

The Development of the Article System in the L3 English of Basque-Spanish Bilingual Primary School Children

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I have always liked both literature and languages, that is why I decided to do a degree in English Studies, but working on this dissertation has made me aware of the fact that I not only do like languages, I am also interested in anything that is related to them. Actually, as the great majority of children in the Basque Country is bilingual, we are not aware of the many processes that take place in the acquisition of a new language, neither do we realize how complicated these processes are. But this research has encouraged me to delve into this amazing field of Linguistics, and because of this I would like to thank Professor Kirsten Hummel, who introduced me to Language Acquisition during my stay at the Laval University, in Quebec. Most importantly, a big thank you to my supervisor Maria Juncal Gutiérrez Mangado for showing me that English articles can be a very interesting point even if I would never have believed it. Without her encouragement, patience and help this dissertation would not have been possible. I would also like to thank her again for letting me use the data that they collected throughout many years so that I could carry out a developmental work of the same students. In addition, I would like to express my most sincere gratitude to my family –especially to my mother, my friends and my classmates for their unconditional support in every step of this challenging work. Last but not least, I would like to give my thanks to all the schools and students who take part in this type of investigations; without them investigations would not be possible.

ABSTRACT

Research about the acquisition of the English article system has established that child and adult learners show difficulties at the time of using definite and indefinite articles. Results from these studies have revealed differences between patterns by learners from [+ article] and [- article] first languages (L1s), learners whose L1s lack articles misuse and omit articles to a higher degree than those with article systems in their L1s. The present paper presents data from Basque-Spanish bilingual primary school children focusing on the development of the L3 English article system in a four year period. The aim is to verify if these students' rates of overuse and omission follow those in previous investigations with bilingual learners. The results from a storytelling task revealed that Basque-Spanish children's rates of 'the' overuse and omission of articles resemble patterns by learners with [- article] L1s. They also show that, after four years of learning, these subjects still have problems with the production of articles although improvement is noticeable. It is concluded that it is the controversial nature of the Basque definite article '-a' which makes the participants have unexpectedly high rates of 'the' misuse and omission of articles.

Keywords: child L3 acquisition, articles, bilingualism, development, transfer

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1. INTRODUCTION

Over the past few years, the acquisition of English articles has been thoroughly investigated by several researchers and it has been shown that their acquisition is especially difficult for non-native learners (Parrish, 1987; Robertson, 2000; Lardiere, 2005; Ionin, Zubizarreta & Maldonado, 2008; Zdorenko & Paradis, 2007, 2012; Ionin, Zubizarreta & Philippov, 2009, among others).

Studies concerning the acquisition of L2 English articles by speakers with [- article] and [+ article] L1s have revealed that the definite article is acquired before the indefinite article (Parrish, 1987; Robertson, 2000; Lardiere, 2005). Those who compared article choice among L2 adult learners agreed that speakers whose L1s lack articles (e.g., Japanese or Russian) tend to misuse and omit English articles to a higher degree than those whose L1s do have articles (e.g., Spanish or French) (Ionin et al., 2008). Similarly, children from [- article] languages were found to make more omission errors than those that had a [+ article] L1. However, unlike adults, children from both [+ article] and [- article] L1s were reported to overuse ‘the’ (Zdorenko & Paradis, 2007, 2012).

There has not been much research concerning L3 acquisition of English articles. The investigation of L3 acquisition in general is more complex than L2 acquisition, basically because the so-called L1 influence can stem from either the L1 or the L2. Recent investigations made by Basoa (2010) and by Gutiérrez-Mangado and Martínez-Adrián (2009, 2013, submitted) with Basque-Spanish bilingual learners have revealed that ‘the’ overuse and omission of both definite and indefinite articles were also the main errors in this context.

In the present investigation I will delve into the difficulties that Basque-Spanish child learners face in the process of the acquisition of L3 English articles by presenting data collected from the same group of children at three stages of their learning process. The originality of this study lies in the fact that it is the first time that the acquisition of English articles is analysed throughout four years in the same group of L3 learners. Furthermore, the content of the study can be of special interest if we take into account that the nature of the Basque definite article differs considerably from the other two languages’, as it is not clear whether it is a real definite article or a noun marker (Manterola, 2015).

This paper is organized as follows. Section 2 provides the description of the article systems of the three languages we are working with, namely, English, Spanish and Basque. In section 3, I will discuss the relevant studies on the acquisition of English articles. Section 4 addresses the hypotheses and research questions, whereas section 5 describes the study. Finally, in sections 6, 7 and 8, I will present and discuss the results obtained and, then, conclude with the relevant findings of the present study.

2. THE ENGLISH, SPANISH AND BASQUE ARTICLE SYSTEMS

2.1 English articles

English articles are free morphemes that precede the noun they modify and they encode definiteness. We distinguish three different articles: definite ‘the’, indefinite ‘a/an’ and the \emptyset article (Lynn, 1999). ‘The’ is both the singular and plural form of the definite article and it can be used with definite count and mass nouns (1). There are two different forms of the –singular– indefinite article: ‘a’ is used before nouns that start with a consonant and ‘an’ before nouns starting with a vowel. The indefinite article is used with singular count and abstract nouns, but they are ungrammatical with mass nouns (2). ‘Some’ is usually considered the plural indefinite article, but there is no real consensus to this designation (Chesterman, 1991; Lynn, 1999).

(1) a. *You will find the appointment book on the table.*

b. *Give me the salt, please.*

(2) a. *You will find a pen on the table.*

b. *We wrote a complaint to the principal.*

c. **Give me a salt, please.*

Finally, the zero (\emptyset) article appears with plural nouns and mass and abstract nouns. The \emptyset article can give a generic or an existential meaning to the noun phrase, depending on the sentential context (Longobardi, 1994). However, even if both types of NPs make reference to a whole class of entities, generic NPs are indefinite and not specific (3), whereas existential NPs are indefinite, but specific (4):

(3) a. *Apples are eatable all year.*

b. *Coffee is bitter.*

(4) a. *I like apples.*

b. *I drink coffee every day.*

2.2 Spanish articles

Spanish articles are also free morphemes that precede the noun they modify and generally agree in gender and number with it. Spanish masculine and feminine definite articles take the forms ‘el/la’ (5a) and the plural ‘los/las’ (5b). Their indefinite counterparts are ‘un/una’ (6a) and ‘unos/unas’ (6b). Although singular definite articles can be used with count, abstract and mass nouns (5c), indefinites are employed with count and abstract nouns, but not with mass nouns (6c) (Marcos Marín et al., 1998; Dorta, 2001).

(5) a. *María ha comprado el periódico / la revista.*

Mary has bought the.mas newspaper / the.fem magazine

‘Mary has bought the newspaper/the magazine.’

b. *María ha comprado los periódicos / las revistas.*

Mary has bought the.mas.pl newspapers / the.fem.pl magazines

‘Mary has bought the newspapers/the magazines.’

c. *María ha comprado el agua / la leche.*

Mary has bought the.mas water / the.fem milk

‘Mary has bought the water/the milk.’

