in this Stage vary more in their use of interrogatives. Hoe 'how' is used by two subjects in Stage V, as in (107) above, and by nine subjects in Stage VI; waarom 'why' is used by two subjects in Stage V, as in (108) above and by five in Stage VI. In (111) we see clitic wat 'what'.

(109) WhVSAAR waar is ie nou weer? where is it now again (I can't find it) Krista
(110) WhVSCAR waarom vind je dat niet leuk? why think you that not nice (why don't you like it?) Sander
(111) WhCopSAR 't is dit ook alweer? what is this also again Michiel

Figures 4.11 and 4.12 show Subject and Token Frequencies of the wh-questions. The SF's of wh-questions with realized interrogative pronouns rise steadily. The SF's of the ᵇwh-question drop from Stage V. Only wh + two elements has SF's over 50%. The TF's of wh-questions generally rise, with a
sharp decrease in the $\phi_{wh}$-question from Stage IV.

![Graph](image)

**Figure 4.11** Subject Frequencies of $wh$-questions, with the legend showing the order of emergence.

![Graph](image)

**Figure 4.12** Token Frequencies of $wh$-questions, with the legend showing the order of emergence.

### 4.4.3 The developing imperative sentence

In Stage II the frequency of the imperative is too low to reach the criterion for emergence. Some stereotypes are found in Stage II, for example, *kijk es! 'look!'*. 

75
The imperative sentence in Stage III

Verb (+ X)
The imperative by definition opens with a verb. Consequently only one ordering is possible here, as in (112).

(112) VA  

kijk hier!  
look here!  

Danny

The imperative sentence in Stage IV

Verb + two X's
Rules of word order in the imperative are less flexible. Verb and subject can only be ordered as VS, as in (113). The order of clause elements is generally in agreement with orderings in adult language, as in (113) - (116).

(113) VSA  

doe jij eens!  
do you once (you do it)!  
Pascal

(114) VAA  

kijk eens in de kamer!  
look once in the room  
Joyce

(115) VCA  

leg die hier!  
put that here  
Lisa

(116) VAC  

zeg eens: 'plastic auto'  
say just: 'plastic car'  
Jan

The imperative sentence in Stage V

Verb + three X's
Instances of this construction, all in agreement with adult ordering, are (117) - (120). (131) shows periphrastic doe 'do' with the sentence-final infinitive of the same verb doen 'do'.

(117) VSCA  

maak jij het daar schoon!  
make you it there clean  
Kim

(118) VSAC  

doe jij eens de raam!  
do you just the window  
Debby

(119) VSAA  

lat jij even goed op!  
mind you just well  
Andries

(120) VAAA  

doe maar even hier doen!  
do just just here do  
Priscil

The imperative sentence in Stage VI

Verb + four X's
An instance of this structure is (133).

(133) VCAAA  

leg hem dan maar op de kast!  
put him then just on the cupboard  
Davey

Figures 4.13 and 4.14 show Subject and Token Frequencies of the imperative sentences. The SF's of the one/two and four-element imperatives rise steadily, the three-element imperative in Stage IV shows a sudden rise. The TF's of
imperatives range from 1 - 3. The incidence of the imperative sentence is highly
dependent on the setting. The setting was not favourable for its occurrence,
because the relationship between observers and subjects was not close.

![Graph: Subject Frequencies in percentages](image)

**Figure 4.13** Subject Frequencies of imperative sentences, with the
legend showing the order of emergence.

![Graph: Mean Token Frequencies](image)

**Figure 4.14** Token Frequencies of imperative sentences, with the
legend showing the order of emergence.

4.5 THE DEVELOPING MULTI-CLAUSE SENTENCE

4.5.1 The multi-clause sentence: age of emergence and frequencies

Multi-clause sentences with coordination and subordination emerge in Stage VI.
The age of acquisition of the multi-clause sentence is a point of diverse opinions
in the literature. This is of importance because theoretical conclusions are based
on the age of emergence. The period of emergence mentioned is often the
second half of the third year (see e.g. Bowerman 1979; Meisel and Müller 1992); the subjects in these studies are mostly middle class; parents often have a university background. In Wells's study of English children with a full range of Social Economic Status (SES), the age of emergence of multi-clause sentences was set at Level VII, mean age of emergence is 3.6. Wells's study has criteria for emergence which are comparable with those in the present study (Wells 1985: 280). The age at which Dutch children with varied SES acquire multi-clause sentences is more in agreement with Wells's figures than with those in the theoretical literature. An important Dutch source for this type of information is a study of 42 Dutch boys from three SES groups with a mean age of 3.6 (Van der Geest, Gerstel, Appel and Tervoort 1973). One hundred utterances per subject were sampled during the daily activities in the nursery playroom. Out of the 4200 utterances 39 contained a subordinating conjunction (1%). Out of these, 28 occurred in the language samples of the highest SES group.

The results of the present study support the findings of Wells and Van der Geest et al. In table 4.1 the incidence of multi-clause sentences across the age groups 2 - 5 of the present study is displayed. Age groups consist of 20 subjects. Of the total of 80 subjects, 22 produce one or more multi-clause sentences with coordination, 28 one or more with subordination. The following are the results per age group.
- Age group 2;6-3;0: 3 subjects use coordination, 5 subordination.
- Age group 3;0-3;6: 10 use coordination, 7 subordination.
- Age group 3;6-4;0: 9 use coordination, 16 subordination.

**Table 4.1 Subject Frequencies of multi-clause sentences with coordination and subordination (including direct speech) in Age groups.**

<table>
<thead>
<tr>
<th>Age group</th>
<th>Boys Group A</th>
<th>Girls Group A</th>
<th>Boys Group B</th>
<th>Girls Group B</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multi-clause sentences with coordination</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2;0-2;6 n=20</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0</td>
</tr>
<tr>
<td>2;6-3;0 n=20</td>
<td>-</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>3;0-3;6 n=20</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>3;6-4;0 n=20</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>22</td>
</tr>
<tr>
<td>Multi-clause sentences with subordination</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2;0-2;6 n=20</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0</td>
</tr>
<tr>
<td>2;6-3;0 n=20</td>
<td>-</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>3;0-3;6 n=20</td>
<td>1</td>
<td>2</td>
<td>-</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>3;6-4;0 n=20</td>
<td>2</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>16</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>28</td>
</tr>
</tbody>
</table>
The striking subgroup is the male subjects of low SES (group A, see chapter 3 (1.1)), of whom only 4 out of 20 produce a multi-clause sentence. (cf. female subjects of the same SES, of whom 8, male subjects of high SES, of whom 11 and female subjects of high SES, of whom 10 out of 20 produce multi-clause sentences (for discussion see chapter 6.).)

4.5.2 The multi-clause sentence with coordination

Defining the multi-clause sentence with coordination

The corpus of the present study contains 77 multi-clause sentences with coordination between independent clauses (CxC). Coordinated subordinate clauses do not occur. Coordinated clauses are linked by en 'and', maar 'but' and want 'for'. The multi-clause sentence with coordination is distinguished from:

a. Asyndetic coordination. Two clauses have a logical relation but no overt marking of coordination; linkage is effected by intonation. Asyndetic coordination has a total frequency of 3 in the present corpus.

b. A single clause introduced by a coordinator. Coordinators used to introduce independent clauses are produced earlier and with greater frequency than in their linking function. In the language of the adults in the present corpus the coordinator is far more frequent in its introductory function.

c. Weak semantic linkage. Sometimes an independent clause following another independent clause is introduced by en 'and', rather than being semantically linked to the first clause. The coordinator seems to be used as a means to hold the attention of the listener, perhaps to give the child speaker time to plan the next utterance. In the analysis these clauses were not coded as coordinated.\footnote{1}

d. Phrasal coordination. VP+VP coordination, as in (134), is treated as a coordinated sentence. NP+NP coordination, as in (135), is treated as phrasal coordination. If the coordinator does not immediately follow the first phrase, the sentence is analysed as coordinated, as in (136).

\begin{align*}
(134) & \text{we gaan kersboom versieren en eten} \quad \text{Domin} \\
& \text{we go christmas tree decorate and eat} \\
(135) & \text{die kan onder water, want die heb dit en dit en dit en dit} \\
& \text{can under water, for that has this and this and this and this} \\
(136) & \text{zit heel veel chocola in en witte dingetjes} \quad \text{Arthur} \\
& \text{sits very much chocolate in and white little things} \quad \text{Michiel}
\end{align*}

The CxC is co-emergent with the multi-clause sentence with subordination and with phrasal coordination (see Appendix 1).

Coordinators

In Stages IV and V there is one occurrence of maar 'but'; in all other CxC's en 'and' is used. In table 4.2 the incidence of the coordinators in the Stage-VI corpus is given. The most frequent coordinator is still en 'and'.

79
Table 4.2 Coordinators in multi-clause sentences with coordination in the Stage-VI language samples (n=16).

<table>
<thead>
<tr>
<th></th>
<th>Subject Frequency</th>
<th>Token Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>en</em> 'and'</td>
<td>13</td>
<td>3.5</td>
</tr>
<tr>
<td><em>want</em> 'for'</td>
<td>6</td>
<td>2.2</td>
</tr>
<tr>
<td><em>maar</em> 'but'</td>
<td>4</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Quirk et al. (1984: 561) distinguish eight semantic relationships in the coordination by *en* 'and'. They are similar to relationships in Dutch (Geerts et al. 1984: 1097 ff.). The occurrences of these relationships in the Stage-VI multi-clause sentences with coordination are as follows:

1. Second clause is consequence/result of first
2. Second clause is chronologically sequent to first
3. Second clause introduces contrast
4. Second clause is comment on first
5. First clause has concessive force
6. First clause is condition of second
7. Second clause makes point similar to first
8. Second clause is purely additional to first

The main categories in the present corpus are 'second clause makes point similar to first', as in (121), and 'second clause is chronologically sequent to first', as in (122). Contrast is used in 8 instances, as in (123). It is often difficult to distinguish 'contrast' from 'second clause makes point similar to first'. There are five incongruent statements in which linkage is semantically very weak, as in (124).

