

CHILD L2 LEARNING OF ENGLISH IN A BILINGUAL SETTING

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Learning a second language (L2) in a bilingual school can be compared to first language acquisition (L1) in that both processes develop in a natural and unconscious manner. In this paper I investigate the nature of early grammars in second language acquisition. One of the main concerns is whether child learners show a developmental process in L2 acquisition and, if they do, whether there is transference from the children's L1, and whether the L2 acquisition process resembles the L1 acquisition process.

The goal of this paper is to examine the acquisition of yes-no questions, the use of explicit subjects and the omission of inflectional verbal morphology in child L2 grammars. Data come from language production corpora of children who acquire English in their early years at a bilingual school; I compare L2 learners' data with native children's data. Also, to find out if there are common patterns in L2 acquisition, I refer to some cross-linguistic studies carried out with child L2 learners from a variety of language backgrounds (French, Korean, Russian and Bantu languages).

In order to learn more about how children approach a second language in a bilingual school, I consider input data through an art activity.

Key words: child L2 acquisition, bilingual setting, developmental stages, idiosyncratic patterns, input data.

1. Introduction

To investigate whether child L2 learners acquire English grammar in a piecemeal fashion – step by step, and in particular if the L2 acquisition

process resembles the L1 acquisition process, in this paper I refer to the courses of syntactic and morphological development of Spanish children who learn English.

One of the characteristics of L1 and L2 early grammars of English is the relatively late acquisition of subject-Aux inversion in yes-no interrogatives. Studies on native English acquisition show that children acquire interrogatives following developmental stages: for a period of time, most interrogatives are intonation questions and may lack subjects, auxiliaries or subject-Aux inversion (Brown, 1973; Radford, 1990; Snow, 1986; Stromswold, 1990).

Studies on non-native English compare L2 results with the developmental order in L1 acquisition. As in the case of native English, no evidence was found of subject-Aux inversion during the first stages of the acquisition of both types of interrogatives (yes/no questions and *Wh*-questions) (Eubank, 1993/1994; Lakshmanan, 1994; and Haznedar, 1997).

As far as the omission of inflection is concerned, past regular (-*ed*) and 3rd person singular (-*s*) are reported to be acquired late regardless of the learners' age and regardless of the L2 learning environment. The impoverished nature of English agreement inflection creates a situation in which the learner prefers non-finite verbs (i.e., not inflected for agreement) over finite ones. In this paper I will put forth that child L2 learners follow developmental stages when they acquire the English-specific verbal inflectional system. During the course of L2 acquisition, cross-linguistic studies show that child learners go through a stage in which they insert *Is* to bare infinitives in declarative, negative and interrogative sentences prior to the use of verbal inflection.

This paper is organized as follows: Section 2 refers to children's implicit linguistic knowledge and to predictions concerning L2 grammar acquisition. Section 3 presents the data available for study. Section 4 relates to results taken from a number of existing reports on grammatical structures in child's interlanguage. And in order to learn more about the language acquisition process in a bilingual context, linguistic input data through an art

activity is considered in section 5. Finally, the conclusions refer to the main points of study in section 6.

2. Child L2 learners' implicit knowledge

The way the brain goes about the complex task of language acquisition has been the object of much debate. Under Chomskian framework (Chomsky, 1995) it is considered that humans have a special innate linguistic capacity, Universal Grammar (UG), which constrains the course and the outcome of language acquisition. Children are endowed with UG and this provides them with a template which specifies the structure of phrases and sentences. Children set the parameters for a particular language effortlessly, at an early age, only by being exposed to primary linguistic data around them. Thus, this triggering data makes the language module grow without formal instruction and irrespective of the children's degree of intelligence.

At an early age, L2 learners approach the second language much in the same way as native learners: by being in contact with the L2. Child L2 learners must also work on the speech they hear around them and extract and abstract the grammar rules for the target language¹.

