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The acquisition of expletive definite articles in Modern Greek

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This paper deals with the acquisition of the Determiner Phrase (DP) in Modern Greek. By examining data from the acquisition of demonstratives, definite articles and expletive definite articles, I claim that children do not acquire all words belonging to the category of Determiners (D) simultaneously. Furthermore, I show that there are different triggers for each class of words belonging to the category D, which are encoded in different grammatical domains. Differences in the accessibility of the triggers is responsible for the acquisition sequence.

## 1. Introduction

The emergence of words belonging to functional categories (FCs) in early child speech is one of the most discussed topics in the field of language acquisition. Questions that remain open are:

- When do children start using words belonging to each FC?
- Which words belonging to FCs appear first in child speech and which appear later on?
- Is the absence of words belonging to FCs evidence for the absence of the corresponding functional projection?
- What triggers the acquisition of words belonging to FCs?

In this paper, I examine the acquisition of the DP in Modern Greek (MG). I claim that by acquiring a FC children do not necessarily simultaneously acquire all words belonging to that FC, e.g. absence of some words belonging to a FC is not necessarily evidence for the lack of the corresponding functional projection in the children's syntax. According to Roeper & Weissenborn (1990); Weissenborn & Penner (1996), at the initial stage the child syntactically bootstraps only those target parameters which are canonical in nature, triggers which are not encoded in this manner become accessible at a later stage. Following this line of reasoning, I will show that there may be a different trigger for each class of words belonging to a FC, not all of which

may be equally accessible to the child. Moreover, triggers can be encoded in different grammatical domains (i.e. syntax, semantics, pragmatics, etc.). Words whose triggers are more accessible are acquired earlier than words whose triggers are less accessible. Evidence for my claim will come from the acquisition of definite articles, expletive definite articles and demonstratives in MG.

## 2. Expletive definite articles

Expletive definite articles have been defined by Penner (1993); Longobardi (1994); Penner & Weissenborn (1996) as definite articles, which are semantically empty since they do not mark the noun following them as [+specific]. They are place holders which fulfill a pure syntactic function. In English expletive definite articles are used among others with generics, as in (1) and with situative unica, as in (2).

(1) **The lion** has four legs.

(2) **The sun** does not shine today. (Penner 1993)

The semantic distinction between definite articles and expletive definite articles is displayed overtly in the Germanic language Frisian, at least the dialect spoken on the island Föhr (Longobardi 1994). According to Ebert (1970), the Frisian dialect of Westland-Föhr possesses two different types of non-indefinite articles, the D-article (*di, det, det* for the three genders in the singular, plural *dön* for all genders) which occur with definite specific nominals in both numbers and the A-article (*a, at, at* in the singular, *a* in plural) used systematically with proper names and with all types of generic phrases.

The same distinction exists in High German (HG) and in Bernese Swiss German (BSG). The distinction between definite articles and expletive definite articles in HG and BSG is not realized by two different roots, but rather through cliticization. Expletive definite articles are cliticized while definite articles are not. This distinction is generalized to the entire system in BSG, but restricted to accusative- and dative-marked prepositional phrases in HG, as in (3) and (4).

(3) Ich gehe	zur	Schule.		(Penner 1993)			ner 1993)
I go	to the	schoo	ol				
'I go to se	chool.'						
(4) Ich gehe	*zur/ zu	der	Schule,	wo	meine	Mutter	als Lehrerin
I go	to the/ to	the	school	where	my	mother	as teacher
arbeitet.							
works							

'I go to the school, where my mother works as a teacher.'

## 2.1. Expletive definite articles in Modern Greek

Unlike Frisian, BSG and HG, expletive definite articles in MG have exactly the same form as definite articles, e.g. there is no morphological distinction which overtly encodes the semantic distinction between expletive definite articles and definite articles. Moreover, there are obligatory and optional environments for expletive definite articles.