(121)  *je moet daar in en je moet daar in*      Wouter
       you must there-in and you must there-in
(122)  *nou is het boek uit en nou ga je even boven kijken*  Arthur
       now is the book finished and now go you just upstairs look
(123)  *jij hebt zoveel en ik heb er een tje*      Timo
       you have so much and I have there one
(124)  *en dit moet zo en hier kan ie niet bij*      Krista
       and this must so and here can he not with
       (this should go here and it can't be added here)

Categories in which the second clause presents a comment on the first or sentences in which the first clause has a conditional or concessive meaning with regard to the second are not used by children in the early phase of the acquisition of sentential coordination. Bloom, Lahey, Hood, Lifter and Fiess (1980) reported from their longitudinal study that all of the different meaning relations expressed by *and* occur in their corpus, which samples the language of four children up to around 36 months of age. The difference in their results with those in the present study may be ascribed to their number of categories for semantic coding of *and*, which is four, compared with eight in this study, and, possibly, to the size of their samples (ranging from 15,000 - 19,000 utterances). The use of *maar* 'but' is often semantically inadequate, as in
Ellipsis

A main syntactic aspect of coordination is ellipsis: the non-realization of one or more elements in one clause if co-referential with the same lexical element(s) in a linked, mostly preceding, clause. In child-language research some attention has been given to this aspect of development (cf. Bowerman 1979, Arder 1980, Bloom, Lahey, Hood, Lifter and Fiess 1980, Lust and Mervis 1980). Generally ellipsis in the early coordinated sentences should be viewed with some caution. The syntactic level regarding length and complexity in the coordinated clauses is weak. Consequently, what looks like ellipsis in a particular clause may be a deletion caused by performance limits.

In the corpus of Stage-VI coordinations 13 out of 63 items are linked by want 'for', which does not permit ellipsis. Ellipsis cannot take place in exactly 50% of the sentences with coordination by en 'and' and maar 'but'. The reason is mainly that there are no co-referents in the two linked clauses, as in (126). In some cases the first clause has an omission or a null first element, which makes ellipsis in the second clause impossible, as in (127). In (128) ellipsis of S or Vf is impossible because the changed order of S and Vf does not permit ellipsis.

In the Stage-VI corpus, various types of ellipsis occur (see table 4.3); the direction of ellipsis is always forward. Ellipsis of S is rare; an instance is (129). Ellipsis of Vf takes place in most cases, as in (130). An instance where ellipsis takes place by referring to the whole predicate of the preceding clause by means of an adverb of modality or recurrence is (131). Ellipsis of the finite verb or subject is not possible in clauses with different orders of S and Vf.

In Stage VI, children fail to apply ellipsis in 50% of possible instances (see non-ellipsis in table 4.3). Lust and Mervis (1980) studied forward and backward ellipsis in American English child language. In their study, 88% of well-formed sentential coordinations (n=40) contained some form of (non-ellipsis) redundancy. The reason for this high percentage of non-ellipsis is to be sought mainly in their analysis of identical lexical elements in second clauses as redundant. However, these elements often have different referents. A sentence like that's a daddy and that's a daddy is analysed as having a nonreduced redundant subject in the second clause (Lust and Mervis 1980: table 5). I suggest that, probably while pointing to a model toy or picture, the child refers to different items which makes the subject in the second clause obligatory (see also Arder 1980). An objection can also be raised to the analysis of a repeated verb form with a different function as redundant, as in that's a sink and he's taking a bath in there.

In the present corpus non-ellipsis of Vf is the most frequent category, see (132). The reason is possibly that ellipsis of Vf is a frequent category in the adult language.

(126) komt er niet water in z'n ogen en daarom moet dat Arthur comes there not water in his eyes and therefore must that there's no water coming into his eyes and therefore that should be done
en aA+øVI+øS nog even Pino kijken en dan gaan we naar bed and still just Pino look and then go we to bed

Domin

want ik heb geen geld en dan ga ik alle ijsjes opeten for I have no money and then go I all icecreams eat

Kim

Zwarte Piet staat hier en gaat eten geven aan het paard Black Peter stands here and goes food give to the horse

Krista

dan ben jij weer en dan ik weer then are you again and then I again

Timo

(then its your turn and then it's mine)

die kan een vis opeten en die niet that can a fish eat and that not

Arthur

(jij was moeder en ik was vader you were mother and I was father

Rozem

Table 4.3 Frequencies of Occurrence of ellipsis and non-ellipsis in the Stage-VI multi-clause sentences with coordination by 'en' and 'maar' and 'but' (n=50).

Types of Ellipsis used

| Ellipsis of S | 1 |
| Ellipsis of VI | 2 |
| Ellipsis of S+Vf | 4 |
| Ellipsis of S+A | 1 |
| Ellipsis of S+Vf+A | 2 |
| Ellipsis of whole predicate | 2 |

Total | 12 |

Possible Ellipsis not used

| Non-ellipsis of S | 1 |
| Non-ellipsis of VI | 8 |
| Non-ellipsis of S+Vf | 1 |
| Non-ellipsis of A/O | 3 |

Total | 13 |

No ellipsis possible

| Nonidentical referents | 1 |
| Omission of element in first clause | 5 |
| Topicalization of A/O | 2 |
| Other | 1 |

Total | 25 |
4.5.3 The multi-clause sentence with subordination

This section deals with the subordinate clause, introduced by a subordinator, with or without a superordinate or main clause. It is confined to structures with the main elements of the adult subordinate clause. The acquisition of the subordinate clause in Dutch, and in German, implies acquiring a new structure (Rothweiler 1989: 8). The new elements are:
1. the use of the indicators of subordination;
2. the placement of Vf in final clause position.

Before acquiring the multi-clause sentence with subordination, in Stage V, children are capable of producing five-clause-element declarative sentences.

The adverbial clause

The Adverbial clause and the Complement clause emerge at the same time according to the criteria. There is a total of 31 sentences consisting of Main clause (Mc) + Adverbial clause (Ac), 30 of these are linked by als ‘if/when’. In Stages IV and V, the order of Mc + Ac is mostly AcMc, as in (133), see table 4.4. In Stage VI, 6 subjects use the AcMc order and 7 use the McAc order; an instance is (134). If Mc follows Ac it may open with the correlator dan ‘then’, as in (135). In Stage VI, 4 out of the 16 subjects use this correlator (see table 4.4).

The subordinator als ‘if/when’ may introduce a temporal clause, as in (134) or a conditional clause; as in (135). The subject frequency of The temporal meaning is used far more often than the conditional meaning (see table 4.4).

Table 4.4 Subject Frequencies of Adverbial clauses in the Stage-IV, -V, and -VI language samples. Ac = Adverbial clause; Mc = Main clause.

<table>
<thead>
<tr>
<th>AcMc: als ... dan 'if/when ... then'</th>
<th>Stage IV</th>
<th>Stage V</th>
<th>Stage VI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Als</td>
<td>1</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>McAc</td>
<td>-</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>AcMc: als ... dan 'if/when ... then'</td>
<td>1</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

| als temporal                        | 1        | 4       | 9        |
| als conditional                     | -        | 2       | 4        |
| Ac; Mc                              | 4        | 4       | 5        |
In 13 speech samples a single Ac without Mc occurs; in 11 speech samples they open with als 'if/when', as in (136), in 2 with omdat 'because', as in (137). From table 4.4 we learn that this type of clause is relatively more frequent in the earlier stages and may be considered easier than the combination of Mc + Ac, possibly for reasons of sentence length. The use of an Ac without an Mc is often semantically and pragmatically adequate and occurs also in adult language.

(136) als ik deze pakt
    if I this takes
    Chantal

(137) omdat jij een pisa(ng) bent
    because you a banana are
    Sander

One subject uses multi-clause sentences which are the result of blending coordination and subordination. The position of the verb komt 'comes' in the 'subordinate' clause is ambiguous; it is acceptable in both subordinate and main clauses. If the first clause is analysed as an Ac there is a superfluous coordinator en 'and' in the 'main clause', see Krista's (138).

(138) maar als Sinterklaas komt met de boot... en dan gaat ie naar het rijtuig
    but when Sinterklaas comes with the boat ... and then goes he to the coach

The Complement clause

The finite Complement clause (Cc) emerges at about the same time as the Ac, i.e. in Stage VI, but has a lower total frequency (n=23). Cc's in the corpus can be classified as dependent statements, as in (139) and (140), or dependent questions, as in (141) and (142). The Mc is very short: out of the 4 Stage-V Mc's, 3 consist of one verb form only, the fourth consists of Vf and A. In Stage VI the mean number of words in Mc is 2.3.

(139) ik denk, dat die erin moet staan
    I think, that that one there-in must stand
    Merel

(140) maar het lijkt niet, of het daar past
    but it seems not if it there fits
    Charlot

(141) zoeken, waar die is
    find where that is
    Hendrik

(142) weet je, wat ik zo leuk vind?
    know you what I so nice think
    Sander

In Stage IV, children acquire the verbs which are generally used as matrix verbs (see chapter 5). Burger, Jansma and Rijpma studied 162 multi-clause sentences with subordination from 15 language samples of Dutch children with a language comprehension level of 4, 5 and 6-year olds (groups 1, 2 and 3) (Burger, Jansma and Rijpma 1992: 35). The language samples were collected in a clinical setting (Corpus Kloth). To augment my material, the 20 Cc's from the Burger et al. group-1 children were included in the analysis of the verb + subordinating element combinations. The diversity in the verb + subordinating-element combinations in the 23 main clauses with Cc's in the present study is striking: there are 13 different
combinations of the verb in the main clause, the matrix verb, and a subordinator (see table 4.5).

Table 4.5 Subject Frequencies and Frequencies of Occurrence of the Matrix verb + subordinating-element combinations in finite complement clauses in Stages -V and -VI of the present study and the 5 Group -1 subjects of the Burger et al. study.

<table>
<thead>
<tr>
<th>Finite Complement clauses with dat/of 'that/if'</th>
<th>Stage V</th>
<th>Stage VI</th>
<th>Group 1 Burger et al.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject Frequencies</td>
<td>2</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Frequencies of Occurrence</td>
<td>2</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td>denken dat 'think that'</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>zien dat 'see that'</td>
<td>1</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>weten dat 'know that'</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>kijken of 'look if'</td>
<td>-</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>lijken of 'seem if'</td>
<td>-</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>proberen of 'try if'</td>
<td>-</td>
<td>1</td>
<td>-</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Finite Complement clauses with wh-pronouns</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject Frequencies</td>
<td>1</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>Frequencies of Occurrence</td>
<td>2</td>
<td>9</td>
<td>15</td>
</tr>
<tr>
<td>denken waar 'think where'</td>
<td>-</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>zoeken waar 'seek where'</td>
<td>-</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>zien waar 'see where'</td>
<td>-</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>kijken waar 'look where'</td>
<td>-</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>weten waar 'know where'</td>
<td>-</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>kijken wat 'look what'</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>zeggen wat 'say what'</td>
<td>-</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>weten wat 'know what'</td>
<td>-</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>weten wie 'know who'</td>
<td>-</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>weten waarvoor 'know wherefore'</td>
<td>-</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>weten welke 'know which'</td>
<td>-</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>kijken hoeveel 'know how many'</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
</tbody>
</table>

As regards the verbs in the main clauses: in Stages V and VI of the present study 8 different matrix verbs are used, as against 3 in Group 1 of the Burger et al. study: weten 'know', kijken 'look', denken 'think' (see table 4.5). Nearly 50% of main clauses in the Dutch complement clauses contain kijken 'look' as a matrix verb. Rothweiler, who investigated the acquisition of multi-clause sentences in German in a longitudinal study found a similar percentage for the incidence of gucken 'look' (Rothweiler 1989). In both Dutch studies 6 different subordinating elements occur. They are of the two main types: subordinators dat 'that' and of 'if', as in (139) and (140), and wh-elements, as in (141) and (142). In Stages V and VI the Subject Frequency of dat and of combined is 7, while 6 subjects use wh-elements. This indicates that both types
of subordinator emerge at about the same time.

