

Peter Jordens

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To someone dear to me

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Nijmegen, 2012

Peter Jordens

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1 Introduction

1.1 Language acquisition from a functional perspective

Language acquisition is a developmental process. Research on spontaneous language acquisition both in children learning their mother tongue and in adults learning a second language has shown that language development proceeds in a stagewise manner. Hence, language development is usually studied on the basis of learner utterances that are accounted for in terms of so-called ‘learner languages’. In studies on second language acquisition, learner languages are also referred to with the term ‘Basic Variety’ (Klein and Perdue 1992, 1997). Learner languages or Basic Varieties are language systems that are grammatically rather simple. In fact, they are lexical systems. A typical constraint of the lexical system of learners of Dutch is the principle which holds that “if there is an agent, it occurs in initial position”. This semantic principle of utterance structure implies that a theme can only occur in initial position, if there is no agent to be expressed. Thus, at the lexical stage, both children learning Dutch as their mother tongue (L1) and adults learning Dutch as a second language (L2) may typically produce the utterances as in (1) and (2).

(1) child L1 Dutch

kannie bal pakke.
can-not ball get

adult L2 Dutch

die kanniet praten nederlands.
that can-not talk dutch

(2) child L1 Dutch

popje valt bijna.
doll falls nearly

adult L2 Dutch

ik woont in casablanca.
I lives in casablanca

At some point in acquisition, the lexical-semantic system develops into a target-like system. With this targetlike system, learners have reached a stage at which their language system has the morpho-syntactic features to express the functional properties of finiteness and topicality. Evidence of this is word order variation and the use of linguistic elements such as auxiliaries, tense and agreement markers and determiners. Examples are given in (3) and (4).

- | | |
|--------------------------------|-----------------------------------|
| (3) child L1 Dutch | adult L2 Dutch |
| <i>ik heef óók appel gete.</i> | <i>ik heb beetje geld sparen.</i> |
| I have too apple eaten | I have some money saved |

- | | |
|--------------------------------|--------------------------------------|
| (4) child L1 Dutch | adult L2 Dutch |
| <i>die heb ik wel geplakt.</i> | <i>die heb ik allemaal vergeten.</i> |
| that have I indeed glued | that have I all forgotten |

In the present monograph, I will investigate the process of language acquisition from a functional point of view. Within this functional perspective on language acquisition, questions such as the following arise. What is the driving force behind the process that causes learners to give up a simple lexical-semantic system in favour of a functional-pragmatic one? What is the added value of linguistic features such as the morpho-syntactic properties of inflection, word order variation and definiteness? Why is it that in cases of specific language impairment, it is mainly morpho-syntactic properties of the target language that are affected? These are the leading questions of the present volume. They show the relevance of studying learner language as a language system in its own right.

In the following chapters, I will show how learner varieties develop both in child L1 and in adult L2 Dutch. At the initial stage, as pointed out before, the functional properties of the target language are absent. This means that utterance structure is determined by the lexical projection of a predicate-argument structure. A typical feature at the lexical stage is the fact that topicalization, i.e. reference to the situation that the utterance applies to, cannot be expressed with the functional means which play a role in the target system. Nevertheless, at the lexical stage, topicalization is expressed within the constraints of the relevant system with a lexical structure that is non-targetlike. Examples from child L1 learners and adult L2 learners are given in (5).

- | | |
|-------------------------------|---|
| (5) child L1 Dutch | adult L2 Dutch |
| <i>disse hoeniet meeneme.</i> | <i>die wijn magwel drinken.</i> |
| this-one must-not with-take | that wine may-indeed drink |
| <i>da kanwel opzitte.</i> | <i>dan moet daar helemaal opruimen.</i> |
| there can-indeed on-sit | then must there all up-clean |

The type of utterance in (5) has either the object or an adverbial in initial, topic position, while the agent is expressed only implicitly with the semantics of the modal head.

I will argue that, at the lexical stage, topicalization is the driving force which leads to the acquisition of a functional projection FP. F is the head of FP. It provides a position for elements carrying the functional properties of finiteness, i.e. for elements such as epistemic modals, auxiliary verbs and later in the acquisition process for (finite) lexical verbs, too. These verbal elements serve as carriers for the expression of finiteness with the morpho-syntactic properties of agreement and tense. SpecFP is the specifier of FP. The position of SpecFP is available either as a topic or as a focus position. Topicalization is expressed with the placement of a constituent in initial position in interaction with the morpho-syntax of definiteness. Focalization can be expressed with a *wh*-word in SpecFP or in case of *yes/no*-questions with SpecFP left empty.

