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FINITENESS IN CHILDREN AND ADULTS LEARNING DUTCH

Abstract. This paper deals with the acquisition of finiteness in children acquiring Dutch as their first language and adults acquiring Dutch as their second language. The authors distinguish between the semantic concept of finiteness and its morpho-syntactic marking. Given that utterances are used to express illocutionary force, they argue that finiteness is the carrier of the pragmatic function of assertion. As such it relates the descriptive content of an utterance to its topic component. It is shown that for the expression of finiteness child and adult learners rely on this pragmatic function of assertion at subsequent stages of acquisition. At the so-called Conceptual Ordering Stage, i.e. before target-adequate morphological markings become productive, learners establish the assertive relation by a closed class of linking elements which contains elements expressing positive or negative assertion, modal phrases and scope particles. At the Finite Linking Stage assertion marking grammaticalises. Elements of the target functional category of auxiliaries come to be used as a grammatical linking device whereas scope particles and other target adverbial elements do no longer occur as independent linking elements. While the illocutionary linking elements of the Conceptual Ordering Stage are adjuncts, auxiliary verbs are part of a functional category system. As is the case in the target language, they function as the head of a head-complement structure at the Finite Linking Stage.

1. INTRODUCTION

Finiteness is traditionally associated with morpho-syntactic properties of agreement and tense-aspect marking. In this paper however, we will investigate the acquisition of finiteness in children and adults learning Dutch from the point of view of the *semantic concept* of finiteness as defined in Klein (1998). It is claimed that the semantic properties of finiteness are expressed first. Furthermore, it is argued that auxiliary verbs serve as a bootstrap in the transition to the morpho-syntactic properties of finiteness. According to Klein semantic finiteness comprises two separate pragmatic or information-structural functions which can be termed as “anchoring” and “illocution”. The anchoring function of finiteness provides the spatio-temporal co-ordinates into which the rest of the utterance is embedded; the illocutive function of finiteness validates the state of affairs expressed in the utterance with respect to these spatio-temporal co-ordinates.

In languages such as Dutch, German or English, both the anchoring and illocutive function are typically marked by one form, for example a finite copula as in the following example from Klein (1998:226).

- (1) The book was on the table.

This fusion of two types of information in one form can be made explicit when contrastive stress is put on the copula as in (2).

- (2) The book WAS on the table.

Unlike full verbs, copulae and auxiliaries do not carry any lexical meaning proper. Contrastive stress therefore only results in highlighting the two semantic components of finiteness. It can provoke both a tense contrast, and a contrast regarding the claim. There is a *tense contrast*, when (2) is opposed to *The book IS on the table*. What is highlighted here is the anchoring information, namely that the book's being on the table occurred at some moment in the past. There is a *contrast regarding the claim*, when (2) is opposed to *The book was NOT on the table*. What is stressed is the illocutive function, which expresses that the book's being on the table was indeed true for some spatio-temporal anchorpoint.

Both the anchoring function and the illocutive function are referred to here as "linking". Linking and hence the semantic concept of finiteness expresses that a particular state of affairs is claimed to be true for the particular spatio-temporal anchorpoint talked about. Claiming a state of affairs to be true is the expression of the illocutive function of assertion. Particular linking devices are used to express other illocutive functions such as that of a wish to come true, a permission, or a claim that the achievement of some state of affairs is someone's ability or someone's obligation.

Both the anchoring and illocutive function contribute to the semantic concept of finiteness, each in their own way. Even if no explicit temporal anchoring is provided as in example (1), the form of the finite verb tells us that we talk about a time in the past. But we have to infer from the context, which time it exactly is. Thus, morphological finiteness *reflects* features of the anchoring-information. On the other hand, as shown in (2) finiteness may provide the illocutive function of a claim all by itself.

Both functions are fused in one finite verb form in Dutch, but as we will show in section 2, child and adult language learners clearly separate the two. Initially, they express the illocutive function only, that is, the elements used for that purpose (e.g. modal phrases, adverbials and particles) do not adapt their form to the anchoring information. As we will see, inflected verb forms also occur. Their morphology however, is not used productively. Thus, anchoring as it is established through the morpho-syntactic expression of tense/aspect or agreement does not occur.

Example (3) from a second language learner of Dutch illustrates the point in case. Here *wel* 'indeed' is used to indicate that a particular claim is made, while anchoring with respect to topic time or some external argument obtains no explicit formal expression.

- (3) ik wél hard rijden (Ma 2.9)
I indeed fast drive

Only later in the acquisition process, i.e. after the acquisition of auxiliary verbs, this is done with the adequate target language means of morpho-syntactic finiteness which allow the learner to express the spatio-temporal anchoring information, too.

As shown in (3), the first linking expressions do not stem from the category of verbs. Lexical verbs are of course used in the part of the utterance that refers to the situation expressed (*hard rijden* in (3)), but they are not made finite in order to make them also suitable as linking-expressions. At that stage of acquisition, purely functional carriers of finiteness (e.g. auxiliaries) are absent, too. Learners avoid the complex verbal morphology (that not only involves markings relevant to the semantic concept of finiteness, but also formal adaptations like person and number agreement) and prefer lexical solutions when linking needs to be marked explicitly. It is only at later stages of acquisition that learners develop linking elements that can carry the specific combination of information relevant to the semantic concept of finiteness in one form, namely finite verbs. At the same time, learners must work on the devices for context embedding as well, since the form of the finite verb depends on the kind of (temporal) anchoring chosen.

In what follows, we will take the *illocutive function of finiteness* as a starting point and investigate which kinds of linking devices are used by different types of learners (namely children acquiring Dutch as their L1 and adults acquiring Dutch as an L2) in order to express the semantic concept of finiteness.

The paper is organised as follows. We will first give a short overview on the data sources from first and second language learners (section 1). In section 2 we present a stage model for the development of illocutionary force. Assuming that the structure of early learner languages is based on principles of information structuring an analysis of constituents in terms of their topic, predicate and linking function seems appropriate. Within this model it is the linking device which expresses the semantic function of finiteness. We will therefore show developmental evidence of the acquisition

of finiteness as a grammatical linking device. Section 3 contains a summary of the main points and some conclusions.