The nonfinite complement clause

By the criteria applied, the nonfinite complement clause (subordinator: om/voor + infinitive with te 'for/in order to', no separate S, no separate Vf) does not emerge in the language of the children in the present study. There is a total of 7 instances in the corpus introduced by om te 'in order to', as in (143), voor te 'in order to', as in (144) or the ungrammatical double conjunction voor om te 'for in order to', as in (145). In (146) we see a nonfinite Cc without an Mc. It is interesting to compare the late emergence of the nonfinite complement clauses in Dutch, which is also reported by Burger et al., with the time of acquisition in Flemish. Vleeschauer (1986: 80) reported that in her study of 10 Flemish children aged 3:9-3:11, 9 used the nonfinite complement clause, while 4 used the finite type. The late emergence of the nonfinite complement clause in Dutch may be ascribed to a relatively low frequency in the input language.

(143) dit is om te eten Kees
     this is for to eat
(144) dit is voor te aankleden (dit is voor aan te kleden) Inger
     this is for to dress
(145) zet die die dingen voor om te vissen Miranda
     puts he those things for in order to fish
(146) om de kerstboom te versieren Domin
     for the christmas tree to decorate (to decorate the Christmas tree)

The relative clause

By the criteria applied, the Relative clause (Rc) does not emerge in children under four. There is a total of 7 instances in the corpus, introduced by wat 'what', as in (147), dat 'that', as in (148), and waar 'where', as in (149) and the ungrammatical (150). In (151) the Rc is separated from the main clause by a pause.

(147) en wat eruit valt kan je wel opeten Mark
     and what out falls can you indeed eat
(148) ik wil nog een droge dat op de grond ligt Kim
     I want another liquorice that on the floor lies
(149) moet ook ergens een bakje (zijn) waar dit in kan Rozem
     must also somewhere a dish (be) where this in can
(150) daar kan jij doen waar die zingen, hè? Timo
     there can you do where those sing, ok?
     (you can push the button which makes them sing, ok?)
(151) eh, dat huis (points to other room) waar kaars staat Domin
     eh, that house where candle stands

4.5.4 Syntactically premature subordination

Syntactically premature subordination, i.e. multi-clause sentences consisting of a main clause and a 'subordinate' clause without a connecting subordinator sometimes occur. Two types can be distinguished: with a null subordinator and with a 'filler' subordinator.
1. With null subordinator. In the subordinate clauses the verb forms are correctly placed. There are 7 instances in the corpus. Mainly clauses with the subordinator *dat* 'that' show syntactically premature subordination, as in (152). Rothweiler (1989: 109) also found that this phenomenon occurs mainly in *daß* 'that'-clauses. An example of an Ac with a null subordinator *als* 'if/when' opening the sentence is (153). The only omitted *-wh* element occurred in Stage II: (154). This Stage-II utterance has been segmented as a formula and an Analytic unit.

(152)  
ike zei net edat ik moest beginnen  
I said just uthat I should begin  
Timo

(153)  
als papa thuiskomt, mag v(r)ouw weg  
when daddy homecomes, can woman away  
when daddy comes home woman may go  
Lisa

(154)  
(55 kijk 's) 56 ewaar/wat deze is  
look just ewhat/where this is (look where/what this is)  
Julia

Rothweiler (1989: 49) reported that in her corpus of 842 subordinate clauses, 89, 10%, show omission of the subordinator. However, 77 of these 89 subclauses are from one subject, Marianne. The other 6 subjects taken together have 12 omissions of the subordinator in 688 subordinate clauses, which leads to a percentage of 0.2% for the greater part of the corpus.

Meisel and Müller (1992: 120) give as an example of this combination of clauses for German the following utterance:

weisst du - geht ein Haus?  
know you build a house  
'do you know how to build a house?'

According to them this phenomenon should be viewed as a syntactic phenomenon and not be attributed to performance limitations. The frequency of this phenomenon in the present study and in the main body of Rothweiler's study is low, which points rather to performance limitations than to a syntactic phenomenon. The production of these sentences implies the ability to express logical subordination, but the inability to use its syntactic code. The production of multi-clause sentences without a subordinator is therefore termed 'syntactically premature subordination', which is similar to the omission of other functional categories in the earlier Stages. Lisa's utterance (153) is probably caused by her strong motivation in expressing her feelings about the absence of her parents, while the functional category of subordinator has not yet been acquired. In Timo's utterance (152) the absence of the subordinator is probably due to the fact that the sentence is syntactically already quite complex because of its two past-tense forms. Elsewhere in Timo's language sample there are several instances of the use of a subordinator.

In my experience, syntactically premature subordination is more frequent in the language of children whose nonverbal cognitive development is more advanced than their syntactic development. This is supported by personal communications from speech therapists concerning the frequency of the phenomenon in the speech of children with specific language impairment, who are by definition more advanced in their nonverbal cognitive than in their
linguistic development.

2. Multi-clause sentences with a 'filler' subordinator
These are structures in which the subordinator has been replaced by a word from another class. They were found in two language samples: in (155) a verb form identical with that in the subordinate clause is used as a filler, in (156) an adverbial is used.

(155)  
**elle kijke is (=waar) eh gieten is**  
Lisa

just look is (=where) eh watering can is

(156)  
**kiek eens, zo (=hoe) deze bloem geworden is**  
Wendy

look just, so (=how) this flower become has

The 'filler' subordinator is found in an intermittent stage between the emergence of a position in the sentence for the functional category of subordinator, and the actual use of the subordinator. Occasionally the wrong subordinator is used, e.g. *als* 'if/when' for *dat* 'that'. An analogy to this phenomenon is seen in the early representations of the first modal auxiliaries, which sometimes consist of a babble only. The phenomenon also occurs in Stern and Stern's German corpus, as quoted by Mills (1985: 204). Rothweiler reported that in her corpus of 842 subordinate clauses, 21 show an undifferentiated single vowel, a consonant or a combination of the two in the position of the subordinator in the early stage of acquisition of the subordinate clause. Fifteen of these were produced by one subject, the same subject who produced the main body of subordinate clauses without a subordinator, viz. Marianne (Rothweiler 1989: 48).

4.5.5 Summary of the acquisition of the multi-clause sentences

The multi-clause sentence with coordination is syntactically and semantically weak in the early stage of acquisition described here. Syntactically the clauses of the CcC are short; they show many omissions and little syntactic complexity. Ellipsis is infrequent and doubtful. Anaphoric reference from the second clause to an NP in the first does not occur. In only 4 language samples multi-clause sentences consisting of three clauses occur. Semantically the linkage between two coordinated clauses is weak. A number of semantic relationships have been acquired, but linkage most often expresses 'second clause makes point similar to first' and 'second clause is chronologically sequent to first'. This point needs further research.

Subordination is acquired at about the same time as coordination. Adverbal clauses and (finite) Complement clauses emerge according to the applied criteria. They are syntactically correct with regard to the specific order of clause elements in the subordinate clause, though sometimes the subordinator is omitted or substituted. In the Adverbal clause, temporal and to a lesser extent conditional meanings are expressed. In very early Adverbal clauses the Main clause is not expressed. The Complement clause expresses a dependent statement or question. The number of matrix verbs and subordinators introducing the Complement clause vary considerably. Relative clauses and nonfinite Complement clauses do not emerge in the language of Dutch children.
under four, though some instances were found in the corpus. In the language of Flemish children the nonfinite complement clause emerges under the age of four.

4.6 VALIDITY OF THE CEI: FREQUENCIES OF MATURE AND IMMATURE STRUCTURES

In this section Hypothesis 1.1 is discussed. The reader will recall the two subhypotheses:

1.1.1 Clause-element structures which contain a verb and occur with some frequency in adult Dutch, increase in Subject and Token Frequencies from the Stage in which they emerge up to Stage VI.

1.1.2 Clause-element structures which do not contain a verb, and which are absent or infrequent in adult Dutch, show a decrease in Subject and Token Frequencies in Stage VI as compared to the earlier Stages.

4.6.1 Declarative sentences

The development of SF and TF of the declarative sentence structures have been summarized in table 4.6.

The following conclusions concerning the rise, stability and decline of SF and TF are drawn:

- Subject Frequency

  Increase: 11 out of 18 declarative sentence structures show an increase in SF across the stages in all transitions from one stage to the next (unless 100% is reached before Stage VI).

  Stable: 2 structures without a subject stabilize below 100%: C+V and V+A+C.

  Decrease: 5 structures show a decrease in SF: S+C, S+A, S/C/A+PTL, X+NEG and S+A+C. Apart from X+NEG, which may contain a verb, these are by definition all verbless structures, which are considered immature.

- Token Frequency

  Increase: 4 out of 7 declarative structures show an increase in TF. These are the three- and four-clause-element structures which contain S and V: S+V+C, S+V+A, S+V+A+C and A+V+S+A.

  Stable: 3 three-element structures in which S or V are not represented stabilize: A+A+X, S+A+C, V+A+C. The 3 Stage-V structures: A+V+S+C+A, S+V+C+C(+A) and S+V+A+A+A, do not show an increase or decrease. The expected rise will probably take place when the language system has developed further.

  Decrease: all two-element structures show a decrease: S+C, S+A, C+V, S+V, A+X, S/C/A+PTL, X+NEG. By definition 3 of these are verbless, 3 contain either no S or no V.

It is remarkable that S+V, a 'mature' structure in the sense that it contains S and V, shows a decrease. The same phenomenon was noted in English: Wells's frequencies of various structures containing only S and V in the language of
36-month-olds, is 20 per 1000 utterances, compared to 114 per 1000 utterances containing S, V and X (Wells 1985: Table A.18). The explanation is probably the relative infrequency of structures containing only S and V in the input language.

### Table 4.6 Declarative sentences: increase (→), decrease (←) and stability (⇌) of Subject Frequencies (SF) and Token Frequencies (TF) across the Stages.