1.2 Overview of the book

Chapter 2 provides an outline of the principles of linguistic structure building that language perception and production are based on. It discusses the basic syntactic properties of utterance structure and phrase structure, the morphological properties of word formation and the pragmatic properties of information structure. It shows how the underlying knowledge systems of linguistic structure are used in processes of language production, i.e. in lexical selection and perspective taking and in the embedding of an utterance into its situational context. Finally, it argues that the distinction between lexical and functional category systems is relevant for the process of language development. This distinction applies across the levels of utterance structure, phrase structure and word formation. It establishes the focus of the present research. Furthermore, assuming that early learner systems are lexical systems, it is stated in Chapter 2, first, that language acquisition is a process of structure building that is the result of the acquisition, integration and restructuring of lexical and functional linguistic knowledge. Second, it is claimed that it is the acquisition of the linguistic means for the embedding of an utterance into the situational context that serves as the ‘driving force’ for learners to give up a relatively simple lexical system in favour of a complex functional one. Finally, it is argued that the differences between child L1 and adult L2 learners are to be explained relative to the fact that children experience no influence from either advanced levels of cognitive and linguistic development nor from the principles of another language system.

The main characteristics of utterance structure in Dutch will be discussed in Chapter 3. First, I will present the arguments for why basic word order in Dutch is considered to be OV. On the basis of OV, word order may vary. Principles underlying word order variation determine the actual form in which utterances occur. In

order to account for the function of variation in utterance structure, I will discuss a proposal that is based on the functional principles underlying the formal properties of utterance structure. From a functional perspective, utterance structure in Dutch integrates two projections of syntactic structure: a functional projection (FP) and a lexical projection (VP). The finite verb in F serves as the head of FP. In declarative main clauses F is the second constituent position. Verbal elements in the position of ‘verb-second’ are carriers of the functional properties of finiteness. It is the function of finiteness to express the pragmatic function of assertion. As an assertion, a finite utterance has to be anchored with respect to both time and space. Temporal anchoring occurs morphologically with the finite verb. Spatial anchoring occurs with elements in the position of SpecFP. In the default case, the functional properties of F are carried by the auxiliary verb. The lexical verb in V is the head of VP. In absence of an auxiliary verb, it is the lexical verb that is used to express the functional properties of finiteness. Hence, variation with respect to the position of the lexical verb serves a functional purpose. Similarly, nominal constituents with an argument function or adverbials may occur in the position of SpecFP. In this position, these constituents serve as carriers of the pragmatic function of contextual embedding.

The distribution of verb forms at the initial stage of child L1 Dutch has been accounted for with different theoretical proposals. In Chapter 4, it is argued that neither the Full Competence Hypothesis as proposed in Poeppel and Wexler (1993), nor the Modal Hypothesis of Ingram and Thompson (1996), nor Clahsen’s (1986) model based on the notion of ‘semantic transitivity’ provides an adequate account of the language system in child L1 learners of Dutch or German. That is, the language system at the initial stage is neither innately given nor the reflection of the target input. Rather, it is the result of a process of creative construction. The claim is that the utterance structure at the initial stage is based solely on lexical categories of predicate-argument structure. Absence of the functional category system explains why the morpho-syntactic properties of finiteness and verb-second are not instantiated. At the relevant stage, variation in utterance structure is accounted for by the opposition between two types of predicate-argument structure: (a) an agentive type of structure as in (1) with the predicate referring to a (causal) action or an agentive motion and an agent as the external argument and (b) a non-agentive type of structure as in (2) with the predicate referring to a state or a change of state and a theme as the external argument.

Learner language at the initial state is described in Chapter 5. Here, the spontaneous production data show that initially the learner languages of child L1 and adult L2 Dutch are indeed lexical. The utterance structure is the instantiation of a lexical projection that is used to express a ‘hold-for’ relation between the

predicate and the subject. As claimed before, it is either agentive (type A) or non-agentive (type B).

