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ACQUIRING THE SYNTAX OF *BEAUCOUP* AT A DISTANCE  
AS A BILINGUAL CHILD  
AN EXPERIMENTAL STUDY

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0. *Introduction*

Bilingual children are known to be able to separate their two languages from very early on (Meisel 1990, Genesee, Nicoladis & Paradis 1995, among many others). Nevertheless, acquiring two languages simultaneously is not the same as acquiring just one language. Several recent studies have shown that there are specific areas in emerging grammars which are vulnerable and sensitive to cross-linguistic influence (e.g. Gawlitzek-Maiwald & Tracy 1996, Müller & Hulk 2001). These studies are almost exclusively based on longitudinal, production data and mainly examine word order phenomena, verbal inflection and subject/object omissions. The present study is different in two ways: (i) it has the format of an experimental study and (ii) it looks at a phenomenon which is not very frequent in production data: '*beaucoup* at a distance'.

In French the quantifier *beaucoup* can appear in the specifier position of a nominal expression, as illustrated in (1). It can also appear in another position ('at a distance'), but it still has to be related to the corresponding noun, as illustrated in (2).

(1) *Pierre a lu beaucoup de livres.*  
Pierre has read many of books  
"Pierre has read many books."

(2) *Pierre a beaucoup lu de livres.*  
Pierre has many read of books  
"Pierre has read many books."

The latter construction, called 'quantification at a distance' (henceforth: QAD), has been studied in particular by Obenauer (1983, 1984/5). It is subject

not only to syntactic restrictions, but also to various semantic conditions, which will be briefly discussed in section 1. Here, we will be mainly concerned with one syntactic restriction: *beaucoup* 'at a distance' differs from other floating quantifiers such as *tous* or *chacun*, in that it can only quantify over the object (cf. (2)), not over the subject, as illustrated in the following examples:

- (3) a. *Beaucoup de garçons ont acheté ce livre.*  
 "Many boys have bought this book."  
 b. \**De(s) garçons ont beaucoup acheté ce livre.*  
       boys have many bought this book  
 c. *Tous les garçons ont acheté ce livre.*  
       all the boys have bought this book  
 d. *Les garçons ont tous acheté ce livre.*  
       the boys have all bought this book

The first question to be addressed here is: do children know this? In other words when presented with sentences containing *beaucoup* 'at a distance', do they relate *beaucoup* only to the object and not to the subject? The second question is: do bilingual children differ from monolingual children in this respect, and if they do, in what way? In order to answer these questions, we use a computer-run grammaticality judgement test developed for monolingual French children by Labelle & Valois (to appear). Our subjects are French/Dutch bilingual children in the same age-range as the monolingual children studied by Labelle & Valois.

The article is organized as follows: first we briefly discuss the distribution and syntax of *beaucoup* and compare it to the syntax of its Dutch equivalent *veel*. Secondly, we present our view on bilingual first language acquisition and make some predictions for the acquisition of the phenomenon considered here. In the third section, we present the procedure and the material of the (monolingual) experiment and we discuss its results. In the fourth section, we present the bilingual experiment and its results, and in the discussion section we compare the results of the bilingual experiment with the ones from the monolingual experiment, returning to the two main questions raised in the introduction. Finally, we summarize the main findings in the conclusion.

### 1. The syntax of 'beaucoup' and its Dutch equivalent 'veel'

As illustrated in the examples (1) and (2) above, *beaucoup* can appear not only in pre-nominal position, but also 'at a distance', in a position between the auxiliary and the past participle. Obenauer (1984/85) proposes that *beaucoup*

'at a distance' is base generated in SpecVP and binds a variable within the DP-object inside VP. If this DP is a plural count noun, a multiple event interpretation is imposed; if it is a mass noun, a single event interpretation is also possible. Singular count nouns are out. These semantic restrictions do not hold for the non-QAD construction where *beaucoup* appears in pre-nominal position.

*Beaucoup* may also appear in a pre-verbal position of a VP which does not contain an empty variable inside an object DP. In that case, it has a pure adverbial, intensifying interpretation, as illustrated in:

- (4) a. *Il a beaucoup dormi.*  
       he has a lot slept  
 b. *Jean a beaucoup rencontré Marie.*  
       John has a lot met Marie

According to Doetjes (1995, 1997) the VP must then have a cumulative reference, i.e. it must have either a mass (=durative) or an iterated interpretation, depending on the (semantic) nature of the predicate. She analyses *beaucoup* as a degree-quantifier, which can be adjoined to any projection.<sup>1</sup> The Dutch quantifier *veel* is also analyzed as a scalar degree quantifier by Doetjes. It can appear in pre-nominal position, as in (5a) and 'at a distance' as in (5b) and (5c), but in the latter case it can only have an adverbial interpretation. Contrary to *beaucoup*, it cannot be related to an empty variable inside an object DP with a QAD interpretation (5d):<sup>2</sup>

