

Object drop in L3 acquisition

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Abstract

The topic of cross-linguistic differences regarding the overt or null expression of arguments has been considered both in first (L1) and second language (L2) acquisition. There is abundant literature on both subject and object drop with different language pairings but the issue has not been considered in third language (L3) acquisition. The main goal of this article is to analyse the L3 interlanguage of Basque-Spanish bilinguals regarding the acceptability and interpretation of null objects. The three languages involved in the study display different semantic requirements for the target structure, with Basque allowing for a null object option across-the-board, Spanish only under certain semantic conditions, and English disallowing it in the standard variety. Two trilingual, one bilingual and a control group ($n = 119$) rated experimental items embedded in context, presented in a written and aural format on a computer screen. Findings point to the successful acquisition of the target structure, as well as a clear influence of Spanish in the three experimental groups.

Keywords

Basque, English, Spanish, null objects, L3 acquisition

Introduction

The topic of cross-linguistic differences regarding the overt or null expression of arguments has been considered in depth both in first and second language (henceforth L1 and L2) acquisition. There is a large literature dealing with the differences between the overt expression of subjects in adult English in contrast with the corresponding structures in languages such as Basque, Italian and Spanish (see, for example, Bloom, 1990; Ezeizabarrena, 2003; Hyams, 1986; López Ornat, 2003; Pérez-Leroux and Licerias, 2002; Valian, 1991; Wang, Lillo-Martin, Best and Levitt, 1992, among many others). There is a lot of cross-linguistic variation regarding the realization of object arguments as well. Thus, some languages such as Basque allow for the object position to remain empty

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whereas others such as English do not allow this in the standard variety (but see Culy, 1996). Still others such as Spanish allow object drop, but under specific semantic conditions, as discussed below. Objects can be dropped in Spanish only if they have a generic interpretation (see the section ‘Null objects and their acquisition’ for more details).

There is abundant literature on object drop in the early stages of L1 acquisition in several languages: Basque (Larrañaga and Guijarro-Fuentes, 2012); English (Hyams and Wexler, 1993; Ingham, 1993/1994; Pérez-Leroux, Pirvulescu, and Roberge, 2008; Wang, et al., 1992); Spanish (Castilla and Pérez-Leroux, 2010; Fujino and Sano, 2000; Wexler, Gavarró and Torrens, 2004). There are also some cross-linguistic descriptions of object omission among L2 learners of several languages. Thus, Gundel, Stenson and Tarone (1984) and White (1996) study L1 English learners of L2 French; Zobl (1994) and Yuan (1997) study L1 Chinese learners of L2 English. L2 Spanish has been studied by Bruhn de Garavito and Guijarro-Fuentes (2002), Cuza, Pérez-Leroux and Sánchez (2012), Rothman and Iverson (2013) and Zyzik (2008), although the topic still needs further research to answer all relevant questions. However, to the best of our knowledge, object drop has not been investigated in third language (L3) acquisition, which is the area to which this article aims to contribute.

The main goal of this article is to investigate whether the L3 English interlanguage of Basque-Spanish bilinguals allows null objects, and with which interpretation. More specifically, considering that Basque allows for a null object option across-the-board (Duguine, 2008; Ortiz de Urbina, 1989) and that Spanish has the possibility of a phonetically empty object in simple clauses under certain semantic conditions (Campos, 1986), as explained below, we want to explore the extent to which bilingual Basque-Spanish learners might accept null objects, a construction unavailable in the target English. Learners of English who show across-the-board acceptance will be demonstrating the decisive influence of Basque; learners who demonstrate an influence from Spanish might accept the ungrammatical object drop construction but only with generic objects.

The structure of the article is as follows. The section Null objects and their acquisition will present an overview of the conditions that constrain the appearance of null objects in the three languages (Spanish, Basque and English), the main findings in the L1 and the L2 acquisition literature on the topic and the models that have been proposed to explain transfer in L3 acquisition. The next sections present the study itself (test design and materials, participants, predictions based on the L3 models and findings) and the final section features the discussion and conclusions.