Expletive definite articles appear obligatorily with proper names, as in (5), and with demonstratives,<sup>1</sup> as in (6), both in the subject and object position. Mass nouns show a subject/object asymmetry, in the subject position they are used obligatorily with an expletive definite article, while in the object position obligatorily without an expletive definite article.<sup>2</sup> Expletive definite articles can optionally occur more than once in the same DP, as in (7), a phenomenon called Determiner Spreading (Androutsopoulou 1994).

(5) O Nikos agapai ti Maria. the Nikos loves the Mary 'Nikos loves Mary.' (6) Afto \*(to) vivlio ine poli endiaferon. this the book is very interesting 'This book is very interesting.' kokkino (7) Agorasa to kineziko (to) (to) vazo bought the red the chinese the vase "I bought the red Chinese vase."

In this paper, I focus on the acquisition of expletive definite articles with proper names, as in (5), and expletive definite articles with demonstratives, as in (6).

## 3. Features of Functional Categories

According to Abney (1987), functional elements lack descriptive content, e.g. their semantic contribution is second-order, regulating or contributing to the interpretation of their complement. They mark grammatical or relational features rather than picking out a class of objects. Although their semantic contribution is second-order when compared to words belonging to lexical categories, they do have a minimal semantic content, since they contain features, like [tense], [aspect], [definite], [number], [gender], etc. (Felix 1988).

<sup>&</sup>lt;sup>1</sup> I am referring to the use of demonstratives as D heads and not as full DPs.

<sup>&</sup>lt;sup>2</sup> D. Kalluli pointed out generic expressions as in (i) below that require also the existence of expletive definite articles.

<sup>(</sup>i) Mu aresi na taksidevo me **to treno**. to me like to travel with **the train** 'I like to travel by train.

This type of generic expressions was not found in the corpus used in this study. For the use of expletive definite articles with generics in MG see Rousou & Tsimpli 1994.

We can represent lexical and functional elements in a continuum, see Table 1, in which lexical categories have the most descriptive content and functional elements the least descriptive content. While demonstratives, definite articles and expletive definite articles are all functional elements, which belong to the category D, they don't contain the same set of features. For example, demonstratives have the feature [deictic], which distinguishes them from definite articles and expletive definite articles and makes them being closer to the lexical elements. Definite articles possess the feature [definite], which distinguishes them from expletive definite articles. Moreover, there is crosslinguistic variation for the features [gender], [number] and [case], e.g. demonstratives, definite articles and expletive definite articles are marked overtly for gender, number and case in HG and MG, but not in English.

Table 1: Features of demonstratives, def. articles, expl. def. articles

+ descriptive content Lexical Categories		– F	descriptive content unctional Categories
nouns verbs	demonstratives	def.articles	expl.def.articles
	[deictic]		
	[definite]	[definite]	
	$([gender])^3$	([gender])	([gender])
	([number])	([number])	([number])
	([case])	([case])	([case])

According to Brown & Bellugi (1964), in early speech children retain 'contentives' (words with semantic content/open-class words) and omit 'functors' (words whose grammatical functions are more obvious than their semantic content/closed-class words) among other reasons due to the fact, that contentives are high-information words and make reference. Gentner (1997) extends the difference in the acquisition of open-class vs. closed-class words to the acquisition of noun classes: terms with highly individuable referents, like humans and animals should be acquired earlier than those whose referents are harder to individuate, like amorphous substances, i.e. sand.

If we further extend the idea that words with more semantic content are acquired earlier than words with less semantic content to words belonging to the functional category D, we should expect that a) demonstratives, which belong to the category of deictics, and therefore have the feature [deictic], should be acquired earlier that definite articles and expletive definite articles, which lack this feature, and b) definite articles, which contribute to the definiteness of the DP and have the feature [definite] should be acquired earlier than expletive definite articles, which are semantically empty.