(6) Type A:	agent	Ctrl	action
	<i>Jaja</i>	<i>mag</i>	<i>dop opdoen.</i>
	J	may	cap on-do
		<i>gaatie</i>	<i>[sl]ape.</i>
		goes-he	sleep
(7) Type B:	theme	state	
	<i>deze</i>	<i>magwel.</i>	
	this-one	may-indeed	
	theme	change of state	
	<i>poppie</i>	<i>valt hier.</i>	
	doll	falls here	

As shown in (6) and (7), the difference between the two types of utterance structure lies in the presence or absence of a head position for a modal or aspectual element that is used to express ‘control’. The function of control is exerted by the agent that carries out a causal action or an agentive motion. Absence of control is exerted by the theme that either occurs in a state or undergoes a change of state. Evidence of the lexical stage is the absence of the functional category system of the target language. At the relevant stage, due to the absence of the functional properties of the target language, learners do not have the linguistic means of the target system to express the pragmatic function of an utterance or the embedding of an utterance into its situational context. Thus, grammatically, the learner system at the lexical stage is as simple as can be. The utterance structure serves the default way to express an assertion. Hence, the structural properties of *wh*- and *yes/no*-questions are absent, as is the case with the structural means of the target system to express the pragmatic function of topicalization. Given that the predicate-argument structure is also used to express properties of information structure, the subject is the constituent with topic function. It establishes the relation between the utterance and the situation that it applies to. Furthermore, the predicate is the constituent that is in focus. It is used to express the information that holds for the topic.

Chapter 6 discusses the question of the ‘driving forces’. Why is it that learners will give up a simple learner system in favour of a more complex targetlike

system? How does this process of language development evolve? It will be argued that with the instantiation of the functional projection of F, the learner system provides a syntactic position F for the expression of finiteness and a syntactic position SpecFP for elements to express the topic function. With the projection of F, therefore, the learner system develops the linguistic means for the embedding of an utterance into a situational context. This process allows the acquisition of *wh*- and *yes/no*-questions as well as the structural means of the target system to express topicalization. Furthermore, it causes modal predicates to serve as the head of a functional projection, while it establishes a position for the acquisition of aspectual auxiliary verbs such as *doet* (does) and *gaat* (goes) in the context of an infinitive, and of *heb*, *heeft* (have, has) and *ben*, *is* (am, is) in the context of a past participle. Finally, it provides the prerequisite for the acquisition of head movement, tense and agreement.

Research on the spontaneous production of utterances in child L1 Dutch by Gillis (2003) and child L1 German by Bittner (2003) is discussed in Section 7.1 of Chapter 7. These studies focus on the acquisition of inflectional morphology. In their study of the emergence of so-called ‘mini-paradigms’, both Gillis and Bittner distinguish between a premorphological and a protomorphological stage. They show that, initially, at the premorphological stage, “most verbs are attested in only one morphological form” (Bittner 2003: 60) and that with respect to the placement of verb forms there is a correlation between form and position. These observations are precisely as they appear from the data at the lexical stage as presented in Chapter 5. At the relevant stage, morphology does not yet play a role. Hence, verb forms are unanalysed. At the functional stage, as shown in Chapter 6, the utterance structure has both a functional position for the verb to express finiteness and a lexical position for the main verb. These verb positions are the prerequisite for head movement and with head movement the first form contrasts appear. This process is precisely what Gillis and Bittner account for with the term ‘mini-paradigms’. The emergence of these mini-paradigms is evidence of the instantiation of the morphological expression of tense and agreement.

Section 7.2 of Chapter 7 deals with the acquisition of the inflectional morphology of verb forms in L2 acquisition research. Two alternative hypotheses have been proposed: the Impaired Representation Hypothesis (IRH) and the Missing Surface Inflection Hypothesis (MSIH). The IRH suggests that, at the initial stage, L2 learners may not have access to morphology as a feature property of inflection, while they do have access to a position that makes verb movement possible. This hypothesis should account for the observation of random placement. With the MSIH, it is claimed that, at a more advanced stage, L2 learners may have access to morphology as a feature property of inflection. It is this property of inflection that should establish verb movement. However, the MSIH also claims that, at the

relevant stage, the morphology of the raised verb may remain underrepresented, i.e. it may not necessarily be realised at the surface-structure level. Thus, it is the assumption of both the IRH at the initial stage and the MSIH at a more advanced stage that inflectional morphology plays a crucial role in the acquisition of verb movement. However, in the discussion of these proposals, I will show that it does not. What is relevant is the functional position for the expression of finiteness. With the acquisition of this position, learners are able to establish the relation between the functional, head-initial position of the verb and its lexical, head-final position. This relation is the prerequisite for the acquisition of the syntactic relation referred to as verb movement. With its use in functional head position, the lexical verb serves as a carrier of the semantic properties of finiteness, i.e. finiteness as a category of information structure. As the lexical verb occurs in functional, head-initial position, learners are given the necessary condition to acquire the morphological properties of verbal inflection. Hence, it is the acquisition of finiteness as a category of information structure that leads to the acquisition of a functional position serving as the prerequisite for verb movement, whereas verb movement for its part serves as the prerequisite for the acquisition of inflectional morphology with the lexical verb.