Null objects and their acquisition

Constraints on null objects in Spanish, Basque and English

This section will focus on the semantics of null objects in the three languages involved in the experimental study: Spanish, Basque and English. As originally pointed out by Campos (1986) – but see also Clements (1994, 2006) – Spanish, a language with a full paradigm of accusative clitics distinguished by person, number and gender, allows for the possibility of a null object construction (NOC) in simple clauses. Null objects and full pronominals are not in free variation but, rather, there are some semantic restrictions on their use. Consider examples (1) and (2)¹:

- (1) a. *¿Compr-ó Inés el libro para su hija?*
 buy 3SG.PST Inés the book for her daughter
 Did Inés buy the book for her daughter?'
- b. *√ Sí, lo compr-ó*

- yes, CL.ACC.3SG.M buy 3SG.PST
 ‘Yes, she bought it.’
- c. * *Sí, Ø compr-ó*
 yes Ø buy 3SG.PST
 ‘Yes, she bought it.’
- (2) a. *¿Traj-eron café para la cena?*
 bring 3PL.PST coffee for the dinner
 ‘Did they bring coffee for dinner?’
- b. *√ Sí, lo traj-eron*
 yes CL.ACC.3SG.M bring-3PL.PST
 ‘Yes, they brought some.’
- c. *Sí, Ø traj-eron*
 yes Ø bring 3PL.PST
 ‘Yes, they brought some.’

Example 1(a) features a question with a [+definite, +specific] object (*el libro*). As Example 1(b) shows, the object in the answers must be replaced by the corresponding accusative clitic (*lo*). The answer without the clitic as in example 1(c) will be plainly ungrammatical. In the example sentence 2(a), the object (*café*) is [–definite, –specific] and, as examples 2(b) and 2(c) show, both the answer with the clitic and the one with the dropped argument are perfectly grammatical. NOCs are possible in Spanish with non-specific, generic referents such as mass nouns and bare plural nouns. We define these semantic notions below, since they are very relevant for Spanish null objects.

Throughout this article, we employ the following informal definitions of definiteness and specificity. Adopting the Fregean view of definiteness and following Heim (1991), we assume that the definite article brings presuppositions of both existence and uniqueness into the common ground between the speaker and hearer. A definite description presupposes that there is at least one individual object or person under discussion, and that it is uniquely identified in the situation. Specificity, on the other hand, makes reference only to the knowledge state of the speaker, not the common ground. Ionin (2003, 2006), building on Fodor and Sag (1982), proposes that specificity signals the speaker’s intention to refer to one particular object or individual, and that this object or individual is somehow noteworthy in the situation.

It turns out that definiteness and specificity are not really relevant for Basque null objects. Basque is a non-Indo-European language with a very rich inflectional morphology. As example (3) – taken from Dugine (2008, p. 312) – illustrates, the finite verb, or its auxiliary, can display agreement with the ergative, absolutive and dative arguments:

- (3) *Ni-k Jon-I artikul-u-a-k eman-ø d-izki-o-t*
 I-ERG Jon-DAT papers-ABS-PL give.PF AUX.PRS-3PL.ABS-3SG.DAT-1SG.ERG
 ‘I gave the papers to John.’

In addition, Basque has been described as a three-way pro-drop language (Ortiz de Urbina, 1989) where subject, direct object and indirect object (marked ergative, absolutive and

dative) can be phonologically empty, as example (4) – also from Dugine (2008, p. 312) – illustrates:

- (4) [e_{ERG}] [e_{DAT}] [e_{ABS}] *eman-ø d-i-zki-o-t*
 give.PF AUX.PRS-3PL.ABS-3SG.DAT-1SG.ERG
 ‘I gave them to him/her/it.’

In Basque, both specific and generic objects can be dropped freely, as example (5) – from Landa (2008, p. 360) – illustrates:

- (5) a. *Erosi zen - Ø_{i,j} -u -en ardo-rik/liburu-rik?*
 buy AUX.2SG.ERG-3SG.ABS-PST wine-PART/book-PART
 ‘Did you buy wine/books?’
 b. *Bai, Ø_{i,j} erosi-ø n - Ø_{i,j} - u -en*
 yes erosi-PF AUX.1SG.ERG-3SG.ABS-PST
 ‘Yes, I bought it/them.’