2.2. Syntactic background of English and Spanish

This section deals firstly, with some syntactic background of English and Spanish and secondly, with predictions from the L2 acquisition perspective. English and Spanish are both head-initial languages in simple

¹ During the course of L2 acquisition, child learners go through a series of grammars before they reach the target language. These grammars are often called *interlanguages* in the L2 acquisition field: G0---} G1---} G2---} G3---} Gn.

and in complex sentences, which means that verbs and prepositions precede complements, for example:

- (1) a. Mary reads a book every night.
b. *María lee un libro todas las noches.*
c. I know that Mary reads a book every night.
d. *Sé que María lee un libro todas las noches.*

On the other hand, as shown in (2 a, b, c, d) Spanish is a free constituent order language, while English has fixed word order (2 e, f, g, h):

- (2) a. *María llegó a las diez.*
b. *Llegó María a las diez.*
c. *Llegó a las diez María.*
d. *A las diez llegó María.*
e. Mary arrived at 10 o'clock.
f. *Arrived Mary at 10 o'clock.
g. *Arrived at 10 o'clock Mary.
h. * At 10 o'clock arrived Mary

Other syntactic differences are a consequence of each language's verbal inflection. Spanish verbal inflection is strong, as Spanish is a morphologically rich language in terms of inflectional affixation and verbs are always marked to convey information about person, number, mood, tense and aspect. Thus, Spanish allows null subject sentences, as in (3a), in which the sentence subject *yo* can be omitted. Inversion of subject/auxiliary is

optional in interrogatives (3b), and negation precedes all three kinds of verbs (thematic verbs, auxiliaries and modals) (3c):

- (3) a. *(yo) Sé leer.*
 b. *¿(Tú) quieres venir?*
 c. *María no sabe leer.*

English, on the other hand, has a relatively limited verbal morphology (-s; -ed) and as a consequence subjects are needed in all sentences, (declarative, interrogative and negative); preposing of auxiliaries and modals is obligatory in interrogatives (4b), and as far as negative sentences are concerned, negation of lexical verbs requires do-support (4c) while negation is placed after auxiliaries (4d) and modals (4e):

- (4) a. They are coming.
 b. Can you read?
 c. They don't want to come.
 d. Mary isn't Spanish.
 e. Peter won't come.

Table I summarizes some of the syntactic characteristics of the target language (English) and the mother tongue (Spanish) of learners under study.

Table: I

	English	Spanish
Head initial languages	SVO	SVO
Word order	Fixed	Free

Verbal morphology	Weak	Strong
Subjects	Obligatory	Null

2.3. Predictions

Assuming that L1 children acquire English grammar (i.e., verbal inflection and interrogatives) showing developmental stages, how should we interpret the initial representation of English by child L2 learners in a bilingual setting?

Will child L2 learners transfer properties of their L1 into the initial L2 representation?

Will child L2 learners extract and abstract English rules from input data showing developmental stages?

Will these developmental stages resemble stages L1 learners follow?

Will there be a common grammar (*interlanguage*) among child L2 learners from different linguistic backgrounds?

First of all, Spanish children who learn English after the age of 4 have already acquired L1 grammar rules and among other rules they have learned that Spanish is a highly inflectional language that allows null subjects and where subject-verb inversion is optional in interrogatives.

The predictions are that if child L2 learners are influenced by the properties derived from their mother tongue (Spanish), we expect to find the following *interlanguages* in English: a high percentage of null subject sentences, as Spanish is a *pro-drop* language (5a); little or no problem acquiring the limited verbal morphology for English (-s, -ed) (5b); or as far as interrogative sentences are concerned, we expect intonation questions that

lack inversion (5c); main verb-subject inversion (5d); and moreover, we expect to find subjectless interrogatives (5e). On the basis of these arguments, early Spanish-English interlanguage would predict sentences as shown in (5):

- (5) a. *Can read.
b. Fred kicked the ball.
c. *Mary wants to go?
d. *Want you to go?
e. *Want?

If on the contrary, L2 acquisition is driven by the language data presented to children, we expect the English L2 developmental process to reflect structural characteristics similar to those of native children. Moreover, some of these structural characteristics could be common to child L2 learners of English from different linguistic backgrounds.

In Section 4, I present results from longitudinal and cross-sectional research works. These results are contrasted with cross-linguistic studies and they suggest that child L2 learners acquire rules underlying English grammar passing through stages, and that there is evidence for a common grammar at particular stages of L2 development.

3. Data available for study

In order to investigate if there are common syntactic patterns in child grammars, in this section I present some longitudinal and cross-sectional data of Spanish children learning English as an L2 in a bilingual school. Later, in 3.3., results are contrasted with results from studies carried out with children of about the same age from various linguistic backgrounds.