<sup>&</sup>lt;sup>3</sup> Features which are in parenthesis are overtly realized in HG and MG, but not in English.

## 4. Triggers for Parameter Setting

In this paper, I follow Roeper & Weissenborn (1990), in assuming that for each parameter there is at least one unambiguous trigger. Parameter setting depends on how the triggering information is encoded in the input, i.e. how accessible the trigger is. The order of parameter setting is thus determined by the accessibility of the triggers. Triggers that are optimally accessible to syntactic bootstrapping are canonical. Canonicity results, if the trigger is embedded in a triggering frame, which involves a root/non-root contrast, like main versus subordinate clause or vocative (non-argument nominals) versus non-vocative (argument nominals). Moreover, according to Penner & Weissenborn (1996), canonicity of triggers increases, if the trigger is encoded as an expletive rather than a substantive head due to the fact, that semantically uninterpretable symbols at LF are illicit (in the sense of Chomsky 1993). Expletive heads must therefore be identified by the child as unequivocally marking a given syntactic position as not empty.

If there is at least one unambiguous trigger for each parameter, the child doesn't need negative evidence in order to set the right value of the parameter. Positive evidence alone, in this case, the triggering frame, will provide sufficient information and will trigger the correct setting of the corresponding parameter.

## 4.1. Triggering frames for expletive definite article insertion with proper names vs. demonstratives

In the case of expletive definite article insertion in MG, as shown in section 2.1., expletive definite articles are used obligatorily with proper names, as in (5), and demonstratives, as in (6), in both subject and object positions.

Proper names, however, appear in two different frames, as far as expletive definite articles are concerned. In the non-vocative frame, they appear obligatorily with expletive definite articles, as in (8), in the vocative frame they obligatorily appear without expletive definite articles, as in (9). These two frames, non-vocative vs. vocative, represent two options which are in complementary distribution, forming a contrastive environment.

(8)	0	Nikos	pigeni	sto	parko.	(non-vocative)
	the	Nikos	goes	to the	park	
	'Nikos	is goin	ig to the	e park. <sup>3</sup>	,	
(9)	Niko,	ela	edo !			(vocative)
	'Niko	come	here !'			

With demonstratives, there is no contrastive environment because there is only one option namely, the one in (6) above. Omission of the expletive definite article results in ungrammaticality.

Thus the triggering information for expletive definite article insertion is different for the two cases (proper names vs. demonstratives). The contrastive environment for expletive definite articles with proper names constitutes a root/non-root contrast, and therefore makes the trigger for expletive definite article insertion with proper names more accessible, than for demonstratives which do not appear in a contrastive environment. This predicts that expletive definite articles with proper names will be acquired earlier than expletive definite articles with demonstratives because the triggering information for the insertion of expletive definite articles with proper names is more accessible to the child.

# 5. Predictions for the acquisition sequence of demonstratives, expletive definite articles with proper names vs.with demonstratives

Summarizing sections 3 & 4:

- a) words with more semantic content should be acquired earlier than words with less semantic content (Section 3) and
- b) triggers for expletive definite article insertion, which are embedded in the input in a contrastive frame (vocative/non-vocative), are more canonical and therefore, should be more accessible to the child than triggers which don't appear in a contrastive frame (Section 4).

The prediction in a) makes use of semantic cues, while b) makes use of syntactic cues, which could trigger the acquisition process. Considering the acquisition of demonstratives, expletive definite articles with proper names and expletive definite articles with demonstratives in MG, a) and b) make the following predictions:

<u>Prediction from a)</u>: demonstratives should be acquired earlier than definite articles and expletive definite articles

<u>Prediction from b)</u>: expletive definite articles with proper names should be acquired earlier than expletive definite articles with demonstratives

## 6. Analysis

The data used in this study consist of spontaneous speech from five monolingual children growing up in Athens, Greece, covering the age period of 1;7 - 2;9. The data from four children (Spiros, Janna, Meri, Maria) is available in the CHILDES database (Mac Whinney & Snow 1985).