(6) a. *María ha comprado un periódico / una revista.*

Mary has bought a.mas newspaper / a.fem magazine

‘Mary has bought a newspaper/a magazine.’

b. *María ha comprado unos periódicos / unas revistas.*

Mary has bought a.mas.pl newspapers / a.fem.pl magazines

‘Mary has bought some newspapers/some magazines.’

- c. **María ha comprado un agua / una leche.*
 Mary has bought a.mas water / a.fem milk
 ‘Mary has bought some water/some milk.’

Unlike in English, bare nouns in Spanish cannot appear in subject position (7a) and generic interpretations are usually obtained through a definite article (7b). Besides, even if we can get an existential reading with \emptyset articles, the only way to get a generic reading with bare nouns is if they appear in object position (7c) (Contreras, 1996).

- (7) a. **Perros son agradables.*

dogs are lovely
 ‘Dogs are lovely.’

- b. *Los perros son agradables.*

the dogs are lovely
 ‘Dogs are lovely.’

- c. *Esta mañana he plantado árboles en el jardín.*

this morning have-I planted trees in the.mas garden
 ‘This morning I have planted trees in the garden.’

2.3 Basque articles

In contrast to English and Spanish, Basque is a highly inflected, ergative, head final language and determiners follow the noun they modify. Its definite article is a bound morpheme whose form is ‘-a’ for the singular and ‘-ak’ for the plural, as shown in (8a) and (8b) respectively. The indefinite article, is a free morpheme that follows the noun whose singular form is ‘bat’ –which is identical to the numeral ‘one’– (9a) and its plural form is ‘batzuk’ (9b). Basque nouns cannot appear in DPs with a \emptyset article, in other words, there are no bare nouns in Basque (10) (Laka, 1993; Artiagoitia, 2004).

- (8) a. *Irakaslea berandu iritsi da.*

teacher-the late arrive is
 ‘The teacher has arrived late.’

b. *Irakasleak berandu iritsi dira.*
teachers-the.pl late arrive are
'The teachers have arrived late.'

(9) a. *Irakasle bat berandu iritsi da.*
teacher one late arrive is
'A/One teacher has arrived late.'

b. *Irakasle batzuk berandu iritsi dira.*
teacher ones late arrive are
'Some teachers have arrived late.'

(10) **Irakasle-Ø berandu iristen dira.*
teachers late arrive are
'Teachers arrive late.'

As said above, the definite article goes attached to the noun, it appears only once in the phrase and it encodes number and definiteness (Manterola, 2015). In addition, '-a' in Basque appears in generics (11a), existential (11b) and in contexts where it can be interpreted as indefinite (Artiagoitia, 2004; Etxeberria, 2008). In cases where in Basque we find indefinite interpretations of the morpheme '-a' in English we can have either a bare noun (12a) or an indefinite article (12b), but this latter use is becoming rare and people use 'bat' instead (Garzia, 2005). Thus, the universality of its use has led researchers to propose that '-a' is actually a noun marker, rather than a definite article (Manterola, 2015).

(11) a. *Suhiltzaile-a-k altruistak dira.*
fireman-det-pl altruistic are
'Firemen are altruistic.'

b. *Koka Kola goxoa da.*
Coca Cola tasty is
'Coca Cola is tasty.'

- (12) a. *Jonek xanpaina erosi du.*
 John-erg. champagne-det buy has
 ‘John has bought champagne/the champagne.’
- b. *Gure bizilagunek kotxea erosi dute.*
 Our neighbours car a/the have bought.
 ‘Our neighbours have bought a/the car.’

3. THE ACQUISITION OF ARTICLES

3.1 Acquisition of L1 articles

Several studies concerning the acquisition of L1 English articles have stated that even if children start producing them quite early, they make mistakes until around the age of four. These errors generally happen to be ‘the’ overuse in indefinite contexts where ‘a’ should be used, and omission of articles in early stages (Brown, 1973; Snape, 2005). Some researchers have argued that the main reason for ‘the’ misuse is that children ignore hearer knowledge (Maratsots, 1976; Schaeffer & Matthewson, 2005); others, have suggested that it is due to the fact that the dimension of specificity is acquired before that of definiteness (Bickerton, 1981). It has also been documented that bare nominals are produced before the acquisition of any article and, therefore, it has been suggested that the natural stage in the acquisition of English articles is the following: Ø > the > a (Parrish, 1987; Robertson, 2000; Lardiere, 2005).

Although the same sequence of acquisition prevails in other languages that have both definite and indefinite articles, such as Spanish (Hernández Pina, 1984), research has shown that omission rates vary between different types of languages. Consequently, it can be generalized that article omission is a property of early stages and that overuse of the definite article is a more prolonged aspect of L1 acquisition, regardless of the language type (Zdorenko & Paradis, 2012).

However, children learning Basque as their first language have been reported not to omit articles, not even in early stages (Barreña & Ezeizabarrena, 1999). The production of nouns and articles starts at the same time. Therefore, the lack of Basque articles’

omissions has been suggested to be a direct effect of the fact that children do not identify Basque definite articles as different morphemes from nouns (Basoa, 2010).

3.2 Acquisition of L2 articles

It seems that the general development of both adult and children L2 English learners follows the same pattern ($\emptyset > \text{the} > \text{a}$) (Parrish, 1987; Robertson, 2000; Lardiere, 2005). Zdorenko and Paradis (2007, 2012) have realized various investigations with children from [- article] and [+ article] L1s. In the 2007 study they measured children's accuracy in five different rounds. Learners' accuracy –regardless of their L1– was above 90% for the use of 'the' in the last round, whereas it was still below 90% for the use of 'a'. In the same vein, the 2012 study revealed that the percentage of all students' –including [- article] and [+ article]– correct scores were of 80% for 'the' and 51% for 'a'. Lardiere (2005: 181) has suggested that “the definite article in English is easier to acquire because [it] can be applied to any noun regardless of its number or count/mass properties. The semantic conditioning of the indefinite article, on the other hand, is more complex”. This would explain why article misuse is the main error made by L2 English learners with all type of L1s and omission is primarily produced by students from [- article] languages. I will now discuss each of these inaccuracies in depth.

To start with, the Fluctuation Hypothesis (FH) needs to be mentioned (Ionin et al., 2004). The FH is a hypothesis which accounts for the overuse of the definite article. Ionin et al. (2004) proposed that languages with article systems like English can encode two features: [\pm definite] and [\pm specific]. In the first case, only the speaker owns the knowledge of the referent, whereas in the second both speaker and hearer are aware of the referent. Besides, definiteness implies uniqueness, when specificity does not (Ionin et al., 2009). In other words, a NP is definite when “it refers to entities unambiguously identifiable by the participants of the speech act”, whereas specificity “refers to a knowledge held by the speaker” (Barrera, 2008: 45-46). According to the FH, L2 English learners whose L1s lack articles fluctuate between these two features of the Article Choice Parameter (ACP) until sufficient input tells them which is the correct pattern. In this way, speakers with [- article] L1s access the definiteness and specificity parameters through Universal Grammar (UG) and fluctuate between them. They

consider ‘the’ as marking definiteness or specificity, and ‘a’ as marking indefiniteness or non-specificity. In other words, learners fluctuate between the two settings.

