Is-Insertion in L2 Grammars of English: A Step forward between Developmental Stages?

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1. Introduction

The goal of this paper is to account for the fact that children acquiring English, from three-to-twelve-years old and from different linguistic backgrounds (Spanish, French, Korean, Russian and Bantu languages), often produce sequences like (1), in which they omit the verbal inflection, and in which they insert is:

(1) a. The clever pig is build a house of bricks.
   (cf. The clever pig builds/built a house of bricks)

   b. Andrés is no want to sleep on the bus.
      (cf. Andrés doesn't want to sleep on the bus)

   c. Is he can jump?
      (cf. Can he jump?)

Children's production of forms like (1) is interesting for two main reasons: firstly, because utterances like these do not occur in the input (adult English); and secondly, because children's insertion of is adheres to a systematic pattern. Moreover, sequences in (1) co-exist with copula/auxiliary be constructions in children's grammars, as the examples in (2) show:

(2) a. The lady is here.

   b. The monkeys are playing for the ball

One of the characteristics of sequences such as in (1) is the lack of verb raising in declarative, negative and interrogative sentences. From the first language acquisition perspective (L1), the “production” of inflectional verbal morphology in English and the issue of subject-Aux inversion has been related to the raising of verbs by various authors (Radford 1990; Roeper 1992, 1999; Lasnik 1999, among others). This relation has also been investigated by researchers in the acquisition of English as a second language (L2), (Lakshmanan 1994; Eubank 1993/1994; Haznedar 2001; Ionin and Wexler 2001 and Lee 2001, among others).

As for what motivates children to produce sequences with is inserted as in (1), I link this to a language learning strategy. During the course of English acquisition, and independently of children's L1, learners have access to two types of information: lexical and syntactical. While the uninflected verbal form (bare infinitive) carries the lexical information, the be forms (‘m, is, are, was, were) inserted in a sequence, provide learners syntactical information. I argue that children's choice of is-insertion over verb movement is a more economical option for learners of English. Crosslinguistic support for this proposal is provided.

In section 2, some notes on verb movement in English are presented. Section 3 relates to a number of existing reports on is+bare infinitive constructions in children’s grammars. Section 4 refers to the constructions under study from a longitudinal and from a cross-sectional perspective. Finally, in section 5 results are discussed and the conclusions refer to the main points of study.

2. Some notes on verb movement in English

Following syntactical analyses of English – for example, Chomsky (1995) – movement is invariably triggered by the need for formal features to be checked. In English, tense and agreement features are weak and thematic verbs do not move in the syntax to check their features from the base position, where they are generated, until a more abstract level of representation. As presented in (3), modals are generated in $I$ and forms of $be$ (auxiliary and copula) which are base generated in $V$ move overtly to $I$ for feature checking. Thus, modals and the forms of $be$ in $I$ ($'m$, $is$, $are$, $was$, $were$) precede negation:

\[
\begin{array}{c}
\text{IP} \\
\text{I'} \\
\text{I} \\
\text{NegP} \\
\text{Neg} \\
\text{Neg'} \\
\text{VP} \text{[PAST/PRESENT/MODALS/DO]} \\
\text{Neg} \\
\text{not} \\
\text{V'} \text{[THEMATIC VERBS; BE-HAVE]} \\
\text{V} \text{[THEMATIC VERBS; BE-HAVE]} \\
\text{....} \\
\end{array}
\]

The phenomenon known as Subject-Auxiliary Inversion plays a central role in interrogative formation in English. While non-auxiliary verbs do not move out of $VP$, modals and auxiliaries raise to $C$ and they appear before the subject in matrix questions. On the other hand, as main verbs do not raise out of $VP$, auxiliary verb $do$ must be inserted in yes/no questions and in non-subject $Wh$-questions as the Last Resort.

