Peter Jordens* and Dagmar Bittner

Developing interlanguage: Driving forces in children learning Dutch and German

https://doi.org/10.1515/iral-2017-0147

Abstract: Spontaneous language learning both in children learning their mother tongue and in adults learning a second language shows that language development proceeds in a stage-wise manner. Given that a developmental stage is defined as a coherent linguistic system, utterances of language learners can be accounted for in terms of what (Selinker, Larry. 1972. Interlanguage. *International Review of Applied Linguistics* 10. 209–231) referred to with the term Interlanguage. This paper is a study on the early interlanguage systems of children learning Dutch and German as their mother tongue. The present child learner systems, so it is claimed, are coherent lexical systems based on types of verb-argument structure that are either agentive (as in Dutch: *kannie bal pakke* 'cannot ball get', or German: *mag nich nase putzen* 'like not nose clean') or non-agentive (as in Dutch: *popje valt bijna* 'doll falls nearly', or in German: *ente fällt* 'duck falls'). At this lexical stage, functional morphology (e. g. morphological finiteness, tense), function words (e. g. auxiliary verbs, determiners) and word order variation are absent. For these typically developing children, both in Dutch and in German, it is claimed that developmental progress is driven by the acquisition of the formal properties of topicalization. It is, furthermore, argued that this feature seems to serve as the driving force in the instantiation of the functional, i. e. informational linguistic properties of the target-language system.

Keywords: interlanguage, child language acquisition, Dutch, German, learner varieties

1 Introduction

Researchers studying spontaneous processes of language learning either in children learning their mother tongue or in adults learning a second language have noted that early in the language acquisition process particular linguistic

***Corresponding author: Peter Jordens,** Max-Planck-Institut für Psycholinguistik, Nijmegen, Netherlands, E-mail: Peter.Jordens@mpi.nl
Dagmar Bittner, Leibniz-Zentrum Allgemeine Sprachwissenschaft, Berlin, Germany, E-mail: bittner@leibniz-zas.de

features are systematically missing (Selinker 1972; Corder 1978; Klein and Perdue 1997; Clark 2003). Language acquisition in children learning Dutch and German is no exception (De Haan 1987; Jordens 1990; Hoekstra and Jordens 1994; Bittner 2003; Gillis 2003; Jordens 2012). That is, in the early stages of the acquisition of Dutch and German, grammatical function words such as auxiliary verbs, determiners, anaphoric pronouns and prepositions are absent, there is no variation in word order and morphology is not used productively. Hence, the early language systems are 'simple systems'. However, they are not just 'simple' in the sense that they are simplified versions of the language system of the adults. They are language systems in their own right: *interlanguages* (Selinker 1972) or, as Klein (1997: 5) puts it, they are "a genuine manifestation of the human language faculty". Klein has taken this line of thought even a step further in arguing: "In fact, I believe that learner varieties are the core manifestation of the human language faculty and real languages ... are the borderline cases" (Klein 1997: 5).

In the following, we will claim that the early language system of children learning either Dutch or German is best described as a lexical learner system, i. e. a language system that is solely based on the lexical projection of types of verb-argument structure. Evidence comes from an analysis of utterances that these children spontaneously produced. A sample of these utterances is given in Table 1. Furthermore, we will provide evidence for our claim that developmental progress from the initial, lexical system to the targetlike, functional system is driven by the acquisition of the linguistic properties of information structure. More particularly, we intend to demonstrate that the instantiation of the informational properties of topicalization provides the driving force for the acquisition of the syntactic and morphological features that in the children's language are originally missing.

The functional category system of adult Dutch and German is apparent in morphology, function words and word order variation. The relevant functional categories are presented in Table 2.

As shown in Table 2, the functional category system in Dutch and German consists of the morphological categories of finite vs. non-finite, aspect, number and tense marking, of the function word categories of auxiliary verbs, determiners, anaphoric pronouns and prepositions and, finally, of word order variation as it occurs in verb-second (or: head movement), topicalization, *wh-* and *yes/no*-question formation, scrambling and main- vs. subordinate clause.

The examples in Table 1 are evidence that learner utterances at the initial stage are typically lexical. That is, they are used to refer to actions, states and changes of state with persons and objects each playing a particular role. Grammatically, these learner utterances are the expression of a predicate-

Table 1: Lexical structures in child Dutch and German.

Child Dutch	Child German
poes bal hebbe	*du auch malen*
kitty ball have	you too draw
jij opemake	*tasche mitnehmen*
you open-make	bag with-take
kannie bal pakke	*mag nich nase putzen*
cannot ball get	like not nose clean
ikke g(l)ijbaan maakt	*der papa macht*
I slide (have) made	daddy (has) made
popje valt bijna	*ente fällt*
doll falls nearly	duck falls
(s)chaap kom niet	*hier kommt die mama, hier*
sheep comes not	here comes mommy here
Jaja vindt vies deze	*mama liegt da*
J finds dirty this	mommy lies there
kanniet zellef	*du kannst nicht raus*
cannot self	you can not out
goene aan	*mund zu*
shoes on	mouth closed
pop da in	*hier rum*
doll there in	here around
hoefniet plak op	*rock an*
must not glue on	dress on

argument structure with lexical elements such as verbs, verbal particles, nouns, adjectives and adverbs.

A comparison of the examples in Table 1 with the functional elements of adult Dutch and German listed in Table 2 shows that in the relevant children's languages some functional features systematically do not occur. That is, grammatical function words such as auxiliary verbs, determiners, anaphoric pronouns and prepositions are absent, and so is variation in word order. Morphological categories, however, seem to be present to some degree. So, while a morphological feature such as tense marking does not occur, others such as the morphological categories of finite vs. non-finite, number and aspect marking seem to be used targed-like. It should be noted however, that number and aspect marking are subject to processes of lexicalization. Therefore, in child Dutch nouns that are marked as plural, as for example *brokjes* (munchies. J 1;10), **haartie* (hair. J 1;10), *blokketjes* (cubes. J 1;11), *deke* (blankets. A 2;0), *vlokke* (flakes. A 2;0), *sleutels* (keys. A 2;0) and verbal elements that are marked for aspect, as for example (*vers)topt* (hidden.

Table 2: Functional categories in Dutch and German.

Functional systems	Categories	Examples	
morphology	finite/non-finite	Dutch:	*kom* (come-1SgPres), *kom**t*** (come-2,3SgPres), *kom**en*** (come-1,2,3PlPres) vs. *kom**en*** (Inf).
		German:	*komm**(e)*** (come-1SgPres), *komm**st*** (come-2SgPres), *komm**t*** (comes-3SgPres), *komm**en*** (come-1,2,3PlPres) vs. *komm**en*** (Inf).
	aspect	Dutch:	*mak**en*** (make-Progr) vs. ***heeft ge**maak**t*** (has made-Perf).
		German:	*mach**en*** (make-Progr) vs. ***hat ge**mach**t*** (has made-Perf).
	number	Dutch:	*schoen* (shoe-Sg) vs. *schoen**en*** (shoes-Pl); *auto* (car-Sg) vs. *auto**'s*** (cars-Pl).
		German:	*Schuh* (shoe-Sg) vs. *Schuh**e*** (shoes-Pl); *Auto* (car Sg) vs. *Auto**s*** (cars-Pl).
	tense	Dutch:	*maak**t*** (makes-3SgPres) vs. *maak**te*** (made-3SgPast).
		German:	*mach**t*** (makes-3SgPres) vs. *mach**te*** (made-3SgPast).
function words	auxiliary verbs	Dutch:	*heb* (have), *heeft* (has); *ben* (am), *is* (is).
		German:	*habe* (have), *hat* (has); *bin* (am), *ist* (is).
	determiners	Dutch:	*de* (the-Sg/Pl), *het* (the-Sg) vs. *een* (a, an-Sg).
		German:	*der, die* (the-M/F.Sg), *das* (the-N.Sg), *die* (the-Pl) vs. *ein* (a, an-M/N.Sg), *eine* (a, an-F.Sg).
	anaphoric pronouns[1]	Dutch:	*hij* (he), *zij* (she), *hem* (him), *haar* (her), *het* (it), *daar* (there), *hier* (here) etc.
		German:	*er* (he), *sie* (she), *ihm, ihn* (him), *ihr* (her), *es* (it), *da* (there), *hier* (here) etc.