Several differences have been discovered between adult and children L2 English article misuse. On the one hand, adults from [- article] languages overuse both the definite and the indefinite article, unlike those who have [+ article] mother tongues. This phenomenon has been suggested to be a direct effect of transfer and fluctuation (Ionin et al., 2008, 2009). L2 learners from [+ article] L1s are thought to transfer the semantic properties of their L1 articles into L2 English, whereas those from [- article] L1s fluctuate. Subsequently, results from Ionin et al. (2008) with L1-Russian and L1-Spanish learners of English were explained in those terms.

On the other hand, the predominant misuse children from both [- article] and [+ article] L1s show is ‘the’ overuse (Zdorenko & Paradis, 2007, 2012). Since all children, regardless of their L1, appear to overuse ‘the’, L1 transfer cannot be the reason and, therefore, the assumption made by Lardiere (2005) quoted before seems to be right. The only distinction between children with different L1s is the use of null articles in definite and indefinite contexts by [- article] L1 children.

There have been several explanations to these errors in the acquisition of L2 English articles. To start with, some studies (e.g., Snape, 2005; Ionin et al., 2008) supporting the FH proposed transfer and fluctuation as main strategies to have an impact on learners’ overuse of the definite article. They argued that in the case of adults from [- article] L1s it was fluctuation which caused ‘the’ overuse to be so high –since they could not rely on any previous acquired knowledge of article use–, whereas in the case of adults from [+ article] L1s transfer played the main role in their low overuse of the definite article patterns.

Ionin et al. (2009) compared the use of articles in adult and children Russian speakers, which is a [- article] language, using a written elicitation task. The results showed that whereas adults overused definite and indefinite articles, children only made ‘the’ overuse mistakes. They argued that both age groups could access the definiteness and specificity parameters provided by the UG, by means of the implicit domain-specific knowledge. However, it was suggested that the different pattern concerning ‘a’ overuse was a direct consequence of adults (in general) using explicit strategies in a more extensive way than children, in explicit elicitation tasks.

Finally, Zdorenko and Paradis (2012) focused this issue as a direct consequence of the universal pattern of the acquisition of English articles ($\emptyset > \text{the} > \text{a}$). Zdorenko and Paradis (2012) made a study with children from various L1 backgrounds: Chinese and Hindi/Urdu/Punjabi are [- article] languages, whereas Spanish and Arabic are [+ article]. They analysed children's use of articles in storytelling and reported that "the rate of *the* substitution in indefinite contexts was high in [...] all L1 groups" (p. 54). Hence, they concluded that child L2 English learners overuse 'the' regardless of their L1. Based on the fact that children acquiring English as their L1, as well as adult and child learners of L2 English tend to overuse the definite article in indefinite contexts, they argued that 'the' overuse may be a developmental error and not a transfer one.

As far as omission is concerned, it seems to be similar in adult (Ionin et al., 2008) and children (Zdorenko & Paradis, 2007, 2012). Learners from [- article] L1s omit L2 English definite and indefinite articles to a greater extent than speakers from [+ article] L1s (Parrish, 1987; Robertson, 2000; Lardiere, 2005).

In conclusion, as Zdorenko and Paradis (2012) have suggested, I would say that "there is continuity in the way article system develops in L1 learners, in all age groups of child L2 learners, and in adult L2 learners" (p. 44).

3.3 Acquisition of L3 articles

First of all, it needs to be highlighted that there are not so many studies concerning L3 acquisition as L2. Researchers have proposed different factors which may affect the language from which transfer takes place in L3 acquisition: proficiency level (Ringbom, 1987), psychotypology (Rothman & Cabrelli-Amaro, 2010) or age of acquisition (Cenoz, 2001), among others. However interesting, this issue will not be addressed in this paper.

In a series of studies, Gutiérrez-Mangado and Martínez-Adrián (2009, 2013, 2014, submitted) studied the acquisition of English articles by Basque-Spanish bilinguals. They found that Basque-Spanish learners of L3 English overused and omitted articles more frequently than had been reported for other [+ article] L1 learners. Gutiérrez-Mangado and Martínez-Adrián (submitted) compared L1 Spanish learners of L2 English with L1 Basque-Spanish learners of L3 English at Secondary Education.

The aim of the investigation was to compare both groups' results in order to determine whether the controversial Basque definite article '-a' influences the Basque-Spanish bilingual students' acquisition of L3 English articles. For that, the students were asked to tell the picture story "Frog, where are you?" and results revealed that the Basque-Spanish bilinguals overused 'the' and omitted both definite and indefinite articles to a greater extent than the Spanish speakers. Most importantly, it was discovered that the patterns by Basque-Spanish bilinguals simulate the ones by students from [- article] L1s, which was completely unexpected taking into account that both of their first languages have articles. Therefore, the authors concluded that the special features of the Basque definite article made these students behave in a similar way to L2 English learners with [- article] L1s, and that this supports the suggestion that the Basque definite article '-a' is a noun marker (Manterola, 2015).

Basoa (2010) carried out a research with Basque-Spanish bilingual children aged 9-10. The learners had been learning English as a third language since they were four and they had received around 400 hours of instruction. She divided students in two groups: a Basque dominant and a Spanish dominant language group. Using a storytelling task Basoa (2010) showed that 'the' overuse and omission of the definite and indefinite articles were the main errors interestingly, and supporting results from Gutiérrez-Mangado and Martínez-Adrián (2009), the children investigated overused 'the' and omitted articles more frequently than reported for other [+ article] L1s. However, omission was not expected since both Spanish and Basque have articles, and it appeared anyway.

4. HYPOTHESES AND RESEARCH QUESTIONS

The main aim of this study is to investigate the development of article use by Basque-Spanish bilingual children over a four year period and to investigate what type of improvements, if any, arise in students' productions. Bearing in mind the previous studies on the acquisition of L2 and L3 articles (i.e. Ionin et al., 2008; Zdorenko & Paradis, 2007, 2012; Gutiérrez-Mangado & Martínez-Adrián, (submitted); Basoa, 2010), I address the following questions:

- I) Do Basque-Spanish bilingual children overuse ‘the’ to a higher extent than learners from other [+ article] languages?
- II) Are Basque-Spanish bilingual children more accurate as they grow older?
- III) Do Basque-Spanish bilingual children misuse L3 English articles to a lesser extent as they become more advanced learners?
- IV) Do Basque-Spanish bilingual children omit L3 English articles to a lower degree as they have more exposure to the target language?

5. THE STUDY

5.1 Participants

First of all, it is important to clarify that when I speak of bilingual Basque-Spanish children I am referring to them in terms of Malmberg’s definition of a bilingual (1997, pp. 134-135 cited in Hummel, 2014):

“A bilingual is an individual who, in addition to his mother tongue, has acquired from childhood onwards or from an early age a second language by natural means (in principle not by formal instruction), so that he has come a fully competent member of the other linguistic community within the sphere, the occupational or social group, to which he naturally belongs.”