3. Existing reports on $is$-insertion in children's grammars

3.1. English L1 acquisition

There are a number of authors who report on the insertion of $be$ forms ($is$/are) in English interrogatives (Crain and Nakayama 1987; Roeper 1992). The examples in (4) appear in Radford (1990) and belong to Akmajian and Henry (1975) and Davis (1987):

\[
\begin{array}{l}
\text{a. } Is \text{ I can do that?} \\
\text{b. } Is \text{ Ben did go?} \\
\text{c. } Is \text{ you should eat an apple?} \\
\text{d. } Are \text{ this is broke?} \\
\end{array}
\]

(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) in order to investigate the formulation of the Inversion Rule in English (Subject-Aux Inversion). The most common mistake made by children is characterised by the presence of a sentence-initial $is$ as in (5), which in Crain & Nakayama’s opinion is a question marker rather than a true inverted auxiliary:

\[
\begin{array}{c}
\text{IP} \\
\text{I'} \\
\text{I} \\
\text{NegP} \\
\text{Neg} \\
\text{Neg'} \\
\text{VP} \text{[PAST/PRESENT/MODALS/DO]} \\
\text{Neg} \\
\text{not} \\
\text{V'} \text{[THEMATIC VERBS; BE-HAVE]} \\
\text{V} \text{[THEMATIC VERBS; BE-HAVE]} \\
\text{....} \\
\end{array}
\]
(5) *Is* the boy who is watching Mickey Mouse **is** happy?

Evidence to support that *is* is an interrogative particle rather than a copy of the copula *is* comes from the spontaneous speech data in (4) from Akmajian & Heny (1975) and from Davis (1987). The conclusions these authors arrive at are that the sentence-initial element can only be analysed as a question-marking prefix as there are no other instances of *is/are* forms in these sentences (*can do, did go, should eat and broke*).

Under more recent analysis (Roeper, 1992), adjuncions of *is* or *are* to *C* in interrogatives as presented in (4) suggest that modality (*is*+can), tense (*is*+did) or agreement (*are*+this) information is not being carried out by the words *is* or *are* According to this author, these phrase structure adjunctions precede syntactic categorization, and as a result, during a subtle stage of English acquisition, children insert *be* forms (*is/are*) as linguistic "dummies" to identify the functional category Complementizer.

The conclusions to be drawn from studies on English L1 grammars are that children formulate rules in terms of structural rather than semantic notions and that the insertion of *be* forms (*is/are*) in interrogative sentences is prior to Subject-Aux Inversion.

3.2. English L2 acquisition

The insertion of *be* forms has also been documented in the interlanguage of children from different linguistic backgrounds, as the examples in (6) illustrate:

(6) a. My dog *is* not like the cage (Patrick; Tiphine, 1983)
b. Vava *is* want to go to the house (Leatile; Suzman, 1999)
c. Me *is* finish (Erdem; Haznedar, 2001)
d. He *is* run away, I stayed here (Ionin & Wexler, 2001)
e. *Is* go (Sun; Lee, 2001)

As Eubank (1993/1994) points out, Tiphine (1983) notes that Patrick and sometimes Jean-Marc, the two French children learning English (ages 9;2 and 11;1, respectively, at the onset of the study), insert *is* into negated translations as shown in (7):

(7) a. Mon chien n’aime pas la cage (original sentence)
b. My dog *is* not like the cage (Patrick)

Tiphine's analysis provides evidence that in elicited translations, thematic verbs did not raise to the left of the negative element and that children seemed to avoid movement operations of verbs. Also, Suzman (1999) reports on the acquisition of English as a second language from a Bantu background (Sesotho, Zulu, Xhosa, among others) and provides information from two groups of child learners in an early immersion setting. Table I reflects children's age, home language, name and gender of children:

<table>
<thead>
<tr>
<th>Group A - 6 months of English</th>
<th>Group B - 2 years of English</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child</td>
<td>Gender</td>
</tr>
<tr>
<td>Thobele</td>
<td>F</td>
</tr>
<tr>
<td>Portia</td>
<td>F</td>
</tr>
<tr>
<td>Leatile</td>
<td>M</td>
</tr>
</tbody>
</table>

The eliciting task was to retell the story "Vava, the dog". Suzman's findings show that most "errors" in children's interlanguage are characteristic of Black South African English: omission of articles, simplification of agreement, past tenses not always marked, and reasumptive pronouns overused. In Suzman's opinion, *is* is a rule-generated form which learners use consistently.