2. DATA SOURCES

The data originate from studies on the acquisition of Dutch by children learning this language as their native language and adults learning this language in an untutored second language learning environment. The L1 and L2 data were collected longitudinally. The L1 data are taken from an extensive diary study and cover the period indicated in (4). The L2 data stem from the European project "Second Language Acquisition by Adult Immigrants", funded by the European Science Foundation. In that project, data collection was organised in three cycles of 10 months each, which means that similar types of elicitation techniques (e.g. film retellings and picture descriptions) were repeated three times during the process of data collection (see Perdue 1993). In the present study, we will investigate data from four learners, two with L1 Moroccan (MA) and two with L1 Turkish (T). In the examples below a reference such as, for example, 'Jasmijn 1;9' means that the utterance occurred when Jasmijn was 1 year and 9 months of age, 'Mahmut 1.2' means that the utterance by Mahmut occurred at month 2 of cycle 1.

(4) Data sources. MA = L1 Moroccan Arabic, T = L1 Turkish

L1 Dutch	diary data	J = Jasmijn (1;7-2;2)
		A = Andrea (1;8-2;4)
L2 Dutch	transcripts of	Mo = Mohamed (MA)
	ESF audio recordings	F = Fatima (MA)
		Ma = Mahmut (T)
		A = Abdullah (T)

3. THREE STAGES IN THE DEVELOPMENT OF ILLOCUTIONARY FORCE

As outlined in the previous section we will choose the perspective of information distribution for our analysis of utterance structure. This analysis provides insight into language learning as a developmentally staged process. Although stages of acquisition are part of a developmental process in which one stage is eventually given up in favour of another, in the actual process of language acquisition stages may overlap, i.e. properties of different stages

may co-occur. For some time learner languages may even show evidence of backsliding when learners regress to a stage that they had seemed to have given up. Stages in language development are defined with respect to coherent systems of linguistic structure used by learners of a particular target language for at least a certain period of time. Our analysis of developmental progress provides evidence that it seems possible in both the L1 and the L2 learning contexts to identify learner varieties at three levels of acquisition.

In the following we will give a description of three types of learner languages used at consecutive stages of linguistic development. These developmental stages are termed: the '*Holistic Stage*', the '*Conceptual Ordering Stage*' and the '*Finite Linking Stage*'. A common property at each of these stages of acquisition is the expression of a topic (explicitly or implicitly) and a state of affairs, such that the state of affairs is claimed to hold for the topic. This relation is established through what we call a validation or linking device. It is this relation of linking which is realised by different linguistic expressions at consecutive stages of language acquisition. At the Holistic Stage validation is achieved by pragmatic means, at the Conceptual Ordering Stage by lexical means and at the Finite Linking Stage by morpho-syntactic means. Interestingly, however, these validation devices are remarkably similar across the L1 and L2 language contexts we investigated.

3.1. *The Holistic Stage: Pragmatic Validation*

At the Holistic Stage topic and predicate (TOPIC, PRED) are used in a juxtaposition relation. Most frequently no illocutionary element is expressed at all. In these cases, the intended relation between predicate and topic has to be inferred from the discourse context in which the utterance occurs. See, for example, (5a/b) and (6a-c) below. A small class of illocutionary phrases (ILP) can occur in either initial or final position. These illocutionary phrases function holistically, i.e. as clausal operators. See (5c-f) and (6d-j) below.

- (5) The Holistic Stage in L1 Dutch. Utterances by Jasmijn (1;7-1;9) and Andrea (1;9-1;11)

	ILP	TOPIC	PRED	
		TOPIC	PRED	ILP
(a)		poessie kitty	jassie bijte coat bite (J 1;8)	

- (b) hier poessie krabd
here kitty scratched (J 1;9)
- (c) nee Cynthia afpakke
no C away-snatch (J 1;9)
- (d) pop pot nee
doll kaput no (A 1;9)
- (e) unne Mijnie dit sijfe
want M this write (J 1;7)
- (f) Cynthia teenie magnie
C toe may-not (J 1;8)
- (6) The Holistic Stage in L2 Dutch. Utterances by Fatima (F), Mahmut (Ma), Abdullah (A), and Mohammed (Mo)
- | ILP | TOPIC | PRED | |
|-------------------------------|----------------------------------|--|--|
| | TOPIC | PRED | ILP |
| (a) niet
<i>no</i> | mijn familie
<i>my family</i> | buitenland
<i>foreign country</i> | (Ma 2.5) |
| (b) ja
<i>yes</i> | die meisje
<i>the girl</i> | brood weggooien
<i>bread away-throw</i> | (Ma 2.9) |
| (c) nee
<i>no</i> | hier
<i>here</i> | huis
<i>house</i> | (Ma 1.2) |
| (d) | | veel eten
<i>much eat</i> | nee
<i>no</i> (F 1.5) |
| (e) ookwil
<i>too want</i> | altijd
<i>always</i> | naar kerk
<i>to church</i> | (F 1.8) |
| (f) misschien
<i>maybe</i> | ik
<i>I</i> | beter
<i>better</i> | (F 2.4) |
| (g) | ik daar
<i>I there</i> | vakantie
<i>vacation</i> | hoefniet
<i>has-to-not</i> (Ma 2.5) |

Examples show that utterances produced by children learning Dutch as their mother-tongue and utterances produced by adult learners of Dutch are strikingly similar. Topic and predicate are used in a juxtaposition relation, while a small class of holistic illocutionary phrases functions as clausal

operators either in initial or final position. Predicates are commonly realised by a nominal element, an adverb, an adjective or a verb particle rather than by a verb (see Herr-Israel & McCune, this volume). If modal operators are used as in (5e/f) and (6h-j) they are precursors in the acquisition of the functional properties of finiteness.

In early child Dutch *nee* 'no' most prominently functions as a clausal operator with a negative modal meaning (5c/d). The same use of *nee* in Dutch can be observed in adult second-language learners (6f/g). With respect to its form as well as its distribution holistic *nee* in early learner varieties of Dutch is modelled after anaphoric *nee*, which is used as an answer to a yes/no-question. It explains why learners may initially use *nee* with scope over the entire clause structure. The clause in the scope of *nee* serves in fact as the explicit expression of a presumed yes/no-question. A similar finding has been reported in Bloom's (1970) study on the use of 'no' in child English. Here, too, 'no' is interpreted as a discourse-semantic means to express non-existence, rejection or denial.

