Economy and word order patterns in bilingual English-Dutch acquisition

Anna Gavarró
(Universitat Autònoma de Barcelona)

The present study[*] researches on bilingual acquisition of syntax; without there being necessarily a qualitative difference between monolingual and bilingual acquisition, the acquisition of more than one language in early childhood can shed light on the mechanisms driven by the language faculty.

In particular, the hypothesis has been put forward that economy principles are operative in the process of acquisition (Platzack 1996, Zuckermann 1999)[1], as much as in adult grammar. This hypothesis will be considered in relation to the acquisition of word order patterns by a Dutch-English 4-year-old. I develop the hypothesis presented in Gavarró 1998 that word order may be affected by a second language as part of the input the child is exposed to if the second language presents the default setting of the functional categories that trigger the application of Attract. The spontaneous productions of our bilingual child display verb-final embedded clauses in English, but no embedded clauses with an English-like raised verb in Dutch. The existence of a default option in acquisition preventing the application of Move is thus given empirical support.

This paper proceeds as follows. Section 1 presents the background, both empirical and theoretical, to this study. Section 2 describes our original data and analyses it in a minimalist framework. Section 3 shows how the analysis proposed extends to much of the data in the literature.

[*] This paper was presented at the Third International Symposium on Bilingualism, at the University of West of England, Bristol, in April 2001; I am grateful to the audience there for their comments. This work has received the financial support of the MEC through project BFF2000-0403-C02-02.

[1] Verrips and Weissenborn (1992) also consider the possibility of a Partial Verb Raising stage in the acquisition of Germanic verb raising; however, their hypothesis is less general in its scope than the ones referred to in the text.

1. Background

In previous work (Gavarró 1998), I considered the longitudinal study of Lena's spontaneous productions. Lena was natively exposed to English and Catalan and her productions included apparent word order alternations not considered elsewhere in the literature (AN/NA, AdvV/VAdv, OV/VO). These alternations were analysed as steming from the feature assignments to lexical items, which in the period of acquisition fluctuated due to exposure to two languages with conflicting values for the features under consideration (there is no N raising over A in English, but there is in Catalan, and so on). In this view, the locus of variation between monolingual children and those exposed to more than one language is not in the grammatical principles, but rather in the particular feature assignments to lexical items, with features being underspecified or misassigned by bilinguals more often than by monolinguals (or for a more extended period of time). Nothing peculiar to bilingual acquisition is assumed, since all language acquisition processes imply the setting of feature values for particular categories.[2]

It can be stressed that the productions of Lena which were not on target involved lack of movement, never further movement than adult Catalan; see (1a,b,c):

(1)	a.	Ma(la)ment (ho) feia. badly (it) I-did 'I did it badly.' (Lena, 2;1.4)	a'.	(Ho) feia malament. (it) I-did badly (as in the target)
	b.	No això toca. not this touch 'Don't touch this.' (Lena, 2;1.29)	b'.	Vull pa. I-want bread 'I want bread.' (Lena, 1;10.11) (target)
	c.	g(r)ossa pinya big pinecone 'big pinecone'	c'.	pinya grossa pinecone big (target)

[2] This idea coincides neatly with Hulk and Müller (2000) footnote 3: 'An anonymous reviewer phrased it as follows: If the two languages a bilingual child is learning include language A (...) which does not have the default setting in the target language, and language B (...) that does, the child is likely to learn the appropriate parameter setting for language A substantially later than will a monolingual child since the default setting is reinforced by the input from language B.'

(Lena, 2;0.7)

It could thus be hypothesised that there is a default unmarked value for all feature values which are taken as the starting point in language acquisition. This default value would only be overruled by positive evidence (such as overt verb raising or noun raising) in the language the child is exposed to. So, to recast Gavarró's 1998 findings in terms of Chomsky 1998, the word order patterns attested in language acquisition may be affected by a second language when this presents a default setting of the functional categories that trigger the application of Attract.

Also within the minimalist framework, Zuckermann claims that 'children only make mistakes that are "cheaper" than the target structure' (cheaper in the sense of less costly in terms of the application of movement), and considers three major predictions of what he calls the Weak Default Hypothesis:

(2)

a. In languages where a specific operation is optional (or appears to be optional), there might be a stage in which children will prefer the structure that does not contain overt movement (…)

b. In languages where a specific feature is strong, there might be a stage in which the children will assume this feature to be weak and therefore fail to perform the movement for which that feature is responsible.

c. In languages where a specific feature is weak children will not assume it to be strong and therefore an unnecessary overt movement will not be attested in child language.