Tab	le 2:	Cor	pus

	Christos	Spiros	Janna	Meri	Maria
Age	1;7-1;10	1;9	1;11-2;9	1;9-2;9	2;3-2;9
Nr. of	6	2	9	12	5
recordings					
Nr. of	771	443	1,357	4,154	3,074
utterances					

Based on the production of demonstratives, definite articles and expletive definite articles, the child speech was divided into four stages, using the following criteria:

- a) Stage 1 was defined by less than 10% use of definite articles and expletive definite articles with proper names in obligatory contexts and use of demonstratives only as maximal projections (XPs),
- b) Stage 2a was defined by the use of demonstratives as XPs as well as heads (X<sup>0</sup>) and the higher number of demonstratives over definite articles and expletive definite articles with proper names,
- c) Stage 2b was defined by more than 50% use of definite articles and expletive definite articles with proper names in obligatory contexts and the increase of definite articles and expletive definite articles over demonstratives,
- d) Stage 3 was defined by the first use of expletive definite articles with demonstratives.

tole 5. Stages in the acquisition of the D1									
Name	Stage	1	Stage 2a		Stage 2b		Stage 3		
	Age	MLU	Age	MLU	Age	MLU	Age	MLU	
Christos	1;7-1;10	1.5							
Spiros			1;9.2	1.6	1;9.11	1.6			
Janna			1;11	1.4			2;5, 2;9	2.6	
Meri					1;9	2	2;3, 2;9	2.3	
Maria					2;3	2.3	2;9	2.9	

Table 3: Stages in the acquisition of the DP

#### 6.1. Stage 1

In Stage 1, Christos uses demonstratives, definite articles and expletive definite articles with proper names. The number of definite articles and expletive definite articles with proper names used in obligatory contexts is very low, as shown in Table 4, as well as the number of demonstratives, see Table 5.

 Table 4:
 Definite articles & expletive definite articles with proper names present vs. missing in obligatory contexts: Stage 1

1	6 6 7	U U U U U U U U U U U U U U U U U U U
	definite articles &	definite articles &
Name	expletive definite	expletive definite
	articles	articles
	present	missing
Christos	7 % (n=11)	93 % (n=143)

Table 5: Number of demonstratives vs. number of definite articles & expletive

definite articles with proper names present: Stage 1					
Name	demonstratives	definite articles & expletive definite			
		articles			
Christos	11	11			

These data don't provide any evidence for the acquisition sequence of demonstratives, definite articles and expletive definite articles with proper names, since all of them are found at Stage 1 (albeit in very small proportions). All demonstratives found are used as XPs, e.g. there are no demonstratives used as  $X^0$ , similar to child English (Radford 1990; Powers 1996).

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0.2.	Sluge	2u

In Stage 2a, the percentage of definite articles and expletive definite articles with proper names present in obligatory contexts is slightly higher than in Stage 1, as shown in Table 6 below.

Table 6:	Definite	articles	&	expletive	definite	articles	with	proper	names
	present v	vs. missir	ıg i	n obligator	ry contex	ts: Stage	2a		

1	<u> </u>	0
	definite articles &	definite articles &
Name	expletive definite	expletive definite
	articles	articles
	present	missing
Spiros	13 % (n=13)	87 % (n=84)
Janna	17 % (n=10)	83 % (n=50)

However, more than 80% of definite articles and expletive definite articles with proper names are missing, as the example in (10) shows.

(10)	Spiros:	Kopela	pezi.	(I	kopela	pezi=adult)
		girl	plays	(the	girl	plays=adult)
		'The girl	is playi	ng.'		

Furthermore the number of demonstratives found exceeds the total number of definite articles and expletive definite articles with proper names, see Table 7.