3.1. Longitudinal data

The subjects of the longitudinal study are Spanish children who acquire English in an early bilingual school in Madrid². The data for this study were obtained from audio-recorded longitudinal samples. Story narration, picture description or role-playing were some of the tasks used in the eighty-eight 20 minute conversation sessions between the examiner and four typically developing four-to-five-year-old children (at the onset of the study) for the longitudinal study. Table II presents names, date of birth and years of exposure to English, as well as the date of the first and the last recordings:

Table II: Longitudinal study

	Andrés	Beatriz	Carlos	Diana
Date of birth	23-4-89	25-3-89	24-10-88	1-3-88
Age at the onset of study	4;8	4;9	5;3	5;10
Years exposed to English	0	1	1	0
Number of recordings	21	20	26	21
First recording	16-12-93	14-12-93	12-1-94	21-1-94
Last recording	20-6-96	20-6-96	20-6-96	20-6-96

As shown in Table II, the initial longitudinal study consisted of 88 recordings collected over the period of approximately 3 academic years. The purpose of the research was to investigate whether the learners' age and the bilingual environment were influencing L2 acquisition.

² At initial levels, children do not get explicit instruction on English grammar rules.

3.2. Cross-sectional data

In order to further investigate if children transfer knowledge from Spanish into L2 grammar of English I carried out a cross-sectional study on the acquisition of interrogatives across Primary (from Infant III to Primary 5) and the total number of children taking part in the experiment was 36 (18 girls and 18 boys)³.

Table III: Cross-sectional study

Level	Age	Years at school	Number of children
Infant III	5/6 years	2	6
Primary 1	6/7 “	3	6
“ 2	7/8 “	4	6
“ 3	8/9 “	5	6
“ 4	9/10 “	6	6
“ 5	10/11 “	7	6

Table III presents age, number of children, the school level they were at, and the number of years they had been immersed in English. To elicit spontaneous yes/no interrogatives I designed a variation of the interrogatives game described in Twenty Questions (MacCallum, 1980)⁴.

³ Children were from the same linguistic background as Andrés, Beatriz, Carlos and Diana and they had no English input from the home.

⁴ The material for eliciting interrogatives consisted of a set of 5 photographs of people, a set of 5 pictures of animals and a set of objects. The objective of the game was to guess which card or object the tester had chosen by asking a series of questions to which the answers could only be *yes* or *no*.

3.3. Cross-linguistic data

In this section I comment on data extracted from L2 studies carried out with children of around the same age as the subjects in the longitudinal and the cross-sectional studies, and from different bilingual backgrounds. Table IV reflects children's age, home language and name.

Table IV: Cross-linguistic data

	Thobele	Leatile	Young	Jean-Marc
Age	6	5	10;9	9;2
Home language	Zulu	Sesotho	Korean	French

Tiphine (1983), Suzman (1999) and Lee's (2001) studies provide information on L2 interlanguage. The methodology these authors used to obtain the L2 production corpora⁵ was: story narration, picture description, role-playing in conversation sessions between the examiner and the children, translation, elicitation tasks or retelling stories.

4. Results

The first issue to be addressed in this section is whether child L2 learners are transferring L1 knowledge, specifically when sentences in English lack subjects. As Spanish allows null subjects, and non-imperative thematic verbs, modals and auxiliaries may lack subjects, will L2 learners drop subjects in English?

⁵ The participants in these studies were children whose first language was not English but had been exposed to English L2 at school both inside and outside an English speaking country.

4.1. Results from the longitudinal study

Data analysis shows co-occurrence of sentences with explicit and null subjects. Table V, below, shows the production of subjectless sentences from which repetitions and/or formulaic language are excluded (*I don't know, I don't remember, Can I play on the carpet?*). Table V reflects the frequency with which subjects were used in sentences in the longitudinal study carried out with Andrés, Beatriz, Carlos and Diana.

Looking at the totals, the incidence of null-subject sentences is low (21 %) and it is interesting to note here that most of the omitted overt subjects correspond to the subject pronoun *it*.