(Zuckermann 1998)

To substantiate the hypothesis, consider the results of a completion task experiment carried out with Dutch speaking children (Zuckermann 1998). In embedded clauses, adult Dutch offers the possibility of the order [participial + finite V], as well as [finite V + participial], as in (3). Adults are known to prefer the second of the two, which involves extra raising of the finite verb past the

participial. Yet children are shown to prefer, in the completion task experiment, the sentence without further raising, i.e. with the finite V in final position. This behaviour is predicted by clause (2a) above: children prefer structures which do not contain overt movement.

(3) a. Omdat Jan het boek heeft gelezen.
because Jan the book has read(PART)
b. Omdat Jan het boek gelezen heeft.
because Jan the book read has
'Because Jan has read the book.'

In this vein I assume that economy principles are operative in language acquisition, whether monolingual or bilingual, and that there is a default setting for the values of a feature , that which implies less movement, which is assumed in acquisition in the absence of positive evidence for another setting.[3] Needless to say, when this positive evidence exists in the input the child is exposed to, the target setting may be fixed very quickly, resulting in virtually no deviating forms in the child's output.

2. Samuel's data: a minimalist analysis

In this section I will consider the data drawn from the longitudinal study of Samuel's spontaneous productions. Samuel is natively exposed to English (his mother's language) and Dutch (his father's), and lives in the Netherlands, although he travels regularly to England. The data were collected around the age of 4, which means that his early acquisition period has not been recorded. However, unlike what happened in the study of Lena reported earlier, now Dutch and English data are available. That means that our hypothesis on the effect of conflicting parameter settings in bilingual acquisition will be tested for two languages for one and the same child, thus it will be possible to evaluate the hypothesis in some more depth.

[3] In Chomsky's words: 'Suppose we also adopt –if it is too strong, only for convinience– a strong uniformity thesis for language acquisition that holds that each attainable state of FL [faculty of language] is a further specification of S_0 [state zero] with parametres valued: at S_0, all parameters are set with unmarked values.' (Chomsky 2001: 1)

Since the two languages spoken by Samuel are English and Dutch, a brief consideration of their word order patterns follows. Superficially, English is an SVO language, with no word order contrasts between main and embedded clauses (4); Dutch, on the other hand, presents a clear contrast between main and embedded clauses, since in main clauses the verb must appear in second position (the V2 phenomenon), while it remains in final position in embedded contexts (5).

(4) a. John reads the novel.
b. Mary thinks that John reads the novel.

(5) a. Jan koopt het boek.
Jan buys the book
b. Ik wil dat ie het boek *leest*.
I want that he the book reads
'I want him to read the book.'
b'. *Ik wil dat ie *leest* het boek.
I want that he reads the book

In the literature, English is generally considered to involve no verb raising and no object raising either, with VO remaining in its base position, and this has been attributed, since Pollock 1989, to the weak character of the verbal inflection of English. However, if we use the placement of adverbs as a test for the exsitence of verb raising, assuming that adverbs appear in the Spec position of the functional structure of clauses (Cinque 1999), the inflected verbs of English must raise to appear pre-adverbially in (6a). The fact that they appear after an adverb like *often* (6b) indicates that its target position is quite low in the hierarchy, but not that the verb appears necessarily in its base position. We assume Johnson's 1991 analysis of English in terms of verb raising, based on particle constructions, coordination within VP and, again, adverb placement. On the other hand, in the productions of Samuel, auxiliaries and *do*-support precede adverbs and negation in all cases, as in (6c), being as they are generated above VP.

(6) a. John sings *badly*.
a'. *John *badly* sings.
b. John *often* reads that book.
c. John has *often* read the book.

c'. John does*n't* read that book.