(*continued*)

1 At the relevant stage, children and adults differ with respect to the use of pronouns. While children may only use deictic pronouns such as Dutch *ik, ikke* (I-1Sg) and *jij* (you-2Sg) and German *ich* (I-1Sg) and *du* (you-2Sg), adult second language learners use both deictic and anaphoric pronouns. The reason is that children are more closely bound to the here and now than adults.

Table 2: (*continued*)

Functional systems	Categories	Examples	
	prepositions	Dutch:	*in* (in), *op* (on), *aan* (on), *uit* (out), *met* (with), *van* (of).
		German:	*in* (in), *auf* (on), *an* (on), *aus* (out), *mit* (with), *von* (of).
word order variation	verb-second	Dutch:	*We **gaan** straks een glaasje **drinken*** (we go later a glass drink) vs. *Straks **drinken** we een glaasje* (later drink we a glass).
		German:	*Wir **wollen** gleich ein Gläschen **trinken*** (we will later a glass drink) vs. *Gleich **trinken** wir ein Gläschen* (later drink we a glass).
	topicalization	Dutch:	***Dat** geloof ik niet* (that believe I not) vs. *Ik geloof **dat** niet* (I believe that not).
		German:	***Das** glaube ich nicht* (that believe I not) vs. *Ich glaube **das** nicht* (I believe that not).
	question formation	Dutch:	***Wie** heeft dat gedaan?* (who has that done?) and *Heeft hij dat gedaan?* (has he that done?).
		German:	***Wer** hat das gemacht?* (who has that done?) and *Hat er das gemacht?* (has he that done?).
	scrambling	Dutch:	*Hij heeft nooit **een antwoord** gekregen* (he has never received an answer) vs. *Hij heeft het **antwoord** nooit gekregen* (he has never the answer received).
		German:	*Er hat nie **eine Antwort** bekommen* (he has never received an answer) vs. *Er hat **die Antwort** nie bekommen* (he has never the answer received).
	main- vs. sub. clause	Dutch:	*We **gaan** straks een glaasje drinken* (we go later a glass drink) vs. *Als we straks een glaasje **gaan** drinken …* (when we later a glass go drink …).
		German:	*Wir **wollen** gleich ein Gläschen **trinken*** (we will later a glass drink) vs. *Wenn wir gleich ein Gläschen trinken **wollen** …* (when we later a glass drink will …).

J 1;10), **(ge)wast* (washed. J 1;10), *(g)ekrege* (gotten. J 1;11), *(ge)daan* (done. A 2;0), *op(ge)gete* (up-eaten. A 2;1), *affehope* (finished. A 2;1) may initially be learned unanalysed. In child German the same holds for nouns with plural marking such as *nüsse* (nuts. A 1;11), *punkten* (dots. A 1;11), *(p)lätzchen* (cookies. A 2;0), *zähne* (teeth. A 1;11), *tinna* (children. C 2;0) and verb forms such as *(ge)kauft* (bought. A 1;11), *weg(ge)macht* (away-made. A 1;11), *(ka)putt-(ge)gang(en)* (kaput-gone. A 2;0), **auf(ge)fresst* (up-eaten. A 2;0), *(ge)fall(en)* (fallen. C 2;0), *weg(ge)lauft* (away-gone. C 2;1). The morphological category of finite vs. non-finite seems to be present, though. However, it should be noted that morphologically 'finite' and 'infinitival' verb forms are used in complementary distribution. That is, finite verb forms typically refer to states or changes-of-state as, for example, Dutch *komt* (comes. J 1;10), *zit* (sits. J 1;11), *valt* (falls. A 2;0) and German *liegt* (lies. A 1;11), *passt* (fits. C 2;0), *fällt* (falls. C 2;0), while infinitival verb forms as, for example, Dutch *maken* (make. J. 1,11) and *meeneme* (with-take. A 2;1) and German *malen* (draw. A 1;11) and *mitnehmen* (with-take. C 2;0) refer to actions. Furthermore, verb forms referring to states and changes of state occur in second constituent position, while verb forms referring to actions are placed sentence-finally. This indicates that verb *placement* is based on the semantics of the verb, while verb *forms* are initially used morphologically unanalyzed. Hence, there is reason to believe that inflectional morphology in early Dutch and German is not a productive feature of the learner system, either.[2]

In sum, at the initial stages of language development, Dutch and German children seem to create a simple, basic language variety which is essentially the same across individuals. Representative of this basic linguistic knowledge system are the examples in Table 1. They suggest that the children's utterances are initially lexical projections of verb-argument structure. Functional elements, it seems, are systematically missing. Nevertheless, the 'simple' learner systems that these utterances come from should serve the basic communicative needs that child language learners may have.

In the following, we will investigate the acquisition of children learning Dutch and German focussing on three questions. First, what are the principles that the basic learner system is based on? Second, how do children progress from their

2 With respect to the use of the term 'finite', a distinction is made between 'finite forms' (*morphological finiteness*) and 'finiteness' (*semantic finiteness*) as a concept of information structure (Klein 1998). At the initial, lexical stage of the acquisition process finite forms do appear. However, they occur as the reflection of the input and not as the representation of a functional category. Finiteness as a functional category is claimed to be the result of a process of language acquisition.

basic learner variety to a more advanced system? Finally, what does insight into the acquisition process tell us about the faculty of human language acquisition.

The data of the present study originate from investigations on children learning Dutch or German as their native language. These data come from longitudinal studies of utterances produced spontaneously. The Dutch data originate from two corpora of diary data: Jasmijn (J) and Andrea (A). The German data come from two corpora of video-recorded data: Anna (A) and Caroline (C). In the examples below a reference such as, for example, 'J 1;9' means that this utterance occurred when Jasmijn was 1 year and 9 months of age. It will be argued that the data used in this study are representative of two stages of language development, i. e. an initial, lexical stage and a targetlike, functional stage. The relevant data are distributed as in Table 3.

Table 3: Dutch and German child data collected from two stages of language development.

	Dutch		German	
	Jasmijn	**Andrea**	**Anna**	**Caroline**
lexical stage	1;10–1;11	2;0–2;1	1;9–2;0	2;0–2;1
functional stage	2;0–2;2	2;2–2;4	2;1–2;2	2;2–2;3

2 The analysis of early learner data

As illustrated in Table 1, children's utterances in early Dutch and German are evidence of an underlying language system that makes use of lexical elements only. With this lexical learner system children are able to produce types of utterance that are the expression of some kind of predicate-argument structure.