The linguistic context of the participants in this study was a Basque speaking environment, a town in the province of Gipuzkoa, in Northern Spain, where Basque is the predominant language despite the fact that it is a minority language. However, all participants in the study were bilingual Basque-Spanish speakers, since Spanish is the majority language in the region. Therefore, English was their L3 language.

Data were collected from the same participants at different stages in their Primary Education: second year (LH2), fourth year (LH4) and sixth year (LH6). All the participants attended an all-Basque school where all subjects were taught in Basque, except for Spanish language and English language. They had been learning English (traditional EFL instruction) since age four. Participants attending English private lessons or with other extracurricular input in English were eliminated from the sample.

The main characteristics of the participants in each course are shown in the table below:

	Age of testing	Age of first exposure	Years of exposure	Hours of exp. per week	Total n° hours
Group LH2 (N=17)	8-9	4	4	3	308
Group LH4 (N=9)	10-11	4	6	3	506
Group LH6 (N=17)	12-13	4	8	3	704

Table 1: Characteristics of the participants.

5.2 Instruments and procedure

Participants were asked to tell Mayer’s (1969) story picture “Frog, where are you?” with the help of a visual support of vignettes which both the subject and the experimenter could see during the task. Therefore, most contexts were [+ specific].

All the participants were digitally recorded and the collected oral productions were transcribed in CHILDES format and coded with CLAN (McWhinney, 2000). A sample narrative from Group LH2 and Group LH6 can be found in Appendix 1 and 2¹.

5.3 Data coding

Data coding involved two different steps: analysis of the transcriptions and quantification. Hence, the narratives were analysed focusing on the use of the articles in definite and indefinite contexts. Participants were expected to use the indefinite article every time a new character appeared in the story, even if both the subjects and the experimenter knew the story, for example: “Once upon a time, there was a boy, a dog and a frog...” and then proceed with the definite article “the boy, the dog and the frog” in subsequent mentioning.

¹ I have included a sample from the first group and another one from the last in order to show the difference between the youngest and the eldest age groups.

It must be said that foremost sentences needed to contain at least a subject and a verb to be taken into consideration. Utterances such as (14) below were eliminated since they lacked a verb:

(13) *CHI: and the dog and the boy.

Besides, the use of the definite article in the case of words referring to something that is unique (*the water*) or exists as only one in the context given (*the forest or the house*) were not included in the codification. Plurals with ‘the’ (*e.g.: the bees*) and exact repetitions of the investigator’s response to the pupils’ requests for vocabulary were also eliminated. Finally, the participants sometimes used ‘a’ (Spanish interference) instead of the preposition ‘to’ (*a the forest* = to the forest). These wrong uses have also been left out. I should point out that a few participants referred to ‘the boy’ by giving him a proper name, such as Mikel or Alex, and therefore, their recordings were not as productive in terms of articles as others where a full DP was used.

Next I quantified all obligatory contexts for definite and indefinite articles. Then, articles were coded according to (I) their correctness and (II) their incorrectness in the context. I also counted omissions (III) of the article in indefinite and definite contexts, as shown below:

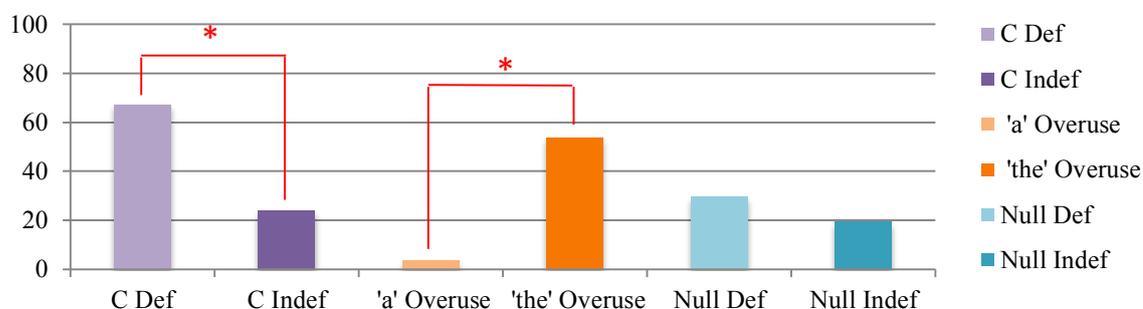
- I) a. Correct definite (C Def): *and look que (that) no is the frog*
b. Correct indefinite (C Indef): *once upon a time, there was a frog*
- II) a. Incorrect definite (‘a’ Overuse): *the reindeer take a (=to) a dog*
b. Incorrect indefinite (‘the’ Overuse): *the boy is look in the hole*
- III) a. Null definite (Null Def): *frog no is in the bot (jar)*
b. Null indefinite (Null Indef): *boy and dog is sleeping*

Finally, note that wrong uses of the numeral ‘one’ (IV) instead of the indefinite article have also been coded. I have added this last variant to the codification because participants used it quite often instead of the indefinite article, mostly in Group LH6.

IV) ‘Incorrect one’: *and come out one animal*

6. RESULTS

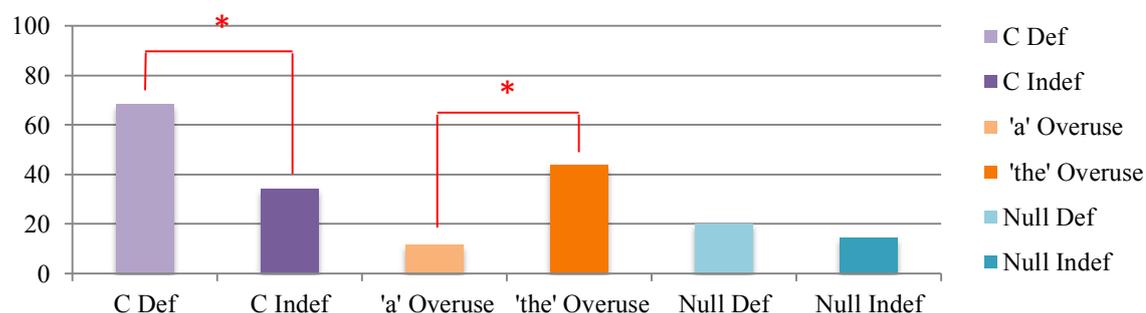
I will begin by presenting the overall production results in Group LH2, which is shown in Graph 1 below²:



Graph 1: Correct and incorrect % of article use by Group LH2.

It appears to be the case that in Group LH2, the learners produced more correct definite articles than indefinite ones. In the same vein, the learners also produced more instances of incorrect definite article than incorrect indefinite article. With respect to omissions, there seem to be no differences in this group, as can be seen in the graph.