- (5) a. *Hij heeft gisteren veel boeken gelezen.*  
       he has yesterday many books read  
 b. *Hij heeft dit boek veel gelezen.*  
       He has this book a lot read  
 c. *Hij heeft veel geslapen.*  
       he has a lot slept  
 d. \**Hij heeft veel<sub>i</sub> gisteren [e<sub>i</sub> boeken] gelezen.*  
       he has many yesterday books read

<sup>1</sup> Degree quantifiers have to saturate an open scalar q-position inside the projection they adjoin to, according to Doetjes.

<sup>2</sup> *Veel* can also be used as a quantificational pronoun, meaning 'many things'. In that case, it also appears in the position between the finite verb and the past participle, Dutch being an OV-language, as illustrated in (i):

(i) *De kinderen hebben veel gekregen* 'the kids have a lot received'

Although a lot more can be said about the syntax and semantics of *beaucoup* and *veel*, we will not do that here. For our purpose, it suffices to know that both *veel* and *beaucoup* can appear not only in a pre-nominal position (cf. (1),(5a)), but also in a position between the auxiliary and the past participle, where they can get an 'adverbial' interpretation, quantifying over the event expressed by the predicate (under certain semantic conditions) (cf. (4a), (4b), (5b), (5c)).<sup>3</sup> When in the 'adverbial' position only *beaucoup*, not *veel* can also be related to/quantify over the object DP, if this DP contains an appropriate empty position and meets certain semantic conditions. In other words, the so-called QAD-construction is possible in French (2), but not in Dutch (5d).

## 2. Bilingual first language acquisition

Following the general line in studies on bilingual first language acquisition today, we assume that, in acquiring two languages from birth, bilingual children separate their two language systems from very early on, possibly from the two word stage onwards. This does not, however, exclude the possible influence of one language on the other, in all domains of grammar. In work with Müller (Hulk & Müller 2000, Müller & Hulk 2001) we investigated whether for a given language the grammatical representation that is used in sentence production is altered by the presence of another grammar within the same child. Such effects could be taken as evidence for multilingual syntactic representations that are different from the monolingual syntactic representations of each single language. It is conceivable that the grammar of language A allows ungrammatical structures if such structures are grammatical in language B and vice versa. This would be comparable to what has been called "transfer" in (adult) second language learning and it would imply that the grammars of the bilingual children would be qualitatively different from the ones of the monolingual children.

No such type of cross-linguistic influence is found in the production data of the bilingual children studied by Hulk & Müller. However, they did find another type of cross-linguistic influence, which they qualified as "quantitative": in bilingual children, certain structures that are possible in both languages, were preferred/produced more often or for a longer period than in monolingual children. This type of influence is also known from the literature and is called "interlingual economy" by Muysken (2000) or "bilingual bootstrapping" by Gawlitzek-Maiwald & Tracy (1996). With respect to bilin-

<sup>3</sup> We assume without discussion that they are base-generated in these positions.

gual first language acquisition, Müller & Hulk (2000) argue for the existence of cross-linguistic influence induced by the mapping of universal principles onto language specific principles, in particular, pragmatic onto syntactic principles. In this view, cross-linguistic influence may occur once a syntactic construction in language A allows for more than one grammatical analysis from the perspective of the child's grammar and language B contains positive evidence for one of these possible analyses. The bilingual child, then, is not able to map the universal strategies onto the language specific rules as quickly as the monolingual child is, since s/he is confronted with a much wider range of language specific syntactic possibilities. To the child one of these possibilities seems to be compatible with a universal strategy to which s/he therefore tends to stick a bit longer.

In this article, we examine the acquisition of a phenomenon, *beaucoup* 'at a distance', which involves both syntactic and semantic-pragmatic principles, as we saw above. We showed that it allows for more than one (syntactic) analysis in French, the QAD analysis and the adverbial one. Moreover, the distribution of the quantifier *veel* in Dutch, the other language of the bilingual children we studied, provides positive evidence for one of these analyses, the adverbial one. Below, we will argue that the adverbial corresponds to the initial, universal strategy that all children use when starting to acquire quantifiers. Consequently, we predict that cross-linguistic influence in the above-mentioned sense, should be possible in our children, from Dutch onto French, resulting in a delay of the QAD analysis for *beaucoup* 'at a distance'. However, all the earlier work was based on longitudinal production data and the present study investigates cross-sectional interpretation data. We will try to find out in the next sections whether cross-linguistic influence will manifest itself in the same way in these data.