In earlier investigations on the spontaneous acquisition of child Dutch and German as, for example, in Clahsen (1986), De Haan (1987), Poeppel and Wexler (1993), and Ingram and Thompson (1996), a prominent role is attributed to utterances in which the verbal part of the predicate is an infinitive. These utterances are currently known as 'root infinitives'. They are found to occur relatively frequently at the initial, lexical stage of the learning process. Examples from child Dutch and German are given in A1.

A1. Infinite verb form ('root infinitive')

Child Dutch	Child German
mama dit ***geve***. (J 1;10)	*und der* ***pieken***. (A 1;11)
mommy this give	and that-one prick

deze slagroom ***ete***. (J 1;10)
this-one whipped-cream eat
poes bal ***pakke***. (J 1;11)
kitty ball get
dit ***losmake***. (J 1;11)
this loose-make

gaag boekje ***leze***. (A 2;0)
like booklet read
deze jurk ***aandoen***. (A 2;0)
this dress on-do
jij g(l)ijbaan ***make***. (A 2;1)
you slide make
papa nieuwe ***kope***. (A 2;1)
daddy new-one buy

du auch ***malen***. (A 1;11)
you too draw
jetzt ei ***essen****?* (A 2;0)
now egg eat?
schok(o)lade nich(t) ***haben***. (A 2;0)
chocolate not get

tasche ***mitnehmen***. (C 2;0)
bag with-take
buch ***anschauen***. (C 2;0)
book at-look
ich tür ***aufmachen***. (C 2;1)
I door open-make
nicht ***ab(r)oll(e)n***. (C 2;1)
not down-role

As is evident from the examples in A1 the infinite verb of a 'root infinitive' always appears in clause-final position. The complement precedes the verb, thus the VP of a 'root infinitive' is head-final. Simultaneously with the occurrence of 'root infinitives' there is also a type of utterance with a finite verb form. Although this type of utterance is produced less frequently, it appears systematically in both early child Dutch and German. Examples are given in B1. As shown in B1, finite verb forms occur systematically in second constituent position. They precede the complement, hence the VP is head-initial.

B1. Finite verb form

Child Dutch	Child German
poesje, ***heb*** *jij?* (J 1;10) kitty, 0 have you?	*mama* ***liegt*** *da*. (A 1;11) mommy lies there
uil, zo ***komt***. (J 1;10) owl, so comes	*hier* ***kommt*** *die mamma, hier*. (A 1;11) here comes mommy, here
da ***zit*** *mama*. (J 1;11) there sits mommy	*krokodil* ***kommt***. (A 2;0) crocodile comes
da, poes ***blijf(t)*** *hier*. (J 1;11) there, kitty stays here	*papa* ***hat*** *zeitung*. (A 2;0) daddy has newspaper
gaat*ie niet?* ***gaat****ie ja*. (A 2;0) works-it not? works-it yes	***passt*** *bald*. (C 2;0) fits soon
Jaja ***valt*** *niet*. (A 2;0) J falls not	*ente* ***fällt***. (C 2;0) duck falls
Jaja ***heef(t)*** *koud*. (A 2;1)	*eina* ***fehlt*** *noch*. (C 2;1)

J has cold	one misses still
Jaja ***vindt*** *vies, deze*. (A 2;1)	*äh* ***deht*** *(=geht) nicht*. (C 2;1)
J finds awful, this	eh works not

Looking at the distribution of infinitives as in A1 and finite verb forms as in B1, the similarity between Dutch and German children is striking. In both the Dutch and the German data there is a correlation between form and position of the verb. That is, infinitives always occur in clause-final position, while finite verb forms are found in second position. This observation explains why morphosyntactic phenomena such as 'agreement' and 'verb movement' play a central role in commonly recognized research on the shape of German child grammar at the initial stage (see Clahsen 1986; Poeppel and Wexler 1993; and Ingram and Thompson 1996). However, the conclusion that placement of the verb is based on its morphological properties becomes less obvious, if we acknowledge that the relevant distributional difference is actually based not on the morphology but on the semantics of the verb, meaning that verbs that occur in one position do not occur in the other.[3]

Moreover, the set of data as typically presented in terms of 'infinite' vs. 'finite' is not representative at all. It constitutes a selection from the perspective of the target language system. More specifically, it is a selection from the perspective of the phenomenon of 'verb movement' which holds that in the target language the same lexical verb may occur both in final and in second position. However, for a complete picture of the language system of Dutch and German children at the initial stage of language learning, there is a variety of data that should be taken into account as well. For example, there is the type of utterance as in A2.

A2. Modal/aspectual element + infinitive

Child Dutch	Child German
kan*nie* ***pakke***. (J 1;10)	***will*** *kucken* ***gehen***. (A 2;0)
cannot get	want see go
ik ***wil*** *mellek* ***pakke***. (J 1;10)	***will*** *nisch (=nicht)* ***raufsitzen***. (A 2;0)
I want milk get	want not on-sit
Peter ***moet zitte***. (J 1;11)	*papa nich(t)* ***soll*** *hier* ***reinkomm****(en)*. (A 2;0)
P must sit	daddy not should here in-come
doet*tie alles* ***opete***. (J 1;11)	***will*** *kawee (=kaffee)* ***ring*** *(=trinken)*. (A 2;0)
does-it everything up-eat	want coffee drink

3 It should be noted that this analysis in terms of a semantic opposition runs counter to the 'overlap hypothesis' adhered to as in, for example, De Haan (1987) and Poeppel and Wexler (1993).

Jaja ***mag*** *dop* ***opdoen***. (A 2;0)	***mag*** *nich nase* ***putzen***. (C 2;0)
J may cap on-do	like not nose clean
kan*nie nie* ***hope*** *(=lope)*. (A 2;0)	***dann*** *(=kann) t nich* ***wicken***. (C 2;0)
can-it not walk	can-it not fly
kanwel *papa* ***zitte***. (A 2;1)	***muss*** *aba uhu* ***anmalen***. (C 2;1)
can-indeed (with) daddy sit-down	must however owl on-paint
gaat*ie (sl)****ape***. (A 2;1)	***tan*** *(=kann) schon dis (r)****eintun***. (C 2;1)
goes-he sleep	can already this in-do

Utterances as in A2 occur with a modal or an aspectual element in second constituent position. The nominal constituent in first position refers to the speaker or another individual in the actual situation. In spontaneous production when the speaker assumes that the hearer is able to infer who he/she is talking about, this individual is often either not explicitely expressed or it may be referred to with an affix attached to the modal/aspectual head. Utterances as in A2 are used to express that some-one 'wants', 'can', 'may', 'must', 'is going' to do some kind of activity or is 'currently involved in' doing this. What the particular individual actually 'wants to do', 'can do', 'may do' etc. is expressed with the OV-complement of the modal/aspectual head. This OV-complement may serve as a lexical entity as, for example, with *handen wassen* (hands wash), *tanden poetsen* (teeth brush) in Dutch or *Kuchen essen* (cake eat) and *Nase putzen* (nose clean) in German.

Utterances as in A1 – the so-called 'root infinitives' – are, regardless of the frequency with which they occur, a special case of type A2. They are a special case in the sense that in root infinitives, the position of the modal head is empty. Their frequent use is due to the fact that in a normal speech situation the relevant modal meaning is often left to be inferred from the context. The examples in (1) are evidence of the variable use of utterances as in A1 and A2. They show that at the relevant stage Jasmijn and Andrea vary between the use of infinitives (Vinf) and modals + infinitive (Mod/Asp + Vinf) even with the same lexical verbs. The examples in (2) show the same variable use in Anna.