2 Lexical vs. functional elements

2.1 Structure in language

Communication among human beings occurs by means of spoken or written language, sign language or pictures, gesture or body language. Communication is mutual understanding. It can only be achieved if the means of communication within a community are the same for all its members. The means of communication within a linguistic community are the utterances of a particular language. Both the production of an utterance and its perception are processes of creative construction that are based on a shared knowledge system of linguistic competence. It is this knowledge system of linguistic competence that enables speakers of a particular language to understand and create utterances that have neither been heard nor produced before.

The knowledge system that the processes of language perception and production are based on is a system of entities and rules which serves the purpose of linguistic structure building. Linguistic structure building leads to an utterance structure that is hierarchically organized. That is, utterances are organized in terms of phrasal constituents (phrases), phrasal constituents are organized in terms of word forms, word forms are organized in terms of meaningful entities (morphemes), and, finally, meaningful entities are organized in terms of units of sound (phonemes) that are used to produce meaningful contrasts.

For example, an utterance such as *de koek is op* (the cake is all gone) is a linguistic entity that consists of two phrases *de koek* (the cake) and *is op* (is all gone). Both phrases are related by the fact that one constituent (*is op*) qualifies the other (*de koek*). At this highest level of syntactic structure, utterances can be analysed in terms of constituents with either of these functions. The constituent that serves the function of a qualification is termed the 'predicate', the constituent that is qualified is termed the 'external argument' or 'the subject'. Thus, the predicate qualifies or 'holds for' the subject. This hold-for relation between the subject and the predicate, termed 'predication', is formally expressed with what is called 'agreement'. That is, given that the subject is singular as in *de koek* (the cake) the predicate appears as *is op* (is all gone), whereas in case the subject is plural as in *de koeken* (the cakes) the predicate has to appear as *zijn op* (are all gone). Agreement is thus the formal, i.e. morpho-syntactic, expression of the functional relation between the subject and the predicate.

A phrasal constituent (XP) is a linguistic entity with a verbal, a nominal, an attributive or a prepositional element which determines the syntactic function of the constituent as a whole. These verbal, nominal, attributive or prepositional elements

serve the function of the ‘head’ of a constituent. A verbal element (V) is the head of a verb phrase (VP), a noun (N) is the head of a nominal phrase (NP), an adjective or an adverb (A) is the head of an attribute phrase (AP) and a preposition (P) is the head of a prepositional phrase (PP). Syntactically, a VP can be used as the predicate of an utterance, NPs can be used as the subject of an utterance or the object of a predicate, APs and PPs can be used as the attribute of an NP, a VP or a predication.

The head of a phrasal constituent XP determines the internal structure of the phrase. Examples of N as the head of an NP structure in Dutch are given in (1).

(1) N as the head of NP

N: <i>tuin</i> (garden)	N: <i>hek</i> (gate)
<i>de / een tuin</i>	<i>het / een hek</i>
the / a garden	the / a gate
<i>de mooie tuin</i>	<i>het mooie hek</i>
the beautiful garden	the beautiful gate
<i>een mooie tuin</i>	<i>een mooi hek</i>
a beautiful garden	a beautiful gate

An NP with the lexical head *tuin* (garden) occurs with the element *de* as the definite article, as in *de tuin* (the garden), while an NP with the lexical head *hek* (gate) has the element *het* as its definite article, as in *het hek* (the gate). Both *tuin* and *hek* have the article *een* as the indefinite article. Furthermore, if an NP with the lexical head *tuin* is used with an adjective such as *mooi* (beautiful), it occurs as *mooie*, as in *de mooie tuin* (the beautiful garden) and *een mooie tuin* (a beautiful garden). If an NP with the lexical head *hek* is used with the adjective *mooi*, it occurs either as *mooie*, as in *het mooie hek* (the beautiful gate), or as *mooi*, as in *een mooi hek* (a beautiful gate). Furthermore, NPs may also occur with a possessive pronoun such as *mijn* as in *mijn mooie tuin* (my beautiful garden) or with a genitive such as *Jans* as in *Jans mooie tuin* (John’s beautiful garden).