Basque Spanish is the variety of Spanish spoken in the Basque Country and, importantly, the variety of Spanish spoken by the participants in the two trilingual groups in the present study (described below). Larrañaga and Guijarro-Fuentes (2012, p. 2) point out that, ‘...clitics are not compulsory in any context in Basque-Spanish and, hence, a wide range of intra- and interindividual variation exists in adult Basque Spanish.’² These researchers claim that object clitics are dropped on the basis of the principle of information recoverability; that is, clitics can be dropped when their reference is recoverable from the context, and they do not refer to any interpretive distinction between the dropped vs. the non-dropped version of the same sentence. They state that ‘...clitics in Basque Spanish can be dropped but need not be’ (Larrañaga and Guijarro-Fuentes, 2012 p. 8).

Finally, English, the L3 of our participants, does not allow object drop as Examples 6 with a generic object and 7 with a specific object show. However, in the limited register of recipes and such, object drop is acceptable, as examples from Culy (1996, p. 91) in (8) illustrate:

- (6) A: Did you buy milk?
 B: Yes, I bought *(some).
 (7) A: Did you see Maria outside?
 B: Yes, I saw *(her).
 (8) a. Beat [Ø] until stiff.
 b. Put [Ø] in oven and bake [Ø] for 45 minutes.

In summary, the semantic constraints regarding the possibility of dropping objects differ in the three languages considered in the present study (cf. Table 1): in Basque both specific and generic

Table 1. Possibility of null objects in the three languages under discussion.

	Specific sentences	Generic sentences
English	No	No
Spanish	No	Yes
Basque	Yes	Yes

objects can be dropped freely; object drop is possible in Spanish, but only with non-specific, generic referents such as mass nouns and bare plural nouns. Standard English does not allow object drop.

The null object phenomenon in L1 and L2 acquisition

This section will briefly refer to studies on the null object phenomenon in the acquisition of the three languages involved in this study and then focus on research that has considered either the adult L2 acquisition of object expression in English or cases where the task the L2 learners face is similar to the task our L3 participants have to face as well, namely, the narrowing of the semantic space in which object drop is permissible.

Regarding the acquisition of Spanish as an L1, Castilla and Pérez-Leroux (2010) report conflicting findings depending on whether one considers studies with data from spontaneous speech or whether the findings come from experimental studies. Among the former, Fujino and Sano (2002) reported high rates of illicit object omission (around 14–24%) at the outset but a decrease over time. However, as reported by Castilla and Pérez-Leroux (2010, p. 9), the same data set studied by Lizsckowski (1999) – cited in Wexler et al. (2004) – had reported omission of less than 2%. The picture is also variable in experimental studies. Wexler et al. (2004) reported virtually no omission among 2–4-year-old children. In their own experimental study, Castilla and Pérez-Leroux (2010) claimed that there is a clear stage of early object optionality for young (3-year-olds) Spanish speaking children, a stage that is overcome with age (by age 4–5). What seems to be clear is that object drop appears to be much more variable than subject drop (Pérez-Leroux, et al., 2008, p. 378).

As for L1 bilingual acquisition of Spanish and Basque, Larrañaga and Guijarro-Fuentes (2012) analysed data from two children with respect to their object drop behaviour. The children were video-recorded fortnightly in naturalistic settings and the data covered the period of 1:7:14 to 3:6:14 (years: months: days) for one of the children, Mikel, and 1:11:03 to 3:11:17 for Peru. Larrañaga and Guijarro-Fuentes report that ‘...both children drop clitics massively at the beginning but this behaviour becomes less frequent over time and reaches a baseline converging with adult use at the end stage’ (Larrañaga and Guijarro-Fuentes, 2012, p. 18). They consider that clitic drop is due to cross-linguistic influence from Basque and to the children’s apparent notion of topic that depends on information recoverability.

The developmental literature on child L1 English has reported that children drop both subjects and object pronouns but that there is a clear asymmetry because they drop the former more frequently than the latter (Hyams and Wexler, 1993; Wang et al. 1992). Pérez-Leroux et al. (2008) observed that 2–3-year-old children had substantial rates of object omission errors (35%), which abruptly decreased with 3–4-year-olds (down to 8%).

There does not seem to be recent research on the acquisition of object expression in English as an L2. Zobl (1994) was a pioneer study on the acquisition of object expression in English by Chinese learners. Chinese allows for both null subjects in finite sentences and null objects. Zobl reported an asymmetry between the high rejection of null-subject sentences in English (75%)

and the much lower rejection of null object sentences (43.8%). Yuan (1997) took up the topic and considered the learning task Chinese learners of English face, that is, the unlearning of null subjects and null objects in the target language. Yuan reported that Chinese learners were able to unlearn null subjects but unable to detect the ungrammaticality of English sentences with null objects.