(1) Child Dutch: Utterances with both Vinf and Mod/Asp + Vinf

dit ***losmake***. (J 1;11)	***kan-****nie* ***losmake***. (J 1;11)
this loose-make	cannot loose-make
glijbaan, ***aanmake***. (J 2;0)	***doe-****maar* ***aanmake***. (J 2;0)
slide, on-make	do-please on-make

poppie ***hebbe****?* (A 2;1)	***mag****-ikke ijssie* ***hebbe****?* (A 2;1)
doll get	may-I ice-cream have
eve ***aaie*** *mette kipje*. (A 2;2)	*Jaja* ***mag****wel hondje* ***aaie***. (A 2;2)
just caress with-the chicken	J may-indeed dog caress

(2) Child German: Utterances with both Vinf and Mod/Asp + Vinf

jetz ei ***essen***. (A 2;0)	***will*** *nisch was* ***essen***? (A 2;0)
now egg eat	want not something eat
xxx ***reinkomm****(en)*! (A 2;0)	*papa nich(t)* ***soll*** *hier* ***reinkomm****(en)*. (A 2;0)
in-come	daddy not must here in-come
hand ***mitmal****(e)****n***? (A 2;1)	***kann*** *der nich(t)* ***mitmal****(e)****n***. (A 2;1)
hand with-draw	can her not with-draw
du ***fah****(re)****n***? (A 2;1)	*du* ***musst*** *auto* ***fahren***? (A 2;1)
you drive	you must care drive

Comparable with the data in A2 are those in A3. In utterances as in A3, however, the complement, when present, is a non-verbal predicate.

A3. Modal + non-verbal predicate

Child Dutch[4]	Child German
elle poesje toe. (J 1;10)	***kann*** *ma(n)!* (A 2;0)
want kitty to	can one
kan*niet* ***goed*** *niet*. (J 1;10)	***muss lieber***. (A2;0)
can-not good not	must preferably
mag*niet* ***oppe dak***. (J 1;11)	***will*** *nisch* ***raus***. (A 2;0)
may-not on-the roof	want not out
mama ***kan****niet* ***kusje***. (J 1;11)	*ich* ***rein soll***. (A 2;0)
mommy can-not kiss	I in must
mag*-ikke ook* ***gijbaan****?* (A 2;0)	*du* ***kannst*** *nicht* ***raus***. (A 2;1)
may-I too slide?	you can not out
moet*tie* ***hier****?* (A 2;0)	*der teddy* ***will*** *auch noch*. (A 2;1)
must-it here?	the teddy wants too
poppie ***kan***. (A 2;1)	*bei* ***mama muss*** *ich*. (A 2;1)
doll can [do]	with mommy must I
kan*niet* ***bij***. (A 2;1)	*du* ***möchtest kaffee****?* (A 2;1)
cannot at	you want coffee

4 At the relevant stage of acquisition, predicate forms such as *mag-ikke* (may-I) and *moettie* (must-it) occur as unanalysed wholes.

Research on spontaneous processes of language learning usually does not take into account utterances as in A3. However, the only difference with the examples in A2 is the fact that a complement such as *zel(le)f* (myself), *oppe dak* (on-the roof) in Dutch or *kaffee* (coffee) and *raus* (out) in German is not a verbal constituent. Nevertheless, these complements have the same meaning as in cases in which it occurred with an infinitive. Thus, *kannie zellef* (J 1;11) means *ik kan 't niet zelf doen* (I can it not myself do) and *magniet oppe dak* (J 1;11) means *hij mag niet op het dak klimmen* (he may not on the roof climb). Similarly in German, *kaffee* (kaffee) means *kaffee haben* (coffee get) and *raus* (out) means *rausgehen* (out-go). Thus, non-verbal complements are used with the function of a predicate. Being non-verbal predicates they are distributed as 'non-finite' verbal elements.

The utterances as in A1, A2 and A3 are all variants of the same type of utterance structure. They occur with a modal/aspectual element in second position or with a structural position available for it.[5] In this respect, type-A utterances differ from utterances of type B not only semantically, as argued before, but also structurally, i. e. in terms of the presence or absence of a structural position for a modal/aspectual head.

To conclude, the basic language system of children learning Dutch or German is a lexical system. That is, at the relevant stage, learner utterances are the expression of a predicate-argument structure with only nouns, verbs, verbal particles, adjectives and adverbs. At the lexical stage of language learning, the presence or absence of a structural position for a modal head determines the grammatical function and the position of the lexical predicate. The morphology of the lexical predicate is determined by how this predicate appears in the input. Hence, a lexical predicate with the function of a verbal complement as in type-A utterances occurs in final position and, therefore, it appears as an infinitive. A lexical predicate with the function of a verbal head as in utterances of type B occurs in second position and, therefore, it appears as morphologically finite. Finally, comparing utterances of type A with utterances of type B, it seems that on the basis of their semantics the lexical verbs are distributed complementarily. That is, some of them typically occur as the verbal complement of a modal verb in final position, while others occur as the verbal head in second position. In the following, we will pursue the question why this might be the case.

5 This is a problem for Ingram and Thompson (1996). Their Modal Hypothesis claims that it is the morphology which serves to carry modality as part of the lexical meaning of the infinitives: "(...) the claim is that the infinitives are semantically associated with modality as part of their lexical information" (102).

3 Utterance structure at the lexical stage

3.1 Lexical projections

At the lexical stage, as demonstrated in Section 1, utterances can be categorized as type A or type B. Both types are used in complementary distribution on the basis of the semantics of the lexical verb. A representation of the structure of both types of utterance is given in Figure 1.

Figure 1A represents the lexical structure of agentive utterances as in A. The modal/aspectual head (Ctrl) serves to express that there is an entity functioning as the controller of an action. This entity is the 'agent' of an action that is expressed as the complement of the modal/aspectual head. This action is either a causal action as in *dop opdoen* (cap on-do), *ei essen* (egg eat) or an agentive motion as in *oppe dak* (on the roof climb), *raufsitzen* (on-sit-down).

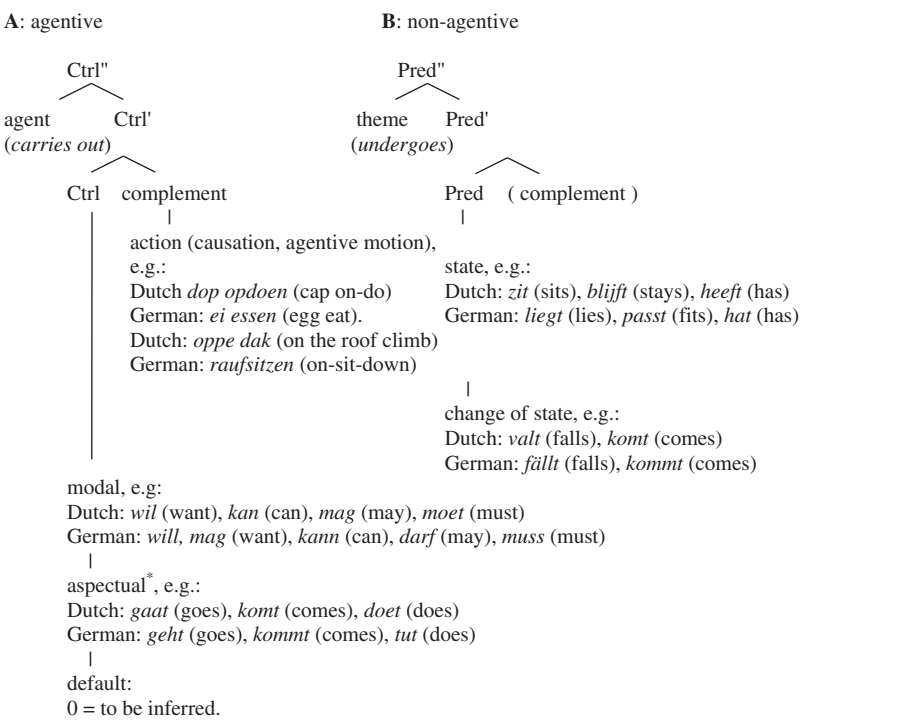


Figure 1: The lexical structure of type A and type B. *As shown in Jolink (2009), Dutch children also produce examples with *is* instead of a modal verb. For example, *die eisje is tieke* (the girl is draw), *paadje is alle biele opete* (horsie is all wheels up-eat), *toen is e vogel da vliege* (then is a bird there fly). It might be used with an aspectual meaning such as 'is being'.