Ionin & Wexler (2001) support the position that the *T* and *Agr* categories, as well as the features relating to them, are present and unimpaired in L2 grammars and that the omission of verbal inflection
in L2 English can be attributed to poor morphological mapping from abstract features to specific morphemes. Ionin & Wexler examine spontaneous production data from L1 Russian children acquiring English as a second language. The participants in their study were 20 L1-Russian children who at the time of research ranged in age from 3;9 to 13;10. In their analysis, they explicitly discuss suppletive inflection (i.e. forms of be) and its relation with the verb placement. According to these authors, L2 learners show difficulty accessing the appropriate English affixal inflection paradigm and they resort to the use of defaults, which are considered to be more readily available forms for learners. These forms include missing inflections (such as “she go to school”) and forms from a possibly more accessible suppletive inflection paradigm (as in “she is go to school”).

In the study of the two Korean children (Sun and Young, 14;7 and 10;9 years old) on the acquisition of temporality in English carried out by Lee (2001), it was observed that, among other non-past verb forms, learners overgeneralized is to the (base) verb forms. In Sun’s data, this feature appeared at the onset of acquisition and its use decreased thereafter. In Young’s data, this form appeared later, its use increased for a while, and decreased thereafter. According to Lee, is + (base) verb form seemed to be gradually replaced by was + (base) verb form before the use of irregular and regular past forms became productive over time for the two learners, Sun and Young.

To summarize, most of the studies presented above suggest that this intriguing and unexpected pattern relates to the fact that children have difficulties with the raising of verbs in English and to the fact that learners make use of a common transitional form at a particular stage of English development. In the study which follows, I examine the relation between verb movement and the insertion of is in English L2 constructions by L1-Spanish children based on the following assumptions: 1) child L2 acquisition is UG-guided; 2) functional projections are available to children either via UG or via L1, and 3) auxiliary and copula be play an important role in the learner’s system as a verb that moves overtly in English.

4. Is constructions in Spanish children’s interlanguage

In order to further investigate whether the insertion of is represents an economical solution to the difficulties child learners of English experience with raising of verbs, I present some longitudinal and cross-sectional data of Spanish children learning English as a second language.

4.1. Longitudinal data

The subjects of this study are Spanish children who were acquiring English in an early immersion school in Madrid. The children were chosen from this linguistic background for the following reasons: 1) because the children were available for longitudinal observation over three academic years; 2) the children’s age made the subjects ideal for the study of language development; and finally, 3) because this is the first time that child L2 acquisition of English has been studied in this particular setting and under this theoretical framework.

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 three-to-five-year-old children (at the onset of the study) for the longitudinal study. Table II presents names, dates of birth and years of exposure to English, as well as the date of the first and the last recordings:
Table II: Longitudinal study

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

As shown in Table II, the initial longitudinal study consisted of 88 recordings collected over the period of approximately 3 academic years. At the last recordings (20-6-96), Andrés and Beatriz were 7;2 and 7;3 years old respectively, and were both in different year group classes in Primary II. On the other hand, Carlos (8;8) and Diana (8;3) were attending different year group classes in Primary III. The language samples were transcribed orthographically and utterances containing the target forms were coded and analysed. Next, I present information on the *is*-insertion constructions in the longitudinal data. Sequences with the inserted form of *be* (*is*) were first reported in the examples given below (8):

8) 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)  
   (Andrés, R9, 1994)