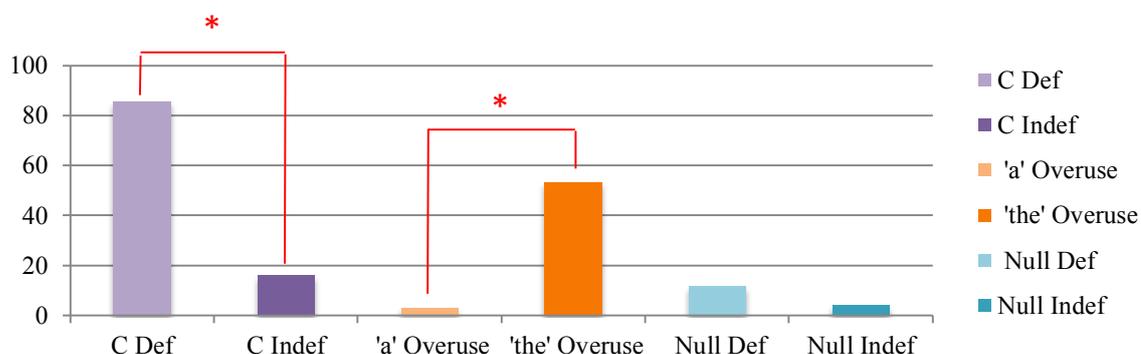
Two years later, when the subjects are at LH4, the same pattern seems to hold: they are more accurate with the definite than the indefinite article (Graph 2). The misuse of the definite article is also much more meaningful than that of the indefinite article. However, again, there appear to be no differences between omissions of the definite and indefinite articles.



Graph 2: Correct and incorrect % of article use by Group LH4.

² Note that the results and the conclusions drawn from the data analysis are at this stage totally speculative since no statistical analyses have been carried out. I am fully aware of the need to test statistically all the results, however, I lack the knowledge to do so.

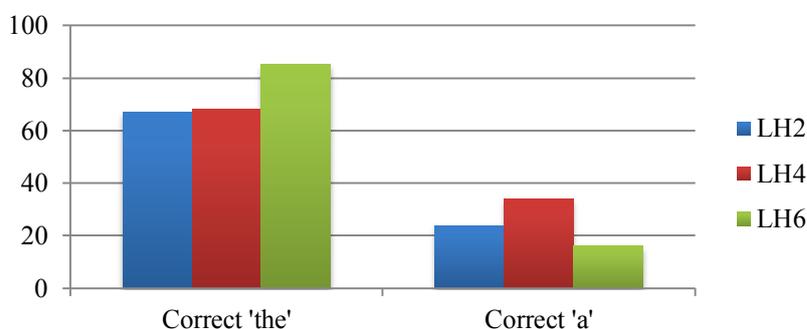
Finally, the results show that in Group LH6, these subjects still have problems with the production of articles in that they are more accurate in the production of the definite than the indefinite article and in that they use the definite article in indefinite contexts, but almost never vice versa. The difference between omission in definite and indefinite context is not perceptible (Graph3).



Graph 3: Correct and incorrect % of article use by Group LH6.

6.1 Between group comparisons

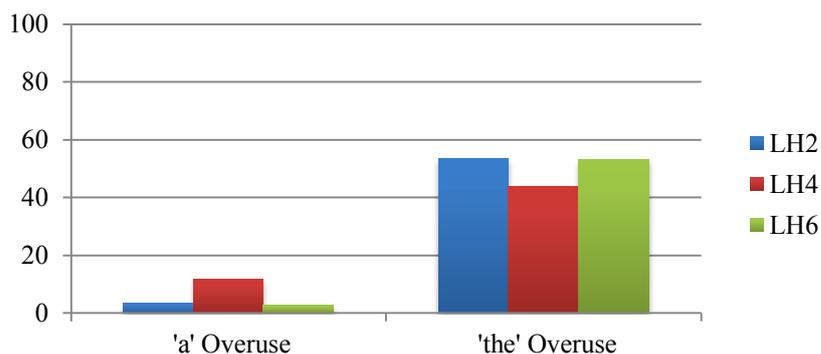
Bearing in mind the descriptions within the groups that have just been reported, we will now look into the results between groups, concentrating on students' correct use of articles, as well as on the errors learners made with respect to 'a' overuse, 'the' overuse and omission. We also have added the usage of the numeral determiner 'one' because the participants used it quite often instead of the indefinite article. Graph 4 shows the percentage of correct use of definite and indefinite articles, by the three groups:



Graph 4: Correct % of definite and indefinite articles.

As can be observed, the percentage of correct use of the definite article is around 60% for the LH2 and LH4 groups, while this percentage is higher in LH6. With respect to the correct use of the indefinite article, all groups were less accurate than with the definite article, their accuracy rates never being higher than 40%.

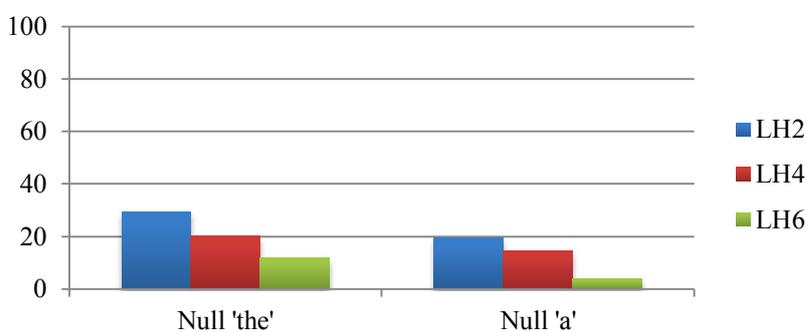
Graph 5 below shows the percentage of the results obtained by each of the age group with regard to ‘a’ and ‘the’ overuse:



Graph 5: % of overuse of the definite and indefinite articles.

The overuse of the definite article appears to be higher than the overuse of the indefinite article. More specifically, the participants’ rate of ‘the’ overuse was around 50% throughout the four year period, whereas their rate of ‘a’ overuse never went over 12%.

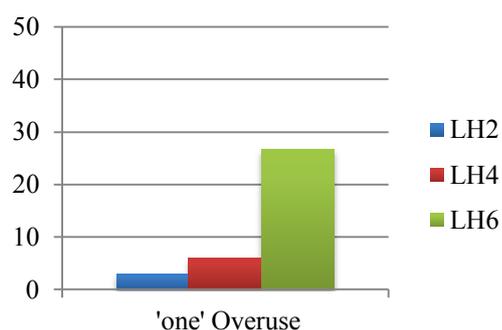
Graph 6 below shows the percentage of the results obtained by the three groups concerning ‘a’ and ‘the’ omission. It seems that omission rates decrease:



Graph 6: % of null definite and indefinite articles.

As can be seen, both omission rates of the definite and indefinite article go down progressively. The percentages of null ‘the’ are reduced around 10% from one group to the next one, whereas those of null ‘a’ decrease around 5% from LH2 to LH4 and 10% from LH4 to LH6. Therefore, omission rates go from 30% to 10% and from 20% to 5%, for the definite and indefinite articles respectively.