 Table 7: Number of demonstratives vs. number of definite articles & expletive

 definite articles with proper names present: Stage 2a

Name	demonstratives	definite articles & expletive definite articles
Spiros	27	13
Ianna	54	10

The fact that children in this stage produce more demonstratives than definite articles and expletive definite articles with proper names altogether and exactly the opposite occurs in Stages 2b and 3, e.g. they produce more definite articles and expletive definite articles with proper names than demonstratives (see sections 6.3. & 6.4.), confirms the prediction, that demonstratives are acquired earlier than definite articles and expletive definite articles.

There is no indication, that expletive definite articles with proper names are acquired earlier than definite articles, since there is no significant difference in their presence in obligatory contexts ( $\chi^2$ =1.34 p 0.2), see Table 8.

 Table 8:
 Expletive definite articles with proper names vs. definite articles present: Stage 2a

presente stab	- <u>-</u> u	
Name	expletive definite	definite articles
	articles	
	with proper names	
Spiros	18 % (n=2)	13 % (n=11)
Janna	27 % (n=3)	14% (n=7)

In Stage 2a, demonstratives are used by both children, in addition to their use as XPs, which was already attested in Stage 1, also as  $X^0$  (11), (12).

(11)	Spiros: E	ZO	ato	vivio.(E	dose	afto	to vivlio=adult)
	he	y giv	ve this	s book (he	y give	this	the book=adult)
		'Hey,	give thi	s book.'			
(12)	Janna:	Tuto	kilo	mimi. (Tuto	so sl	kilos	exi mimi=adult.)
		this	dog	booboo(this	tł	nedog	hasbooboo=adult)
		'This	dog has	a booboo.'			

Nonetheless, there are no expletive definite articles found with demonstratives (Table 9). This indicates that although the use of demonstratives as  $X^0$  has been acquired, expletive definite articles with demonstratives have not.

Table 9:Demonstratives as XPs vs. as  $X^0$  - expletive definite articles with<br/>demonstratives present vs. missing: Stage 2a

Name	demonstratives	demonstratives	expl. def.	expl. def.
	as XPs	as $X^0$	art. present	art. missing
Spiros	21	5	0% (n=0)	100% (n=5)
Janna	55	1	0% (n=0)	100% (n=1)

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Δĭ	Ntage	2n
0.5.	Diage	20

The number of definite articles and expletive definite articles with proper names present in obligatory contexts in Stage 2b (Table 10) increases significantly, if we count the number of definite articles and expletive definite articles with proper names used by all children ( $\chi^2$ =153.79 p<0.001), as well as their production by Spiros ( $\chi^2$ =13.57 p<0.001), the only child, from which we have recordings for both stages, 2a and 2b. Notice furthermore, that the time span between the two stages by Spiros is only 9 days.

Table 10: Definite articles & expletive definite articles with proper names present vs. missing in obligatory contexts: Stage 2b

	1 0 0	J 0
	definite articles &	definite articles &
Name	expletive definite	expletive definite
	articles	articles
	present	missing
Spiros	39 % (n=24)	61 % (n=38)
Meri	77 % (n=294)	23 % (n=90)
Maria	67 % (n=32)	33 % (n=16)
Name Spiros Meri Maria	expletive definite articles present 39 % (n=24) 77 % (n=294) 67 % (n=32)	expletive definite articles missing 61 % (n=38) 23 % (n=90) 33 % (n=16)

The number of definite articles and expletive definite articles with proper names exceeds the number of demonstratives (except for Maria), see Table 11.

Table 11: N	Number	of	demonstratives	VS.	number	of	definite	articles	&
	explet	ive	definite articles	with	proper na	ames	present:	Stage 2b	

enpierie at	mine articles with prope	i maines presente stage ze
Name	demonstratives	definite articles & expletive definite
		articles
Spiros	16	24
Meri	141	294
Maria	48	32

The number of expletive definite articles present with proper names is over 50% in obligatory contexts, as shown in Table 12.