Since the modal operator *nee* has scope over the clause structure as a whole, it is referred to as 'holistic *nee*'. Note, however, that *nee* is used mostly in utterances without a topic. Thus, unambiguous evidence of the holistic use of *nee* is not that frequent. Nevertheless, the holistic use of the negator is productive and is therefore considered a systematic pattern at the initial stage of acquisition.

Simultaneously with holistic *nee* in her early child Dutch, Jasmijn (1;7-1;9) also uses the expressions *unne*, *minne*, *ninne*, *hunne*, *ulle* 'want' etc. as a positive counterpart (5e). These holistic *unne*-forms seem to be modelled after the adult verb *willen* 'want'. They are productively used in precisely the same position in which *nee* occurs. They function as the positive alternative to *nee* both with respect to their distribution as to their meaning. Given that the meaning of *nee* and *unne* etc. can be described as '[I] do not want' and '[I] want', both devices serve to express 'volition'. Similar types of utterances can be found in L2 Dutch. As the positive alternative to *nee* (6f/g) Fatima uses *ook wil* 'also want' (6h). It shows that she uses both *nee* and *ook wil* to express 'volition'.

Andrea (2;0-2;1) uses *nee* systematically with the same distribution as *mag-ikke* 'may-I'. At the relevant stage, *mag-ikke* is used as a fixed phrase incorporating the topic element *ikke*. Examples of the distributional opposition between *nee* and *mag-ikke* are given in (7).

- (7) Holistic use of '*nee*' (no) and '*mag-ikke*' (may-I) in Andrea (2;0-2;1)

- (a) nee kijke
 no look (A 2;0)
- (b) nee bad zitte
 no bath sit (A 2;1)
- (c) mag-ikke ook gijbaan?
 may-I also slide? (A 2;0)
- (d) mag-ikke ijssie hebbe
 may-I ice-cream have? (A 2;1)

From this opposition it seems that Andrea uses both *mag-ikke* and *nee* to express 'volition'.

In both child- and adult learners elements such as *nee* 'no', *unne* 'want', *ookwil* 'too-want', *mag-ikke* 'may-I' are used to express 'volition'. These illocutionary phrases are functioning with scope over the clause structure as a whole. In the same position learners may also use elements with other kinds of modal meanings. Thus, *misschien* 'possibly' and *magnie* 'may-not' are used to express presence or absence of 'permission', while *hoefnie* 'has-to-not' indicates absence of 'obligation'. In the examples above, modal elements are used as means to express illocutionary force. Absence of modality seems to be the default case. Illocutionary phrases used to express absence of modality are the holistic use of *ja* 'yes' and *niet* 'not'. Their illocutive meaning is 'assertion' or 'denial'.

Table 1 summarises the list of illocutive phrases and pragmatic functions at the Holistic Stage that both child and adult learners of Dutch are able to express. The particular ILPs they use, typically occur holistically, i.e. with scope over the predicate as a whole.

Table 1. ILPs at the Holistic Stage

<i>illocutive function</i>	<i>illocutionary phrase in initial/final position</i>
assertion	<i>ja; niet</i>
volition	<i>ulle, mag-ikke, ookwil; nee</i>
ability	<i>kanwel; kanniet</i>
permission	<i>misschien; magnie</i>
obligation	<i>hoefnie</i>

3.2. *The Conceptual Ordering Stage: lexical validation*

The term ‘conceptual ordering’ refers to the fact that both the selection and the sequential ordering of constituents in learner grammar is determined by principles of information structuring. At the relevant stage of acquisition learner utterances consist of three structural positions each for constituents with a particular informational function. The ‘topic’ occurs in initial position. It functions as an anchoring element, i.e. it establishes external reference to the outside world or to the previous utterance. The predicate occurs in final position. It refers to a particular state of affairs which holds for the topic element. The relation between the predicate and the topic element is established by a linking element (ILP). These linking elements occur between the topic and the predicate. Syntactically, they function as adjuncts, i.e. there is no relation of categorical selection between the linking element and the predicate, nor does the linking element entertain a formal relation with other constituents. Given the absence of functional categories, the ordering of the structural positions of topic, linking element and predicate is merely sequential.

Examples of L1 and L2 Dutch utterances at the Conceptual Ordering Stage are given in (8) and (9).

(8)	L1 Dutch utterances at the COS (Jasmijn 1;10-1;11; Andrea 2;0-2;1)		
	TOPIC	ILP	PRED
	PRED _i		0 _i
(a)	Mijnie <i>M</i>	kan <i>can</i>	losmake <i>loose-make</i> (J 1;10)
(b)	da <i>there</i>	kanniet <i>cannot</i>	zitte <i>sit</i> (A 2;1)
(c)	Jaja <i>J</i>	mag <i>may</i>	dop opdoen <i>lid on-do</i> (A 2;0)
(d)		mánniet <i>may-not</i>	doen <i>do</i> (A 2;0)
(e)	Peter <i>P</i>	moet <i>has-to</i>	zitte <i>sit</i> (J 1;11)

(f)	disse <i>this-one</i>	hoeniet <i>has-to-not</i>	meeneme <i>with-take</i> (A 2;1)
(g)		doetie <i>does-he</i>	alles opete <i>all up-eat</i> (J 1;11)
(h)	dit <i>this</i>	nee <i>no</i>	afdoen <i>off-do</i> (J 1;10)
(i)	poppie <i>doll</i>	niet <i>not</i>	Jaja help <i>J help</i> (A 2;0)
(j)		gaag <i>w'd-like</i>	boekje leze <i>book read</i> (A 2;0)
(k)	papa <i>daddy</i>	eve <i>just</i>	make <i>fix</i> (A 2;1)
(l)	Ruti <i>R</i>	hel <i>indeed</i>	bad zitte <i>bath sit</i> (A 2;1)
(m)	ikke <i>I</i>	ook <i>too</i>	boot hees <i>boat been</i> (A 2;0)
(n)	poesje <i>kitty</i>	0	vinger bijte <i>finger bite</i> (J 1;10)
(9)	L2 Dutch utterances at the COS (Fatima, Mahmut, Abdullah)		
	TOPIC	ILP	PRED
(a)	ik altijd <i>I always</i>	wil <i>want</i>	zit met nabil <i>sit with N</i> (F 3.2)
(b)	eenduizend <i>1000</i>	kanwel <i>can-indeed</i>	sparen per jaar <i>save per year</i> (Ma 2.2)
(c)	ik <i>I</i>	kanniet <i>cannot</i>	praten nederlands <i>speak Dutch</i> (F 1.8)
(d)	dan <i>then</i>	magniet <i>may-not</i>	rijen <i>drive</i> (A 2.7)
(e)	vrouw <i>woman</i>	moet <i>must</i>	keuken <i>kitchen</i> (Ma 1.7)
(f)	nog drie maand ik <i>yet three month I</i>	moet <i>have-to</i>	trouwen <i>marry</i> (A 1.6)