Finally, Graph 7 below shows the percentage of the results obtained by each group in terms of ‘one’ overuse –instead of the indefinite article³:



Graph 7: Mean % of the incorrect use of the numeral ‘one’.

Overuse rates of the numeral ‘one’ are almost imperceptible in LH2 and LH4, never being higher than 6%; but this percentage goes over 25% in LH6.

7. DISCUSSION

I have looked at the major differences between the groups in three steps. The possible explanations to these findings will be discussed later in this section.

Firstly, as for distinctions between the LH2 and LH4 groups, it has been noticed that learners in the LH2 group produced less instances of incorrect indefinite article than the LH4 group, in other words, ‘a’ overuse was higher in LH4.

Secondly, I have considered the dissimilarities between the LH4 and LH6 groups. The results have shown that the LH4 group produced less sentences with the correct definite article when compared with the LH6 group, although the difference appears not to be very big. The results have also shown that the LH4 group produced more examples

³ Note that the maximum of the percentage axis is 50, in order to see the differences more clearly.

of the incorrect definite article (they overused ‘the’ more than the LH6 group). As regards the production of the indefinite article, the LH4 seemed to produce more correct indefinites than the LH6 group. Finally, concerning the use of ‘one’ instead of the indefinite article, the results appear to indicate that the LH6 group used this strategy more often than the LH4 group, which would explain the descent of correct indefinite article instances from LH4 to LH6.

Thirdly, differences between the LH2 and LH6 groups have been evaluated in relation to their evolution from the first to the last stage. The results have shown that the LH2 group seemed to produce more null definites than the LH6 group. The results also showed that whereas the incorrect production of ‘one’ instead of the indefinite article was almost inexistent in the LH2 group, this wrong use concerned more than a quarter of the learners in the LH6 group.

In what follows I will compare the findings of the present study with those found in previous investigations of L2 and L3 acquisition of articles.

With respect to research question 1, namely whether Basque-Spanish bilingual children overuse ‘the’ to a higher extent than learners from [+ article] languages, I would say that the answer is that they do. The overuse of the definite article by students in this study went from 53.7% in LH2, to 43.9% in LH4 and to 53.3% in LH6; these high rates would explain the inaccuracy in the production of the indefinite article.

These results support what has been found in previous studies. Gutiérrez-Mangado and Martínez-Adrián (submitted) showed that Basque-Spanish bilingual adolescents overused ‘the’ to a higher extent than the correspondent L1 Spanish group (56.9% and 14.5% respectively). Similarly, investigations with adult learners from [- article] and [+ article] L1s (Ionin et al., 2008) reported that those whose L1s lacked articles overused the definite article to a higher degree than those with [+ article] mother tongues, as a result of the impossibility to transfer their knowledge on articles, unlike the ones with [+ article] L1s. It is important to take into account that it has been argued that children transfer less than adults from their L1 since the latter usually rely more on the languages they have acquired previously (Zdorenko & Paradis, 2012; Ionin et al., 2008). So, why do Basque-Spanish bilingual learners of L3 English overuse the definite article so often?

The patterns of ‘the’ overuse reported in the present study seems to fit more with the pattern of groups from [- article] L1s, with rates of ‘the’ overuse of around 50% in the three stages. Consequently, according to what Gutiérrez-Mangado and Martínez-Adrián (2009, 2013, 2014, submitted) and Basoa (2010) have suggested, the overuse rates of the definite article by Basque-Spanish bilinguals fit those reported for learners from [- article] L1s, and could be the direct influence of the controversial nature of the Basque definite article ‘-a’. Recall that the definite article in Basque is used in a large variety of contexts and that it has been claimed to be a noun marker instead of a real article (Manterola, 2015).

Although overuse of the definite article could be a feature that can be found in all students learning English as their L2 or L3, I would argue that it is a characteristic that appears only in early stages in children from [+ article] languages, whereas it remains active for a longer period in children from [- article] languages. That would explain the results mentioned in Gutiérrez-Mangado and Martínez-Adrián (2009, 2013, 2014, submitted), as Basque influence makes learners behave like those that have a [- article] L1.

Regarding research question 2, whether Basque-Spanish bilingual children are more accurate as they grow older, the results are diverse. In this regard, it was expected that the students would ameliorate their correct uses of both the definite and the indefinite article. However, the results obtained have revealed that participants in this study were more accurate with the definite article as they grew older, but not with the indefinite one. There was a progressive amelioration of the definite article during the four years, even if it was more significant in the second half of the process –as the improvement from LH2 to LH4 was of 1% and that from LH4 to LH6 was of 17%. On the contrary, students seemed to improve in the use of the indefinite article during the first two years, but they fell back again during the last two. The accuracy rates went from 23,9% in LH2 to 34,1% in LH4 but down to 16% in LH6.

This could be explained by the high rates of overuse of the numeral ‘one’ instead of the indefinite article that have been found, especially in the last stage. The most plausible interpretation of this misuse would be the fact that in both Basque and Spanish, we use the same word to refer to the indefinite article ‘a’ and the numeral ‘one’:

- | | |
|--|---|
| <p>(14) <i>Liburu bat erosi dugu.</i>
 book a/one buy us
 ‘We have bought a/one book.’</p> | <p><i>Hemos comprado un libro.</i>
 us have bought a/one book
 ‘We have bought a/one book.’</p> |
|--|---|

Special consideration could be made on this specific use of ‘one’ in indefinite contexts, because it could be considered that the concept of indefiniteness is correctly acknowledged, but is expressed by the wrong use of the numeral ‘one’ instead of the indefinite article ‘a’. Children do seem to be aware of the indefinite context, but choose the wrong word for it. If we had quantified these misuses of ‘one’ as correct uses of ‘a’ the results would have been quite different and would have shown a more regular curve in the improvement of the incorrect uses of the indefinite article. This question would be an interesting issue for further research: why the use of the word ‘one’ increases so suddenly in the LH6 learners when this word is already common in their lexicon when they are in LH2?

These findings go in line with the results in several previous investigations (Gutiérrez-Mangado & Martínez-Adrián (2009, 2013, 2014, submitted); Zdorenko & Paradis, 2007, 2012; Ionin et al., 2009). Results by Gutiérrez-Mangado and Martínez-Adrián (submitted) showed that their Basque-Spanish bilingual groups were more accurate in the production of the definite article than in the indefinite. Nonetheless, such difference was not found in the accuracy rates of ‘the’ and ‘a’ by the L1 Spanish group in Gutiérrez-Mangado and Martínez-Adrián (submitted). They suggested that the difference in accuracy found between their two teen groups could be explained by the fact that learners from [+ article] languages go faster through the developmental stage. Correspondingly, Ionin et al. (2009) found in their study that adult L1 Spanish learners of L2 English were highly accurate in both their definite and indefinite article choices. They concluded that those results were a direct effect of transfer. Although highly speculative at this stage, if this line of reasoning happens to be right, it could be hypothesized that the aforementioned assumption concerning misuse of the numeral ‘one’ in this study has its provenance exclusively in Basque.