<table>
<thead>
<tr>
<th>Structures</th>
<th>SF</th>
<th>TF</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n=18</td>
<td>n=17</td>
</tr>
<tr>
<td>S+C</td>
<td>←</td>
<td>←</td>
</tr>
<tr>
<td>S+A</td>
<td>←</td>
<td>←</td>
</tr>
<tr>
<td>C+V</td>
<td>←</td>
<td>←</td>
</tr>
<tr>
<td>S+V</td>
<td>←</td>
<td>←</td>
</tr>
<tr>
<td>A+X</td>
<td>←</td>
<td>←</td>
</tr>
<tr>
<td>S+V+C</td>
<td>←</td>
<td>←</td>
</tr>
<tr>
<td>S/C+A+PTL</td>
<td>←</td>
<td>←</td>
</tr>
<tr>
<td>S+V+A</td>
<td>←</td>
<td>←</td>
</tr>
<tr>
<td>X+NEG</td>
<td>←</td>
<td>←</td>
</tr>
<tr>
<td>A+A+X</td>
<td>←</td>
<td>←</td>
</tr>
<tr>
<td>S+A+C</td>
<td>←</td>
<td>←</td>
</tr>
<tr>
<td>V+A+C</td>
<td>←</td>
<td>←</td>
</tr>
<tr>
<td>S+V+A+C</td>
<td>←</td>
<td>←</td>
</tr>
<tr>
<td>A+V+S+A</td>
<td>←</td>
<td>←</td>
</tr>
<tr>
<td>A+V+S+C+A</td>
<td>←</td>
<td>←</td>
</tr>
<tr>
<td>S+V+C+C(+X)</td>
<td>←</td>
<td>←</td>
</tr>
<tr>
<td>S+V+A+A+A</td>
<td>←</td>
<td>←</td>
</tr>
<tr>
<td>six elements</td>
<td></td>
<td>←</td>
</tr>
</tbody>
</table>

#### 4.6.2 Multi-clause sentences, questions and imperative sentences

The development of SF and TF of the two types of multi-clause sentences, the two types of questions and the imperative sentences are summarized in Table 4.7.

The following conclusions concerning the increase, stability and decrease of SF and TF are drawn:

- **Subject Frequency**
The SFs of the two types of questions and of the multi-clause sentences, show an increase across the stages (with one curious dip of V+S (+X) in Stage V). The SFs of 3 of the 4 imperative structures show an increase. The SFs of the imperative are low and unstable in the corpus. Generally, there are more imperatives in the second 100 utterances of the speech samples than in the first, which shows that the imperative is very sensitive to the speech sampling situation. Imperative structures of a certain length were therefore defined as emerging if they were used by 50% of those subjects in a Stage-corpus who used any imperative structure.
- Token Frequency
The TFs of both types of the three-element interrogative sentences show an increase. The TFs of the four-element interrogative sentences show a stabilizing frequency in Stage VI. The TFs of the imperatives are all stabilizing. The TFs of the multi-clause sentences are not relevant, as they emerge in Stage VI.

**Table 4.7 Multi-clause, interrogative and imperative sentences: increase (->), decrease (<-) and stability(=) of Subject Frequencies (SF) and Token Frequencies (TF) across the Stages.**

<table>
<thead>
<tr>
<th>Structures</th>
<th>SF</th>
<th>TF</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n=13</td>
<td>n=7</td>
</tr>
<tr>
<td>Qc</td>
<td>-&gt;</td>
<td>-</td>
</tr>
<tr>
<td>Multi-clause sentence with Cc</td>
<td>-&gt;</td>
<td>-</td>
</tr>
<tr>
<td>Multi-clause sentence with Ac</td>
<td>-&gt;</td>
<td>-</td>
</tr>
<tr>
<td>V+S(+X)?</td>
<td>&lt;-&gt;</td>
<td>-&gt;</td>
</tr>
<tr>
<td>V+S+X+X?</td>
<td>-&gt;</td>
<td>=</td>
</tr>
<tr>
<td>V+S+X+X+X(+X)?</td>
<td>-&gt;</td>
<td>-</td>
</tr>
<tr>
<td>Wh(+X)(+X)</td>
<td>-&gt;</td>
<td>-</td>
</tr>
<tr>
<td>Wh+X+X+X</td>
<td>-&gt;</td>
<td>=</td>
</tr>
<tr>
<td>Wh+X+X+X(+X)</td>
<td>-&gt;</td>
<td>-</td>
</tr>
<tr>
<td>IMP:V(+X)</td>
<td>-&gt;</td>
<td>=</td>
</tr>
<tr>
<td>IMP:V+X+X</td>
<td>&lt;-&gt;</td>
<td>=</td>
</tr>
<tr>
<td>IMP: V+X+X+X</td>
<td>-&gt;</td>
<td>=</td>
</tr>
<tr>
<td>IMP:V+X+X+X(+X)</td>
<td>-&gt;</td>
<td>-</td>
</tr>
</tbody>
</table>

**4.6.3 Summary of the evidence concerning Hypothesis 1.1**

The main points concerning Subject Frequency and Token Frequency in clausal development from Stage I - Stage VI are summarized below.
- Declarative structures containing S, V and one or two more elements show an increase in SF and TF.
- Declarative structures containing five elements show an increase in SF and stability in TF.
- Declarative structures containing V, but no S, or containing S and V only, show stability in SF and stability or a decrease in TF.
- Declarative structures containing no V show a decrease in SF and a decrease or stability in TF.
- Yes/no questions generally show an increase in SF and an increase or stability in TF.
- Wh-questions generally show an increase in SF and an increase or stability in TF.
- Most imperative structures show an increase in SF; all show stability in TF.
- Multi-clause sentences show an increase in SF.
4.6.4 Conclusions based on the evidence concerning Hypothesis 1.1

1. With the advance in syntactic ability children's language generally shows an increase in the use of structures containing S and V, a stabilizing frequency in the use of structures containing V but no S, and a decreasing frequency in the use of structures containing no V.
2. With the advance in syntactic ability children's language generally shows an increase in clause elements from two to six, with a delayed emergence of structures containing a negation, a particle or two Complements.
3. With the advance in syntactic ability children's language generally shows an increase in the use of multi-clause sentences.
4. These effects are generally stronger in Subject Frequency, i.e. the number of subjects in the corpus of a Syntactic Stage using a structure, than in Token Frequency, i.e. the mean number of tokens of a structure in the speech samples of a Syntactic Stage in which that structure occurs.

These conclusions strongly support hypothesis 1.1. They show that the Clause Element Index is a valid indicator of syntactic development on clause level in Dutch children's language.

4.7 ORDER OF CLAUSE ELEMENTS: ERRORS AND VARIATIONS

This section deals with the order of clause elements. To specifically study the order of clause elements and the position of verbs, all utterances containing a verb phrase in the corpora of Stages III - VII were entered in a CHILDES data file (MacWhinney 1990, MacWhinney and Snow 1990).

The entire file contains 6111 analysed utterances. The results of the analysis are presented in terms of the position of the four main types of clause element: V, S, O, A (not including negation) in subsections 4.7.2 - 4.7.5. The Complement is not generally discussed as it is a heterogeneous category (see 4.1).

Three main types of errors are distinguished. They are described in terms of the errors of commission discussed in chapter 1 (2.2): Errors of Deletion, Errors of Context, and Deviances.

4.7.1 The position of the finite and the nonfinite verb

The verb forms in the subordinate clause are always correctly placed at the end of the clause. This is in agreement with the results for German (Claassen and Muysken 1986, Mills 1985: 240, Rothweiler 1989: 46). Complex verb phrases with Vf and Vnf occur in 10 subordinate clauses. Six of these show the VfVnf order, 4 the reverse.

In independent clauses there is almost complete agreement between child and adult verb placements: finite forms in first or second position, nonfinite forms, including particles, in final position. The following verb placements are not in agreement with (written) word order rules.
Errors of Deletion 1 (ED 1). The following categories show Errors of Deletion 1, i.e. structures which are acceptable in informal/regional adult language and in child language. These 'errors' form by far the largest error category. If the Principle of Inflation is applied, word order is correct. Two verb placements are classified as ED 1: simple sentences without Vf, with Vnf in sentence-final position (a), and simple declarative sentences opening with Vf (b).

a. Simple sentences without Vf, with Vnf in sentence-final position, as in (157) and (158).

(157) die (gaat) happen (points at photograph) Maarten that (one) (goes) eat (he/she is eating)
(158) deze (heb ik van) Coby (ge) had this (have I from) Coby got (I got this one from Coby)

The nonfinite structure with an infinitive in final position is the verb pattern of most lexical verbs in Stage II. In Stage III nonfinite structures, with infinitive or past participle only, still constitute a main pattern with 42% of verb phrase patterns. With the advance of syntactic ability we see a gradual decline of nonfinite structures towards 8% in Stage VI (see chapter 5, table 5.2).

Some researchers of child language consider these structures agrammatical (e.g. Mills 1985:185). Verb placement, however, is in agreement with adult word order, but Errors of Deletion distinguish them from full adult structures. Nonfinite structures also occur in informal adult speech. Some evidence comes from the investigation by De Vriendt-De Man. She analysed a corpus of 29 interviews with Dutch and Flemish speakers, containing a total of 117,122 words. Her analysis of first responses to stimuli in the Dutch interviews yielded a percentage of nonfinite structures in declarative sentences similar to that of the Stage-VI children: 6.7% (De Vriendt-De Man 1969: 322).

b. Simple declarative sentences opening with Vf.

The first element in these sentences is phonetically null. The empty first position results in a verb placement in the first overt position. The null element may be S (mainly 1st and 3rd person; cf. Clahsen and Penke 1992), as in (159) and (160). It may also be O, as in (161) or A, as in (162).

(159) oS: 1S moe(i)t niet bal need not ball (I don’t need a ball)
(160) oS: 3S kan niet can not (that can’t be done)
(161) oO weet ik niet know I not (that I do not know)
(162) oA moet ie hier must it here (now it should be put here)

Johnny
JaapJan
Emile
Kimm

In table 4.8 and figure 4.15 the incidence of overt and null options in first positions in declarative sentences with Vf is displayed. (For practical reasons the incidence of null wh-elements is included in figure 4.15.) There is a clear relation between the incidence of null first elements and the syntactic ability of the child. In Stage III first clause element is null in 56% of declarative
sentences. This percentage gradually declines towards 20% in Stage VI. The distribution of null elements varies across the types of clause element. Of the subjects a small majority of 55% is null in Stage III. This seems exactly the same as the percentage of 55% of null subjects found by Bloom (1990a) in the language of three American children (Adam, Eve and Sarah, see Brown 1973). However, the syntactic level of these three children is probably higher than the Dutch Stage III. This I conclude from the fact that the children already use quite a few past tense forms, while in Stage III there are only few references to the past. The percentage of 55% of null subjects in Stage III decreases gradually towards 12% in Stage VI.

Table 4.8 The incidence of overt and null subjects, direct objects, other complements and adverbials in first position in declarative sentences with Vf in Stages III - VI.