## 3. The monolingual experiment by Labelle & Valois

### 3.1 Methodology

Labelle & Valois were interested to find out whether French children know that *beaucoup* 'at a distance' can quantify only over the object, but not over the subject.<sup>4</sup> They tested 42 Canadian French, monolingual children aged from 3;01 to 6;03 and 21 francophone adults as a control group. They designed a computer-run grammaticality judgement test, featuring the extra-terrestrial Bubu who is learning French, but who still makes occasional mistakes. Bubu looks at a picture and utters a sentence which describes the event depicted in

<sup>4</sup> They also tested the children's knowledge of *chacun* as a floating quantifier.

the picture. The picture on the screen matches the sentence. The child has to hit a key with a smiling face, if Bubu "said it right" or a key with a frowning face, if Bubu "said it wrong". In the latter case, Bubu replies "Oops, I made a mistake! How would you say it?". The child's answer is tape-recorded.

The material consisted of five sets of sentences: (i) three grammatical sentences of the type (6) with *beaucoup* in a QAD position quantifying over the object (labeled *bOg*). Since *beaucoup* requires a plural (count) DP, the presence in these sentences of a singular subject and a plural (count) object ensures that quantification over the object is the only option.

- (6) *Un crocodile a beaucoup cueilli de fleurs.* *bOg*  
A crocodile has many picked flowers.

(ii) three ungrammatical sentences of type (7a), labeled *bSa*, with *beaucoup* in a QAD position, having the intended meaning of (7b). Quantification over the object and adverbial interpretation is excluded in these sentences because the object is a singular noun and the verb/predicate does not allow the adverbial, intensifying interpretation. The subject being a plural (count) noun, the children could choose (incorrectly) to make *beaucoup* quantify over the subject:<sup>5</sup>

- (7) a. \**Les enfants ont beaucoup construit un château de sable.* *bSa*  
the children have a lot/many built a sandcastle."  
b. *Beaucoup d'enfants ont construit un château de sable.*  
many children have built a sandcastle

(iii) two grammatical sentences of the type (8), labeled *bg*, with *beaucoup* in its canonical, non-QAD, pre-nominal position:

- (8) *Une grosse grenouille tient beaucoup de poupées entre ses pattes.* *bg*  
"A big frog holds many dolls in his hands."

In order to ensure that the task was clearly understood by the children, two sets of simple sentences were included: (iv) five ungrammatical sentences labeled *sa*, and (v) five grammatical sentences, labeled *sg* as illustrated in (9):

<sup>5</sup> Labelle & Valois choose to use a definite DP as subject (*les enfants* in (7a)) instead of a *de*+NP (*d'enfants* as remnant of *beaucoup d'enfants*) because DP's of the type *de* NP are ungrammatical in subject position. They thought it was quite possible that the children would recognize the ungrammaticality of *de* NP in subject position independently of *beaucoup*.

- (9) a. \**Lac la grenouille saute dans.* *sa*  
"Lake the frog jumps in."  
b. *Les éléphants attrapent un ballon.* *sg*  
"The elephants catch a ball."

### 3.2 Results

Table 1 represents the acceptance scores of each of the five sentence types. The monolingual children consistently accepted the simple grammatical sentences (*sg*) and the grammatical sentences with *beaucoup* in its pre-nominal position (*bg*), and they rejected the simple ungrammatical ones (*sa*).

Table 1: Monolingual *beaucoup*. Acceptance rate by condition and age in percentages (taken from Labelle & Valois).

	N	<i>bg</i>	<i>bOg</i>	<i>bSa</i>	<i>sa</i>	<i>sg</i>
Age 3	6	100	93	78	7	89
Age 4	19	87	78	59	5	97
Age 5	4	82	71	36	10	96
Age 6	3	100	89	33	0	93
Adults	21	100	42	10	5	93

The ungrammatical sentence type *bSa*, where *beaucoup* 'at a distance' was meant to quantify over the subject, was rejected by all adults. In the children we see a clear development: the three-year-olds, incorrectly, accepted them at the rate of 78%, the five and six year olds correctly rejected two-third of the sentences.