The initial research work was intended for the study of Andrés, Beatriz, Carlos and Diana's clause development: from a one word production to multiple word sentences. Later, a closer analysis of the data showed that thematic verbs lacked verbal inflection morphology (-s, -ed) and that for a period of time, *is*-insertion was becoming systematic in each learner's interlanguage. At first, these forms seemed to be missing progressive suffix –ing forms and appeared to be defective present continuous constructions. Later, a more detailed analysis of these utterances showed that *is* was attached to stative verbs which do not take –ing as in (9a); that *is* was used to express past tense events as in (9b); and that *is* was used to express generic/habitual meaning as in (9c):

(9) a. The boys *is* no have it  
   (cf. The boys haven’t got it)  
   (Andrés, R 16)

b. Andrés *is* no want to sleep in the bus  
   (cf. Andrés didn’t want to sleep in the bus)  
   (Beatriz, R13)

c. The paper *is* not put it in the bin  
   (cf. The paper doesn’t get put in the bin)  
   (Carlos, R5)

d. Me *is* no sit  
   (cf. I don’t want to seat down)  
   (Diana, R11)

For the data analysis, utterances containing *be* forms were separated from constructions containing other verbal forms in different contexts (V+-ing; to+verb; can+verb; have+verb; regular past; irregular past and bare infinitives of thematic verbs without *is*). Then, utterances containing *is* forms were analysed as follows: firstly, as copula *be* forms (followed by a noun or an adjective) and as the auxiliary *be* (followed by -ing); and secondly, *is* was analysed followed by the base form of a thematic verb (the pattern under study). Table III presents the children's production of default *is* utterances; the

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1 At these initial levels, children do not get explicit instruction in English grammar rules.
frequency of its use is calculated as a percentage of occurrences of is in all other contexts (Copula/aux is in the table):

<table>
<thead>
<tr>
<th>Copula/aux Is</th>
<th>Is+base verb form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andrés</td>
<td>112/138 (81%)</td>
</tr>
<tr>
<td>Beatriz</td>
<td>129/168 (76%)</td>
</tr>
<tr>
<td>Carlos</td>
<td>439/517 (85%)</td>
</tr>
<tr>
<td>Diana</td>
<td>194/207 (93%)</td>
</tr>
</tbody>
</table>

Particularly relevant for the present data analysis are the sentences in which the thematic verb is given in Spanish, as (10) illustrates. These examples suggest that L2 learners have two separate kinds of information, syntactical and lexical:

(10)  a. Is mentir
Is lie-INF
(cf. Andrés lied) (Beatriz, R15)
b. Is probar a little
Is try-INF
(cf. Goldilocks tries a little porridge) (Beatriz, R 19)
c. To one friend of mine is picar one
To one friend of mine is sting-INF
(cf. A jelly fish stung a friend of mine) (Carlos, R20)
d. Is can quitar
Is can take-INF off
(cf. You can take it off) (Carlos, R21)

In the constructions above, thematic verbs given in the infinitive in Spanish deal basically with lexical information, while the non-thematic verb is seems to be a filler for functional information such as tense and agreement. Thus, thematic verbs in Spanish remain in the base position where they are generated, and is seems to be inserted in I, a position above V. This is form is different from the is form given in the examples in (11) in which is (copula/auxiliary) precedes negation:

(11)  a. This is no
(Andrés, R10)
b. Andrés is here, is not in the school
(Beatriz, R16)
c. Yolanda is don’t going to come
(Carlos, R23)
d. Ñam, Ñam, Ñam, this is not very good
(Diana, R14)

What the present data reveal is that is (copula and auxiliary) is moved to a position higher than negation. And, as examples in (8) and (9) illustrate, data also reveal that a form of be (is) is inserted into a position higher than negation and, therefore, higher than V in declaratives and in negatives. Patterns for these two types of constructions are presented in (12a) and (12b):

(12)  a. Subject + is (copula/auxiliary) + negation + thematic verb (ing)
b. Subject + is + (modal can) + negation + (bare) thematic verb

After identifying this systematic pattern in Andrés, Beatriz, Carlos and Diana’s data, the following questions needed to be answered: 1) whether is sequences were in fact a kind of “error” that would be predicted from the learners’ L1 influence (Spanish); 2) whether these structures belonged to a developmental stage of a data-driven process. And more specifically, 3) if child L2 learners insert is in a sentence before achieving the target-like mastery of verb movement operations in English.