Two recent studies have considered learners who have to narrow the semantic space where object pronoun drop is permissible. Cuza et al. (2012) analysed the constraints on clitics and null object distribution in Spanish by simultaneous and sequential Chinese-Spanish bilinguals and studied whether potential difficulties could depend on the different ages of onset of bilingualism in an immersion context. A total of four tasks were implemented: a question-after-story task, a truth-value judgment task, a sentence completion task and an acceptability judgment task. Cuza et al. (2012) reported differential outcomes between child and adult immigrants when compared to native speaker controls: simultaneous bilinguals behaved in a consistently native-like manner across all tasks with the only exception their overextension of clitic use to [-definite, -specific] contexts, precisely where native speakers of Spanish do not allow them. The researchers claim that '[t]he morphosyntax of clitics seems in place among these early learners, but there appear to be gaps in their knowledge of the morphosemantic conditions on object drop, despite their intense exposure to Spanish in an immersion context.' (Cuza et al. 2012, p. 29).

Rothman and Iverson (2013) tested 25 Brazilian Portuguese (BP) native speakers of L2 Spanish (advanced level) regarding their knowledge of null objects, considering that the underlying syntax of phonologically null objects is different in each of the two languages. Using a scalar grammaticality judgment task with context, the researchers reported that the experimental group of BP learners of L2 Spanish acquired the semantic constraint for object drop in the target language but showed variable knowledge of the syntax of Spanish dropped objects. More specifically, the participants rejected cases of definite object drop both in simple and complex clauses. However, in syntactic islands the L2 learners rejected items with definite dropped objects but failed to do so with items containing indefinite dropped objects.

In this section, we have briefly reviewed research on object expression in Spanish, Spanish-Basque and English as L1s, English as L2, and also considered research showing how learners fare when they have to face the narrowing of the semantic conditions for object drop in L2 Spanish. The current literature points to variable success in acquiring the semantic conditions of object drop.

Theoretical models of L3 acquisition

In the literature on L3 acquisition, there are currently four major models trying to assess which of the learners' previously acquired languages influences the L3 (see García Mayo and Rothman, 2012 for details). Some of these models have been proposed to account for the initial state or initial stages of L3 acquisition; others make predictions for L3 development as well. Absolute L1 transfer (Herms, 2010; Na Ranong and Leung, 2009) makes the strong claim that it is the L1 language that influences the acquisition of the L3 the most. Along the same lines, the L2 status factor (Bardel and Falk, 2007; Falk and Bardel, 2011) maintains that it is the L2 that plays a more important role. Both the L1 transfer and the L2 status factor make strong predictions about the L3 initial state. The Cumulative Enhancement Model (CEM) (Flynn, Foley and Vinnitskaya, 2004), however, is '...both a model of the initial state of multilingual morphosyntax as well as a theory of developmental syntax and ultimate attainment.' (García Mayo and Rothman, 2012, p. 18). It states that any prior language can either enhance subsequent language acquisition or remain neutral. That is, transfer is predicted to be maximally facilitative. Finally, the Typological Primacy Model (TPM) (Rothman, 2010, 2011, 2015) shares with CEM the claim that neither the L1 nor the L2 have a

privileged status for initial state L3/ L_n morphosyntactic transfer. However, this model hypothesizes that influence from previous languages is conditioned by typological or perceived structural similarity among the three grammars. More recently, Rothman (2015) argues that interlanguage development is constrained by what the internal parser takes to be most similar (actual or perceived *structural* similarity), among the three grammars. Potential cues such as similarities in the lexicon, phonetics/phonology, functional morphology, and syntactic structure from the two languages involved go beyond rigid typology and will influence the type of predictions the model makes. After the structural similarity of either the L1 or the L2 is established by a learner, the whole grammar of that language is transferred and then becomes the (nearly) initial state of the L3 acquisition process.

Although, as mentioned above, these models – except for CEM and TPM – have mainly been proposed to account for the initial stages of L3 acquisition, they make implicit predictions about L3 development, which will be outlined below for each of the experimental groups. The data presented in the present paper belong to a developmental stage of L3 acquisition later than the initial stage, but they could still feature traces of transfer from previously known languages.