The standard analyses of Dutch and other Germanic languages have established an underlying verb-final structure (den Besten 1985), i.e. a basic SOV order. For emdedded clauses, that is the order which surfaces, while for main clauses raising to C occurs, granting the superficial V2 word order. Main clauses differ from embedded ones in that, in the second, the C position is occupied by the overt complementiser, blocking the raising of the verb. It has been argued that there is V-to-I movement in Dutch embedded clauses, although this is not readily visible, I being clause-final (see Haegeman 1995, Hamann 2000).[4]

The data original to this study produced by Samuel in the period between 4 and 4;6 are exemplified in (7)-(9).[5]

(7) a. I want that he in the box *sits*.
b. I can myself *decide*.
c. What is this? I know what it for *is*.
d. Mummy, shall we count how many windows there on *are*?
(in an advent calendar)
e. And (what happens) when it finally Christmas *is*?

(8) a. I won't wake you up if you in the same room *sleeping*.
b. I find it so nice *getting*.
c. I don't want there *to go.*
d. I want so *to eat*, mummy.

(9) a. Not *do* that, mummy.
b. Not *run* so fast, mummy.
(target: Don't run ...)
c. Not in there *sit*.

[4] The assumption that Dutch and other Germanic languages are underlyingly SOV implies that a head parameter must be set in acquisition. An alternative view, according to which the underlying word order is universally set is held by the antisymmetric approach to syntax (Kayne 1994). This has clear advantages from the point of view of acquisition. As for the analysis of Dutch, if the underlying order is SVO, object shift must apply in embedded clauses to grant verbs in final position; see Zwart 1997, Broekhuis 2000 and references therein. I will not pursue an analysis of Samuel's data based on the assumption of antisymmetry.

[5] Samuel's productions have been quantified at a later stage, at 5 years of age, and the productions of the type illustrated in (7)-(9) are by then around 5%. I am grateful to Imogen Cohen for providing these data.

(target: Don't sit down there.)

The sentences in (7) show how the finite verb may remain in its base position (or at least in a very low position in the phrase structure, since they appear in final position, failing to raise to target English position (*I can decide myself*, etc.). The same happens in (8), where a non-finite verb fails to raise (*I don't want to go there*, etc.). In (9) the verb surfaces following the negation, without the occurrence of the dummy *do*, displaying the lack of overt inflection in the I position (as in *Do not run so fast*).

The only example of putative verb raising past the target is (10), which seems to be an instance of V2 in child English:

(10) In group 1 *are* the children five.
(target: In group 1 there are five children.)

However, there is an alternative analysis of (10): as a case of locative inversion, which is wellformed in English. We will come back to this issue in the discussion.

On the other hand, Samuel's Dutch does not present any instances of deviant word order in embedded clauses (finite verbs in embedded clauses appear in final position, as in (5a)), and V2 is consistently applied in main clauses, at least at this stage of his language development.

Here we assume, for the analysis of word order phenomena, that movement is defined as in (11) and that economy considerations preempt movement when possible, as expressed in (12).

(11) MOVE/ATTRACT: a head α attracts β iff:
a. β enters into a checking relation with a formal feature of α, and
b. α cannot legitimately attract γ, where γ is closer to α than β.

(12) 'The combination of Agree/Pied-Pipe/Merge is the composite operation Move, preempted where possible by the simpler operations Merge and Agree' (Chomsky 1999)

The basic distinction between head-movement and XP movement is highlighted in Chomsky 1999, when he notes:

'There are good reasons to suspect that a substantial core of head-raising processes, excluding incorporation in the sense of Baker (1988), may fall within the phonological component. (…) The interpretative burden is reduced if, say, verbs are interpreted the same way whether they remain in situ or raise to T or C. (…) verbs are not interpreted differently in English vs. Romance, or Main Scandinavian vs. Icelandic, or embedded vs. root structures. More generally, semantic effects of head-raising in the core inflectional system are slight or nonexistent, as contrasted with XP-movement, with effects that are substantial and systematic. That would follow insofar as head raising is not part of narrow syntax. (…) overt V-to-T raising, T-to-C raising, and N-to-D raising are phonological properties, conditioned by the phonetically affixal character of the inflectional categories.' (Chomsky 1999)

One of the consequences of a minimalsit analysis along the lines of Chomsky (1999) is that language variation with regards to X^0 movement does not pertain to narrow syntax, but rather is a phonological phenomenon. The acquisition of different word order patterns is hence partially the setting of different feature values which determine the PF interface.

In the absence of evidence to the contrary, I assume that economy principles are applicable to the PF component, and that they rule the acquisition process, whether monolingual or bilingual.