In order to investigate further on is-insertion constructions, I present elicited production data of yes/no questions as an additional piece of evidence. The purpose of the cross-sectional study was to
induce children to produce English interrogatives; to find out more about is constructions and to observe whether child L2 learners of English use long movement operations of verbs in yes/no interrogatives. The reasons for doing an elicitation experiment were various: 1) Andrés, Beatriz, Carlos and Diana were no longer available for longitudinal study, 2) there were a limited number of interrogatives in the longitudinal corpus, presumably because children use questions less often than declaratives, 3) to observe the development of the pattern under study (is+bare infinitive constructions) by different subjects at a particular point in time; and 4) to support the hypothesis that functional category CP is present in child L2 English from the onset of L2 acquisition.

4.2. Cross-sectional data

The cross-sectional study on the acquisition of interrogatives was carried out across six levels of Primary school (from Infant III to Primary 5), assuming that children taking part in the experiment had no English input from the home. The total number of children taking part in the experiment was 36 (18 girls and 18 boys).

Table IV: Cross-sectional study

<table>
<thead>
<tr>
<th>Level</th>
<th>Age</th>
<th>Years at school</th>
<th>Number of children</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infant III</td>
<td>5/6   years</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Primary 1</td>
<td>6/7   &quot;</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>&quot;</td>
<td>2     7/8   &quot;</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>&quot;</td>
<td>3     8/9   &quot;</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>&quot;</td>
<td>4     9/10  &quot;</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>&quot;</td>
<td>5     10/11 &quot;</td>
<td>7</td>
<td>6</td>
</tr>
</tbody>
</table>

Table IV 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). Thus, the elicited questions were spontaneous and given in a context of free play. Cross-sectional data allowed us to compare L2 learner’s knowledge about questions in which auxiliaries and modals are extracted from I and moved into another constituent (C) with other child L2 learner’s studies and also with L1 studies on interrogative sentences in English.

The first issue to be addressed was whether child learners producing yes/no interrogatives in English were transferring L1 knowledge; more specifically, Spanish allows intonation questions and thematic verb-subject inversion, and interrogatives may lack subjects, as Spanish is a pro-drop language.

The second issue to be addressed was whether children showed developmental stages in the acquisition of yes/no questions and, if they did, whether is+bare infinitive sequences played a role in the acquisition of English long movement operations of verbs.

The third issue to be addressed was if is+bare infinitive constructions occurred at the same developmental stage in child learners and, if they did, whether the results from the cross-sectional study paralleled the results from the longitudinal data. For the purpose of this paper I will refer only to the second and third issues. In (13) some examples of yes/no questions obtained across Primary (from Infant III to Primary 5) are presented:

(13) 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)

2 The children were from the same linguistic background as Andrés, Beatriz, Carlos and Diana.
3 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.
Table V below presents the number of yes/no questions elicited in each year group and the number of sentences analysed. A total number of 1,014 sentences were elicited, from which 962 interrogatives were analysed. Some sentences were rejected because they were formulas or repetitions or because they were not clear enough.

<table>
<thead>
<tr>
<th>Table V: Number of yes/no questions obtained</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infant III</td>
</tr>
<tr>
<td>Sentences obtained</td>
</tr>
<tr>
<td>Analysed</td>
</tr>
<tr>
<td>Not analysed</td>
</tr>
</tbody>
</table>

As far as movement operations of verbs are concerned, data analysis showed that learners follow stages for the acquisition of English yes/no interrogatives. Table VI suggests that at the onset of the acquisition of interrogatives, an initial period of relatively consistent Subject-Aux order in Infant III (15.7%) is followed by a drop in inversion in Primary 1 (0.8%). Since we are dealing with very young children in an experimental setting, we should consider whether some of the sentences obtained in Infant III are imitative and unanalysed interrogatives.