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Table 12: Expletive definite articles with proper names vs. definite articles present: Stage 2b

I		
Name	expletive definite	definite articles
	articles	
	with proper names	
Spiros	53 % (n=9)	33 % (n=15)
Meri	74 % (n=29)	77 % (n=265)
Maria	83 % (n=5)	64 % (n=27)

Both the number of expletive definite articles and the number of definite articles increase significantly in Stage 2b, ( $\chi^2=14.42 \text{ p} < 0.001$ ), and ( $\chi^2=140.13 \text{ p} < 0.001$ ) respectively.

The production of expletive definite articles with proper names by Spiros, as in (13), increases more than his production of definite articles (cf. Tables 8 and 12). This observation indicates, that children may acquire expletive definite articles with proper names faster than definite articles. However, the increase of expletive definite articles vs. definite articles is due to the very low number of items not significant and has to be justified with data from the acquisition of other children.

## (13) Spiros: Aniki i Ulla! (na to aniksi i Ulla=adult) open theUlla (to it open the Ulla=adult) 'Ulla should open it!'

Demonstratives are used in this stage by two of the three children (Spiros and Maria) both as XPs and as  $X^0$ , see Table 13 (Meri uses demonstratives only as full DPs).

Table 13:	Demonstratives	as XPs	vs. as	$X^0$ -	expletive	definite	articles	with
	demonstratives	present v	s. miss	ing: S	Stage 2b			

		ĕ		
Name	demonstratives	demonstratives	expl. def.	expl. def.
	as XPs	as $X^0$	art. present	art. missing
Spiros	12	3	0% (n=0)	100% (n=3)
Meri	99	0	0	0
Maria	42	2	0% (n=0)	100% (n=2)

Like in Stage 2a, in all cases in which children use demonstratives as  $X^0$ , they don't insert an expletive definite article, as shown in (14) and (15), a fact that indicates, that expletive definite articles with demonstratives have not yet been acquired.

(14)	Spiros:	Ati	tipa.	(se afti	tin tripa=adult)
		this	hole	(in this	<b>the hole</b> =adult)
		'In th	is hole.	,	

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(15) Maria: Na vazo ego ata vatolja ti kukja. to put I these bracelets the doll-GEN<sup>4</sup> (Na valo afta ta vraxiolia tis kuklas=adult) ego Ι these thebracelets the doll=adult) (to put 'I want to put these bracelets of the doll.'

## 6.4. Stage 3

In Stage 3, over 85% of the definite articles and expletive definite articles with proper names in obligatory contexts are present, as shown in Table 14.

Table 14:	Definite	articles	&	expletive	definite	articles	with	proper	names
present vs. missing in obligatory contexts: Stage 3									

present vs. missing in obligatory contexts. Stage 5							
	definite articles &	definite articles &					
Name	expletive definite	expletive definite					
	articles	articles					
	present	missing					
Janna	93 % (n=67)	7 % (n=5)					
	97 % (n=144)	3 % (n=5)					
Meri	87 % (n=215)	13 % (n=31)					
	91 % (n=253)	9 % (n=26)					
Maria	92 % (n=131)	8 % (n=11)					

The number of definite articles and expletive definite articles with proper names exceeds the number of demonstratives, as shown in Table 15.

expletive c	expletive definite articles with proper names present: Stage 3							
Name	demonstratives	definite articles & expletive definite						
		articles						
Janna	61	67						
	26	144						
Meri	98	215						
	126	253						
Maria	74	131						

Table 15: Number of demonstratives vs. number of definite articles & expletive definite articles with proper names present: Stage 3

Demonstratives are used by all children both as full DPs and as  $D^0$ , as shown in Table 16.