<table>
<thead>
<tr>
<th></th>
<th>Stage III n=20</th>
<th>Stage IV n=25</th>
<th>Stage V n=19</th>
<th>Stage VI n=17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total overt elements in first position</td>
<td>205 (44%)</td>
<td>820 (63%)</td>
<td>905 (73%)</td>
<td>1009 (80%)</td>
</tr>
<tr>
<td>Total null elements in first position</td>
<td>263 (56%)</td>
<td>474 (37%)</td>
<td>329 (27%)</td>
<td>246 (20%)</td>
</tr>
<tr>
<td><strong>Subjects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S</td>
<td>160 (45%)</td>
<td>612 (70%)</td>
<td>629 (80%)</td>
<td>652 (88%)</td>
</tr>
<tr>
<td>oS</td>
<td>188 (55%)</td>
<td>266 (30%)</td>
<td>160 (20%)</td>
<td>88 (12%)</td>
</tr>
<tr>
<td><strong>Direct objects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>O</td>
<td>2 (10%)</td>
<td>29 (33%)</td>
<td>74 (56%)</td>
<td>51 (54%)</td>
</tr>
<tr>
<td>oO</td>
<td>19 (90%)</td>
<td>58 (67%)</td>
<td>59 (44%)</td>
<td>44 (46%)</td>
</tr>
<tr>
<td><strong>Complements (non-direct objects)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>2</td>
<td>17</td>
<td>6</td>
<td>12</td>
</tr>
<tr>
<td>oC</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td><strong>Adverbials</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>41 (48%)</td>
<td>162 (62%)</td>
<td>196 (64%)</td>
<td>294 (72%)</td>
</tr>
<tr>
<td>oA</td>
<td>45 (52%)</td>
<td>98 (38%)</td>
<td>109 (36%)</td>
<td>114 (28%)</td>
</tr>
</tbody>
</table>

a. The frequencies of the Complements in first position are too low for a meaningful calculation of percentages or a graphic representation (see figure 4.15).
In this analysis the direct object was distinguished from the other subcategories of the complement, because other subcategories of the complement in first position are rare and because there is a very strong tendency for 'fronted' direct objects to be null. In Stage III the majority of fronted objects is null: 90%, declining gradually towards 46% in Stage VI. The frequency of null objects is not very high in American English (8.5% of null objects versus 35% null subjects according to Hyams and Wexler, as cited in Bloom (1993)). I suggest that as English does not frequently front objects to the first position of the sentence, the child is less likely to omit it.

The null 'fronted' adverbial shows about the same frequency as the null subject in Stage III: 52%, but declines to 28% in Stage VI, which is still fairly high. The high percentages of null direct objects and null adverbials in Stage VI may indicate that in informal adult speech these null options also still prevail. In nonsystematic observations they are recorded regularly. The referents of the null elements are easily identifiable from the nonverbal or verbal context (see section 4.1.2).

![Graph showing percentages of null first elements across stages III to VI.]

**Figure 4.15** Null first elements in declarative sentences with a finite verb in Stages III - VI.

c. Wh-questions opening with Vf.
Wh-questions may have a null question word, as in (163), (164) and (165).

(163)  `owh  (waar) isse auto?  Nickey
       (where) is car?
(164)  `owh  (wat) doet ie nou?  Jeffrey
       (what) does he now?
(165)  `owh  (wie) ben jij?  Eliette
       (who) are you?

As is shown in table 4.9 and figure 4.15 the `owh-question shows a gradual decline as children's linguistic systems develop (see also figures 4.11, and 4.12). In Stage III, before the criterion for the emergence of wh-questions (with realized wh-) is reached, the null option is the most frequent form. In Stage IV, when the wh-question with overt wh-word emerges according to the criterion, wh-questions and `owh-questions both number 50%. In Stage V the percentage
of *wh*-questions has declined to 17%, and in Stage VI to 2%. In familiar concrete situations in adult spoken Dutch the *wh*-question occasionally occurs.

**Table 4.9 The incidence of overt and null question words in wh-questions in Stages III - VI.**

<table>
<thead>
<tr>
<th></th>
<th>Stage III n=20</th>
<th>Stage IV n=25</th>
<th>Stage V n=19</th>
<th>Stage VI n=17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wh</td>
<td>8 (26%)</td>
<td>63 (50%)</td>
<td>60 (83%)</td>
<td>80 (98%)</td>
</tr>
<tr>
<td>εWh</td>
<td>23 (74%)</td>
<td>63 (50%)</td>
<td>12 (17%)</td>
<td>2 (2%)</td>
</tr>
</tbody>
</table>

Errors of Context 2 (EC 2). The following categories show Errors of Context 2, i.e. an adult word order used in the wrong syntactic context. EC 2 is generally only found in child language. Three types of EC 2 are distinguished: Vf-final declarative sentences (a), Vf-final independent wh-questions (b), and dependent questions with Vf in second position (c).

a. Vf-final declarative sentences

These are 'independent' declarative sentences with Vf in the final position characteristic of the subordinate clause, but without a subordinator. Non-subject elements immediately precede the finite verb.

Some of these sentences have a subject, as in (165), some have none, as in (166) and (167).

(165) *(ik denk dat)* die daar *heer* Vf
    *(I think that)* that one there belongs
    Jan W

(166) *(ik denk dat ie)* hier *heer* Vf
    *(I think that it)* here stands
    Daantje

(167) *(ik zie dat je)* daar *tenen heer* Vf
    *(I see that you)* there toes have
    Sacha

The frequency of this phenomenon is very low as is shown in table 4.10, the maximum being 2.5% in Stage III with a gradual decline to zero occurrence in Stage VI. In the entire corpus of 4412 declarative sentences with a finite verb there is a total of less than 1% of finite-verb final structures.

**Table 4.10 The incidence of declarative sentences with Vf in final position in Stages III - VI.**

<table>
<thead>
<tr>
<th></th>
<th>Stage III n=20</th>
<th>Stage IV n=25</th>
<th>Stage V n=19</th>
<th>Stage VI n=17</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total finite verbs</strong></td>
<td>510</td>
<td>1342</td>
<td>1270</td>
<td>1290</td>
</tr>
<tr>
<td><strong>Finite verbs in final position</strong></td>
<td>13 (2.5%)</td>
<td>12 (0.9%)</td>
<td>12 (0.9%)</td>
<td>1 (0%)</td>
</tr>
</tbody>
</table>
In German similar verb placements have been noted. Clahsen and Muysken (1986) present the example: *der teddy zu dick ist* 'the bear too fat is'.

The low frequency of this type of error does not require hypothesizing rules or stages in the acquisitional process and can be accounted for by performance errors. Bowerman (1985: 1275) argued for the competition between two activated structures in the explanation of some types of errors. This argument seems relevant for this type of error. Dutch and German children are exposed to independent-clause and subordinate-clause order in their input. The subordinate-clause order, which children hear regularly, may well incidentally be used by them in a wrong syntactic context, in this case in an independent clause. Slobin (1985: 1220) suggested that the perception and storing of the syntactic ordering of the clause is separated from the perception and storing of the function of the syntactical ordering. To a certain extent this is what we find in the acquisition of the independent-clause order, when Dutch children occasionally use subordinate-clause order erroneously. This type of error may be expected to be more frequent in children in whose input the percentage of subordinate clauses is high. Children who use this order are probably more imitative, and perhaps more inclined to learn from routines. An instance of imitation resulting in final placement of the finite verb is seen in Wouter’s utterance (168), where verb placement is the result of a succession of imitated items from previous utterances in the input.

Interlocutor WouterM

ja, hoor, daar komt het plasje al,
yes, indeed, there comes the pee already.

Heb ik dat niet goed gedaan?
Have I that not well done

(168)

plasje al heb gedaan
pee already have done

In another instance, (169/170), when Wouter is aware of his error and corrects it, we see evidence of the performance character of his error.

Interlocutor WouterM

(169) ander boekje lees (Vf)
other book read

vind je ’t niet leuk?
don’t you like it?

(170) mama, ander boekje lezen (Vnf:inf.)
mummy, other little book read

The echolalic utterances discussed below under Deviancies are further evidence of the role of imitation in this type of verb placement. In Stage VI, when the subordinate clause emerges, the erroneous Vf-final structure does not occur, indicating that once they start producing subordinate clauses, children fully distinguish the placement of the verb in the independent clause from that in the subordinate clause verb.

b. Vf-final independent wh-questions
Two language samples in the corpus show independent questions with the
subordinate-clause order WhSVf with a total of three instances in the corpus. An example is (171).

(171) waar't bed is
where the bed is

In German the order WhSVf is also found as discussed by Mills (1985: 163) and Gawlitzek-Maiwald, Tracy & Fritzenschaft (1992:145). The latter present the example: warum du auch ein keks ißt? 'why you also a cooky eat'. This type of error is similar to the subordinate-clause order in an independent sentence discussed above. It is likely that the child has heard many dependent questions introduced by ich weiß nicht 'I don't know' or denkst du 'do you think' followed by the subordinate-clause order with the result that the subordinate-clause order is a strong competitor for the order used in independent questions. The low frequency of this type of sentence again suggests that it is not generally a developmental forerunner in the acquisition of questions or complex clauses.

c. Dependent questions with Vf in second position
There is only one instance in the corpus.

Deviancies. These are word orders which deviate from adult language and child language. The total frequency is 25. Four types are distinguished: infinitives in first position followed by a subject (a), objects following a nonfinite verb (b), declarative sentences with two finite forms (c), and echolalic sentences consisting of a subject and a verb (d).

a. Infinitives in first position followed by a subject
In the present corpus there are two instances of this type: (172) and (173). S follows the infinitive.

(172) 198 vallen paard 199 vallen paart(j)e
fall horse fall little horse (horse falls, little horse falls)

200 paart(j)e vallen
little horse fall (little horse falls)

(173) kijken paarden mij
look horses me (= I look at the horses)

In these sentences the subject is often added as an afterthought. Verb and subject do not form a clear prosodical and syntactical unit; there is often a slight pause between the two. Klein (1974: 13) commented on such early combinations: "Sometimes when the words come out in successive bursts, there is a tendency to reconstruct them afterwards in the normal order." We see this phenomenon in Lars's (173) SV pattern, which follows the utterances with VS order. The first utterance may be classified as presyntactic. Slobin reported that initialization of most informative elements and postposing of highly suppressed elements are found in various languages including German, quoting MacWhinney's data (Slobin 1985: 1233). MacWhinney reported that there is a short period early in Hungarian, French, Italian, German and English
acquisition, when children tend to stress and initialize the verb. This resulted in MacWhinney's Consequence Syntax 4a: "In early combinations, children will tend to order the newest or most informative element first." (MacWhinney 1985: 1120). This suggests that word order in these sentences does not reflect word order in adult language (see also chapter 6 (2)). Another possibility is that these sentences do reflect an adult order, i.e. a dislocation of the subject to final position and a phonetically null representation of the initial subject, as in (hij) oS gaat vallen, het paard S 'he goes fall, the horse'. A closer scrutiny of this phenomenon is needed, because these orders may be immediate imitations of dislocations in the input.