Regarding *beaucoup* 'at a distance' quantifying over the object (*bOg*), we see that all the children accepted them at a very high rate (around 80%). Surprisingly, the adult controls tended to reject them. Labelle & Valois offer no real explanation for this difference.<sup>6</sup> We could speculate that it could be the case that the adults, who, probably, are well aware of the semantic condition on QAD-sentences that imposes a multiple event interpretation (see section 1), hesitate to accept the *bOg* sentence, since it does not match the picture on the screen which depicts just one situation, not a series of events. Children may not

<sup>6</sup> The (monolingual) experiment was designed by Labelle & Valois in such a way as to exclude testing of the semantic conditions. Therefore, no predictions/hypotheses were formulated as for the knowledge of such conditions by the children/adults. However, as we will see below, the results of the (bilingual) experiment suggest that the (lack of) semantic knowledge may nevertheless have played a role and should be taken into account in future research.

yet be aware of the semantic condition of multi-eventivity and therefore accept the *bOg* sentences as matching the one-situation-depicting pictures on the screen.

Labelle & Valois, also suggest that children may initially lack the knowledge of this semantic condition, in relation to the results of their three-year-olds. They observe that these children accept all sentences with a quantifier between the auxiliary and the verb, whether the quantification is meant to be over the subject or over the object. They state that this may suggest that three year old children have a non-adult like understanding of the semantics of sentences with *beaucoup*, an understanding of the same type as that mentioned in the literature for sentences such as (10) with universal quantifiers such as *every*. Preschool, monolingual children have been shown to interpret *every* as applying to all DP's in the clause, requiring that the event involve all the boys and all the ponies present in the context:

(10) Every boy is riding a pony.

Roeper & de Villiers (1991) call this phenomenon 'quantifier spreading' and interpret it as reflecting an adverbial analysis of *every*. Philip (1995) proposes that this 'quantifier spreading' is due to the fact that children interpret sentences such as (10) as involving event quantification. Further research is necessary to find out what children know about the semantics of sentences with quantifiers such as *beaucoup*. We now turn to the bilingual experiment.

#### 4. The bilingual experiment

##### 4.1 Methodology

We used the computer run grammaticality judgement task of Labelle & Valois with exactly the same set of test sentences and procedure (see above). We tested 43 bilingual French/Dutch children aged 2;08 to 7;05.<sup>7</sup> Of these we had to exclude a rather large number. The criteria used to retain a child were the following:

- The child is indeed bilingual French/Dutch, i.e. (s)he speaks and understands both French and Dutch and does not speak a third language;

<sup>7</sup> They were (i) the children of members of a group called *Les Pils des Riens* consisting of parents of French/Dutch bilingual children in the region of Hoofddorp, the Netherlands, who meet regularly on Saturday mornings to organize activities for their children, and (ii) pupils of the French elementary school in Amsterdam and of the French Lycee in the Hague. For each of the children a questionnaire about the language background at home was filled in.

- The child completed the test;
- The child understood the procedure of the test – (s)he did not give only positive or only negative answers;
- and the child did not consistently reject/accept sentences for reasons which have nothing to do with the (un)grammaticality, as showing from his/her oral commentaries.<sup>8</sup>

Using these criteria, we retained 22 bilingual children in the following age ranges: *two* year olds (n = 1) Joyce (2;8); *three* year olds (n = 1) Martijn (3;9); *four* year olds (n = 4) Louis (4;2) - Layla (4;8) - Zerfa (4;9) - Floris (4;10); *five* year olds (n = 4) Laurence (5;2) - Jules (5;6) - Marie (5;7) - Jules (5;11); *six* year olds (n = 9) Thomas (6;1) - Rémi (6;2) - Louise (6;2) - Sacha (6;3) - Camille (6;5) - Romain (6;6) - Adèle (6;7) - Antoine (6;7) - Lola (6;8); and *seven* year olds (n = 3) Keshia (7;2) - Scarlett (7;5) - Gontran (7;5).

The children were tested either at school, or at the meeting of the "Pils des Riens" group or at their home. Everything they said during the experiment was tape-recorded.

##### 4.2 Results

In the graph and the table below we did not include the results of the age group "two years" and the age group "three years", since they both contained only one child. However, we will briefly mention them in the discussion section below.

The acceptance rates for each of the five sentence sets are presented in Table 2 (100=acceptance; 0=rejection), in exactly the same way as in Table 1 above for the results of the monolingual children tested by Labelle & Valois. Note that these scores represent the acceptance of the test sentences, not the correct scores. In the case of grammatical sentences (types *sg*, *bg* and *bOg*) the acceptance corresponds to a correct answer, for ungrammatical sentences (types *sa* and *bSa*) the acceptance corresponds to an incorrect answer.