My interpretation of Samuel's data is that, like any child exposed to more than one language whose syntactic categories are assigned conflicting feature values, he had to master, at least, different sets of feature values assigned to particular items/PF parameters. Specifically, for the empirical facts above, for embedded clauses he had to establish if the verb had to raise in the target -- although minimally, to a low verbal head -- as in English, or not raise at all, as in Dutch. The hesitation in the fixing of the parameter gave rise to examples such as (7)-(8), where the default, less costly option of lack of raising becomes apparent. On the other hand, only one conceivable example of raising past the target is attested, (10), and even that example can be reanalysed as a case of locative inversion, consistent with the target language, in which locative inversion is possible, albeit limited. The examples in (9) illustrate the lack of raising past the negation; this is consistent with the word order patterns of English; what is not, however, is the lack of a dummy verb to carry the inflectional morphology. If we

take the forms *do, run, sit* in (9) to be fully inflected, then lack of raising to the I position (and perhaps a higher position) is also attested.[6]

In relation to inflectional morphology, in the literature on language acquisition a connection is drawn between the acquisition of morphology and word order patterns. Unlike what happens with XP movement, where issues such as scope may motivate movement, for head movement we can hypothesise that movement is driven by morphological needs: the checking of overt morphosyntactic features motivates raising. If this is so, the original insight of Pollock (1989) between raising and morphological richness can be restored, since morphological richness can be made to correlate again with phonological material. This possibilility had been lost in former versions of minimalism: the contrast between weak and strong features was not phonologically transparent, and so no independent motivation was given for them (see Solà 1996).

From the perspective of language acquisition, the existance of a correlation between morphological richness and the triggering of movement is a desirable outcome, since it implies that the child is exposed to a more transparent system, one where head movement at least is morphologically driven, i.e. one where primary data undoubtedly provide evidence for the target setting of (most) feature values.[7]

3. Further evidence

In their seminal paper, Déprez and Pierce (1993) argue that in child language movement is optional in languages in which it plays a role. They illustrate it with Germanic languages such as German and Swedish with the

[6] It is worth considering the similarities of Samuel's productions with L2 acquisition of English by Dutch speaking children pointed out to me by A. de Houwer (p.c.). Empirically, it would be interesting to know if those children, together with verb final embedded clauses, produced V2 in main clauses or not. If they did, the account of these data would necessarily differ from that of Samuel's. If they didn't produce V2 patterns in main clauses, then there would be no significant difference with regard to word order, and our account could carry over to the child L2 facts. In any case, we assume that L2 acquisition, at least when the subjects are children, is UG-constrained (see e.g.various papers in Flynn and O'Neil 1988 and White 1989), the implication being that economy principles must be applicable, and variation is only possible in the feature characterisation of the items entering the enumeration of any derivation.

[7] Coming back to the two languages under discussion, Dutch and English, it becomes clear that morphological richness must be related to the existence of certain contrasts, not only the presence of phonological material. Otherwise, Dutch and English verb raising would be virtually the same; compare the paradigms *drinks/drink* (English), *drink/drinkt/drinken* (Dutch).

following phenomena: (i) although V-to-I movement occurs in the earliest period, there is pre-subject negation, with the subject in VP-internal position, having failed to raise (during the same period, subjects are shown to occur pre-negatively as well); (ii) preverbal negation is attested and for an extended period there is a strong preference for verb-final sentences, which indicate a delay in the acquisition of V2; finally, (iii) V-to-C occurs late in child Swedish. Alhough not very common in the literature, one comes accross examples of lack of raising in the acquisition of the Germanic languages; examples (13) and (14) illustrate the final position of verbs in German main clauses, finite (from Clahsen and Penke 1992) or non-finite (in this second case, root infinitives, from Penner 1992).

(13) Da nass is.
here wet is 'It is wet.' (S., 2; 1; from Penner 1992)

(14) a. Mon noch mehr Wasser holen.
Mon some more water fetch
'Mon is going to fetch some more water.' (Simone)
b. Löffel rausholen gehn.
spoon to fetch go
'I am going to fetch a spoon.' (from Clahsen and Penke 1992)

In (15), from to Jordens 1990, two Dutch examples are given.

(15) a. Nee melk Cynthia hebbe.
no milk Cynthia have
'Cynthia has no milk.'
b. Peter, nee poes tafel klimme.
Peter, no cat table climb
'Peter, the cat doesn't climb up to the table.'