<sup>4</sup> GEN=Genitive

Table 16: Demonstratives as XPs vs. as  $X^0$  - expletive definite articles with demonstratives present vs. missing: Stage 3

Name	demonstratives	demonstratives	expl. def. art.	expl. def. art.
	as XPs	as $X^0$	present	missing
Janna	42	4	100% (n=4)	0% (n=0)
	22	3	100% (n=3)	0% (n=0)
Meri	84	2	100% (n=2)	0% (n=0)
	116	5	80% (n=4)	20% (n=1)
Maria	71	2	50% (n=1)	50% (n=1)

When demonstratives are used as  $X^0$ , an expletive definite article appears in the majority (88%) of the cases, as in (16) and (17).

Janna:	Jati	0	kiniGos,	aftos	0	kiniGos	pu	ine	sti1	n
	becau	se the	e hunter	this	th	ehunter	which	is	in	the
	ikona									
	pictur	e								
	'Beca	use the	hunter, thi	s hunte	r w	hich is in t	he pictu	re.'		
Meri:	Afti	i	karek(l)a	l.						
	this	the	chair							
	'This	chair.'								
	Janna: Meri:	Janna: Jati becau ikona pictur 'Beca Meri: Afti this 'This	Janna: Jati o because the ikona. picture 'Because the Meri: Afti i this the 'This chair.'	Janna: Jati o kiniGos, because the hunter ikona. picture 'Because the hunter, thi Meri: Afti i karek(l)a this the chair 'This chair.'	Janna: Jati o kiniGos, <b>aftos</b> because the hunter <b>this</b> ikona. picture 'Because the hunter, this hunte Meri: <b>Afti i karek(l)a.</b> <b>this the chair</b> 'This chair.'	Janna: Jati o kiniGos, <b>aftos o</b> because the hunter <b>this the</b> ikona. picture 'Because the hunter, this hunter wi Meri: <b>Afti i karek(l)a.</b> <b>this the chair</b> 'This chair.'	Janna: Jati o kiniGos, <b>aftos o kiniGos</b> because the hunter <b>this the hunter</b> ikona. picture 'Because the hunter, this hunter which is in t Meri: <b>Afti i karek(l)a</b> . <b>this the chair</b> 'This chair.'	Janna: Jati o kiniGos, <b>aftos o kiniGos</b> pu because the hunter <b>this the hunter</b> which ikona. picture 'Because the hunter, this hunter which is in the pictu Meri: <b>Afti i karek(I)a</b> . <b>this the chair</b> 'This chair.'	Janna: Jati o kiniGos, <b>aftos o kiniGos</b> pu ine because the hunter <b>this the hunter</b> which is ikona. picture 'Because the hunter, this hunter which is in the picture.' Meri: <b>Afti i karek(l)a</b> . <b>this the chair</b> 'This chair.'	Janna: Jati o kiniGos, <b>aftos o kiniGos</b> pu ine sti because the hunter <b>this the hunter</b> which is in ikona. picture 'Because the hunter, this hunter which is in the picture.' Meri: <b>Afti i karek(l)a</b> . <b>this the chair</b> 'This chair.'

There are still cases, without expletive definite articles, as in (18).

(18)	Meri:	Ke	afti	fti vatraxos. (Ke			0	vatraxos=adult)		
		and	this	frog	(and	this	the	frog=adult)		
		'And	this fro	g.'						

#### 7. Summary & conclusion

Summarizing the data from the 4 stages:

Stage 1:

- 1. children use demonstratives, definite articles and expletive definite articles with proper names,
- 2. definite articles and expletive definite articles with proper names are used in less than 10% of the obligatory contexts,
- 3. demonstratives are used only as XPs, there are no instances of demonstratives as  $X^0$  and thus there are no expletive definite articles found with demonstratives.

Stage 2a:

 the number of definite articles and expletive definite articles with proper names increases, although it doesn't exceed 20% use in obligatory contexts (Brown 1973),

- 2. the number of demonstratives is higher than the number of definite articles and expletive definite articles with proper names,
- 3. children use demonstratives both as XPs and as X<sup>0</sup>, but there are no expletive definite articles found with demonstratives (ungrammatical in the adult language).