The simple grammatical sentences, type *sg*, (cf. (9b) above) and the grammatical sentences with *beaucoup* in its pre-nominal position, type *bg* (cf. (8) above) were accepted by almost all the children. The simple ungrammatical sentences, type *sa* (cf. (9a) above) were rejected more often than accepted by all the children, although there is a development: the four and five year olds (incorrectly) accepted them more often than the six and seven year olds.

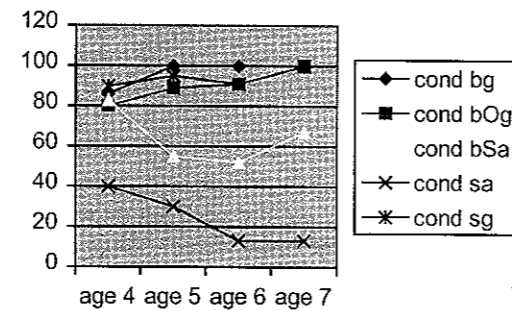
<sup>8</sup> For example, they reject sentences such as (i) saying "pigs never eat apples":

(i) Les cochons ont *beaucoup* mangé de pommes.  
the pigs have a lot/many eaten apples

Table 2: Bilingual *beaucoup*. Acceptance rate by condition and age in percentages.

	N	<i>bg</i>	<i>bOg</i>	<i>bSa</i>	<i>sa</i>	<i>sg</i>
Age 4	4	86	80	83	40	90
Age 5	4	100	89	55	30	95
Age 6	9	100	91	52	13	91
Age 7	3	100	100	67	13	100

Figure 1: Bilingual *beaucoup*. Acceptance rate by condition and age in percentages.



In the following table, we present the results in a slightly different way. We only include the sentence types *bOg* and *bSa* since these are the most important for our study; we give both the absolute numbers and the percentages. Just as in the graphs, for the sentence type *bOg*, acceptance equals "correct answer", whereas for the sentence type *bSa*, acceptance equals "incorrect answer".

Table 3: Bilingual children: acceptance rate by condition *bOg* & *bSa* by age;  $N = 20$

Age	N	<i>bOg</i>		<i>bSa</i>	
		abs.	%	abs.	%
Age 4	4	8/10	80	10/12	83
Age 5	4	8/9	89	6/11	54
Age 6	9	21/23	91	14/27	52
Age 7	3	8/8	100	6/9	67

Regarding the grammatical *bOg* sentences where *beaucoup* 'at a distance' quantifies over the object DP (cf. (6) above), we see that this sentence type is accepted from an early age onwards: 80% of the four year olds accept these sentences; at age seven all the children accept this sentence type. As for the ungrammatical *bSa* sentences (cf. (7a) above), where *beaucoup* 'at a distance' is meant to quantify over the subject, we see that these show a more complex pattern. The four-year-old children correctly reject only 17% of these sentences. The five and six year olds are clearly doing better: they correctly reject about 45% of this sentence type. The seven-year-olds reject only 33%.

In the next section we will try to interpret these results and see in what way they answer the questions raised in the introduction.

## 5. Discussion

### 5.1 Subject/object asymmetry

Let us now come back to the first question raised in the introduction: do these bilingual children know that *beaucoup* 'at a distance' can only quantify over the object and not over the subject?

When we look at the results, presented in the preceding section, we see that the sentences where *beaucoup* quantifies over the object (type *bOg*) are accepted at a very high rate (80%) from age 4 onwards. We could take this to indicate that the bilingual children apparently know that *beaucoup* at a distance can quantify over the object. However, when we look at the youngest children considered here, age 4, they do not only accept 80% of the *bOg* sentences, but also 83% of the (ungrammatical) *bSa* sentences where *beaucoup* is meant to (incorrectly) quantify over the subject. In other words, they do not (yet) distinguish quantification over the subject from quantification over the object and we cannot assume that they know that *beaucoup* 'at a distance' can quantify over the object. Moreover, we cannot conclude either that they incorrectly think that *beaucoup* can quantify over the subject, when we see that, at age 4, they accept about 80% of the ungrammatical *bSa* type sentences. The percentages do not tell us whether they are trying to make *beaucoup* quantify over either the object or the subject.

What this suggests, is, that, at age 4, they accept and know that *beaucoup* can appear at a distance, in a position between the auxiliary and the past participle, given that they accept 80% of the sentences (*bOg* and *bSa*) where *beaucoup* appears in that position.