These German and Dutch examples are amenable to the analysis proposed: the corresponding verbs have not been attracted by the relevant functional head, which may not have been identified as carrying the relevant uninterpretable feature. This lack of approapriate identification need not be general to all the productions of the child: it may affect only some derivations.[8]

[8] The effect of raising is visible in related examples such as (i) from Meisel and Müller 1992, in

Most interestingly, Clahsen et al. 1996 study the distribution of finite and non-finite verbs with respect to V2 in German. Their results for 4 children in the early stages of language acquisition, in (16), fulfill the predictions of our hypothesis. The majority (98-99%) of non-finite verbs appear in final position, and therefore hardly any non-finite verbs (1-2%) raise againts economy. On the other hand, although many finite verbs raise to V2 position, the number of finite verbs failing to have raised is not negligeable: depending on the individual, 7%, 12%, 13% and even 20% for Hannah.

(16) Distribution of finite and non-finite verbs with respect to V2 for German (Clahsen et al. 1996)

	Simone	Matthias	Annelie	Hannah
	1;10-2;7	2;3-3;6	2;4-2;9	2;0-2;7
Vfin in V2	93%	87%	88%	80%
Vfin final p	**7%**	**13%**	**12**%	**20%**
V-fin in V2	**2%**	**2%**	**1%**	**--**
V-fin final p	98%	98%	99%	--

This means that lack of raising as resulting from a default setting is attested even in monolingual children, while the reverse error -- raising againts the economy of derivation -- is seldom found.

There are, to my knowledge, two putative counterexamples to our view, from the bilingual acquisition of German and English and the monolingual acquisition of Lucernese Swiss German. I will consider them in turn.

The first case is reported in Döpke 1998 and draws on the spontaneous productions in English and German by 3 children, between the ages of 2;0 and 3;5/4:0, living in Australia. Her results show, in the German productions, verbs in final position in simple sentences (just like monolingual children), and in early stages (Döpke's Phase II) verbs appearing in final position in embedded clauses.

---

which the raised element appears both in its base position (where usually its trace would appear) and the target position.

(i) a. Jetzt sagt der das sagt.
now says he that says
'Now he says that.' (Ivar, 2;9.18; from Meisel and Müller 1992)

b. Und macht boum macht.
and makes bang makes
'And it goes bang.' (Ivar, 2;6.6)

However, in Phases III and IV head-initial VP structures emerge (and are quantitatively very significant: near or more than 50% of occurrences) in embedded clauses. They are exemplified in (17).

(17) a. Ich möchte tragen dich.
I want carry you
'I want to carry you.'
b. Du kann nicht kitzeln mich.
you can not tickle me
'You can't tickle me.'

The target verb final word order does not become dominant again until Phase V. Also, some main clauses displayed non-raised verbs, as in (18).

(18) a. Du nicht schneiden jetzt.
you not cut-INF now
'You are not cutting now.'
b. und dis auch schreibt rot.
and this too writes red
'and this writes red too.'

Although this late piece of data illustrating lack of V2 clearly fits in with the hypothesis that by default no movement takes place, the same is not so for (17), which will remain unexplained.

Döpke's children's English productions include verb final sequences totally alike those of Samuel, albeit not frequently. Consider (19) and (20).

(19) a. Me it broke.
b. Me pusher want.

(20) a. Can you that over bring?
b. I want look have.

Although Döpke does not go into the study of such word order patterns in English, under the present analysis they result from economy of derivation.

The second case which may constitute a counterexample to the application of economy in language acquisition is reported by Schönenberger (2000). She studies the speech of two girls, Moira and Eliza, starting at age 3;10 and lasting for 2 years. These girl's productions include unexpected verb movement disappearing gradually around 5;0 and being replaced by verb-final embedded sentences and verb-copying (i.e. with the verb in the position it moves to and in the trace position).

(21) Weiss si dass ich go hüt nomitag furt? (Eliza, 5;0)
knows she that I go today afternoon away
'Does she know that I go away this afternoon?'