When compared to the results reported in the literature on children’s use of L2 English articles (Zdorenko & Paradis, 2007, 2012), results coincide in that accuracy rates were consistently lower with the indefinite article than with the definite. Both of the studies carried out by Zdorenko and Paradis (2007, 2012) that we analysed are

extremely useful for the present paper since they administered storytelling tasks too. In these studies, the accuracy rates were 80% and above 90% for the definite article, whereas they were 51% and below 90% for the indefinite one, results that concur completely with the ones in this research.

Once more, the correct productions of ‘the’ in the present study improved significantly along with students’ length of exposure, but the correct productions of ‘a’ did not in terms of correctness in the use of the indefinite article. Doubt remains as to the consideration of using ‘one’ in indefinite contexts. Nonetheless, it seems that such differences on accuracy are a direct effect of the universal pattern on the acquisition of articles ($\emptyset > \text{the} > \text{a}$) (Zdorenko & Paradis, 2012).

As regards research question 3, namely whether Basque-Spanish bilingual children misuse L3 English articles to a lesser extent as they become more advanced learners; the results seem to show that the answer is negative. The rates of ‘a’ misuse, comparing to ‘the’ misuse, were much lower in the three age groups; the former oscillate between 3% and 12%, whereas the latter between 44% and 54%. Anyhow, it is important to mention that in both definite and indefinite article misuse there was no improvement from LH2 to LH6.

However, the question remains as to why the students overuse the definite article to the same extent when they are in LH2 and, four years later, in LH6. There are a few hypotheses which could explain this type of error. On the one hand, children seem to use the definite article to introduce a noun for the first time, in opposition to adults’ use of the indefinite article (e.g. Brown, 1973; Maratsos, 1976; Warden, 1976). It has been suggested that this kind of error can be explained in terms of children’s ‘egocentricity’ in the Piagetian sense, which has been described as the inability of children to understand that listeners do not necessarily know the referents they are talking about. As Warden (1976: 110) clarified:

“[a child] is unable to adopt his audience’s point of view. From his own egocentric view point, a referent is specified as soon as he (the speaker) is familiar with it; he fails to realize that his audience will only become familiar with his referent after he has identified it for them verbally”.

Schaeffer and Matthewson (2005) suggested that these ‘egocentric errors’ last until the age of four. Nonetheless, Zdorenko and Paradis (2012), based on results by Warden

(1976), which showed that ‘the’ substitution was still considerable by nine-year-old children in a storytelling task, proposed that the egocentric period lasts for a longer period of time. Therefore, this ‘egocentricity’ could be one of the reasons why the children of the present study overuse the definite article even when they are 12 years old, given that the vignettes of the story were visible for them and for the investigator.

On the other hand, a different explanation may arise if we take into account the Mean Length of Utterance (MLU) and the type/token ratios of each of the children in this study. When these aspects of children’s narrations were analysed, it was clear that the learners’ MLU was higher and that the used structures were more complex as they grew older, as can be seen in the table below. Hence, the increased complexity of the narrations could explain the high rates of ‘the’ overuse in the results within the eldest group.

	Mean type/token Ratio	MLU
Group LH2	0,24	140,94
Group LH4	0,20	249,88
Group LH6	0,34	255,24

Table 2: Mean Length of Utterances and mean type/token Ratios of each age group.

In comparison, rates of ‘a’ overuse are much lower, as in the results reported in other studies. The results in the study that Gutiérrez-Mangado and Martínez-Adrián (submitted) made with Basque-Spanish bilingual and Spanish monolingual adolescents revealed that the overuse of the indefinite article was very marginal in both groups. Similarly, in their research with children from [- article] and [+ article] languages, Zdorenko and Paradis (2012) showed that ‘a’ overuse was almost inexistent in all groups regardless their L1. Nevertheless, Ionin et al. (2009) proved that adults do not follow the same pattern as children and that they actually overuse both the definite and the indefinite article. Unlike ‘the’ overuse, they associated ‘a’ overuse to the elicitation task format, that is to say, to the type of knowledge (implicit or explicit) that the given task evokes. In this respect, as stated before, I agree with the proposal by Zdorenko and Paradis (2012) that explains the overuse of the definite article as a reflection of the

developmental pattern in the acquisition of English articles, since both studies (theirs and the present study) collected data from a storytelling task with children⁴.

Finally, concerning research question 4, whether Basque-Spanish bilingual children omit L3 English articles to a lower degree as they have more exposure to the target language, the results show that this is the case. Omission rates of both the definite and the indefinite articles went down from LH2 to LH6, but the improvement was especially significant for the omission of the definite article (from 30% to 12%).

When comparing these results with the ones in previous studies, we have found that the omission rates of Basque-Spanish bilinguals are more similar to the results reported in studies with [- article] L1 learners. Gutiérrez-Mangado and Martínez-Adrián (submitted) showed that their bilingual teen students omitted articles to a higher degree than the Spanish speaker (19,3% and 4% respectively). Looking at the results obtained by Zdorenko and Paradis (2012), they revealed that the omission rates for the definite article were larger than for the indefinite article in all groups regardless of their L1. However, the omission rates of children with [- article] L1s were much higher and they ranged from 29% to 35% for the definite article and from 17% to 20% for the indefinite article, whereas those with [+ article] L1s did not go over 6% in either case. In this respect, it is clearly visible that the omission rates in the Basque-Spanish bilinguals of the aforementioned research are closer to the rates reported for [- article] L1 learners than to [+ article] learners.

Correspondingly, the omission rates by children in the present study went up to almost 30% for the definite article and 20% for the indefinite, supporting the explanation that Basque influence makes bilingual learners act in a similar way to learners with [- article] first languages. In her study made with Basque-Spanish bilingual children, Basoa (2010) also found that omission of articles was characteristic of both the Basque dominant and Spanish dominant groups, probably because Basque is the language which was used more frequently by all.

To sum up, the results in this study have revealed that, supporting previous research, Basque-Spanish bilingual child learners overuse ‘the’ and omit articles to a higher

⁴ It needs to be pointed out that in the study by Zdorenko and Paradis (2012) the pictures were only visible to the child, whereas in the present study they were visible to both the experimenter and the children.

extent than learners from other [+ article] L1s. The results have also shown that whereas the participants' omission rates improve progressively, their rates of 'the' overuse do not. I support the suggestion made by Gutiérrez-Mangado and Martínez-Adrián (submitted) that the difficulties of Basque-Spanish bilinguals to overcome the misuse of the definite article is a direct consequence of the Basque definite article '-a'. The reason why Basque-Spanish learners of L3 English transfer their knowledge on Basque articles to the target language, but not the knowledge of Spanish articles is an interesting issue. Cenoz (2001) suggested that the transfer lies on the frequency with which each of the previously known languages is used. In the present case, the children use Basque in their everyday life –at school and at home–; therefore, it is the most prominent language for them and that is why they could transfer from Basque instead of Spanish.