## Stage 2b:

- 1. the number of definite articles and expletive definite articles with proper names increases significantly,
- 2. the number of definite articles and expletive definite articles with proper names is higher than the number of demonstratives,
- 3. the number of expletive definite articles with proper names increases for Spiros more than the number of definite articles,
- 4. expletive definite articles with demonstratives are missing altogether, like in Stage 2a.

#### Stage 3:

- 1. the number of definite articles and expletive definite articles with proper names exceeds 85% use in obligatory contexts,
- 2. the number of definite articles and expletive definite articles with proper names is in the speech of all children higher than the number of demonstratives,
- 3. children use expletive definite articles with demonstratives in the majority (88%) of the cases.

The predictions made in Section 5, repeated below, are borne out by the data:

## Prediction a):

Demonstratives are acquired earlier than definite articles and expletive definite articles, since in Stage 2a children use more demonstratives than definite articles and expletive definite articles, and this relation gets inverted in Stages 2b & 3.

## Prediction b):

Expletive definite articles with proper names are acquired earlier (they are found from Stage 1) than expletive definite articles with demonstratives, which are missing altogether until stage 3.

Thus from very early on children use some of the elements belonging to the category D, but not all of them, e.g. acquiring a FC does not necessarily mean that children acquire all words belonging to that FC simultaneously. If this is correct, the absence of words belonging to a FC is not necessarily evidence for the lack of that functional projection from the children's phrase marker.

Through data from the acquisition of the DP in MG, I showed that although demonstratives, definite articles and expletive definite articles with proper names are found from the very beginning, demonstratives seem to get acquired

faster than definite articles and expletive definite articles. Moreover, there is clear evidence that definite articles and expletive definite articles with proper names are acquired earlier than expletive definite articles with demonstratives.

Furthermore, I showed that there are different triggers for the acquisition of the words belonging to the category D, which can be encoded in different domains of the grammar. Hence, children make use of semantic cues (semantic features of the words belonging to the category D), as well as syntactic cues (syntactic frames, i.e. vocative/non-vocative), in order to acquire the corresponding classes of words. Consequently, demonstratives are acquired earlier than definite articles and expletive definite articles, because they possess more semantic features and expletive definite articles with proper names are acquired earlier than expletive definite articles with demonstratives, because the triggering information for the insertion of the expletive definite article in the case of proper names, but not in the case of demonstratives is encoded in a contrastive frame (vocative/non-vocative).<sup>5</sup>

Finally, the data from one child (Spiros) suggest, that expletive definite articles with proper names may be acquired faster than definite articles. Definite articles marking the DP with the feature [definite] are used mainly with count nouns. However, count nouns can have a specific or a generic interpretation and in the case of the generic interpretation they show a partial subject/object and singular/plural asymmetry. Thus the child has to become aware of the distinction between specific vs. generic interpretation of count nouns, subject vs. object position, singular vs. plural, in order to define the environments, in which definite articles should be inserted, e.g. the triggering information for the insertion of the insertion of expletive definite articles with proper names. Consequently it is not surprising, if expletive definite articles with proper names are acquired faster than definite articles, an observation which has to be justified with acquisition data from other children.

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<sup>&</sup>lt;sup>5</sup> Taking into account the phrase structure needed for the generation of definite articles and expletive definite articles, in the case of definite articles and expletive definite articles with proper names, we need one functional projection, in the case of expletive definite articles with demonstratives, though, according to Karanassios (1990); Stavrou (1995), we need two (for a different approach, see Horrocks & Stavrou (1986); Powers (submitted)). Assuming, that it is possible for the children not to use all functional projections from the outset of their speech, structures that need one functional projection are likely to be generated before structures that need two, e.g. lack of structure can be a further explanation for the late acquisition of expletive definite articles with demonstratives.

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