According to Schönenberger (2000), Lucernese Swiss German embedded clauses preserve the verb-final pattern, and this is the unmarked word-order for embedded questions, but not the only possible one; verb raising is grammatical in some contexts, namely in hypotheticals, conditionals, and complement clauses of emotive-factive predicates if complementisers are absent. This implies that the input the child is exposed to is quite complex regarding word order. Yet the verb raising errors found in acquisition are limited to specific environments. Schönenberger argues convincingly that, whenever raising occurs, it can be explianed as consistent with the adult verb raising pattern in main clauses, and is a consequence of the misanalysis of complementisers as maximal projections instead of heads. (In turn, this misanalysis of complementisers as maximal projections follows from the homophony between complementisers and operators; for example *wenn* 'if'/*wenn* 'when', etc.) It follows that the Lucernese data are not really to be understood as countervening economy principles and hence are not a proper counterexample to the claim that economy rules acquisition in the way proposed here.

4. Conclusion

The widespread idea that no word order errors (in particular, verb placement errors) occur in acquisition is to be challenged. Yet, the errors which occur are not random in so far as (i) they obey economy principles (to my knowledge, overwhelmingly in the monolingual acquisition data), and (ii) they are increased

by a bilingual acquisition, in which conflicting input leads the child to a longer period of parameter setting -- to be precise, the setting of uninterpretable features. This last conclusion is shared on different grounds by various analyses of bilingual acquisition (e.g. Hulk and Müller 2000), in no contradiction with the claim that bilingual and monolingual acquisition follow the same path (Meisel 1990, Paradis and Genesee 1995, amongst others).

The minimalist program has implications for one of the general issues pertaining to bilingualism: the literature discusses whether children are capable of separating the languages they are exposed to from the beginning of the acquisition processor or only from later on. For instance Genesee 1989 and Meisel 1989 have argued that children can differentiate the two languages practically from the onset. Recasting this issue in terms of minimalism, the question is what constitutes the two (or more) languages. If parameters are limited to variation at the lexical level, the principles of narrow syntax and of the semantic component (in the sense of Chomsky 2001) are universal, and not subject to language variation. The phonological component, on the other hand, maps derivations of narrow syntax to a phonological form which can be interpreted by the sensori-motor interface, and is thought to be 'highly variable among languages' (Chomsky 2001:4).

That means that, as far as (narrow) syntactic derivation is concerned (together with the consequent semantic derivation), different languages have no theoretical correlate: a language would be associated with a set of lexical items, and having more than one language at play would not make any difference to the mechanisms of derivation. The difference between languages only affects the phonological spell-out. In this context, distinguishing between two languages can only mean mastering different spell-outs, and having command of the lexical items of the two languages.

Müller and Hulk (2001) argue that there may be an effect of one language on the other even if the child knows that they are distinct. In Gavarró 1998 the issue is also addressed, and I argue that the effect of one language on the other is limited to assignment of feature values. Thus there isn't properly the influence of one language on another, there is the effect of the coexistance of lexical items pertaining to different languages, with the notion of language having no import in the narrow syntax.

References

den Besten, Hans (1985) 'The ergative hypothesis and free word order in Dutch and German'. In J. Toman (ed.) *Studies in German Grammar*, Dordrecht: Foris.

Broekhuis, H. (2000) 'Against feature strenghth: the case of Scandinavian object shift'. *Natural Language and Linguistic Theory* 18: 673-721.

Clahsen, H., S. Eisenbeiss and M. Penke (1996) 'Lexical learning in early syntactic development'. In H. Clahsen (ed.) *Generative Perspective on Language Acquisition*, Amsterdam: John Benjamins.

Clahsen, H. and M. Penke (1992) 'The acquisition of agreement morphology and its syntactic consequences: new evidence on German child language from the Simone-corpus'. In J. Meisel (ed.) *The Acquisition of Verb Placement*, Dordrecht: Kluwer.

Chomsky, N. (1995) *A Minimalist Program for Linguistic Theory*, Cambridge, Mass.: MIT Press.

Chomsky, N. (1998) 'Minimalist inquiries: the framework', ms., MIT.

Chomsky, N. (1999) 'Derivation by phase', ms., MIT.

Chomsky, N. (2001) 'Beyond explanatory adequacy', ms., MIT.

Cinque, G. (1999*) Adverbs and Functional Heads. A Cross-linguistic Perspective*. Oxford: Oxford University Press.

Déprez, V. and A. Pierce (1993) 'Negation and functional projections in early grammar'. *Linguistic Inquiry* 24: 25-67.