Table V

Explicit subject sentences	Null subject sentences	% Explicit subjects	% Null subjects
1.683	455	79 %	21 %

These findings suggest that, despite occurrences of some subjectless sentences, the use of obligatory subjects indicates that from a very early stage in L2 acquisition, child learners have knowledge that English is not a *pro-drop* language like Spanish and, consequently, that overt subjects (lexical or pronominal) are needed in English sentences.

4.2. Results from the cross-sectional data

Cross-sectional data show L2 learner's knowledge about questions, in which auxiliaries and modals are extracted from and moved into another constituent in English. Examples of yes/no questions obtained across Primary (from Infant III to Primary 5) are presented below:

- (6) a. Is the rabbit going to eat an ice-cream? (Infant III, Sample18)
 b. Do you like tennis? (Primary 1, S13)
 c. Is the cake on a plate? (Primary 2, S18)
 d. Has it got white lines? (Primary 3, S171)
 e. Can they swim? (Primary 4, S168)
 f. Does it walk on two legs? (Primary 5, S38)

Table VI, below, presents the number of yes/no questions elicited in each year group and the number of sentences analysed. Some sentences were rejected because they were formulas or repetitions or because they were not clear enough.

Table VI: Number of yes/no questions obtained

	Infant III	Primary 1	Primary 2	Primary 3	Primary 4	Primary 5	Totals
Sentences obtained	145	149	229	189	173	129	1,014
Analysed	134	133	216	179	173	127	962
Not analysed	11	16	13	10	0	2	52

L2 learners follow stages for the acquisition of English yes/no interrogatives. Although sentences in Primary 1 and Primary 2 have obligatory subjects, auxiliaries and modals are not moved before the subjects yet, and this indicates that children have not acquired movement operations of verbs in English. The examples given in (7) illustrate this point:

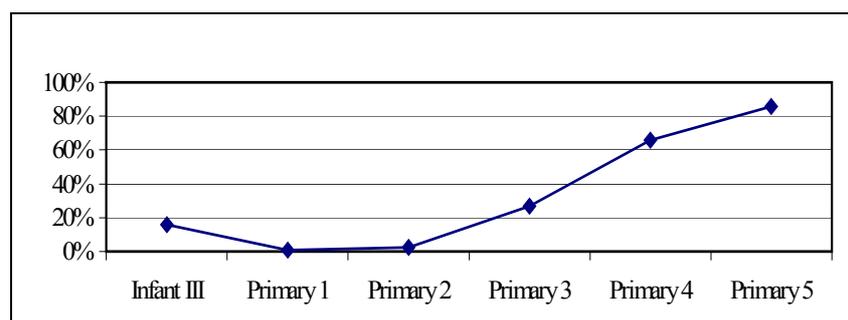
- (7) a. We can play tennis? (Primary 1, S125)
 b. He had that of here to fly like that? (Primary 1, S148)
 c. It's a box of sweets? (Primary 2, S104)
 d. The frog can jump? (Primary 2, S104)

The frequency of preposed auxiliaries and modals begins to rise at the level of Primary 3 (26.8%) and continues to rise in Primary 4 (65.8%) and in Primary 5 (85.8%) indicating that the use of preposed auxiliaries and modals is in the predicted direction. Examples from Primary 4 and Primary 5 in (8) show that children invert auxiliaries and modals, and insert *do*-support for questions with thematic verbs :

- (8) a. Does it fly? (Primary 4, S43)
 b. Has it got legs? (Primary 4, S172)
 c. Did James Bond drive it? (Primary 4, S177)
 d. Can you kick it? (Primary 5, S105)

Figure I presents the development of yes/no questions with subject-Aux inversion.

Figure I: Interrogatives with subject-aux inversion



To conclude this section, what the data show is that the frequency of intonation questions is high but that it subsequently drops by the end of Primary and regarding subject-Aux inversion, that child learners do not approach English interrogatives from the perspective of L1 properties. On the contrary, child L2 learners make use of overt subjects very early on and acquire yes/no questions in a piecemeal fashion –step by step.