As with NPs, the internal structure of the VP is also determined by its head. Examples of V as the head of a VP structure in Dutch are given in (2).

(2) V as the head of VP

V: <i>leest</i> (reads), <i>schrijft</i> (writes), <i>helpt</i> (helps), <i>klimt</i> (climbs), <i>woont</i> (lives)
<i>Jan leest een boek.</i>
John reads a book
<i>Jan helpt zijn vriend.</i>
John helps his friend

Jan schrijft zijn vriend een brief.

John writes his friend a letter

Jan klimt in de boom / uit het dal.

John climbs into the tree / out of the valley

Jan woont hier / in het dorp.

John lives here / in the village

The examples in (2) show different types of VP structure: the VP with the lexical head *leest* (reads) occurs with the nominal phrase *een boek* (a book) as the object of the action of reading; the VP with the lexical head *helpt* (helps) occurs with the nominal phrase *zijn vriend* (his friend) as the receiver of the action of helping; the VP with the lexical head *schrijft* (writes) occurs both with the nominal phrase *een brief* (a letter) as the result of the action of writing and the nominal phrase *zijn vriend* (his friend) as receiver of the letter; the VP with the lexical head *klimt* (climbs) occurs with the prepositional phrase *in de boom* (into the tree) or *uit het dal* (out of the valley) as the expression of the goal or the source of the action of climbing; and, finally, the VP with the lexical head *woont* (lives) occurs with the adverbial *hier* (here) or with the prepositional phrase *in het dorp* (in the village) to express the location of someone's state of living.

In specific discourse situations the VP can be used as a constituent of its own. With no syntactic context, it exemplifies the form in which it is available as a lexical entity in what is termed the 'mental lexicon'. VP structures in the examples in (3) appear with the lexical head V (*schrijven*, *helpen*, *klimmen*, *eten*) in final position. They show that in Dutch the VP is lexically stored with head-final structure.

- (3) *Wat ga je doen? [Haar een brief schrijven]_{VP}.*
 what go you do? [her a letter write]_{VP}
[Haar helpen]_{VP}, dat kan ik niet.
 [her help]_{VP}, that can I not
[In de boom klimmen]_{VP} doe ik niet.
 [into the tree climb]_{VP} do I not
[Fruit eten]_{VP} moet.
 [fruit eat]_{VP} must

Words are the building blocks of both NP and VP structures. The structure of a noun or a verb is the result of a creative process of word formation, i.e. of either inflection, derivation or compounding. Inflection is a rule-based morphological process which modifies the form of a word to express grammatical categories such as voice, tense, aspect, number, person and case. For example, morphological rules of inflection in Dutch determine whether plural nouns may end in

either *-en* or *-s*. That is, they account for the fact that the plural form of *boom* (tree) is *bomen*, while the plural form of *oom* (uncle) is *ooms*. They also account for the fact that the plural form of *bal* (ball), meaning ‘a solid or hollow sphere’, is *ballen*, while the plural form of *bal* (ball) meaning ‘a gathering for dancing’ is *bals*. They make clear why some people talk about *landelijke barren* (country bars) and *twee kitkatten* (two kitkats), while others would rather say *landelijke bars* and *twee kitkats*. With respect to verb forms, morphological rules of inflection discriminate between, for example, a singular form *leest* (reads) and a plural form *lezen* (read). They signify whether a verb is used with a present tense form as in *leest* (reads) or with a past tense form as in *las* (read), whether a verb is used with perfective aspect as in *leest* (reads) or with perfect aspect as in *heeft gelezen* (has read), whether it is used with active voice as in *leest* (reads) or with passive voice as in *wordt gelezen* (is being read).

Derivation is the morphological process that adds a formal element (affix) to a word stem to create a new word form and, hence, a new concept. For example, the affix *-loos* may turn the noun *kans* (chance) into the adjective *kansloos* (chanceless), while the affix *-heid* may turn the adjective *kansloos* into the noun *kansloosheid* (chancelessness). As with the phrasal structures NP and VP, the element functioning as the head determines both the constituents that it can be combined with and the syntactic function of the lexical structure as a whole. Derivations in Dutch are head-final. This explains why *bloem* (flower) occurs with the definite article *de* as in *de paardebloem* (the dandelion), while *bloemetje* or *bloempje* (flower-little) occurs with the definite article *het* as in *het bloemetje* and *het bloempje*.