In the present corpus and in a longitudinal study of Dutch verb acquisition (Verhulst-Schlichting 1985) the incidence of these structures is extremely low. Though in an individual child these orders may be fairly frequent, the low frequency found in the present corpus does not justify the setting up of a principle in language acquisition, like MacWhinney's Consequence Syntax 4a for Dutch.

b. Objects following the nonfinite verb
The most frequent type of error in the Deviances category is the object following the nonfinite verb: 13 instances. This error may also be classified as an error in object placement. The phenomenon occurs mostly in language samples of very young children, as in (174) and (175). In the language of adults this type of error is rare. They are regarded as performance errors.

(174) wassen (=gewassen) poppie Lude
      wash (past participle) doll
(175) maken Zwarte Piet Bianca
      make Black Peter

c. Simple declarative f-f clauses: two finite forms
These are simple clauses with a finite form in first/second position and a finite form in final position. There is a low total of six instances in the corpus. Examples are (193) and (194). Mills (1985) also reported this as an area where few errors occur.

(176) die past VI ook wel in kruisjagen past VI Ernst
      that fits also indeed in wheelbarrow fits
(177) die ging VIS bijna vielen VI PL Miranda
      that went almost fell

With two identical codings of the verb, (176) seems a blend of an independent and subordinate verb placement; it is from Ernst's language sample. Ernst stands out in the corpus as having many doubtful utterances in the area of word order. Instances like (177), with two finite verbs in one verb phrase, are viewed as nonsystematic dysgrammatical utterances. The past plural form vielen 'fell' in (177) is identical to the required infinitive of the verb: vallen 'fall', but for the root vowel which is from the past tense form. The vowel -ie- in the first syllable is obligatory in the past tense forms and may have been activated by the past tense form ging 'went' in second position. De Villiers and De Villiers (1985: 88) quoted an English sentence with two finite verbs from Hurford: did
you came home? They gave Maratsos and Kuczaj's comment that these structures are not frequent in their data and are therefore accounted for by processing problems.

d. SVf sentences: echolalic
These sentences consist of S and Vf in SVf order but without the required argument of the verb. There are two instances in the corpus: (178) and (179).

Interlocutor Melanie

g a j e  vertellen wat Pluisje doet?
are you going to tell what Pluisje does?
(178)

Pluisje doet VI
Pluisje does

Interlocutor Lisa

weet je waar deze moet?
do you know where this goes?
(179)

deze moet VI
this goes

These utterances are immediate repetitions of the interlocutors' final words of their subordinate clauses. The intonational patterns are more like the final words of a subordinate clause than of a simple clause. Semantically these utterances are empty; structures are repeated without meaning. For these reasons they are considered echolalic.

Occasionally, a verb form ending in a schwa, similar to an infinitive form, is in second position as in the example from Trum (1989: 46): moet-e inne keuken 'must into the kitchen'. If the base form coincides with the infinitive without -e(n), the form under discussion is phonetically similar to the infinitive and might be analysed as a deviant verb placement. However, schwas are also found added to irregular singular verb forms such as staat 'stands', kan 'can', is 'is'; in staat-le, kan-ne, is-se (see also Trum 1989: 29, Schaelaekens and Van Gillis 1987: 96). Secondly, these verb forms never end in -e(n). Thirdly, other forms such as pronouns (ik T-> ikke); prepositions (e.g. van 'offfrom' - vanne); negation (niet 'not'> niette) show the same lengthening with a schwa. We see analogies of this lengthening in the adult form of-le 'or'. The phenomenon is not restricted to Dutch. For German, Mills reported Stern and Stern's findings (1928) that one of their children inserted a 'nonsense syllable e' between the words of his utterance. Their explanation is that the preserving the rhythm of the language urges the child to do this. (See also Fikker 1994).

4.7.2 Summary and discussion: the position of the verb

The position of the verb in adult Dutch is fixed, with different positions for the subordinate and the independent clause types. In Dutch and German child language research, the placement of the verb has been the subject of many investigations, mainly on theoretical grounds. Children were assumed to have to go through various phases of verb placements before they acquired the adult system. The results of the present study indicate that a phase-like process of acquisition is not an issue in the sense that children acquire verb placements which they abandon in a later phase: there is complete agreement between child and adult verb placements in subordinate clauses: finite and nonfinite forms are
in varied order in sentence-final position, and in almost complete agreement in
the independent clause: finite forms in first or second position, nonfinite forms,
including particles, in final position. 
The conclusions with regard to 'errors' in verb placement are:
1. Verb placement in subordinate clauses is error free. All researchers agree on
this point.
2. The formation of yes/no questions and imperative sentences is almost totally
error free.
3. Wh-questions almost always have the required VfS order. Slobin (1985:
1234) reported that "English- and German-speaking children have difficulty in
acquiring question inversion and patient-verb-agent orders in passive
constructions". Question formation in German and Dutch being similar, the
outcomes in this issue are problematic. In the literature there are few data on the
acquisition of questions in German. Mills (1985: 163) reported Wode's
findings in this area. One of Wode's two children went through a long period in
which wh-questions with the order wo 'where'-SV were produced. This is the
order of dependent questions as discussed above under the Errors of Context.
On the basis of my own data I look upon the WhSVF questions in Wode's
subject as an individual variation in the acquisition of wh-questions, not as a
general pattern in German and Dutch children.

It can be argued that Dutch children's acquisition of questions is facilitated by
their mastery of subject-verb inversion in declarative sentences previous to the
acquisition of question formation. This might explain the low incidence of
Errors of Context 2 in questions, a correct order in the wrong syntactic context.
4. Verb placement in declarative sentences is mostly error free.
Placement of finite and nonfinite verbs is in agreement with adult language from
the moment verbs begin to be used: in the beginning most verbs are nonfinite
verbs in sentence-final position; a little later finite verbs emerge, they are
correctly placed in first/second position. Most Dutch investigators (Jordens
1990, Klein 1974, De Haan 1986) agree on this point. In chapter 5, I will
show that some types of verbs are mainly used as nonfinite verbs in
sentence-final position, and others mainly as finite verbs in first/second
position, with a third group occurring in both positions.

In terms of the three types of Errors, erroneous word orders are the following:
- Errors of Deletion with the two subcategories of nonfinite verb phrases and of
null first elements form a frequent category. Both are found in adult spoken
language and are not considered deviant.
- Errors of Context show a correct word order in the wrong syntactic context
with a low frequency of 41 instances in the entire corpus. The main type is the
sentence-final finite verb in the context of an independent clause. Errors of
Context are explained as possibly based on a temporary faulty hypothesis in
some cases, but mainly as caused by performance errors. These may occur in
immediate imitation of a correct order in the input.
- Deviances, the third type of error, has a low total frequency of 23, the main
type being the nonfinite verb followed by the direct object. This type is
explained as caused by performance errors, especially in echolalic imitation.

These findings are in some respects opposed to Clahsen and Muysken's
report (1986) on word order in the first stage of verb placement acquisition.
Clahsen and Muysken based their description of German verb placement in
first-language acquisition on Clahsen's data from a longitudinal study of three German siblings: male twins and their sister. Clahsen and Muysken concluded that German children do not differentiate between placement of the various finite and nonfinite forms in the earliest stage (roughly equivalent to Stage II-IV), though they have a preference for placing verbal elements in final position. This conclusion is problematic in the light of the analysis of the interpretation of 'errors' in the present study. Clahsen and Muysken gave the following examples of early verb placement:

(a) SVIO: ich bau ein mast 'I build a mast',
(b) SCCop: der teddy zu dick ist 'the teddy too fat is',
(c) SOVnf: ich schaufel haben 'I shovel have',
(d) VnTA: rausholt hier 'out-taken here'

In terms of the present investigation verb placement (a) is standard German; (b) is an example of subordinate verb placement in an independent clause, an infrequent phenomenon categorized as an Error of Context. If Clahsen and Muysken's verb placements are analysed on the basis of the Principle of Inflation the verb placement of (c) is correct. In (d) rausholt (=taken out) is interpreted by the authors as an (incorrect) nonfinite form in second position. An alternative analysis is given by Jordens (1990). He argues that rausholt is a nonfinite verb in final position with the adverbial hier in postposition. I concur with this interpretation. The placement of hier is a type of placement which increases as children advance in their syntactic ability. It is not generally considered incorrect, as we shall see in section 4.7.5.

4.7.3 The position of the subject

The position of S is almost always in agreement with adult Dutch. A few problematic placements were discussed in section 4.7.1 as erroneous verb placements. Variation in placement in declarative sentences is manifest from the earliest use of Vf.

The place of S in declarative sentences with a finite verb is in the prefield, preceding Vf, or in the middle field following Vf. In table 4.11 and figure 4.16 the incidence of sentences opening with S (null or overt), and with S in the middle field are shown. The data concerning noncopular and copular sentences are also presented separately. The percentage of all declaratives with S in the middle field increases as children develop syntactically from 25% in Stage III to 40% in Stage VI. Copular sentences show a far lower than average incidence of VS orders with a maximum of 15% in Stage VI. Noncopular sentences with VS order range from 32% in Stage III to around 45% in Stages V and VI.
Table 4.11 The incidence of SV and VS order in all, noncopular and copular declarative sentences with a finite verb in Stages III - VI.

<table>
<thead>
<tr>
<th></th>
<th>Stage III</th>
<th>Stage IV</th>
<th>Stage V</th>
<th>Stage VI</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n=20</td>
<td>n=25</td>
<td>n=19</td>
<td>n=17</td>
</tr>
<tr>
<td>All declaratives</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SV</td>
<td>357</td>
<td>878</td>
<td>789</td>
<td>738</td>
</tr>
<tr>
<td></td>
<td>(75%)</td>
<td>(70%)</td>
<td>(64%)</td>
<td>(60%)</td>
</tr>
<tr>
<td>VS</td>
<td>121</td>
<td>369</td>
<td>451</td>
<td>502</td>
</tr>
<tr>
<td></td>
<td>(25%)</td>
<td>(30%)</td>
<td>(36%)</td>
<td>(40%)</td>
</tr>
<tr>
<td>Noncopular declaratives</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SV</td>
<td>255</td>
<td>694</td>
<td>577</td>
<td>553</td>
</tr>
<tr>
<td></td>
<td>(68%)</td>
<td>(67%)</td>
<td>(57%)</td>
<td>(54%)</td>
</tr>
<tr>
<td>VS</td>
<td>118</td>
<td>335</td>
<td>428</td>
<td>470</td>
</tr>
<tr>
<td></td>
<td>(32%)</td>
<td>(33%)</td>
<td>(43%)</td>
<td>(46%)</td>
</tr>
<tr>
<td>Copular declaratives</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SV</td>
<td>102</td>
<td>184</td>
<td>212</td>
<td>185</td>
</tr>
<tr>
<td></td>
<td>(97%)</td>
<td>(84%)</td>
<td>(90%)</td>
<td>(85%)</td>
</tr>
<tr>
<td>VS</td>
<td>3</td>
<td>34</td>
<td>23</td>
<td>32</td>
</tr>
<tr>
<td></td>
<td>(3%)</td>
<td>(16%)</td>
<td>(10%)</td>
<td>(15%)</td>
</tr>
</tbody>
</table>

Figure 4.16 The relation between the VS order and declarative sentence types in all declarative sentences, noncopular, and copular sentences.
4.7.4 Summary and discussion: the position of the subject

The main results of the investigation concerning subject placement are:
1. Subject placement in subordinate clauses is error free.
2. Subject placement in independent clauses is error free.
3. The flexibility found in adult language is also found in child language: children place subjects both in the prefield and in the middle field.