The modal elements, Dutch *wil* (want), *kan* (can), *mag* (may), *moet* (must) and German *will, mag* (want), *kann* (can), *darf* (may), *muss* (must) are used to express the willingness, the ability, the permission or the obligation of the agent to perform the relevant action. At the relevant stage, modal elements in head position are in fact lexicalizations of a variation in control.

Figure 1B represents the lexical structure of non-agentive utterances of type B. In Figure 1B, predicates referring to a state or a change of state occur in the position of the head. Utterances of type B are used to express that a person or an object occurs either in a state as, for example, in Dutch *zit* (sits), *blijft* (stays), *heeft* (has) and German *liegt* (lies), *passt* (fits), *hat* (has), or undergoes a change of state as, for example, in Dutch *valt* (falls), *komt* (comes) and German *fällt* (falls), *kommt* (comes). The entity that a state or change of state applies to is referred to as 'theme'.

The analysis of learner utterances in terms of categories of predicate-argument structure shows that the linguistic categories that are relevant at the initial stages of language acquisition may differ from those that come into play only later in language development. For example, the verb may not be relevant as a category of the basic language system, while the predicate is. The same is particularly true for the morphological properties of the verb. As argued before, morphological properties of the target language system seem to be irrelevant as a feature of the learner language at the initial stage. Hence, if learner data are analyzed in terms of morpho-syntactic categories of the target language system, learners are attributed a level of linguistic knowledge for which there is no evidence. This is the case, for example, with Poeppel and Wexler who come to the curious finding that for German children at the initial stage of acquisition "the best model of the data is the standard analysis of adult German" (1993, 2).

Finally, it should be noted that a morpho-syntactic categorization of the data as in Poeppel and Wexler (1993) and Ingram and Thompson (1996), poses a restriction on the kind of data to be accounted for. That is, a categorization of child utterances in terms of verbs, or verb categories such as 'finite verb', 'infinitive' and 'past participle' tacitly leads to the decision to regard 'verbless' utterances of less or no relevance compared to utterances with verbs. An unfortunate consequence of this is that a large amount of relevant data is excluded from analysis.

3.2 Summary

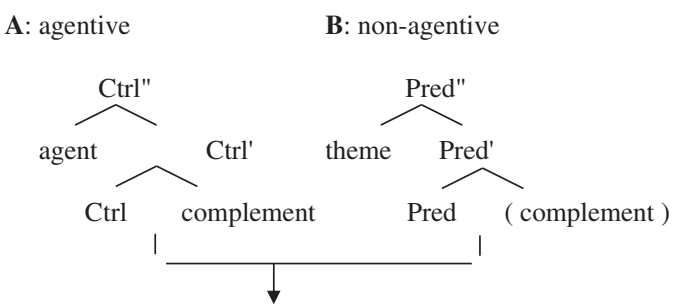
In sum, children learning Dutch or German initially create a basic language system that consists of lexical categories only. Utterances are either agentive

or non-agentive. Agentivity determines the presence or absence of a modal element and as a consequence the position of the verbal predicate. That is, with a structural position for a modal element, this predicate occurs in final position, while in the absence of such a position, it occurs in initial position. Furthermore, it is the position of the verbal predicate that determines the form with which it is learned and not vice versa. So, as is the case in the input, if the verbal predicate is in final position, it is learned with an 'infinitival' form, if it is in second position it is learned with a 'finite' form.

The basic language system as represented in Figure 1A and B is a simple lexical system. Semantically, it is the reflection of situations that can be categorized in terms of the presence or absence of control. After all, this does not really come as a surprise. In actual life, the notion of control is essential for the assessment of a particular situation. That is, it crucially matters if someone has the possibility to influence a situation or whether he/she is just exposed to it.

Figure 2 provides a structural representation of the two types of utterance that Dutch and German children appear to use at the lexical stage. Both types of utterance happen to be structurally similar. Hence, it might not be too difficult for learners to discover that they are variants of the same underlying structure. Having discovered that this is the case, learners have managed to acquire the grammatical knowledge as represented in Figure 2C.

Figure 2C shows that the hierarchical structure of utterances at the lexical stage consists of two different relations. First, there is the relation between the lexical head (V) and its complement. The grammatical category of the complement is determined by the head. In utterances of type A, the head (V) is a modal element. It expresses the function of control that is exerted by the agent. The complement that is under control of the head is an action predicate. In utterances of type B there is no relation of control. The head (V) is a non-agentive predicate. It serves to express that the theme is in a state or undergoes a change of state. It may or may not occur with an adverb or a nominal part of the predicate as its complement. Furthermore, in both A and B there is also a 'hold-for' relation between the predicate V' and the element in initial position. The element (agent or theme) that V' holds for is referred to as 'subject'. Thus, utterance structure at the lexical stage is determined by both a head-complement and a hold-for relation. The relevant structure, represented in Figure 2C, is well-known in linguistic theory. As argued above, it accounts for the linguistic knowledge that learners are apparently able to acquire as the result of a creative process of language learning.



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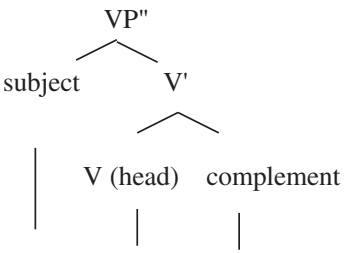

type A:	agent	Ctrl	action
Dutch:	*Jaja*	*mag*	***dop opdoen***. (A 2;0)
	J	may	lid on-do
German:		*mag nich*	***nase putzen*** (C 2;0)
	(I)	like not	nose clean
type B:	theme	state	
Dutch:	*da, poes*	***blijf*** *hier*. (J 1;11)	
	kitty	stays here	
German:	*mama*	***liegt*** *da*. (A 1;11)	
	mommy	lies there	
	theme	change of state	
Dutch:	*uil,*	*zo* ***komt.*** (J 1;10)	
	owl	so comes	
German:	*krokodil*	***kommt***. (A 2;0)	
	crocodile	comes	

Figure 2: Utterance structure at the lexical stage.

3.3 Word order

The analysis of the Dutch and German learner data as presented in Section 2.1 shows that at the initial stage of language acquisition utterance structure is rather simple. The structural relations between constituents are given in Figure 2. This representation, however, does not yet account for word order.