Compounding is the morphological process that creates a new word form out of two or more word stems (lexemes). For example, *kurkentrekker* (corkscrew), *boekenplank* (bookshelf), *gehaktbal* (meatball), *wijsneus* (wiseacre) and *schoonmaken* (clean-make), *vriesdrogen* (freeze-dry), *wegpoetsen* (away-clean) and *koekhappen* (cook-bite). These compounds are usually head-final.¹ It explains the difference in meaning between *washandje* (washcloth) and *handwasje* (hand-wash), *tuinkabouter* (gardendwarf) and *kaboutertuin* (dwarf-garden), *vraagprijs* (price asked) and *prijsvraag* (prize contest), *schoolvak* (school subject) and *vakschool* (vocational school), *hobbelpad* (bumpy road) and *padhobbel* (speed bump).

The structure of a morphological element can be the result of different morpho-phonological processes. For example, in Dutch lexical elements with a stem

¹ Exceptions are word forms and phrases such as *bal gehakt* (ball [of] meat), *leraar Engels* (teacher [of] English), *Hansworst* (Jack Pudding).

form ending in /b/, /d/, /g/ and /v/ /z/ /g/ will become voiceless, if they occur in the final position of a word. For example, /b/ in *hebben* (have) becomes /p/ in *ik heb* (I have) and /z/ in *grazen* (graze) becomes /s/ in *de koe graast* (the cow grazes). This phenomenon is termed ‘final devoicing’. Another example of a morpho-phonological process in Dutch is the formation of diminutives. The phonological shape of a diminutive ending may differ depending on the nominal stem to which it is attached. Thus, *hek* (gate) and *plant* (plant) occur with *-je* as in *hekje* and *plantje*; *boom* (tree) and *raam* (window) occur with *-pje* as in *boompje* and *raampje*; *zoen* (kiss) and *maan* (moon) occur with *-tje* as in *zoentje* and *maantje*; *koning* (king) and *woning* (home) occur with *-kje* as in *koninkje* and *woninkje*; and finally, *gang* (corridor) and *zon* (sun) use *-etje* as in *gangetje* and *zonnetje*.

In sum, each level of syntactic, morphological and phonological structure constitutes its own domain of linguistic categories and rules. These categories and rules constrain the underlying processes of creative construction. Thus, for example, they account for the fact that *is op* (is all gone) serves as a predicate that holds for *de koek* (the cake) and not for *de koeken* (the cakes). Hence, *de koek is op* is correct, while **de koeken is op*² is not. They account for the fact that *duim* (thumb) occurs with *de* in *de duim* (the thumb) and that *duimpje* (little thumb) occurs with *het* as in *het duimpje*. Finally, as a last example, they account for the fact that *een schattig hondje* (a sweet dog) is correct, while **een schattige hondje* is not.

The internal structure of both phrasal constituents and complex word forms in Dutch shows that the head constituent regularly occurs in final position.³ This property of word order is characteristic for Dutch, as it is for German. In Romance languages as in French, however, word order is head-initial. Examples of the relevant types of structure both in Dutch and in French are given in (4).

(4) The structure of phrases and complex word forms: head-final vs. head-initial

Dutch: head-final	French: head-initial	
VP		
<i>de tafel dekken</i>	<i>couvrir la table</i>	lay the table
<i>wegrennen</i>	<i>partir en courant</i>	run away
<i>[het] eens zijn</i>	<i>etre d'accord</i>	agree

² The use of * indicates that the relevant example is grammatically incorrect.

³ PPs are different. They occur with P in initial position.

NP

<i>de eetkamer</i>	<i>la salle a manger</i>	the dining room
<i>de briefkaart</i>	<i>la carte postale</i>	the postcard
<i>de appelsap</i>	<i>le jus de pomme</i>	the apple juice
<i>de kurkentrekker</i>	<i>le tire bouchon</i>	the corkscrew
<i>een dik boek</i>	<i>un livre épais</i>	a thick book
<i>Jans boek</i>	<i>le livre de Jean</i>	John's book

AP

<i>nog niet</i>	<i>pas encore</i>	not yet
<i>helemaal niet</i>	<i>pas du tout</i>	absolutely not

In Dutch, the head-final structure is limited to phrasal constituents and lexical elements. At the level of utterance structure, i.e. in assertions, questions and imperatives, word order is head-initial. In French, word order in both cases is head-initial. Compare, for example, in (5) word order variation in Dutch with the fixed word order in French.