(g)	ik <i>I</i>	hoefniet <i>have-to-not</i>	ziektewet <i>health-insurance</i> (Ma 2.7)
(h)	ik <i>I</i>	ben <i>am</i>	moet werken <i>have-to work</i> (A 1.3)
(i)	hij <i>he</i>	is <i>is</i>	liegt <i>lies</i> (A 1.6)
(j)	turkse soep <i>Turkish soup</i>	ja <i>yes</i>	goed <i>good</i> (Ma 1.7)
(k)	dames <i>ladies</i>	niet <i>not</i>	goeje chauffeur <i>good driver</i> (Ma 2.9)
(l)	die jongen <i>that boy</i>	misschien <i>maybe</i>	weten niet <i>know not</i> (A 1.7)
(m)	dan auto <i>then car</i>	bijna <i>nearly</i>	vallen <i>fall</i> (Ma 2.9)
(n)	hij <i>he</i>	even <i>just</i>	zoeken <i>look for</i> (A 2.9)
(o)	ikke <i>I</i>	wel <i>indeed</i>	handwerk <i>handwork</i> (Ma 2.4)
(p)	vrouw <i>woman</i>	ook <i>also</i>	veel kijk van man <i>much look to man</i> (F 1.6)
(q)	viertwintig juni mij man <i>24 June my husband</i>	0	thuis <i>at home</i> (F 1.8)

As can be seen in (8) and (9) spatio-temporal and deictical elements such as adverbs, proper names and pronouns occur in initial topic position. *The topic* is the constituent that the utterance is about, and it places the utterance in a particular context. From an information-structural perspective therefore, the topic element has *anchoring function*. This explains why at the relevant stage children have no *wh*-question words in topic position. The topic position may be left empty if reference can be inferred from context.

Constituents in final position contain *non-finite, VP-like elements*. They refer to a particular state of affairs which holds for the element in topic position. From an information-structural perspective therefore, these VP-like elements have *predicate function*.

As pointed out, the relation between the predicate and the topic element is established by a *linking element*. This linking element occurs between the topic and the predicate. Linking devices at the Conceptual Ordering Stage are morphologically fixed expressions that are used to validate relations between the predicate and the topic. It is their linguistic function to express properties of *illocutionary force*. They are referred to as illocutionary phrases (ILP).

ILPs are *proto-functional elements* with *pragmatic properties* of finiteness. They constitute a closed class of lexical phrases containing:

1. modal verb-like elements: *unne* 'want', *wil* 'want', *kanniet* 'cannot', *magwel* 'may-indeed', *moettie* 'has-to-it', *hoenie* 'has-to-not'
2. light verbs: *doetie* 'does-it', *gaatie* 'goes-it', *ben* 'am', *is* 'is'
3. adverb-like elements: *nee* 'no', *ja* 'yes', *niet* 'not', *handigniet* 'handy-not'
4. modal particles: *g(r)aag* 'want-please', *eve* 'want-just'
5. scope particles: *wel* 'indeed', *ook* 'too', *zelf* 'myself'
6. empty positions

Despite their difference in origin, these modal operators are all used with the same distributional properties. That is elements such as *wel* 'indeed', *ook* 'too' and *nee* 'no' are used the same way as *magwel* 'may-indeed' or *kanniet* 'cannot'. From this it seems fair to conclude that these linking elements are lexical phrases not (yet) to be categorised as expressions of a verbal category. This explains why at the relevant stage target-like finite verb forms among them auxiliary verbs are systematically absent.

The linking elements constitute a syntactic category which is especially relevant for early child and adult second language learner varieties. They can be analysed as operators used to express 'volition', 'ability', 'permission', 'obligation' and 'assertion'. While modality expresses different kinds of illocutionary force, the default value of assertion is established by absence of modality. Positive assertion can therefore be expressed by leaving the position of the linking device empty.

Differences in contrast are signalled via intonation. Dimroth (2002) argues that a stressed particle with scope to the left, such as stressed *auch* 'too' in German, is used to indicate contrastive topic. Similarly in child L1 and adult L2 Dutch, *ook* 'too' is used to indicate that a particular state of affairs is not only relevant for the topic-referent, but *for another or other referents*, too. Use of *zelf* 'self' indicates that a particular state of affairs holds for the topic-referent and *not for any other referent*. Finally, *wel* 'indeed' is used if the state of affairs holds for the topic-referent but *not for a*

Utterances as in (5a) and (6a) are typical of the Holistic Stage. At the relevant stage there is no element to express the relation between the topic and the predicate. Utterances as in (8a) and (9a) are representative of the Conceptual Ordering Stage. Here, a particular element systematically occurs in linking position. Given its illocutive function it validates the relation between the topic and the predicate.

3.3. Finite linking stage: grammatical validation

The transition from the Conceptual Ordering Stage to the Finite Linking Stage is characterised as a transition from lexical to grammatical validation of the utterance. At the Finite Linking Stage, finite verbal morphology is the typical reflex of the validation operation. Validation is obligatorily expressed through finiteness marking. It occurs via morphological adaptation of the linking element to features of the topical elements (tense, person/number) and placement in a (syntactic) operator position with respect to the predicate. In addition to that, the validation device sometimes gets fused with parts of the predicate, namely the lexical verb. In spontaneous production this fusion seems to correlate with the Aktionsart properties of the verb.