3.3.1 Agent first

At the lexical stage, word order rules are very simple, too. They are subject to the semantic principle 'Agent first'.[6] This means that in *agentive* utterances as in type A, the agent occurs in initial position, while only in *non-agentive* utterances as in type B this position is taken by the theme. Thus, 'Agent first' explains why at the relevant stage agent or theme is used in initial position, while targetlike utterances with either an object or an adverbial in initial position and, thus, no 'Agent first' typically occur at a later stage of acquisition, i. e. at the functional stage.[7]

(3) The initial position at the lexical stage: 'Agent first'

Child Dutch	Child German
type A: agentive	
ik *wil mellek pakke*. (J 1;10)	*will nisch raufsitzen*. (A 2;0)
I want milk get	0 want not on-sit
Jaja *mag dop opdoen*. (A 2;0)	*mag nich nase putzen*. (C 2;0)
J may cap on-do	like not nose clean
type B: non-agentive	
uil, *zo komt*. (J 1;10)	***krokodil*** *kommt*. (A 2;0)
owl so comes	crocodile comes
Jaja *valt niet*. (A 2;0)	***ente*** *fällt*. (C 2;0)
J falls not.	duck falls

6 In Klein and Perdue (1997, 315) this principle is referred to as "SEM1 The NP-referent with highest control comes first."

7 In the Dutch child data there is only one exception: *dit Mijnie vasthoue* (this M fast-hold. J 1;10).

3.3.2 Topic first

From the point of view of information structure, the initial position in the target language is typically the topic position, both in Dutch and German.[8] The element in topic position serves to establish the relation between the utterance and the topic situation TS (Klein 2008, 293). As illustrated in Figure 3, the topic situation TS is the situation that the utterance applies to. In cases in which the utterance is a *wh*-question or a *yes/no*-question, the initial position is typically a focus position.

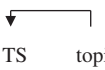

Figure 3: The topic situation TS and the element in topic position.

While the element in topic position establishes the relation between the utterance and the topic situation TS, the *wh*-element in focus position 'asks' for an element that might establish this relation.

At the lexical stage, there is no specific topic position yet. As shown in Figure 2, the initial position is the subject position. Thus, only the subject may serve as a carrier of the topic function.[9] This accounts for the observation that, at the relevant stage, utterances with non-subjects in initial, topic position do not occur, nor do utterances with *wh*-elements in initial, focus position or *yes/no*-questions with the subject in non-initial position while the focus position is empty.

In sum, learner grammar at the relevant stage is as simple as can be. While the subject is used to express the topic function, the predicate refers to information that is in focus. In other words, as shown in Figure 4, there is a 1:1-correspondence between the syntactic structure of an utterance and its properties of information structuring.

3.4 Summary

For children learning Dutch or German, utterance structure at the initial stage is the expression of a lexical projection. Despite the fact that the input

8 In Klein and Perdue (1997, 317) this principle is referred to as "PR1 Focus expression last."
9 Spontaneous child utterances usually apply to topic situations that are linked to the here and now of the moment of speaking. This explains why in child language particularly deictic elements, i. e. proper names, e. g. *Jaja* and pronouns such as *ik, ikke* (I) and *deze* (this-one) are used in first position.

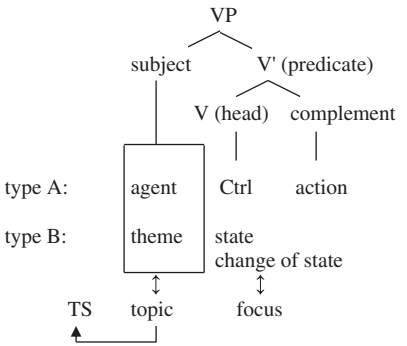

Figure 4: Utterance structure at the lexical stage.

provides ample evidence of the use of functional elements, functional categories are not part of the grammatical system, yet. Hence, children do not have at their disposal the linguistic means specifically fit to refer to elements in the context of a larger discourse. As a consequence, the relevant properties of information structure are expressed with the predicate-argument structure of a lexical projection. That is, the subject is used with topic function and the predicate serves to express focus information. Contextual embedding can be achieved with lexical means such as deictics and adverbials. Furthermore, as opposed to finiteness as a morphological category, finiteness as a functional category serves an informational function. This functional property, also referred to as 'semantic finiteness', is used to express that an assertion is hold true for a particular situation (Klein 1998, 225, see also note 2). In Dutch and German, this informational function of finiteness is represented by a verbal element in second constituent position serving as a carrier of finite morphology. At the lexical stage, this functional category is absent. Hence, at the relevant stage, there is no position for verbal elements to express this function.

The consequences of the absence of the functional category system of the target-language can be summarized as follows. First, in absence of a position specifically suited for the expression of the topic function there is:

(1) no subject-verb inversion (hence, no determiners),
(2) no *wh*-questions,
(3) no *yes/no*-questions,
(4) no determiners (hence, no definiteness),
(5) no anaphora.

Second, in absence of a position specifically suited for the finite verb, there is:
(1) no auxiliary verbs (hence, no scrambling),
(2) no verb movement,
(3) no inflectional morphology (hence, no agreement and no tense).

So, evidence from child learners of Dutch and German shows that the relation between language input and the shape of the learner variety cannot simply be described as "what they hear is what you get" (Ingram and Thompson 1996: 97). Given a particular amount of target language input, learners appear to create a basic language system which has no functional projections and, hence, no functional category system.

In the following, it will be argued that the acquisition of the informational function of topicalization is the driving force in the acquisition of a structural position for (a) a topic element in initial position and (b) a verbal element carrying the informational function of finiteness in second position.

3.5 Conflicting constraints

As pointed out before, at the lexical stage the subject position utterance-initially is a semantic position. According to the *semantic principle* 'Agent first' it is taken by either the agent or the theme. Due to the fact that agent and theme occur in initial position, these constituents also serve to carry the informational function of the topic. Utterances with an object or an adverbial in first position and a subject in non-initial position, occur only later in the acquisition process when children have acquired the *functional principle* 'Topic First'. At the lexical stage however, as shown in Type A and B, only the subject (agent or theme) has topic function. This means that, at some point in the acquisition process, the semantic principle 'Agent first' and the functional principle 'Topic first' are getting in conflict. A conflict that has to be resolved during the course of the language learning process.

The question now is: how does the lexical system become reorganized such that, for example, the object may occur in initial, topic position, while at the same time the agent is attributed a structural position, too? "Contexts of conflicting constraints are very fertile for observing language development" (Perdue 2006: 862). This statement by Perdue also seems to apply to the conflict between 'Agent first' and 'Topic first'. In Section 3, it will be shown that this conflict serves as the driving force of a process in which the early lexical system develops into a targetlike system with both lexical and functional categories,

A solution to this conflict is initially achieved with a kind of vanishing act. That is, agentive utterances may occur with the object or an adverbial in topic

position, while the agent is not expressed. This form of accommodation ensures that the semantic principle 'Agent first' will not be violated. It explains the use of non-targetlike utterances as in (4).

(4) Agentive utterances with an object or an adverbial in topic position[10]

Child Dutch	Child German
die *magniet afpakke!* (J 1;11)	***die mama*** *anrufen will.* (A 2;0)
that may_{AG}-not away-take!	mommy call $want_{AG}$
da *moet op drukke.* (J 2;1)	***die*** *will essen .... die möhre.* (A 2;1)
there $must_{AG}$ on press	that $want_{AG}$ eat .... the carrot
disse *hoeniet meeneme.* (A 2;1)	***hase*** *wollte gucke*? (C 2;3)
this $must_{AG}$-not with-take	hare $wanted_{AG}$ look
deze *magniet teke.* (A 2;2)	***das*** *kann schon dis drandrehen?* (C 2;3)
this may_{AG}-not draw	that can_{AG} just this on-screw

The data in (4) show that the object or an adverbial is placed in topic position, while there is no position for the agent.[11] It is a creative solution to the internal conflict within the constraints of the language system at the lexical stage. It should be noted however that absence of a position for the agent does not mean that the agent does not play a role. On the contrary, whenever there is an action, there is also an agent implied. And precisely because of this, the agent does not have to be expressed explicitly. In sum, utterances as in (4) are evidence of a creative solution to express the informational function of topicalization given the constraints of the learner system at the relevant stage.