The overall percentage of VS orders in the language samples of the Stage-VI children is 40%. This is in agreement with Verhulst-Schlichting (1985), who reported in her longitudinal study that in the language of Dutch children over 36 months of age the percentage of VS order is 42.3%. In Dutch spoken by adults the percentage of VS orders is somewhat lower, at least in De Vriendt-De Man's study (1969). She calculated the SV and VS orders in the first reactions to stimuli. In the total of 1478 declarative sentences containing a subject and a finite verb in this restricted corpus, the percentage of VS orders was 31.8% (De Vriendt-De Man 1969: 316). In discourse in less formal settings, and especially in situations in which the referents are concrete objects, the percentage of VS orders may well be higher than 31.8%. Klein (1974), who compared orders in the speech of two mothers and their children noted that both mothers used the VS order more often than the SV order.

The only data on SV versus VS order in German child language research are from Clahsen's longitudinal study. Clahsen and Muysken (1986) reported that sentence-initial positions of verbal elements with the finite verb appearing before the subject are not productive in Clahsen's data in their stage I (verbal patterns equivalent to those in Stages II - IV in the present study). One possible reason for this difference from Dutch data is the number of VS orders in the input language. Some data from Flemish may clarify this issue. On the whole Dutch and Flemish are considered to be regional varieties of the same language. One of the differences between Dutch and Flemish is in the frequencies of SV versus VS orders. In De Vriendt-De Man's study, mentioned above, the percentage of VS orders in first reactions in Flemish is only 5% as compared with the 31.8% in Dutch (De Vriendt-De Man 1969: 316). This indicates that Dutch/Flemish spoken by adults is flexible with regard to the position of the subject in relation to the verb. This difference between frequencies of SV versus VS is also seen in child language. Vleeschauwer (1986), in her study of Flemish children aged 3;10 - 3;11, found that of the 729 declaratives with S and V in her corpus only 27 (3.7%) showed VS order. This again is very close to the adult 5% found by De Vriendt-De Man. It is clear that the percentages of inverted S + V order in Dutch/Flemish child language relate to the percentages in adult speech. The same probably holds for German. I suggest that Clahsen's subjects did not produce VS orders because in the input to his subjects the VS order did not have sufficient frequency. This is borne out by the data in Poeppel and Wexler's study of one German child (2;1 years old) in whose corpus 28% of the utterances with a finite verb in second position have a nonsubject in first position (Poeppel and Wexler 1993).

Copular clauses have a much lower proportion of VS orders than noncopular clauses. The main reason is that fronting of the Complement is always for reasons of focus, not for reasons of discourse cohesion, which is far more frequent generally.
4.7.5 The position of the direct object

The erroneous placements of (direct) objects following the nonfinite verb, were discussed above in subsection 4.7.1 on the placement of the verb. As in adult language, the correct placement varies. The object is in the prefield in 27% across all Syntactic Stages; other positions are mainly in the middle field as is shown in table 4.12. The frequency of fronted objects as children get more advanced syntactically is stable.

Table 4.12 The number and percentages of direct objects in declarative sentences in prefield and middle field.

<table>
<thead>
<tr>
<th></th>
<th>Stage III</th>
<th>Stage IV</th>
<th>Stage V</th>
<th>Stage VI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Middle field</td>
<td>52</td>
<td>230</td>
<td>279</td>
<td>340</td>
</tr>
<tr>
<td></td>
<td>(71%)</td>
<td>(73%)</td>
<td>(68%)</td>
<td>(78%)</td>
</tr>
<tr>
<td>Prefield</td>
<td>21</td>
<td>87</td>
<td>133</td>
<td>95</td>
</tr>
<tr>
<td></td>
<td>(29%)</td>
<td>(27%)</td>
<td>(32%)</td>
<td>(22%)</td>
</tr>
</tbody>
</table>

The object in first position in Stage III is almost always null (see table 4.8 above). Null objects are still very much part of children’s language, as they advance in syntactic ability; in Stage VI 46% of fronted objects is still null. Null objects can always be identified. The main reason for fronting objects is discourse cohesion. This may be concluded from the fact that across all Stages 53% of fronting of O results in a null element, as in (161). Most other fronted objects are unstressed pronouns.

The position of the direct object in the middle field can be related to the indirect object, to the adverbial and to the lexical verb. The position of O in relation to the lexical verb will be treated in chapter 5. The position of O in relation to A in the middle field varies in adult language. Certain adverbials require certain positions in specific semantic/syntactic contexts. A complete study of the position of the adverbial is beyond the scope of this study. I shall only give an indication of the variety to be expected without taking the semantic/syntactic contexts into account. Three structures in the Stage-VI corpus with varying positions for A and O in the middle field were investigated. The division across the orders OA and AO is exactly 50%. The details are as follows:

41 -AOVn, as against 40 -OAVn;
20 SVOA, as against 19 SVOA;
14 SVOAVn, against 14 SVOAVn.

The position of the direct object in its relation to the indirect object cannot be investigated because of the low frequency in the corpus (2 instances in Stage-IV corpus, 5 in the Stage-V and 7 in the Stage-VI corpus).
4.7.6 Summary and discussion: the position of the direct object

The main results concerning (direct) object placement are:
1. Object placement in subordinate clauses is error free.
2. Object placement in independent clauses is almost error free. Some erroneous placements in the postfield occur (see section 4.7.1).
3. The flexibility found in adult language is also found in child language. The object follows the finite and precedes the nonfinite lexical verb. Fronting to the prefield takes place in 27% of all objects correctly placed: this is not dependent on stage of acquisition. Fronting takes place mainly to forge discourse cohesion. In the first Stages this is almost the sole reason for fronting. Fronted objects are null in 90% in Stage III declining to 46% in Stage VI. The position of the object in relation to the adverbial in the middle field is flexible.

4.7.7 The position of the adverbial

Errors in the placement of adverbials are rare. As in adult language, the variation in placement of adverbials is extensive. There is a relation between the number of adverbials in a clause and their position.

A great proportion of the utterances in the corpus contains an adverbial. In table 4.13 the numbers and percentages of main clauses with a verb phrase and at least one/two adverbials (excluding negation) is shown. The number of main clauses with a verb phrase and at least one adverbial increases from 28% in Stage III to 64% in Stage VI. 25% of utterances with a verb phrase in Stage VI contains two adverbials or more. Some of these adverbials are arguments required by the verb (location), but most give temporal information, or (help to) express aspect or modality. It was shown above that the frequency of sentences consisting solely of an S and V decreases as children develop syntactically (see section 4.3.1 and figure 4.2). As we shall see in chapter 5, only a limited number of verbs take a direct object or a complement to the subject, the remainder is complemented by an adverbial and/or a negation. For examples see section 4.3. Hendriks, who studied motion and location in children’s narrative discourse in Dutch and Chinese, also reported on this phenomenon. She found that Dutch children, like adults, tend to add spatial information, while the function of that information is not clear (Hendriks 1993: 205).

<table>
<thead>
<tr>
<th>Table 4.13 Number and percentages of main clauses containing a verb phrase and at least one/two adverbials: null or overt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage III</td>
</tr>
<tr>
<td>n=20</td>
</tr>
<tr>
<td>Main clauses containing verb phrase</td>
</tr>
<tr>
<td>One adverbial or more</td>
</tr>
<tr>
<td>(28%)</td>
</tr>
<tr>
<td>Two adverbials or more</td>
</tr>
<tr>
<td>(4%)</td>
</tr>
</tbody>
</table>
The more adverbials sentences have, the greater the tendency for one of the adverbials to be fronted. These may be null or overt. This is shown for noncopular declarative sentences with S and V (without O or C) in table 4.14 and in figure 4.17. Sentences with one adverbial show an (unstable) increase in fronted adverbials from 43% in Stage III to 64% in Stage VI. Sentences with two adverbials show a rise from 53% fronted adverbials in Stage III to 68% in Stage VI. The rise in fronted adverbials as children develop syntactically, may be explained either by the greater proficiency in the use of VS orders or by the more advanced use of connected discourse.

**Table 4.14** The incidence of fronted (null or overt) and non-fronted adverbials in noncopular declarative sentences containing one and two adverbials.

<table>
<thead>
<tr>
<th></th>
<th>Stage III</th>
<th>Stage IV</th>
<th>Stage V</th>
<th>Stage VI</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n=20</td>
<td>n=25</td>
<td>n=19</td>
<td>n=17</td>
</tr>
<tr>
<td>One adverbial</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S/SVIA</td>
<td>62 (57%)</td>
<td>203 (70%)</td>
<td>143 (61 %)</td>
<td>129 (36%)</td>
</tr>
<tr>
<td>A/AVIS</td>
<td>47 (43%)</td>
<td>86 (39%)</td>
<td>90 (39%)</td>
<td>74 (64%)</td>
</tr>
<tr>
<td>Two adverbials</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S/SVIAA</td>
<td>10 (37%)</td>
<td>41 (38%)</td>
<td>43 (37%)</td>
<td>47 (32%)</td>
</tr>
<tr>
<td>A/AVIS A</td>
<td>17 (53%)</td>
<td>67 (62%)</td>
<td>71 (63%)</td>
<td>97 (68%)</td>
</tr>
</tbody>
</table>

**Figure 4.17** The incidence of fronted (null or overt) adverbials in noncopular declarative sentences containing one and two adverbials.
Because children's sentences grow longer as they advance in syntactic ability, the more advanced children's language samples contain more VS orders as can be seen in table 4.15. The mean percentage of declarative sentences containing a finite verb and at least one adverbial with a null or overt adverbial in first position is 46%.