Döpke, S. (1998) 'Competing language structures: the acquisition of verb placement in bilingual German-English children'. *Journal of Child Language* 25: 555-584.

Flynn, S. and W. O'Neil (1988) *Linguistic Theory in Second Language Acquisition*, Dordrecht: Kluwer.

Gavarró, A. (1998) 'Word order alternations and feature assignment in bilingual Catalan acquisition', *Probus* 10: 1-12.

Genesee, F. (1989) 'Early bilingual development: one language or two?'. *Journal of Child Language* 16: 161-179.

Haegeman, L. (1995) 'IPP constructions and V-movement in West Flemish'. *Geneva Generative Papers* 3: 50-76.

Hamann, C. (2000) 'Parameters and (L2)acquisition: verb-raising'. *GG@G (Generative Grammar in Geneva)* 1: 275-291.

Hulk, A. and N. Müller (2000) 'Bilingual first language acquisition at the interface between syntax and pragmatics', *Bilingualism: Language and Cognition* 3: 69-79.

Jordens, P. (1990) 'The acquisition of verb placement in Dutch and German', *Linguistics* 28.

Kayne, R. (1994) *The Antisymmetry of Syntax*. Cambridge, Massachusetts: MIT Press.

Meisel, J. (1989) 'Early differentiation of languages in bilingual children'. In Hyltenstam, K. and L. Obler (eds.) *Bilingualism across a Lifespan: Aspects of Acquisition, Maturity and Loss*. 13-40, Cambridge: Cambridge University Press.

Meisel, J. (1990) (ed.) *Two First Languages: Early Grammatical Development in Bilingual Children*, Dordrecht: Foris.

Meisel, J. and N. Müller (1992) 'Finiteness and verb placement in early child grammars: evidence from simultaneous acquisition of French and German in bilinguals'. In J. Meisel (ed.) *The Acquisition of Verb Placement*, Dordrecht: Kluwer.

Paradis, J. and F. Genesee (1995) 'Language differentiation in early bilingual development', *Journal of Child Language* 22: 611-631.

Penner, Z. (1992) 'The ban on parameter resetting, default mechanisms, and the acquisition of V2 in Bernese Swiss German'. In J. Meisel (ed.) *The Acquisition of Verb Placement*, Dordrecht: Kluwer.

Pierce, A. (1989) *On the emergence of syntax: a cross-linguistic study*. Doctoral dissertation, MIT.

Platzack, C. (1996) 'The Initial Hypothesis of Syntax. A minimalist perspective on

language acquisition and attrition'. In Clahsen, H. (ed.) *Generative Perspectives on Language Acquisition*, Amsterdam: John Benjamins.

Pollock, J.-Y. (1989) 'Verb movement, Universal Grammar and the structure of IP'.

Linguistic Inquiry 20: 365-424.

Schönenberger, M. (2000) 'The acquisition of verb placement in Lucernese Swiss German. In M.-A. Friedemann and L. Rizzi (eds.) *The Acquisition of Syntax*, Harlow: Longman.

Solà, J. (1996) 'Morphology and word order in Germanic languages'. In Abraham,

W., S. Epstein, H. Thráinsson and J.-W. Zwart (eds.) *Minimal Ideas*, Amsterdam: John Benjamins.

Verrips, M. and J. Weissenborn (1992) ''Routes to verb placement in German and French'. In Meisel, J. (ed.) *The Acquisition of Verb Placement*, Dordrecht:

Foris.

White, L. (1989) *Universal Grammar and Second Language Acquisition*, Amsterdam: John Benjamins.

Zuckerman, S. (1998) 'The acquisition of verb movement in Hebrew'. *New Perspectives on Language Acquisition. University of Massachusetts Occasional Papers in Linguistics*, 22, 37-47.

Zuckermann, S. (1999) 'Economy-based markedness as a universal for language acquisition'. Paper presented at the GLOW Conference, Berlin.

Zwart, J.-W. (1997) *Morphosyntax of Verb Movement. A Minimalist Approach to the Syntax of Dutch*, Dordrecht: Kluwer.

December 2001

Anna Gavarró
Departament de Filologia Catalana
Universitat Autònoma de Barcelona
08193 Bellaterra (Barcelona)

agavarro@seneca.uab.es