Interestingly, this is also the position where *beaucoup* would appear in its adverbial use, as illustrated in (11):

- (11) *J'ai beaucoup marché.*  
I have a lot walked

The two year old child (age 2;8) and the three year old child (age 3;9) that were tested, but not included in graph 1 and table 1 of the preceding section, also accepted the same percentages of *bOg* type and of *bSa* type sentences, 67%.<sup>9</sup> This is lower than the percentage accepted by the four year olds for both sentence types, 80%. The five year olds are the first to make a difference between the two types of sentences, accepting the *bOg* sentences at 89%, the *bSa* ones at 54%.<sup>10</sup>

In order to examine whether, with respect to age 3 through 6, the children do not distinguish between quantification over the object from quantification over the subject (*bSa=bOg*), we analyzed their results by means of Fisher's Exact Test. Consider the following table:

Table 4: Contingency analysis of acceptability by condition *bSa* and *bOg*

	Condition <i>bSa</i>				Condition <i>bOg</i>			
	Age 3	Age 4	Age 5	Age 6	Age 3	Age 4	Age 5	Age 6
Age 3	-	.0243 !	~	~	-	.0525 !	.0275 !	.0007!
Age 4		-	~	~			.0078 !	.0002!
Age 5			-	~				.0002!
Age 6				-				

Fisher exact (contingency logistic)

~ = probability of the statistic model is wrong (negative value of  $\chi^2$ )

! = *p*-value is significant

The results in Table 4 reveal per condition that the age groups differ significantly from each other in acceptance of *beaucoup* quantifying over the object whereas age 3 differ significantly from age 4 in rejecting *beaucoup* quantifying over the subject. Moreover, this test, not presented in the figure, shows that the children distinguish significantly condition *bSa* from *bOg* at age six (Fischer exact, *p* (left) = .0025).

The developmental picture that is emerging now is the following: the children first acquire that *beaucoup* can appear at a distance, in the preverbal (adverbial) position, and only when they have acquired that syntactic property, they begin to be aware of other properties, resulting in making a difference in

<sup>9</sup> The two-year-old child accepted *bSa* 100 % and *bOg* 67%; the three-year-old child accepted *bSa* 33% and *bOg* 67%.

<sup>10</sup> We like to thank Ton Goeman for his help with statistics.

the acceptance of the *bOg* type and the *bSa* type sentences, from age 5 onwards and at age 6 in a significant way.

Interestingly, the comments made by some of the children (of all ages) when confronted with pictures meant to suggest that *beaucoup* quantifies over the subject, show that they ignore this suggestion and try to relate *beaucoup* to the object in these sentences. These comments were made when they correctly rejected the *bSa* sentences, but also when they incorrectly accepted them. Out of the 24 (correct) rejecting responses, 11 times a child made the comment that the sentence was wrong because there was only one object! For example, when seeing a picture with many pigs and many apples, only one of which was bitten into and hearing Bubus say (12), they gave the comments in (13).

- (12) *Les cochons ont beaucoup croqué une pomme.*  
The pigs have many/a lot bit into an apple

- (13) Sacha (7;3): *Beaucoup*: j'en vois pas plus mais il (l') a bien dit quand même.

many: I of it see not more but he it has well said after all

Keshia (7;2): *UNE pomme??*

Floris (4;10): *UNE pomme??*

"ONE apple."

Adèle (6;7): *Beaucoup croqué une pomme?*

many/ a lot bitten into one apple

Keshia (7;2): *Beaucoup, c'est bien beaucoup?*

many/a lot, it is indeed a lot/many

Louis (4;2): *D'r is d'r maar une gemangée, une!*

"There is only one eaten, one."

Marie (5;7): *Beaucoup ça veut dire ils ont mangé toutes les pommes.*

"Many/a lot that will say they have eaten all the apples?"

Antoine (6;7): *Les cochons ils ont mangé UNE pomme, il dit qu'ils ont mangé beaucoup de pommes.*

"The pigs have eaten ONE apple, he says they have eaten many apples."

These comments show that the children worry about the properties of the object, not of the subject. It suggests that the children do not consider relating *beaucoup* to the subject, but try to relate it to the object, even when the object apparently does not have the right properties, i.e. it is not a plural count noun. Moreover, this suggests that the children do not have to acquire that *beaucoup*



'at a distance' cannot quantify over the subject. Once they have acquired that *beaucoup* can appear *at a distance*, in the (adverbial) position between the auxiliary and the past participle, the next step in the acquisition process is not distinguishing quantification over the subject from quantification over the object, but is acquiring that it is required that (the predicate and) the object have certain (semantic) properties.<sup>11</sup>

Interestingly, L1 English learners in Dekydtspotter et al. (1998) have obtained exactly the same finding in the case of L2 acquisition of *beaucoup* 'at a distance.' These authors were explicitly interested in finding out about the acquisition of the event-sensitivity of the French QAD-construction. Their starting point was that there is no way for the learner to determine on the basis of experience alone that QAD is not a simple permutation of non-QAD and they hypothesized that it is the syntactic structure of QAD that determines its interpretation. Their results showed that, indeed, "the ability to correctly interpret QAD sentences is dependent on the ability to allow (adverbial) *beaucoup* in preverbal position". This is exactly what we saw in the bilingual children above: they had to acquire the (syntactic) possibility for *beaucoup* to appear in preverbal position, before they started to acquire the other (more semantic) properties of the QAD-construction.