<table>
<thead>
<tr>
<th>Table 4.15 The incidence of adverbials in the prefield in declarative sentences with a finite verb phrase and at least one (null or overt) adverbial.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>A('s) only in Middle field</td>
</tr>
<tr>
<td>A in Prefield (null or overt)</td>
</tr>
</tbody>
</table>

Bloom (1990a) investigated the number of words following the verb in subjectless sentences in American child language. He concluded that subjectless sentences are longer in terms of having more words following the verb than sentences containing a subject, and explained the phenomenon of subjectless sentences from performance factors. The same explanation holds for the fronted adverbials in Dutch child language. As sentences with fronted adverbials grow longer, the fronted adverbial is more often deleted as is seen in figure 4.18.

![Figure 4.18 The relation between sentence length and null adverbial in first position.](image)

Length is measured here by the number of adverbials, one or two, and by the number of verbs in the verb phrase: a finite verb with or without a verbal complement. This results in a comparison between φAVIS, φAVISVn, φAVISA and φAVISAVn. Stage III and Stage VI show a clear picture of a gradual rise of the number of null adverbials as sentences grow longer. Both types of element,
Vn and A, add to the percentage of null adverbials opening the sentence. In Stages IV and V sentence length also relates to the number of null adverbials, but the additional Vn gives rise to slightly more null fronted adverbials than the additional adverbial.

The number of adverbials in the postfield, following the nonfinite verb, increases with syntactic ability. Stage III has 3 instances; Stage IV has 14; Stage V has 12 and Stage VI has 30 instances of this adverbial position. This position also occurs in adult language and is not considered erroneous.

4.7.8 Summary and discussion: the position of the adverbial

The main results of the study concerning adverbial placement is:
1. Adverbial placement in subordinate clauses is error-free.
2. Adverbial placement in independent clauses is error-free. Some placements in the postfield occur, but they are not considered erroneous.
3. The flexibility found in adult language is also found in child language.
   The position of the adverbial vis à vis the object in the middle field is flexible.
   Both AO and OA happen to occur in exactly 50% of the cases.

Fronting of the adverbial to the pref-field takes place in 46% of the sentences containing adverbials. As sentences have more adverbials, there is a greater tendency for one adverbial to be fronted and for that adverbial to be null. Fronting takes place mainly to forge discourse cohesion. In the first stages this is almost the sole reason for fronting. Fronted adverbials are null in 52% in Stage III, declining to 28% in Stage VI (see table 4.8).

The question can be raised why the fronting of A (or O) resulting in a null first position as in (10) and (12) has such high frequencies in child language. A possible explanation might be that children imitate the word order in their input, even at the cost of deletion of the first element. There being constraints on the number of clause elements in her sentence, the child speaker gains by not expressing the first element, which can be understood without expression, thereby creating the possibility of expressing another clause element. Ease of production is a primary value for any speaker; this is probably even more so for children with production constraints. Null subjects in American English were explained similarly by Bloom (1990a).

4.7.9 Discussion of hypothesis 1.2a

The reader will recall hypothesis 1.2.a: The order of the elements of clause structure in Dutch children's independent declarative, interrogative and imperative sentences and in subordinate clauses is in agreement with the order in Child Directed Speech. (The order in Child Directed Speech is taken to be in agreement with the order in adult language.)

The evidence supporting hypothesis 1.2a is completely satisfactory. Only 1.5% of syntactic structures showed a non-adult word order in this investigation. The data show that:
1. The order in subordinate clauses is always correct. Researchers of Dutch and German child language agree on this point.
2. The order in questions is always correct. As discussed in section 4.7.2 the error-free acquisition of questions is not in agreement with Slobin's 1985
statement concerning question inversion in German (Slobin 1985: 1234).

3. The order in imperative sentences is always correct.

4. Declarative sentences mainly show correct orders. There are two deviations in this area. One is the placement of the object in the postfield, an error also occasionally observed in adult speech. This is considered a performance error. The second type of deviation is subordinate-clause order in independent-clause contexts. This is explained as an error resulting from the immediate imitation of the last words of a subordinate clause, or from the competition between the two orders. Dutch (and German) children perceive two major word orders: the independent-clause word order and the subordinate-clause word order. The frequency of the independent-clause order in their input is assumed to be much higher than the subordinate-clause order. The Stage-III child generally uses the independent-clause order with an occasional use of the subordinate-clause order in independent-clause contexts. In Stages IV and V the subordinate-clause order in independent-clause contexts decreases while the child is discovering the function of the subordinate-clause order; in Stage VI no subordinate-clause order is found in the wrong context. In the literature some sentences which are considered to be correct in this investigation, are judged to have deviating order. This is a matter of perspective. According to the Principle of Inflation the child's sentence is imposed on the adult framework, without taking into account that a number of elements is missing for the sentence to be complete according to standards of adult written language. When this Principle is adhered to, Dutch children are rarely heard to produce erroneous word orders.

### 4.7.10 Discussion of hypothesis 1.2b

The reader will recall hypothesis 1.2b:

The first generally acquired order of sentences with S, Vf and O/A in Dutch child language is SVfO/A.

All independent clauses with a verb phrase in the present corpus were studied for clause patterns. The result is 601 different patterns in the entire sample of 6111 independent clauses. The 844 clauses with verb phrases in Stage III, the earliest stage of three clause-element clauses, contained a total of 119 different patterns, thus showing a great flexibility in their word order.

In the declarative sentence, which has most possibilities for flexible clause-element placement, there are variations in placement of subject, direct object and adverbial. The position of the adverbial varies greatly. It may occupy a position in the prefield, various positions in the middle field, and in a small number of cases its position is in the postfield. The position of the direct object is mainly in the middle field. It may precede or follow the adverbial there. In 27% the direct object is fronted to the prefield. The fronting of the adverbial or the direct object in pragmatic variations results in a position of the subject in the middle field, the VS order. The position of the verb does not show any variations in child or adult language.

In 4.1 the degree of flexibility of clause elements in adult language was summarized as A > O > S > V. I conclude that the same flexibility is found in child language. Therefore, Slobin and Bever's 1982 proposition that children first construct a canonical sentence schema as a basic framework cannot be supported.6
4.7.11 Discussion of hypotheses 1.2a and 1.2b

It is evident that hypothesis 1.2a and hypothesis 1.2b are in contrast. If hypothesis 1.2a is supported, various word orders are found in all sentence types, thus reflecting the variation in adult language. If hypothesis 1.2b were supported, children would first acquire one word order: the neutral order. We have seen that hypothesis 1.2a was accepted and that 1.2b was rejected. Word order in Dutch child language is varied and correct from the beginning of the use of syntactic structures. These results are problematic in the light of Slobin and Bever's (1982) theory about the canonical sentence as the first sentence pattern that is acquired. In Dutch the early declarative sentence is structured in more than one pattern: the pragmatic variations of subject, direct object and adverbial placements emerge in the earliest stage of acquisition. Bowerman came to similar conclusions in her study on Finnish children:

The Finnish children had also learned something about the permissable alternate orders of their language: the relative frequencies with which the children and their mothers produced various word orders of given construction patterns, such as subject-verb-object, were very similar.
(Bowerman 1973: 221)

In Slobin's major summing up of cross-linguistic studies, he stated that the notion of the canonical sentence schema is expressed in the Operating Principle OP(UNITS: CANONICAL CLAUSE FORM): "If a clause has to be reduced, rearranged, or otherwise deformed when not functioning as a canonical main clause, attempt to use or approximate the full or canonical form of the clause." (Slobin 1985: 1220) If Dutch children's acquisition of subordinate clauses were in agreement with this principle, we would expect independent-clause orders in subordinate clauses. These do not occur. What Dutch children do if they want to express logical subordination and cannot produce a full multi-clause sentence with subordination, is preserve the word order, and express what items they can, giving precedence to lexical over functional categories. This has been stated by many authors in the literature (see section 4.2).

With regard to questions in Dutch we saw that if *wh*-questions cannot be produced according to the rules, they do not occur, or the *wh*-words are left unexpressed, while word order is preserved. Yes-no questions in the stage before they can be fully expressed do not show the declarative-sentence order with question intonation, acceptable in adult Dutch, but they do show deletions of auxiliary or auxiliary and subject, thus avoiding the expression of question inversion. OP(UNITS: CANONICAL CLAUSE FORM) applies to a certain extent to the absence of ellipsis in coordinated structures.

On the basis of the acceptance of hypothesis 1.2.a and the rejection of 1.2.b we can disambiguate for Dutch Slobin's Operating Principle C2 (1973), "Word order in child speech reflects word order in the input language" as follows:

Word orders in child speech reflect word orders in the input language.
Notes

1. Fletcher (1986: 144), who studied children from the age of three, adopted the criteria that two coordinated sentences are recognized as a unit:
   a. if there is appropriate ellipsis or gapping in the second clause
   b. if in the absence of ellipsis there is anaphoric reference in the second clause to an NP in the first.
   Fletcher’s criteria result in the non-identification of coordinated sentences with different (lexical) referents.
2. This holds to a lesser extent for the two types of questions (see Crystal, Fletcher and Garman 1989: 202).
3. The following sentence types and clause elements were coded to describe clause patterns:
   Sentence types:
   - wh-questions, wh-questions with null question words
   - yes/no questions (containing a finite verb followed by a subject)
   - imperatives (beginning with a finite verb)
   Verb phrase:
   - finite verb
   - nonfinite verb
   - finite copula
   - nonfinite copula
   Subject, null subject in initial position
   Arguments:
   - direct object, null direct object in initial position
   - indirect object
   - complement, null complement in initial position
   - adverbial, null adverbial in initial position
   - negation
   Subordinator.
4. In an earlier stage, not reaching the criterion for Stage II of 5% two-element utterances, Daantje showed final Vfn placement in his six utterances consisting of a babble and an infinitive as in: (babble) kijken ‘(babble) look’ and (babble) pakken ‘(babble) take’. In his utterances consisting of a gesture, indicating a direct object and a verb, again the correct word order was realized.
5. In comparing the percentages of empty first positions in Dutch and English, it must be taken into account that in English the object and adverbial are not frequently in first position, so that null objects and adverbials in these positions are not to be expected in English child language. A comparison of the percentage of empty first subjects of the American children with the combined percentages of empty first subjects, objects and adverbials of Dutch children might be more relevant in this context.
6. Clahsen (1986) came to similar conclusions with reference to German. He stated that the dominant pattern in the earliest phases is SXV. In his Phases III and IV, case markings have not been acquired, which according to Slobin’s version of the canonical sentence schema of 1981 (Slobin 1981) are characteristic of the German canonical sentence schema. As soon as case markings have been acquired, after Phase IV, first positions can be filled by complements and adverbials. Clahsen’s conclusions are not wholly comparable with the conclusions reached in the present study, mainly for methodological reasons.