<table>
<thead>
<tr>
<th>Table VI: Yes/no questions with Subject-Aux inversion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infant III</td>
</tr>
<tr>
<td>Inverted sentences</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Non inverted sentences</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Analysed sentences</td>
</tr>
</tbody>
</table>

Yes/no questions lack Subject-Aux Inversion at the Primary 1 (0.8%) and Primary 2 levels (2.3%) and most interrogatives are still intonation questions. Although sentences in Primary 1 and in Primary 2 have obligatory subjects, auxiliaries and modals remain in I and this indicates that children have not acquired long movement operations of verbs in English. The examples given in (14) illustrate this point:

(14) 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 Primary 5 (85.8%), indicating that the use of preposed auxiliaries and modals is in the predicted direction. In (15), examples from Primary 4 and from Primary 5 show that children invert auxiliaries and modals, and insert do-support for questions with thematic verbs.

(15) 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)
Below, Figure I presents the developmental process of yes/no questions with subject-Aux inversion.

![Figure I: Interrogatives with Subject-Aux Inversion](image)

To conclude this section, what the data show is that child L2 learners of English acquire rules underlying yes/no questions in a piecemeal fashion – step by step. Subject-Aux Inversion starts to become productive in Primary 3 and the frequency of intonation questions drops by the end of Primary showing that learners have accomplished long movement operations of verbs for English.

Yes/no structures with *is* inserted are particularly relevant for the present study. In the cross-sectional data, there is a total of 25 sentences with *is*+ bare infinitive forms out of the 962 interrogatives obtained, which represents 2.7% of all the elicited interrogatives.

<table>
<thead>
<tr>
<th>Table VII: Yes/no questions with <em>is</em>-insertion</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="table" alt="Table VII: Yes/no questions with is-insertion" /></td>
</tr>
</tbody>
</table>

Table VII shows the number and the percentage of *is* sequences corresponding to children at the Primary 2 and Primary 3 levels due to the fact that the pattern under study was only registered at this specific learning stage. Patterns of utterances containing *is* from the cross-sectional study were of the forms presented in (16):

(16)  
- Subject + *is* + bare infinitive? (Primary 2)  
- *Is* + subject + bare infinitive? (Primary 3)

In the interrogatives given in (17), *is* is inserted in *I* in (17a) and (17b), and *is* is inserted in *C* in the examples in (17c) and (17d) carrying syntactical and morphological information.

(17)  
- She’s have a jacket green? (Primary 2, S39)  
- The frog *is* have head? (Primary 2, S118)  
- *Is* he can jump? (Primary 3, S5)  
- *Is* it live in Australia? (Primary 3, S134)

Cross-linguistic data (Figure II) reveal that the insertion of *is* emerges at a particular stage in child L2 learning. Moreover, it is interesting to note here that the production of this pattern at this particular stage of language development parallels Andrés, Beatriz, Carlos and Diana's stage of *is* + (base verb form) production:
Figure II: Yes/no questions with is-Insertion

Summing up, the observation of the cross-sectional data shows a gradual process for the acquisition of long movement of verbs in English yes/no questions in which is-Insertion precedes subject-Aux Inversion.

5. Discussion and conclusion

In the previous sections, I presented three sources of evidence concerning the issue of movement in child L2 English. The distribution of sentences with is inserted becomes systematic among child learners longitudinally, cross-sectionally and cross-linguistically, and there seems to be a relation between the insertion of is with respect to the raising of V and to the raising of I.

The research confirms that children seem to adopt a language learning strategy. As Lee (2001) points out, children “invent” a rule for the L2 grammar construction and at one stage in this grammar construction, learners insert is in declarative, negative and in interrogative sentences. According to this author, this occurs prior to the production of affixal morphology [-s, -ed] and prior to Subject-Aux Inversion in interrogatives. The use of is gradually decreases in favour of the correct constructions thereafter.