For child and adult learners of Dutch, this transition poses three distinct acquisitional problems. Firstly, finite utterances in the target languages are marked by verb morphology, thus the 'link' in non-elliptic utterances is always explicit. The learner must come to realise that this obligatory verb morphology carries both temporal/aspectual and person/number agreement information. Secondly, the finite marking falls on the leftmost verbal item, a fact which may lead to a merge between the link and the verbal part of the predicate. Thirdly, learners have to acquire Verb-second which means that in declarative sentences there is only one constituent position before the finite verb.

In both children and adults we see the acquisitional task accomplished, firstly, by the acquisition of the auxiliary system. While the 'conceptual' ordering is maintained, the learners work on the 'link' as marked by modal and auxiliary verbs. As will be shown in 2.3.1 the acquisition of the auxiliary system entails a syntactic reorganisation in terms of a functional category system. It establishes both a head-complement relation between the auxiliary and the lexical verb and a relation of morphological agreement between the auxiliary verb and the external argument. Finite lexical verbs become productive only later. Finally, the acquisition of Verb-second involves a

choice to be made between items competing for a one-constituent topic position. As will be shown in 2.3.2 this phenomenon takes time to master.

3.3.1. The acquisition of the auxiliary system

In early child Dutch there is a drastical increase in the use of modal and auxiliary forms at the Finite Linking Stage. However, the development of auxiliaries with past participles lags behind that of modals with infinitives: whereas the latter are productive at the Conceptual Ordering Stage, the former only become productive at the Finite Linking Stage. The relevant figures for Jasmijn and Andrea (Jordens 2002:745) are given in Table (3).

Table 3. The acquisition of modal and auxiliary verbs in L1 Dutch

Child	age	inf.	'doet'/'gaat'/' MOD + inf.	%	pp.	'heeft'/'is' + pp.	%
Jasmijn	1;10-1;11	243	107	30%	55	2	4%
	2;0-2;2	85	134	61%	30	18	38%
Andrea	2;0-2;1	295	61	17%	29	3	9%
	2;2-2;4	158	161	50%	32	53	62%

In Jordens (2002) it is argued that the development of the category of auxiliaries (*hebben/zijn*) + a past participle (pp) can be seen as a bootstrap into the grammatical aspect system of the target language system. Concomitantly, *gaan* 'go' and *doen* 'do' + infinitive are developed to express aspectual values other than the perfect. These four auxiliary verbs are the first to show person/number agreement. The development of a full pronoun system accompanies the development of inflectional agreement with modal verbs too. Examples of this can be seen in (10).

- (10) The acquisition of auxiliary and modal verbs to express aspect in L1 Dutch
- | | TOPIC | AUX | VP |
|-----|----------------|---------------------|---|
| (a) | | heef
<i>has</i> | Cynthia maakt
<i>C made</i> (Jasmijn 2;0) |
| (b) | ik
<i>I</i> | heef
<i>have</i> | óók appel gete
<i>too apple eaten</i> (Andrea 2;4) |

(c)	da <i>there</i>	ben <i>am</i>	ikke ook wees <i>I also been</i> (Andrea 2;3)
(d)	die <i>that-one</i>	is <i>is</i>	altijd opde televisie geweest <i>always on TV been</i> (Jasmijn 2;2)
(e)	ik <i>I</i>	doet <i>do</i>	neusje snuite <i>nose blow</i> (Jasmijn 2;0)
(f)		doen <i>do</i>	ze same hope <i>they together walk</i> (Andrea 2;2)
(g)	ik <i>I</i>	ga <i>go</i>	eve die glije <i>just that-one slide</i> (Jasmijn 2;0)
(h)		gaan <i>go</i>	ze almaal ete, zie? <i>they all eat, see?</i> (Andrea 2;3)
(i)	Jaja <i>J</i>	wilt <i>wants</i>	óók dakik ijsje opete <i>too soon ice-cream up-eat</i> (Andrea 2;3)
(j)	daa <i>there</i>	kan <i>can</i>	ik niet meer lope <i>I not anymore walk</i> (Jas. 2;2)
(k)	die <i>that-one</i>	mag <i>may</i>	je nog hebbe <i>you also have</i> (Jas. 2;2)
(l)	dan <i>then</i>	moet <i>has-to</i>	Cynthia weer make <i>C again make</i> (Jasmijn 2;2)

Auxiliary verbs serve as a bootstrap in the transition to morpho-syntactic properties of finiteness. This becomes evident from a comparison of the examples in (8) at the Conceptual Ordering Stage with the examples in (10) at the Finite Linking Stage. With the acquisition of auxiliary verbs the class of elements in linking position as well as their morpho-syntactic properties has changed significantly:

1. The unanalysed phrasal expressions with an illocutive meaning have disappeared. There are no more phrases such as *unne* 'want', *kanniet* 'cannot' vs. *kanwel* 'can-indeed', *magniet* 'may-not' vs. *magwel* 'may-indeed', *mag-ikke* 'may-I', *doetie* 'does-he/it', *gaatie* 'goes-he/it';
2. Adverb-like elements 'modal particles' such as *nee* 'no', *handigniet* 'handy-not', *niet* 'not', *g(r)aag* 'please', *eve* 'just' do not occur in linking position;

3. Scope particles such as *wel* 'indeed', *ook* 'too', *zelf* 'self' do not occur in linking position;
4. The linking position cannot be empty;
5. In linking position there is a closed class of auxiliary and modal verbs with target-like morphology: *heb/heeft* 'have/has', *ben/is* 'am/is', *mag* 'may', *kan* 'can' etc.

Developmental processes as in 1 to 5 are evidence that finiteness as a lexical-semantic category has been given up in favor of finiteness as a functional verb-category. Furthermore, within the category AUX, there is a distributional opposition between *heeft, is /doet /gaat*. Examples are given in (11) and (12). Particularly, Jasmijn's (2;0-2;2) examples with the lexical verb *maken* 'make' and Andrea's (2;2-2;4) examples with the lexical verb *eten* 'eat' show that these auxiliaries are used in complementary distribution. They function as periphrastic means to express aspectual distinctions.