(5) Word order variation in Dutch and French

Dutch		French	
head-final	head-initial	head-initial	head-initial
<i>de tafel dekken</i>	<i>hij dekt de tafel</i>	<i>couvrir la table</i>	<i>il couvre la table</i>
<i>wegrennen</i>	<i>hij rent weg</i>	<i>partir en courant</i>	<i>il part en courant</i>
<i>het eens zijn</i>	<i>wij zijn het eens</i>	<i>être d'accord</i>	<i>nous sommes d'accord</i>

The use of head-final vs. head-initial word order in Dutch as in (5) shows that the Dutch language system consists of two major components: on the one hand, a lexical component governing word order at the level of phrase structure and complex word formation and, on the other hand, a syntactic component governing word order at the level of utterance structure.

2.2 Language structure in production

2.2.1 Phrase structure

2.2.1.1 Lexical selection

In language production, it is the aim of the speaker to convey a particular message to the listener. For the expression of the content of this message, he⁴ must access the lexical knowledge that he has acquired and select the lexical phrases that seem appropriate. The selection of these lexical phrases is based on a process of conceptualization. Conceptualization is the process by which the speaker decides upon what he wants to express. Thus, if a speaker wants to refer to an object that people use to live in, he must be in the position to choose with a greater or lesser degree of specificity from lexical alternatives such as *huis* (house), *woning* (residence), *rijtjeshuis* (terraced house), *herenhuis* (mansion), *villa* (villa), *helft van twee onder één kap* (semi-detached) etc. or from lexical items with a particular connotation such as *krot* (hovel), *hut* (hut), *paleis* (palace), *optrekje* (cottage). Hence, the options for lexical selection are constrained by what the speaker observes and how he perceives the real world. This is why, for example, in my child data one of the children said *poes lacht* (kitty laughs) at the moment when the cat got angry and started hissing.

2.2.1.2 Phrasal coherence

Lexical selection is the selection of a linguistic structure dominated by a lexical head, i.e. a verb, a noun, an attribute or a preposition. The lexical head determines the lexical structure as a whole. Thus, if the speaker uses the verb *vallen* (fall) as the lexical head of a VP, he has to use *is* as the auxiliary verb, as in *is gevallen* (is fallen), and not *heeft*, as in **heeft gevallen* (has fallen). Furthermore, since *vallen* is a change-of-state verb, he cannot use it with an element that is the object of an action. Thus, *hij valt* (he falls), but not **hij valt de bal* (he falls the ball). On the other hand, if he uses the expression *laten vallen* (let fall), he has to use *heeft* as the auxiliary, as in *heeft laten vallen*, and not *is*, as in **is laten vallen*. Finally, since *laten vallen* is a verbal expression referring to a causal action, it has to occur with an element that is the object of this action. Thus, *hij laat de bal vallen* (he lets the ball fall) and not **hij laat vallen* (he lets fall).

⁴ In the following, the masculine pronouns *he*, *him* and *his* are also used generically.

A similar situation holds for expressions in which the lexical head is a noun. If the speaker selects the noun *huis* (house) as the head of an NP, he has to use *het* as the definite article, as in *het huis*. If he chooses the noun *woning* (home), the definite article has to be *de*. On the other hand, if he decides to use the diminutive form, he has to use *het* in both cases: *het huisje*, *het woninkje* not **de huisje* or **de woninkje*. Finally, it is the head that is semantically specified in compounds as in *gokhuis* (gamblinghouse), *pakhuis* (warehouse), *seinhuis* (signal cabin), *spookhuis* (haunted house), *kaartenhuis* (house of cards), *poppenhuis* (doll's house), *slakkenhuis* (snail's shell) and *warenhuis* (department store).

2.2.2 Utterance structure

Utterances are used to express not only the content of a predication, but also the functional properties of information structure, such as the pragmatic function of perspective taking and contextual embedding. Perspective taking is an option. For example, it is up to the speaker to describe a situation from the perspective of the agent or its patient. Contextual embedding is a constraint. For example, it depends on what the speaker knows about the knowledge state of the listener, if he may start a conversation with *de auto staat voor de deur* (the car is outside) or with *er staat een auto voor de deur* (there is a car outside).