The study

Test design and material

The experimental results we discuss here were obtained as part of a larger study in which other constructions were tested with the same pool of participants. In total, there were 30 experimental contexts out of which 12 are relevant for the present study. We constructed six contexts with [–definite, –specific] dropped objects and six contexts with [+definite, +specific] dropped objects. Since the contexts are the same for pronouns and NOCs and since we did not test any other contexts such as [–definite, +specific] or vice versa: [–definite] means [–definite, –specific] object; [+definite] means [+definite, +specific] object. We piloted the stories and test sentences on three native speakers of American and Canadian English, and adjusted the tests accordingly. Twelve fillers were also included.

Each test item consisted of a story presenting a context, and two test sentences underneath the story. Both stories and test sentences were presented in written and aural form on a computer screen. The independent web surveyor service SurveyGizmo was utilized to make testing convenient for our participants and to keep the data anonymous. They had to rate the test sentences (by clicking on a radio button) from ‘Not natural in the context’ (numerical value of 1) to ‘Perfectly natural’ (a value of 7), with a separate option for ‘I don’t know’. After carefully considering possible Likert scales (1 to 4, 1 to 5, etc.), we chose the 1 to 7 scale because it gave test-takers the opportunity to give more nuanced evaluations. The participants were asked to take the test at one sitting, and not to go back and change their answers. Some participants were remunerated for their time, others volunteered.

The context stories were recorded by a competent L2 speaker of English. The test sentences were recorded by a female and a male native speaker of American English. The two test sentences for each story differed only in the presence or absence of a pronoun in the main clause. Consider examples (9) and (10) below illustrating [–definite] and [+definite] contexts, respectively:

(9) [–definite] NP

Sandra has not been feeling well lately. She decides to go to her doctor, who asks about her general health habits.

Doctor: Do you normally drink enough water during the day?

Sandra: *No, I don't drink. I have to admit that I always forget.

Doctor: Do you normally drink enough water during the day?

Sandra: $\sqrt{\text{No}}$, I don't drink any. I have to admit that I always forget.

(10) [+definite] NP

Mark and Jenny really like pop music. They went to different music shops on Thursday to look for a specific CD, but they couldn't find it. When they meet on the weekend, Mark asks Jenny about the result of their search.

Mark: Did you finally buy the Black Eyed Peas CD?

Jenny: *Yes, I bought.

Mark: Did you finally buy the Black Eyed Peas CD?

Jenny: $\sqrt{\text{Yes}}$, I bought it.

The test design also included a standardized test of English proficiency with forty multiple-choice answers, as well as a questionnaire on the learners' exposure to and everyday use of Basque and Spanish.

Participants

A total of 119 subjects participated in this study, divided across a control group of English native speakers (English NS, $n = 24$) and three experimental groups. The experimental groups were specifically chosen in order to compare the effect of the native and the second language on the acquisition of the third language. As mentioned above, all participants had to fill in a questionnaire devised with the specific aim of obtaining information about relevant issues such as the age when they started learning the L2 and the L3, the type of exposure to the L2 and the L3, times in a typical week spent communicating in the languages, study and/or visits to English-speaking countries, other languages spoken, etc.

The L1 Basque–L2 Spanish–L3 English group (L1B–L2S–L3E) comprised 23 individuals, who were exposed to Spanish and English through the school system. Besides identifying themselves as Basque speakers in the background questionnaire, these participants had been exposed to Basque since birth and had been enrolled in model D of the Basque school system, a total immersion program in Basque. Due to the linguistic realities on the ground, Spanish is still the majority language and these learners will have had access to it even before going to school. In the case of English, these learners were exposed to the language at a mean age of 8.18 (SD 2.98, range 4–18). The majority of this group (21 out of 23) reported spending more time speaking Basque than Spanish, in a normal week. A small number of participants ($n = 4$) from this group had spent extended time in an English-speaking country.

The L1 Spanish–L2 Basque–L3 English group (L1S–L2B–L3E) comprised 25 individuals who identified themselves as native speakers of Spanish in the background questionnaire. They had been enrolled in model B of the Basque school system, a model where both Basque and Spanish are used as a means of instruction. Some of them ($n = 5$) spoke French in addition to Basque and English. All of the participants in this group reported spending more time speaking Spanish than Basque, or an equal amount of time, in an ordinary week. They had been exposed to English exclusively in a school setting at a mean age of 11.4 (SD = 5.29, range 8–40); and roughly half of them ($n = 11$) had spent more than a year in an English-speaking country (UK, Ireland, US). The participants from

Table 2. Information on age of exposure to English and English proficiency test.