- (11) The use of Auxiliary verbs in Jasmijn (2;0-2;2) to express grammatical aspect

perfect: *heb* 'have-SG', *heeft(t)* 'has'; *ben* 'am', *is* 'is', *was* 'was'
heeft Cynthia maakt (2;0) / (has C made)
 ik *was* poepie doen (2;0) / (I was poup do)
 ik *heeft* afspoeld (2;2) / (I have washed)
 die *is* altijd opde televisie geweest (2;2) / (that-one is always on TV been)
 waar *ben* je nou geweest? (2;2) / (where are you now been?)
 die *heb* ik wel geplakt (2;2) / (that have I glued)

imperfective: *doe* 'do-SG', *doet* 'does'
doe je Pino make? (2;0) / (do you P make?)
 ik *doet* neusje snuite (2;0) / (I do nose blow)
 poesje *doet* likke (2;1) / (cat does lick)
doet mama mij ... (2;2) / (does mommy me ...)

perfective: *ga* 'go-SG', *gaat* 'goes'
 ik *gaat* Pino make (2;0) / (I go P make)
 ik *ga* eve die glije (2;0) / (I go just that slide)
ga je ook school toegaan? (2;1) / (go you too school to-go)
gaat Cynthia slape? (2;1) / (goes C sleep?)

- (12) The use of Auxiliary verbs in Andrea (2;2-2;4) to express grammatical aspect

perfect: *hemme* 'have-SG', *heef* 'have-SG'; *ben* 'am', *is* 'is'
 ikke *hemme* deze tekend (2;3) / (I have this drawn)
 da *ben* ikke ook wees (2;3) / (there am I also been)
*is*se barnies affehope mam? (2;4) / (is 'barnies' finished mommy?)
 ik *heef* óók appel gete (2;4) / (I have too apple eaten)

imperfective: *doe* 'do-SG', *doet* 'does', *doen* 'do-PL'
doen ze same hope (hope = lopen) (2;2) / (do they together walk)
 Jaja *doet* kitkat opete (2;3) / (J does kitkat up-eat)
 ik *doe* mij fesje aan mij jamaboek doen (2;4) / (I do my vest on my pyjamas do)

perfective: *gaat* 'goes', *gaan* 'go-PL'
 Jaja *gaat* daar zitte en papa *gaat* daar zitte (2;2) / (J goes there sit and daddy goes there sit)
gaan ze almaal ete, zie? (2;3) / (go they all eat, see?)
gaat ikke ook mee naa paardrije? (2;4) / (go I also with to horse-ride)

As soon as the auxiliaries *heb/heeft*, *gaa(t)* and *doe(t)* have come to be used to express aspectual distinctions, the relation between the elements in second position and the predicate has been reinterpreted, too. When children have established a grammatical relation between auxiliary verbs, on the one hand, and the predicate on the other, they have, in fact, discovered the relation between the structural position of a head and its complement. Whereas the illocutionary elements of the Conceptual Ordering Stage are adjuncts, auxiliary verbs are part of a functional category system. As is the case in the target language, they function as the head of a head-complement structure. The fact that auxiliaries are part of the functional category system of the target language, i.e. the fact they have no lexical meaning, explains why they do not occur at the Conceptual Ordering Stage. The relevant stage is referred to as the Finite Linking Stage, because it is characterised by the fact that morpho-syntactic features are used to establish structural relations between the Topic and the Predicate.

At the Finite Linking Stage modal verbs (elements of the category MOD) are to be seen as particular instantiations of AUX. They carry the grammatical properties of prospective aspect, while their lexical meaning is used to express illocutionary force, i.e. 'volition', 'ability', 'permission', and

‘obligation’. As in the case of the Conceptual Ordering Stage, absence of modality implies the expression of assertion. At the Finite Linking Stage, it is the auxiliaries that are used to carry the illocutionary function of ‘assertion’. The functional system of the linking elements at the Finite Linking Stage is given in Table (4).

Table 4. *The auxiliary system to express aspect*

ASP	AUX	ILF
perfect:	<i>heb, heeft; ben, is</i>	assertion
imperfective:	<i>doe(t),</i>	assertion
perfective:	<i>ga(at)</i>	assertion
prospective:	MOD: <i>wil, wilt</i>	volition
	<i>kan</i>	ability
	<i>mag</i>	possibility
	<i>moet</i>	obligation

At the Conceptual Ordering Stage modal and scope particles occurred in complementary distribution with modal phrases. At the Finite Linking Stage, they have not disappeared nor have their scope properties. However, while they were used in complementary distribution with modal phrases at the Conceptual Ordering Stage, they can no longer be used without auxiliaries or modal verbs at the Finite Linking Stage.

Summarising, the acquisition of auxiliaries leads to a reanalysis of the illocutionary elements from the Conceptual Ordering Stage as grammatical elements with an aspectual function at the Finite Linking Stage. Those lexical-semantic and grammatical-syntactic properties which are relevant to this process of restructuring are given in Table (5).

Table 5. *From ‘Illocutionary force’ to the function of a ‘Head’*

	Conceptual Ordering Stage:	Finite Linking Stage:
	proto-MOD	AUX
grammatical status:	lexical category	functional category
meaning:	illocutionary force	grammatical aspect
syntactic function:	adjunct	head

At the same time, the acquisition of morphological person/number agreement with an external argument is evidence of the acquisition of a specifier-head relation between the NP and the auxiliary. Having acquired both the head-

complement and the specifier-head relation with auxiliary verbs the children have learned the grammatical properties of the functional category system which determines the projection of the inflectional phrase in Dutch. Thus, the acquisition of both the head-complement and specifier-head relationship can be traced to the fact that the auxiliary verbs *hebben* and *zijn* serve as a bootstrap into the functional category system of the target language.

With the adult learners too, it is only from the grammaticalized finiteness phase on that formal agreement with contextual information appears in the linking slot, in the form of morphological marking, first on the auxiliary, and ultimately on lexical verbs. Examples are given in (13).