2.2.2.1 Perspective taking

In a given situation a speaker could say, for example, (6a) or (6b).

- (6) a. *De agent heeft de dief op heterdaad betrapt.*
the officer has the thief in the act caught
- b. *De dief is op heterdaad betrapt.*
the thief is in the act caught

Choosing one utterance rather than the other is a matter of perspective. Thus, as shown in (6a) and (6b), the speaker may take the perspective of either the officer or the thief by selecting one or the other as the subject of the utterance.⁵ As a con-

⁵ See, for example, Ertel (1977). Furthermore, as argued by Dik: "We shall say that the selection of any one argument as a point of departure for describing the state of affairs is brought about by assigning the syntactic function Subj to that argument. Thus, Subj assignment determines the perspective from which the state of affairs is described" (1978: 71).

sequence of this, the utterance is either an active or a passive sentence. Subject selection as the result of perspective taking also plays a role in (7a) and (7b).

- (7) a. *Mies droogt de truien op de verwarming.*
Mies dries the sweaters on the heating
- b. *De truien drogen op de verwarming.*
the sweaters dry on the heating

Here too, it is up to the speaker, to take the perspective of either the agent as in (7a) or the object as in (7b). However, (7b) is possible only under the condition that the agent is left unexpressed. This explains why in the relevant situation either a transitive predicate as in (7a) or an intransitive predicate as in (7b) is used.

The morphological properties of verb agreement in Dutch serve to express the relation between the predicate and the subject. However, for the identification of the subject, verb morphology seems to play a minor role. Evidence for this are the utterances in (8) and (9), in which the 3Sg-form of the verb matches with either of the two NPs.

- (8) *Man bijt hond.*
man bites dog
- (9) *Boer zoekt vrouw.*
farmer seeks wife

Word order interacting with the intonation contour will guide the interpretation of the initial noun as either subject or object. In the default case, the NPs *man* (man) in (8) and *boer* (farmer) in (9) will be interpreted as the subject. If, on the other hand, these NPs are meant to be interpreted as the object, the speaker must use a marked pattern of intonation.

Verb agreement in (10a) shows that with the verb *passen*-3Pl (fit) the NP *de kleren* (the clothes) is the subject and the NP *de man* (the man) the indirect object. In the same way in (10b), the NP *deze kleren* (these clothes) is the subject, while the pronoun *hem* (him) is the indirect object.

- (10) a. *Deze man passen deze kleren niet.*
this man fit-3Pl these clothes not
- b. *Hem passen deze kleren niet.*
him fit-3Pl these clothes not

- a'. *Deze man past deze kleren niet.*
 this man fits-3Sg these clothes not
- b'. *Hij past deze kleren niet.*
 he fits-3Sg these clothes not

However, instead of (10a) native speakers often produce (10a)', in which the verb *past*-3Sg (fits) shows verb agreement with the NP *deze man* (this man). In the same way, instead of (10b) native speakers often produce (10b)' in which the verb *past*-3Sg (fits) shows verb agreement with the subject pronoun *hij* (he). This shows that for native speakers the initial position is the default subject position. It may overrule the indirect object function of an NP.

As shown in (6) and (7), subject selection is due to the perspective taken by the speaker. Perspective taking explains why there is a correlation between subject selection and placement in initial position. This correlation is the default case. It accounts for the interpretation of (8) and (9) and the production of (10a)' and (10b)'. Further evidence is provided by the fact that, if the initial position is not a subject position, utterance structure is marked. An illustration is given in (11).

- (11) *De man bijt-ie niet.*
 the man bites-he not

Here, as in (8) and (9), agreement does not play a role. However, it is the use of the subject clitic *-ie* which is evidence for the listener that the element in initial position cannot be the subject. In fact, the use of *-ie* serves as a kind of topicalization device.

Finally, consider the examples in (12a) and (12b).

- (12) a. *Wie denk je dat Karel gaat benoemen.*
 who think you that Charles will appoint
- b. *Wie denk je dat hij/hem gaat benoemen.*
 who think you that he/him will appoint

It has been shown that in experimental conditions native speakers unanimously interpret the noun *Karel* in (12a) as the subject and that given the option in (12b) they opt for the subject-pronoun *hij* (Jordens 1991). The reason for the selection of *Karel* as the subject and *hij* instead of *hem* is due to the fact that with the use of a proper noun or a pronoun the person referred to is presented as identifiable. In (12a) and (12b) this determines the perspective that the speaker will take and,