4.3. Results from the cross-linguistic study

Cross-linguistically, L2 learners of English from different linguistic backgrounds (French, Korean, Russian and Bantu languages) go through a stage during which they often produce sequences like (9), in which they omit the verbal inflection, and in which they insert *is*. The examples given below belong to the longitudinal data:

(9) a. The dogs *is* like to eat the cats

(cf. Dogs like to eat cats) (Andrés, Recording 14, 1995)

b. That *is* go to my house

(cf. He went to my house) (Beatriz, R12, 1995)

c. The zebras *is* eat grass

(cf. Zebras eat grass) (Carlos, R4, 1994)

d. The children from Mr Walker *is* said is for Miss Pilar

(cf. The children from Mr Walker's class said it's for Miss Pilar)

(Andrea, R9, 1994)

The examples given above come from L2 longitudinal data in 3.1. Children's production of forms like (9) is interesting for three main reasons: firstly, because utterances like these do not occur in the input (adult English); secondly, because children's insertion of *is* adheres to a systematic pattern and thirdly, because native children go through a similar idiosyncratic stage. Moreover, sequences in (9) co-exist with copula/auxiliary *be* constructions in children's grammars, as examples in (10) illustrate:

- (10) a. The lady *is* here. (Beatriz, R11, 1995)
b. The monkeys *are* playing for the ball. (Andrea, R8, 1994)

In order to investigate if there are common patterns in child grammars of English, firstly, I will refer to a number of authors who report on the insertion of *be* forms (*is/are*) in L1 interrogatives (Crain and Nakayama 1987; Roeper 1992). The examples in (11) appear in Radford (1990):

- (11) a. *Is* I can do that?
b. *Is* Ben did go?
c. *Is* you should eat an apple?
d. *Are* this is broke? (Radford, 1990)

Crain & Nakayama (1987) elicited interrogatives from a group of 30 children (15 aged 3;2-4;7 and 15 aged 4;7-5;11) and the most common mistake is characterised by the presence of a sentence-initial *is*. Under more recent analysis, Roeper (1992) considers that children insert *be* forms (*is/are*) as linguistic "dummies".

The insertion of *be* forms has also been documented in child L2 English from different linguistic backgrounds, as in (12):

- (12) a. My dog *is* not like the cage (Patrick; Tiphine, 1983)
 b. Vava *is* want to go to the house (Leatile; Suzman, 1999)
 c. *Is* go (Sun; Lee, 2001)

As Lee (2001) points out, children “invent” a rule for the L2 grammar construction and at one stage in this grammar construction, L2 learners insert *is* in declarative, negative and in interrogative sentences. It seems that *Is*-insertion stage is a step forward between developmental stages.

5. Linguistic input

Here, I present an example of the linguistic input children are exposed to in an art session in a bilingual school. This is a colourful art activity for children of around five-years-old: *A bird mobile with pleats*.

Steps: 1) Tell children what they are going to make and show them the result; 2) Talk about the material they are going to need. (*card, tissue paper (20×10); a pencil; scissors; sellotape; thread; a bird template*); 3) Tell the children how to make it. 1) *Draw round the bird template on a piece of card.* 2) *Cut out the bird and a slit* 3) *Cut a fringe in the bird’s tail.* 4) *Take a piece of tissue paper and from a short end fold it into pleats.* 5) *Push the pleats half way through the slit.* 6) *Open the pleats into a half fan, and with sellotape fasten the top edges together.* 7) *In the same way fasten one end of a thread to the top of the bird’s wings.* 8) *Your mobile is complete.* 9) *You can take it home and hang it where the birds can fly.*

As shown above, input data in a bilingual school are similar to the data native children are exposed to at school, due to the fact that teachers and educators in a bilingual school are native speakers of English.

6. Conclusions

In this paper I have provided evidence for the existence of developmental stages for child L2 learning in a bilingual school; specifically, that intonation questions are prior to Subject-Aux inversion, and that *Is*-insertion is previous to inflectional affixation. Results show that there is a relation between child L1 and L2 acquisition processes, which basically demonstrates that if we recreate L1 conditions for L2 learners in an early immersion setting, children appear to acquire the L2 in the same way as they acquire L1.

Learners' age influences the L2 acquisition process and as in the case of native children, child L2 learners' task is to extract and to abstract rules underlying L2 grammar from input data around them.

External factors such as the learning context or whether the second language is a medium of instruction also determine the developmental process. One of the main differences observed between the non-native acquisition process in an early immersion school and the native process, which has pedagogical implications, is that, in terms of time, children in a bilingual school seem to need longer to acquire L2 grammar rules.

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