- (13) Finiteness marking on non-thematic verbs in L2 Dutch: Fatima (F), Mahmut (Ma), Abdullah (A), and Mohamed (Mo)

	TOPIC	AUX	VP
(a)	ik <i>I</i>	heb <i>have</i>	alleen spaar die geld van die winkel <i>only save(d) the money from the shop</i> (F 3.8)
(b)	ik <i>I</i>	heb <i>have</i>	niet zeggen <i>not say</i> (A 2.7)
(c)	ik <i>I</i>	ben <i>have</i>	net gezegd <i>just said</i> (A 1.8)
(d)	jij <i>you</i>	is <i>is</i>	voor mij betaald <i>for me paid</i> (F 2.6)
(e)	hij <i>he</i>	is <i>is</i>	slaap <i>sleep</i> (F 3.6)
(f)	nu auto <i>now car</i>	is <i>is</i>	afgelopen <i>run-out</i> (F 3.9)
(g)	die <i>there</i>	ben <i>am</i>	getrouwd <i>married</i> (Ma 1.5)
(h)	ik <i>I</i>	doe <i>do</i>	niet open <i>not open</i> (A 3.3)
(i)		doet <i>does</i>	kijk <i>look</i> (F 2.7)
(j)	ik <i>I</i>	ga <i>go</i>	werk zoeken <i>work look-for</i> (A 2.1)

- (k) un klein flat,
a small flat,
 die wil ik niet
that want I not (Mo 3.6)
- (l) hier kan ik niet lezen, hè
here can I not read, ok (Mo 2.8)
- (m) ik moet nog opereerd
I must still be operated (Mo 3.4)

As shown in (13b,h,k,l) the negator is placed to the right of the auxiliary verbs and to the left of lexical verbs (see also Parodi 2000, and Becker to appear, for a discussion of similar phenomena in L2 German). Particles and adverbs, such as *ook* ‘also’ and *nog* ‘still’ (13m), are progressively integrated into the utterance structure, starting to appear behind auxiliary verbs. Their domain of application is no longer necessarily adjacent. In *dan die meisje ook slapen* ‘then the girl also sleep’ *ook* is right-adjacent to its domain of application *die meisje* ‘the girl’, whereas in *dan die meisje is ook slapen* ‘then the girl is also sleep’ the same domain of application would be non-adjacent.

Normally developing children are able to achieve this stage of language development more or less at the same period of time. However, not all adults are able to accomplish the same. Thus, while the examples of Fatima and Mahmut in (13) are all the utterances of this kind occurring in their data, the examples of Abdullah and Mohammed in (13) are only a few among many others. As with children in L1 Dutch, Abdullah and Mohammed use auxiliary verbs in distributional opposition. Examples are given in (14) and (15). Illustrative are Abdullahs examples with the lexical verb *werken* ‘work’ and Mohammeds examples with the lexical verbs *slapen* ‘sleep’, *lopen* ‘walk’, *vallen* ‘fall’, *staan* ‘stand’. They show that the auxiliaries are used in complementary distribution. They function as periphrastic means to express aspectual distinctions.

- (14) The use of auxiliary verbs in Abdullah to express grammatical aspect

perfect: *heb* ‘have-SG’, *heeft* ‘has’; *ben* ‘am’
 ik *heb* werk gevonden (A 3.5) / (I have work found)
 hij *heeft* niet gezien (A 1.9) / (he has not seen)
 die jongen *heeft* gewonnen (A 3.3) / (that boy has won)

ik *ben* alleen werkt elfhonderd gulden (A 3.3) / (I am alone worked elevenhundred guilders)

imperfective: *doen* 'do-SG/PL'

wij *doen* die nylon draaien (A 3.5) / (we do that nylon turn)

soms *doen* ik overwerken (A 3.6) / (sometimes do I overwork)

perfective: *ga* 'go-SG', *gaat* 'goes'

ik *ga* werk zoeken (A 2.1) / (I go work look-for)

dan hij *gaat* hier zitten (A 2.9) / (then he goes here sit)

ik *gaat* uitzendbureau werken (A3.7) / (I goes secretarial bureau work)

- (15) The use of auxiliary verbs in Mohamed to express grammatical aspect

perfect: *heb* 'have', *heeft* 'has'; *ben* 'am', *is* 'is', *was* 'was'

hij *heeft* hem niet gezien (Mo 2.6) / (he has him not seen)

ik *heb* niet geslapen (Mo 3.1) / (I have not slept)

ik *heb* die marokkaan geslaan (Mo 2.8) / (I have that moroccan beaten)

ben daar nooit geweest (Mo 3.7) / (am there never been)

toen hij *is* liept (Mo 3.9) / (then he is walked)

die politie *was* daar vallen (Mo 3.9) / (that police was there fallen)

imperfective: *doe* 'do-SG', *was* 'was', *staat* 'is'

dan ik *doe* boks (Mo 2.8) / (then I do boxing)

hij *was* zo snel lopen, hè (Mo 2.6) / (he was so fast walk)

kinderen *was* staan bij hem (Mo 2.9) / (children was stand with him)

toen ik *was* bij hun slapen (Mo 3.5) / (then I was with them sleep)

toen die politie *staat*ie bellen (Mo 3.9) / (then that police stand-he call)

perfective: *ga* 'go-SG', *gaat* 'goes', *gaan* 'go-PL'

die oma *gaat* bij hem staan (Mo 1.9) / (that grandmother goes with him stand)

dan ik *ga* rustig zitten (Mo 3.9) / (then I go quietly sit)

als iemand doet bij jou zo *gaat* jij vallen, hè? (Mo 2.7) / (if someone does with you so go you fall)

toen die meisje *gaat* snel lopen (Mo 3.9) / (then that girl goes fast walk)

en toen allebei *gaan* slaap (Mo 2.3) / (and then both go sleep)

3.3.2. The acquisition of Verb-second

As the ultimate step to the Finite Linking Stage, children's grammars appear to develop a specifier position within the VP constituent, which was not available at the Conceptual Ordering Stage. As a result of this, the initial position becomes available as a possible landing site for constituents such as the internal argument or an adverbial element, while at the same time the external argument occurs in the specifier position of VP. This syntactic phenomenon of topicalization now accounts for the anchoring function of items in the initial position. However, placement in accordance with the verb-second rule of the target languages takes time to master.