The use of this particular linguistic pattern cross-linguistically accounts for the fact that it is not an “error” that could be predicted from learner’s L1 influence. Following Lakshmanan (1994), the use of is could be interpreted as some kind of phonological error, because there is a phonological matching between English is and Spanish es. However, data from Suzman (1999), Ionin & Wexler (2001) and from Lee (2001) evidence that in some of the children’s L1 there is no such phonological matching in the forms of copula and auxiliary is:

<table>
<thead>
<tr>
<th>Language</th>
<th>Copula is</th>
<th>Auxiliary is</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sesotho</td>
<td>ké [ké]</td>
<td>a [a]</td>
</tr>
<tr>
<td>Korean</td>
<td>ieyyo/yeeyo[î-ey-yo/ yey-yo]</td>
<td>isseyo [ît-e-yo]</td>
</tr>
</tbody>
</table>

As far as Russian is concerned, Ionin & Wexler (2001) point out that suppletive inflection cannot be the effect of direct transfer from Russian because Russian lacks be copula in the present tense and has no be auxiliary in any tense except the compound future.

The explanation I suggest for the presence of this specific pattern in children's interlanguage is that child learners seem to be base-generating forms of the verb be (is, are, was, were and 'm) in I and in C rather than raising lexical verbs to “INFL” for feature checking, or rather than preposing modals and auxiliaries to subjects in interrogatives. Also, the fact that the acquisition of verb movement in English L2 exhibits a stage of is insertion supports the idea that child L2 learning is constrained by principles of learning specific to grammar, rather than by generalised learning principles.
As suggested by Roeper (1999), it seems that *is*-Insertion is as natural as *do*-Insertion, and that both are a form of economy for feature checking purposes:

- *did talk* is simpler than *talked*
- *is talk* is simpler than *talks/talk*

As for what motivates the child to create these constructions in the absence of linguistic input, one might assume that child learners formulate certain types of hypothesis about English guided by innate mechanisms. These innate mechanisms help children learn English-specific rules independently of the rules they know for their L1. These innate mechanisms let the children work within the target language and let the children build up a possible grammar. The presence and the absence of *is* + base verb forms in children’s interlanguage cannot be explained by performance limitations or by the lack of lexical knowledge, for the pattern under study co-exists with complex sentences. On the contrary, what this indicates is that at intermediate stages of development, child L2 grammars are constrained by UG. That is to say, even though L2 children produce ungrammatical sentences, their grammars conform to the principles of UG. The insertion of *is* is within the limits of UG and may be explained as a developmental form in the constructions of child L2 grammars of English, as a step forward between developmental stages.

The analysis of children’s interlanguage suggests that learners have multiple competing grammars for English and although all competing grammars are consistent with UG, some are more likely the target grammar. In this respect, the representation in (18) accounts for a possible grammar of child L2 learners of English:

\[
\begin{align*}
(18) & \quad CP \\
& \quad \quad C \quad IP \\
& \quad \quad \quad \quad I' \\
& \quad \quad \quad \quad \quad Neg P \\
& \quad \quad \quad \quad \quad \quad Neg' \\
& \quad \quad \quad \quad \quad \quad \quad Neg \\
& \quad \quad \quad \quad \quad \quad \quad \quad VP \\
& \quad \quad \quad \quad \quad \quad \quad \quad \quad V' \\
& \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad [\text{bare verb forms}]
\end{align*}
\]

Child L2 learners find inserting more economical than covert movement and more economical than overt movement. On analogy with *do*-insertion, if *is* is inserted in *I* rather than being moved from a lower position, *is* would be working as a linguistic "dummy" and children would be using it before movement of verbs among categories. Treating *be* (*is, are, was, were and 'm*) as an empty *V* allows an
elegant solution for the presence of these constructions in children's interlanguage, as *is* performs a support function analogous to dummy *do*.

Some questions remain to be answered concerning the insertion of *be* forms in English grammars. More research is needed on whether the presence of this pattern is directly related to the learner's age and on whether this form of economy also applies to declarative and negative sentences in English L1.

References