4 Utterance structure at the functional stage

As indicated in (4) agentive utterances such as *deze magniet teke* (this may_{AG}not draw. A 2;2) and *die will essen* (that $want_{AG}$ eat. A 2;1) are evidence of a developmental process. This process entails the reanalysis of the complement of the modal/aspectual head as the *full* projection of V such that there is now a *structural* subject position for the agent. Integration of this full projection VP at the position of the complement causes a process of reinterpretation by which (a) the initial position is reinterpreted as functional topic position and (b) the head-initial modal V is reanalyzed to serve as a carrier of the functional and

10 AG indicates that the agent is used implicitely with the modal predicate.

11 See for a similar observation on Dutch child language data Verrips (1996).

morphological properties of finiteness. The result of this process of integration and reinterpretation is the structure in Figure 5.

(e)	topic	Aux_F	[agent	V(head)	complement $]_{VP}$
	deze	*kan*	*ik*	*(wel)*	*meenemen*
	diese	*kann*	*ich*	*(schon)*	*mitnehmen*
	this$_i$	can$_j$	I	(indeed) e$_j$	e$_i$ with-take

Figure 5: Reanalysis of the type-A structure.

Figure (5) shows that the conflict between the principles 'Agent first' and 'Topic first' has been solved with the creation of two types of 'first positions'. A functional first position sentence-initially for an element with topic function and a lexical first position for the agent sentence-internally. It also shows that as a carrier of the functional and morphological properties of finiteness, the modal verb is going to serve as an auxiliary verb. In sum, integration of the informational function of topicalization and finiteness causes the initial, basic language system to develop into a more complex, targetlike system. As Perdue puts it:

> Learner utterances show organizational regularities right from the beginning of the acquisition process, and these early organizational principles do not disappear, but rather interact with new organizational principles as and when they are acquired. (Perdue 2006: 864)

4.1 The acquisition of the functional topic position

As stated before, in both adult Dutch and German the initial, topic position is a functional position, i. e. this position is not used as a position for the expression of a particular semantic role. Thus, objects or adverbials may occur in initial position, while there is simultaneously a position for the subject sentence-internally. Evidence of the acquisition of a functional topic position in children learning Dutch and German is given in (5). The Dutch data occur with Jasmijn (2;1–2;2) and Andrea (2;2–2;4), the German data occur with Anna (2;1–2;2) and Caroline (2;2–2;5). That is, with all four children the instantiation of a structural topic position has taken place rather rapidly.

(5) The initial position at the functional stage: 'Topic first'

Child Dutch	Child German
die *mag* ***ik*** *lekker opete.* (J 2;2)	***die*** *wi****sch*** *auch mal haben, lila.* (A 2;1)
that may I nicely up-eat	that want I also once have, lilac

broodje *mag* ***Cynthia*** *opete*. (A 2;4)
bun may C up-eat

dan *moet* ***Cynthia*** *weer make*. (J 2;2)
then must C again make

da *kanne* ***kindere*** *inzitte*. (A 2;4)
there can children insit

ein dach *musst* ***du*** *malen*. (C 2;3)
a roof must you draw

daf ***du*** *nich rausnehm*. (A 2;1)
0 may you not out-take

*(al)****leine*** *kann* ***ich*** *angucken, selber*. (C 2;3)
myself can I at-look, self

At the functional stage, the initial position serves the function of both topicalization and focalization. This explains why at the relevant stage, Dutch and German children not only use utterances with non-subjects in initial, topic position, but also utterances with *wh*-elements in initial, focus position and *yes/no*-questions with the focus position empty. Examples are given in (6).

(6) *wh*-elements in focus position

Child Dutch	Child German
wie *is* ***dat****? eve kijke wie is*. (J 2;1) who is that? just look who is	***wo*** *ist* ***das****?* (A 2;1) where is that?
wie *is* ***dat****? kijke is?* (A 2;3) who is that? see is?	***wo*** *kann* ***man*** *de reinstecken?* (C 2;4) where can one this in-put?
wat *doet* ***ie*** *nou? lache*. (J 2;2) what does he now? laugh	***wie*** *dürfen machen?* (C 2;3) how may 0 make?
wat *is* ***dit*** *nou van kleur?* (A 2;3) what is this now of colour?	
waar *ben* ***je*** *nou geweest?* (J 2;2) where are you now been?	
waar *is* ***v[l]iegtuig*** *nou?* (A 2;3) where is airplane now?	

(7) empty focus position in *yes/no*-questions

Child Dutch	Child German
mag ***ik*** *wel uit bedje klimme?* (J 2;2) may I just out-of bed climb?	*willst haben?* (A 2;1) want-you have?
mag ***kikker*** *ook mij vasthoue?* (A 2;2) may frog also me tight-hold?	*willst* ***du*** *einsteigen*? (C 2;5) want you enter?

4.2 The acquisition of a functional position for the expression of the informational function of finiteness

As argued above, at the functional stage the acquisition of topicalization is part of a process of acquisition in which the structural mechanisms for the expression of information structure provide a position not only for a topic element but also for a verbal element that serves to carry the functional and morphological properties of finiteness. Hence, simultaneously with the use of objects and adverbs in initial position both Dutch and German children all of a sudden appear to be able to use the auxiliary verbs, Dutch *heb, heeft*, German *habe, hat* (have, has) and Dutch *ben, is*, German *bin, ist* (am, is) in second position, too. Together with a past participle these auxiliary verbs are used as a periphrastic means to express perfect aspect. They are the first words without lexical meaning that children are able to learn and the clearest evidence that the child has reached the functional stage of acquisition.

At the lexical stage, there is no position available for these auxiliary verbs. Hence, there is a distributional difference between the use of past participle structures *without* an auxiliary verb at the lexical stage and past participle structures *with* an auxiliary verb at the functional stage. Evidence for the use of a past participle and *no* auxiliary verb in Dutch occurs with Jasmijn (1;10–1;11) and Andrea (2;0–2;1), in German with Anna (1;9–2;0) and Caroline (2;0–2;1). Evidence for the use of both a past participle *and* an auxiliary verb in Dutch occurs with Jasmijn (2;0–2;2) and Andrea (2;2–2;4) and in German with Anna (2;1–2;2).[12] Examples are given in (8) and (9).