#### 5.2 Cross-linguistic influence

Let us now consider the second question raised in the introduction: do bilingual children differ from monolingual children in the acquisition of *beaucoup* 'at a distance', and if they do, in what way? We will compare the 4, 5 and 6 year olds, since these age groups were represented in both the monolingual and the bilingual experiment.

Globally speaking, we can say that the development of the monolingual and the bilingual children is very similar. As for the grammatical *bOg* sentences where *beaucoup* is quantifying over the object, both the bilingual and the monolingual children accept them at a similar rate of around 80% at all three ages. As for the ungrammatical *bSa* sentences where *beaucoup* is meant to quantify (incorrectly) over the subject, we see in the graphs of the preceding section that the decrease of the acceptance seems to show a similar pattern in the bilingual and the monolingual children. However, when we look in more detail, we see that there is a difference between the two groups of children. The monolingual children reject the ungrammatical *bSa* sentences at a higher rate at

<sup>11</sup> Doetjes (1997) cites Gathercole (1985, 1986) and states that younger children don't yet take into account different semantic structures for mass nouns and count nouns. They prefer count nouns.

an earlier age than the bilingual children. Further, at age 6, the bilingual children still accept more (52%) of the ungrammatical *bSa* sentences than the monolingual children at that age (33%). In order to examine whether the monolingual and bilingual children differ significantly from each other with respect to the condition *bSa*, we analyzed their results by means of a logistic regression test (nominal level). This test reveals significant results for the children aged four. More precisely, it shows that the bilingual group aged [4-5] (descending from 83% to 54%) differs significantly from the monolingual group aged [4-5] (descending 59% to 36%).

Similar differences arise when we consider the question of at which age the children distinguish the correct *bOg* from the incorrect *bSa* sentences: monolingual children make the distinction between the correct *bOg* sentences (80% accepted) and the incorrect *bSa* sentences (60% accepted) at age 4, whereas the bilingual children do not yet distinguish these two types at age 4, accepting them both at 80%.<sup>12</sup> It is only at age 5, that the bilingual children start making the difference between the two types of sentences (*bOg* 98% and *bSa* 54%), significantly doing so at age six (*bOg* 91% and *bSa* 52%, see above).

The answer to the question raised above is, yes: the bilingual children differ from the monolingual children in that they show a similar development but at a slower pace. This finding corresponds to what has been found in longitudinal, production studies comparing the acquisition of (other) syntactic phenomena by monolingual and bilingual children (see references above).

The next question to be asked is whether this delay can be due to cross-linguistic influence from Dutch, the other language of these bilingual children. In the longitudinal studies cited, Hulk & Müller argue that such cross-linguistic influence can be expected in particular (i) in the case of phenomena involving the interface between syntax and pragmatics/semantics and (ii) when the two (adult) languages (seemingly) overlap, making the bilingual child hold on to the most economic analysis, which (in her/his ears) works in both languages. *Beaucoup* 'at a distance' clearly is a phenomenon involving the interface between syntax (a special position) and semantics/pragmatics (the eventivity constraint). Moreover, the Dutch adverbial quantifier *veel*, although it cannot quantify 'at a distance' over the object, does appear in the same syntactic position as the French *beaucoup* (*at a distance* and in its adverbial use), in between the finite verb and the past participle, where it quantifies over the event expressed by the predicate:

<sup>12</sup> According to Labelle & Valois (cf. Table 1) a statistical analysis shows that their results are significant (at  $p < 0.0001$ ) for age ( $F=20.444$ ) and condition ( $F=176.75$ ), and age\*condition interaction ( $F=6.297$ ).