For adult learners, as with the children, mastering finiteness and Verb-second is not a one-step development. The examples in (16) show that two constituents may precede the finite verb:

- (16) Finite verbs in V3 position in L2 Dutch
- (a) dan politie *wilt* charlie slaan (Mo 2.6)
then police wants Charlie beat
 - (b) toen die oma *wilt* ook auto rijden (Mo 3.9)
then that grandmother wants also car drive
 - (c) hier vrouw *is* valt (Mo 3.2)
here woman has fallen
 - (d) vrijdag ik *heb* niet geslapen tot zes uur (Mo 2.8)
Friday I have not slept till six o'clock
 - (e) wanneer ik *heb* geslaap? (Mo 3.5)
when I have slept?
 - (f) wat hij *heeft* gedaan (Mo 3.6)
what he has done
 - (g) un kruising hij *heeft* daar ongeluk gemaakt (Mo 3.9)
a crossing he has there accident made

To summarise, with the mastery of the Finite Linking Stage for children and for adults, if they get that far, positive assertion is expressed by finiteness. Morphologically, finiteness also marks the link to the topic time, as well as person/number agreement to the grammatical subject.

4. SUMMARY AND CONCLUSION

As a result of an analysis based on an information structural approach, striking similarities were observed in the acquisition of Dutch by children learning their mother tongue and adults learning a second language. A common property observed in both learning situations is the expression of a topic and a state of affairs, such that the state of affairs is claimed to hold for the topic. This relation between the topic and the state of affairs is established through what we have termed a validation or linking device. It is this validation device which is expressed differently at consecutive stages of language acquisition, but where each stage shows cross-acquisitional and cross-subject similarities. These different ways to express validation allowed us to discriminate between a Holistic Stage, a Conceptual Ordering Stage and a Finite Linking Stage. At each of these stages of language acquisition the relation of linking or validation is expressed by different linguistic means. At the Holistic Stage validation is mainly achieved pragmatically, i.e., validation typically depends on variables inherent to the context. At the Conceptual Ordering Stage validation is achieved lexically by the use of elements expressing illocutionary force. At the Finite Linking Stage validation occurs morpho-syntactically by the use of elements with a grammatical function.

The devices of validation turned out to be remarkably similar in children learning their mother tongue and in adults learning a second language. At the Holistic Stage, frequently no validation device is expressed at all. We often find some topic and predicate in a juxtaposition relation and even predicates occurring alone. Characteristic however, is the use of modal operators in clause-initial or clause-final position. These modal operators are used holistically, i.e. they have scope over the topic-predicate structure as a whole. The holistic use of clausal operators occurs most prominently with *nee* 'no' in early child Dutch. It has a negative modal meaning as in 'I don't want'. As positive alternatives Dutch children use elements based on the target verb form *wil(len)* 'want' or *mag-ikke* 'may I'. These modal expressions are used meaning 'I want'. With similar distribution expressions such *ook wil* 'too want' can also be found in adult L2 learners of Dutch.

At the Conceptual Ordering Stage basic utterance structure consists of a sequence of three structural positions each for constituents with a particular informational function. Constituents in these positions are related by adjunction, while their ordering depends on principles of information structuring. Each position can be filled by more than one constituent, which means that target-language syntactic constraints have yet to be acquired. Constituents in initial position function as 'topic' elements. A topic element can be an NP, often a proper name, or a deictic adverb. Topics establish external reference to the outside world or to the previous utterance. They

have ‘anchoring function’, i.e. they ensure the embedding of the utterance in context. The constituents in end position are termed ‘predicates’. Predicates at the Conceptual Ordering Stage are non-finite. They can be a VP or a VP-like expression, referring to a particular state of affairs. The relation between topic and predicate is established by the linking element. It serves as a validation device, i.e. it is used to express that a particular state of affairs expressed by the predicate holds for a particular topic. Validation varies with respect to the kind of relation that is claimed to hold. Modal elements may occur as linking devices in second position. They belong to a closed-class category of modal expressions that are used with illocutionary force. They allow both children and adults to express ‘volition’, ‘ability’, ‘permission’, ‘obligation’. In absence of modality lexical linking elements indicate ‘assertion’. Since ‘assertion’ is the default pragmatic function, the position of the element used to express assertion may be left empty. In sum, linking devices constitute (a) elements expressing positive or negative assertion such as *doe(t)* ‘does’ or *niet* ‘not’ (b) scope particles such as *wel* ‘indeed’, *ook* ‘also’ and *zelf* ‘self’ and, finally, (c) modal phrases expressing volition, ability, permission, and obligation, such as *mag-ikke* ‘may-I’, *nee* ‘no’, *kanwel* ‘can-indeed’, *kanniet* ‘cannot’, *magwel* ‘may-indeed’, *magniet* ‘may-not’, *moet* ‘has-to’, *hoefniet* ‘has-to-not’. At the Conceptual Ordering Stage, modal phrases are lexical linking devices with no syntactic function.

At the Finite Linking Stage of both children and adult L2 learners validation of the relation between the state of affairs and the topic element is grammaticalized. Acquisition of the auxiliaries *heb*, *heeft*, *ben*, *is* ‘have, has, am, is’ etc. leads to a restructuring of unanalysed modal expressions. Bootstrapping with members of the target functional category AUX establishes a syntactic category which functions as the head of a head-complement relation. Due to the fact that finite auxiliaries have come to be used as a grammatical linking device functioning as the head of a head-complement structure, particles and zero marking cannot be used any more as a means of validation. The same holds for *nee* ‘no’ and other target adverbial elements. Furthermore, the morphology of the elements of AUX may also represent the anchoring function of spatio-temporal reference and personal deixis. As such it establishes a specifier-head relation, too. Having acquired both the head-complement and the specifier-head relation with auxiliary verbs children and adults have learned the grammatical properties of the functional category system which determines the projection of the inflectional phrase in Dutch.

Finiteness is a functional property of Germanic languages. It is carried by auxiliaries and lexical verbs occurring in second constituent position (Klein

1998). In order to explain processes of the acquisition of finiteness it seems necessary to distinguish between the semantic concept of finiteness and its formal representation (Klein 1998). The semantic concept of finiteness entails two properties of information structuring: anchoring and illocutionary force. Anchoring is the pragmatic operation which establishes the identification of what is talked about and the embedding of the actual utterance in a discourse world. The illocutionary function of finiteness validates the relation between a particular state of affairs described in the predicate part of an utterance and a topic element. While both functions are fused in one finite verb form in the target languages investigated, they are clearly separated in learner varieties of both children and adult learners.

The standard assumption of the differences in the expression of finiteness between child and adult acquirers is that the former quickly and effortlessly develop the necessary verbal morphology while the latter do not. We have tried to give a more nuanced picture, showing that there are more similarities in the process than is usually assumed.

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