(8) Utterances with past participles in child Dutch

The lexical stage	The functional stage
bal weg. ***topt***. (J 1;10)	*ikke* ***hè*** *dit* ***pakt***. (J 2;1)
ball gone. hidden	I have this taken
dit Cynthia ***maakt***. (J 1;10)	***heb*** *je visje* ***gehad****?* (J 2;1)
this C. made	have you fish had?
poppie haartie ***wast***. (J 1;10)	*ik* ***heb wonne***. (J 2;1)
doll hair washed	I have won
dit Cynthia ***weest***. (J 1;10)	*ik* ***heef afspoeld***. (J 2;2)
this C been	I have washed
poes ***opgete***. (J 1;11)	*die* ***is*** *altijd opde televisie* ***geweest***. (J 2;2)
kitty up-eaten	that-one is always on tv been

12 For Caroline the relevant corpus has no data available.

ikke ook boot ***hees***. (A 2;0)
I too boat been
Jaja ***kamd***. (A 2;0)
J combed
papa ***potmaakt***. (A 2;0)
daddy kaput-made
mama lekker ***aapt****?* (A 2;1)
mommy nice slept?
jou ***hege****, dees*. (A 2;1)
you got this
aap ***goonmaakt***. (A 2;1)
monkey clean-made

Jaja ***hemme*** *al* ***goonmaakt***. (A 2;2)
J has already clean-made
hemme *nogge fippo* ***vonne****?* (A 2;2)
have-we another flippo found?
ikke ***hemme*** *deze* ***tekend***. (A 2;3)
I have this drawn
da ***ben*** *ikke ook* ***wees***. (A 2;3)
there am I too been
Jaja ***heef*** *met de haartjes zo* ***doet***. (A 2;4)
J has with the hairs so done
ik ***heef*** *óók appel* ***gete***. (A 2;4)
I have too apple eaten

(9) Utterances with past participles in child German

The lexical stage: Anna (1;9–2;0)	The functional stage: Anna (2;1–2;2)
*oh, oh (ka)****putt****(ge)****gang****(en)*. (A 2;0)	*das* ***ist ausetunkn***. (A 2;1)
oh, oh kaput-gone	that is emptydrunk
auffresst *(=aufgefressen)*. (A 2;0)	*ich* ***hab*** *das schon* ***aufeheben***. (A 2;1)
up-eaten	I have that already up-picked
da ***ab****(ge)****macht***. (A 2;0)	***hast*** *das* ***puttemacht***. (A 2;1)
that off-made	(you) have that kaput-made
kuck mal, ***runter****(ge)****kullert***. (A2;0)	*das, Lukas* ***hat*** *das* ***mitbracht***. (A 2;1)
look, down-rolled	that, L. has that with-taken
rein*(ge)****legt***. (A 2;0)	***hab*** *alles* ***ausekippt***. (A 2;1)
in-put	(I) have everything out-thrown
weg*(ge)****pustet***. (A 2;0)	*der* ***hat auseschlafen***. (A 2;1)
away-blown	he has out-slept
*dok (=doch) (ge)****schafft***. (A 2;0)	***han*** *möhre (geg)****essen***. (A 2;1)
still made	(we) have carrot eaten
löwl (=löffel) ***runter****(ge)****fallen***. (A 2;0)	***hat*** *tschüss (ge)****sagt***. (A 2;1)
spoon down-fallen	(he) has good-bye said

As can be observed in (5) through (9), the structural positions for the expression of topicality and finiteness are acquired simultaneously. This is due to the fact that the acquisition of both functional phenomena is the result of one process of language development. Hence, at the functional stage both objects and adverbials may occur in initial position not only with modal verbs as in (5), but with the auxiliary, too. Examples are given in (10):

(10) Topic/focus and agent-subject in utterances with a past participle and an auxiliary verb

child Dutch: Jasmijn (2;0–2;2) Andrea (2;2–2;4)	child German: Anna (2;1–2;2)
heef ***Cynthia*** *maakt*. (J 2;0)	***gestern*** *hab* ***ich*** *zuguckt*. (A 2;1)
0 has C made	yesterday have I at-looked
die *heef* ***mama*** *maakt*. (J 2;1)	***kaffee*** *hat* ***mama*** *kocht*. (A 2;1)
that-one has mommy made	coffee has mommy cooked
heb ***je*** *visje gehad?* (J 2;1)	***das, kaffee*** *hast* ***du*** *ausetrunkn*. (A 2;1)
have you fish had?	coffee have you out-drunk
die *heef* ***Cynthia*** *gemaakt*. (J 2;2)	*zeigen,* ***dort*** *hab* ***ich*** *was malt*. (A 2;1)
that has C made	show, there have I something drawn
heb ***ik*** *oppegete*. (A 2;2)	
0 have I up-eaten	
*hem**me** nogge fippo vonne?* (A 2;2)	
have-we more flippo found?	
da *ben* ***ikke*** *ook wees*. (A 2;3)	
there am I too been	
die *hem* ***ik*** *van Jasmijn kege*. (A 2;4)	
that-one have I from J got	

5 Conclusion

In child Dutch and German, learner language develops from a lexical system to a functional system. At the lexical stage, the learner system is relatively simple. Functional categories are absent. Hence, topicalization, auxiliary verbs, verb movement, agreement, tense, definiteness, prepositions and anaphoric pronouns do not yet play a role. Utterance structure is determined by the semantics of the predicate, which is either agentive or non-agentive. Word order is constrained by the semantic principle 'Agent first'. This principle accounts for the fact that in lexical structures in which an agent plays a role, the agent occurs in initial position as in child Dutch ***Jaja*** *mag dop opdoen* (J may cap on-do. A 2;0) or in child German ***papa*** *nich(t) soll hier reinkomm(en)* (daddy not should here in-come. A 2;0). Only in lexical structures in which there is no role for an agent, the theme may occur in initial position as in child Dutch ***Jaja*** *valt niet* (J falls not. A 2;0) or in child German ***krokodil*** *kommt*. (crocodile comes. A 2;0). Both types of utterance, referred to as type A (agentive) and type B (non-agentive) respectively, are lexical structures that specify the relation between a predicate and a constituent that it holds for (either the agent or the theme). Generalization of this

'hold-for' relation leads to the acquisition of the subject as a grammatical category.

At the lexical stage, the learner grammar has no specific topic position, yet. Topicalization is achieved with the structural possibilities that are available. So, there is a 1:1 correspondence between the syntactic structure of an utterance and its functional properties. This means that the element in initial position, i. e. the subject, also serves as a carrier of the topic function. Nevertheless, topicalization of the object in agentive utterances may occur in utterances as in child Dutch ***disse*** *hoeniet meeneme* (this-one must-not withtake. A 2;1) or in child German ***die*** *will essen .... die möhre*. (that $want_{AG}$ eat .... the carrot. A 2;1). At the relevant stage, this is not in conflict with the learner grammer, because this type of structure does not provide a position for the agent. Agentivity is expressed here implicitly by the modal predicate. Absence of a structural position for the agent, however, is not targetlike. Restructuring of the learner grammar is going to accommodate for this. It enables children to produce utterances such as ***die*** *mag* ***ik*** *lekker opete* (that may I nicely up-eat. J 2;2) or ***die*** *wi****sch*** *auch mal haben, lila* (that want I also once have, lilac. A 2;1). This process of restructuring shows that it is the need to attribute topic function to a constituent other than the agent which serves as the driving force for language development. Furthermore, topicalization leads to a restructuring of utterance structure at the functional stage not only with respect to the informational properties linked to the initial position. It also affects the informational properties of verbal elements in second position. That is, reinterpretation of the relevant position serves as a prerequisite for the acquisition of both the functional category of auxiliary verbs and, eventually, for the use of the finite *lexical* verb to carry the informational properties of finiteness. So, topicalization is the driving force in the development of learner languages from a lexical system to a functional system, i. e. from a system in which utterances are the expression of a few types of lexical projections to a system in which utterance structure is determined by a grammatical system in which both lexical and functional projections interact.

Acknowledgement: This work was supported by the German Bundesministerium für Bildung und Forschung (BMBF) (Grant Nr. 01UG1411).

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