- (14) a. *Hij heeft veel geslapen.*  
 b. *Il a beaucoup dormi.*  
 he has a lot slept

Above we have suggested that the first step in the acquisition of *beaucoup* 'at a distance' is the acquisition of its ability to appear in a preverbal (adverbial) position. Let us assume that for the acquisition of the Dutch quantifier *veel* also, its adverbial use is the first to be acquired, before its pre-nominal use.<sup>13</sup> It could then very well be the case that a bilingual Dutch/French child stays a bit longer in such an early stage of "adverbial use" of the French *beaucoup* than a monolingual child, because such use would be very economical, serving in both Dutch and French. In that sense, the slight delay in the development of these bilingual children in comparison to monolingual French children, might be due to the (indirect) influence of their second language, Dutch. We then predict that such a delay would not manifest itself in the French of bilingual children whose other language does not allow the "adverbial use" of the equivalent of the pre-nominal *beaucoup*, such as English, for example.<sup>14</sup> Further research will have to be done to verify these predictions.

#### 6. Conclusion

In this article, we experimentally examined the acquisition of *beaucoup* 'at a distance' (the so-called QAD-construction) by bilingual French/Dutch children between the ages 2;8 and 7;5. We reduplicated a computer-run grammaticality judgement test carried out on monolingual French children by Labelle & Valois (to appear). The two main questions we aimed to answer were: (i) do these children know that *beaucoup* 'at a distance' can quantify

<sup>13</sup> Although we know of no research on the acquisition of *veel*, adverbial use before pre-nominal use has been reported for other quantifiers in Dutch child language (Hollebrandse 2002).

<sup>14</sup> It might actually be the case, as pointed out to us by an anonymous reviewer, that in a certain perspective, the extra evidence from Dutch helps the bilingual in acquiring the adverbial use of *beaucoup*, and consequently, since this syntactic property is a pre-requisite for the acquisition of the French QAD-construction, also in acquiring the QAD-construction. In that perspective, we would expect the delay in the acquisition of the French QAD-construction for French/English bilingual children to be bigger than for the French/Dutch children, because contrary to Dutch, English does not allow the equivalent of *beaucoup* to appear in an adverbial position. The French/English bilinguals then might stick longer to the pre-nominal use in both of their languages, delaying the adverbial use, and consequently the QAD, in their French. Further research will have to tell us more about these and other language pairs.

over the object, but not over the subject? and (ii) do these bilingual children differ in their judgements from the monolingual children tested by Labelle & Valois? Our results show that the acquisition pattern of the bilingual children was the same as that of the monolingual children. The only difference we found was that the bilingual children showed a slight delay with respect to the monolingual children. We suggested that this delay can be explained by the cross-linguistic influence of Dutch, their other language, in the way proposed by Hulk & Müller in earlier work.

Moreover, our results show that the youngest children (up till age 5) do not make a difference between the sentence types *bOg* and *bSa*, accepting them both at the same, high, rate. The same holds for the 3-year-olds in the monolingual experiment. We took this to suggest that the first question raised by us, and by Labelle & Valois, was actually not the right question to ask. The children do not seem to consider quantification over the subject at all. They first acquire that *beaucoup* can appear 'at a distance', in the (adverbial) preverbal position – this accounts for their acceptance of the *bOg* and *bSa* type sentences at a similar (increasing) rate. Only when they accept this syntactic property at 80% do they start worrying about the other characteristic of the QAD-construction, involving syntactic and semantic properties of the object. That is when they start distinguishing the *bOg* and the *bSa* type sentences and giving comments about the oddness of the test-sentences. They never showed wanting to relate *beaucoup* to the subject. Interestingly, a similar pattern was found in the L2 acquisition of the QAD-construction by Dekydtspotter et al. Further research is necessary to find out how exactly both monolingual and bilingual children acquire the more semantic properties of the QAD-construction, involving notions such as multi-eventivity and the distinction between count and mass nouns.

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**SPANISH L1/L2 CROSSROADS**  
CAN WE GET 'THERE' FROM 'HERE'?

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**1. Introduction**

In this paper I address the issue of the differences between L1 and L2 acquisition in terms of the initial state (i.e. 'here') and ultimate attainment (i.e. 'there'). The main focus of the discussion will be the role of linguistic triggers in language acquisition. Given that linguistic triggers constitute a substantive construct of the learnability theory put forward by the generative enterprise, it follows that they will occupy a central role in any attempt to account for the differences and similarities between L1 (native) and L2 (non-native) language acquisition.

Markedness, access to UG, parameter-setting and more recently features have been central to the acquisition literature in general but especially to the L2 acquisition literature within the generative tradition. Triggers, and linguistic triggers specifically, were always there even if they were not given that name. A linguistic analysis may or may not be formulated within an explicit learnability perspective, but if it is a proposal about the I-grammar (the grammar that results from the interaction between the principles and parameters of Universal Grammar and the linguistic environment), we believe that it has to define the units that may be interpreted or reformulated as

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