This study has several limitations which make any conclusions only tentative. To start with, there is no control group, a group of natives of the same ages with which to compare the results obtained here. Secondly, as mentioned before, no statistical analyses were carried out to support the conclusions and hypotheses entertained in the paper. Finally, it would be interesting to confirm the results of this study by giving the children a different task where the story would not be known by the experimenter and where there would be no visual support, that is to say, the child would narrate a story which he/she knows for sure that the experimenter is ignorant about. In order to complement the data from oral narrations, written productions and fill-in-the-gap tasks could also be administered in further research.

8. CONCLUSION

The results of the present study have revealed that, after four years of learning, Basque-Spanish bilingual learners of L3 English still have problems with the production of articles; they show high rates of overuse of the definite article and of omissions of both the definite and indefinite articles. These results support the idea that it is the controversial nature of the Basque definite article '-a' which causes the patterns from Basque-Spanish bilinguals to resemble the pattern reported from [- article] L1 learners of L2 English. Last but not least, it has been discovered that the Basque-Spanish bilingual child learners involved in this study tend to use the numeral 'one' instead of the indefinite article for indefinite contexts.

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APPENDIX 1: Sample codification of the story by student in LH2.

@Begin
@Participants: INV investigator , CHI 07 LH2
@Filename: CHI07 LH2
@Coder: Mauriñe
@Date: 16-04-2016

*CHI: the frog.
*CHI: the boy and the dog / is looking the frog.
%mor: *oblcindef:the:a *oblcindef:the:a *oblcindef:the:a.
*CHI: the boy and the dog is asleep.
%mor: oblcldef:the oblcldef:the.
*CHI: the boy and the dog is looking####.
%mor: oblcldef:the oblcldef:the.
*CHI: the dog and the boy is speaking.
%mor: oblcldef:the oblcldef:the.
*CHI: the dog is jump.
%mor: oblcldef:the.
*CHI: the boy and the dog is speaking.
%mor: oblcldef:the oblcldef:the.
*CHI: the boy is looking the tree.
%mor: oblcldef:the *oblcindef:the:a.
*CHI: the dog is run.
%mor: oblcldef:the.
*CHI: the boy is speaking.
%mor: oblcldef:the.
*CHI: the rein the boy is on the reindeer.
%mor: oblcldef:the *oblcindef:the:a.
*CHI: the dog and the reindeer is run.
%mor: oblcldef:the oblcldef:the.
*CHI: the boy ## / and the dog is under the water.
%mor: oblcldef:the oblcldef:the.
*CHI: the dog and the boy is sit down under the water.
%mor: oblcldef:the oblcldef:the.
*CHI: the boy and dog is looking.
%mor: oblcldef:the *oblcldef:0:the.
*CHI: the boy xxx and the dog is looking at two frog.
%mor: oblcldef:the oblcldef:the.
*CHI: the dog and the boy is looking a family frog.
%mor: oblcldef:the oblcldef:the oblcldef:a.
*CHI: the boy is / under the hands a frog.
%mor: oblcldef:the oblcldef:a.
@End

APPENDIX 2: Sample codification of the story by student in LH6.

@Begin

@Participants: INV investigator , CHI 03 LH6

@Filename: CHI03 LH6

@Coder: Mauriñe

@Date: 23-04-2016

*CHI: once upon a time in one house lived a frog a a a dog and the children.

%mor: *oblcindef:one:a oblcindef:a oblcindef:a *oblcindef:the:a.

*CHI: the in the night the frog is escape o sea eeh yes.

%mor: oblcldef:the.

*CHI: and in in in next day the children no has eh frog.

%mor: oblcldef:the *oblcldef:0:the.

*CHI: and he is eh frog eh aurkitzea.

%mor: *oblcldef:0:the.

*INV: look for.

*CHI: and the dog no no who is stolen the frog.

%mor: oblcldef:the oblcldef: the.

*INV: good.

*CHI: the children and the dog who is see the in the # in the ##.

%mor: oblcldef:the oblcldef: the.

*INV: in the.

*CHI: ## .

*INV: mouth.

*CHI: no lehioa.

*INV: window.

*CHI: in the the window and dog eh # saltau.

%mor: *oblcldef:0:the.

*INV: jump.

*CHI: the dog jump and the children is eh no # no see frog.

%mor: oblcldef:the oblcldef: the *oblcldef:0:the .

*INV: good.

*CHI: with a mountain an mountain is eeh there # erlea.

*INV: bee.

*CHI: is the bee and no see drog frog.

%mor: *oblcindef:the:a *oblcldef:0:the *oblcldef:0:the.

*INV: good.

*CHI: who's eeh the children what's in he the look of the # hole.

%mor: oblcldef:the *oblcindef:the:a.

*CHI: but no frog.

*CHI: and one animal is eeeh koxka.

%mor: *oblcindef:one:a.

*INV: koxka bite.

*CHI: is the bite of the children.

%mor: oblcldef:the.

*CHI: and the dog is jump and bee eeeh # erori.

%mor: oblcldef:the *oblcldef:0:the.

*INV: fall.

*CHI: bee fall.

*CHI: and the bee is eh escape escape.
 %mor: oblcldef:the.
 *INV: escape.
 *CHI: the children who is in in arbola.
 %mor: oblcldef:the.
 *INV: tree.
 *CHI: in the tree and nothing no is frog.
 %mor: *oblclndef:the:a *oblcldef:0:the.
 *CHI: and the bee eh who is atzetik.
 %mor: oblcldef:the.
 *INV: after.
 *CHI: after the dog and dog is running.
 %mor: oblcldef:the *oblcldef:0:the.
 *CHI: the children who is eeh one bird no one ### hegazia hegazia.
 %mor: oblcldef:the *oblclndef:one:a.
 *INV: hegazia bird.
 *CHI: one the bird eeh who is the pikot (peck) of a children.
 %mor: oblcldef: the *oblcldef:a:the.
 *CHI: and the children who is eeh loo see the tree and one animal jump.
 %mor: oblcldef:the *oblclndef:the:a *oblclndef:one:an.
 *CHI: thi this animal who's of precipicio precipicio.
 *INV: cliff.
 *CHI: the cliff.
 %mor: *oblclndef:the:a.
 *CHI: and dog is eeh jump.
 %mor: *oblcldef:0:the.
 *CHI: the the children who is eeh in one txarkoa.
 %mor: oblcldef:the.
 *INV: puddle.
 *CHI: in one puddle.
 %mor: *oblclndef:one:a.
 *CHI: and in the puddle who is eeh #.
 %mor: oblcldef:the.
 *INV: hear.
 *CHI: hear a frog.
 %mor: oblclndef:a.
 *CHI: and the children is a eeh the dog no speak.
 %mor: oblcldef:the oblcldef: the.
 *CHI: the children who is eeh the # atzekaldean.
 %mor: oblcldef:the.
 *INV: behind.
 *CHI: behind the street and who is two frogs.
 %mor: *oblclndef:the:a.
 *CHI: and and frogs a little frogs.
 *CHI: and the children who want want you eh your frog and who is a house.
 %mor: oblcldef:the.
 @End