	Age of exposure		English proficiency	
	Mean	SD	Mean	SD
L1S–L2B–L3E (<i>n</i> = 25)	8.18	2.98	34.21	5.83
L1B–L2S–L3E (<i>n</i> = 23)	11.4	9.29	30.91	6.75
L1S–L2E (<i>n</i> = 47)	8.09	3.9	32.49	5.29

B = Basque, S = Spanish, E = English.

both trilingual groups all resided in the Basque Autonomous Community. Finally, there was a group of 47 Spanish learners of L2 English (L1S–L2E), not living in the Basque Country but residing in two other Spanish autonomous communities where Spanish is the only language spoken. Their mean age of exposure to English was 8.09, SD = 3.9, range 3–19.

The three groups were not of equal proficiency, as Table 2 shows, with the L1S–L2B–L3E group the most proficient and the L1B–L2S–L3E group the least proficient. We used the cut-off point of 25 (out of 40) in the proficiency test to divide intermediate from advanced learners of English. There were very few intermediate learners: six in the L1B–L2S–L3E group, two in the L1S–L2B–L3E group and three in the L1S–L2E group, not enough to constitute viable groups statistically. The statistical analyses (to be discussed below) were performed with the intermediate learners deleted from the groups, and the results remained essentially the same. Therefore we continue to report upon whole groups, keeping in mind that most of the participants in them are advanced speakers, but that proficiency does not seem to matter for the acceptance or rejection ratings of these constructions.

Predictions

On the basis of the characteristics of the three languages involved in the present study, Basque, Spanish and English, with Basque accepting object drop across-the-board, Spanish accepting it only with certain semantic constraints and English not allowing object drop, the L3 models briefly discussed above would predict the following for the two trilingual experimental groups.

L1 Basque–L2 Spanish–L3 English. The L1 transfer model predicts that these participants will accept object drop in English across the board. The L2 status factor, however, predicts that they will accept object drop only in [–definite] contexts. The CEM states that only facilitative transfer is allowed and, therefore, Spanish values will transfer as they will take the learner at least halfway to the L3 target. Like the L2 status model, the TPM predicts that the participants will transfer from Spanish, as there are larger similarities at the lexical level between Spanish and English than between Basque and English.

L1 Spanish–L2 Basque–L3 English. In this case, the L1 transfer model predicts that only [–definite] objects will be dropped in L3 English. The L2 status factor predicts that object drop will be accepted across the board. For the same reasons as above, both the CEM and the TPM predict the transfer of Spanish values. The CEM would reason that in pre-empting a structure in the L3, even getting halfway to the target (by disallowing [+definite] object drop) is facilitative transfer. The TPM's prediction follows the logic of transfer for the other trilingual group: the closest perceived language will exert a stronger effect.

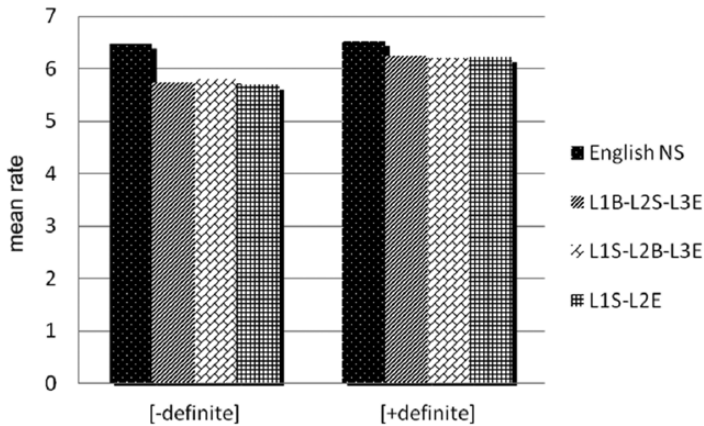


Figure 1. Pronominal object ratings.

Results

The design of the study had one between-subjects variable (linguistic profile, which we will call *Group*), with four levels of variation (English or controls, L1 Spanish–L2 English, L1 Basque–L2 Spanish–L3 English and L1 Spanish–L2 Basque–L3 English), and two within-subjects variables, *Definiteness* and *Object type*, each varying across two levels (Definite and Indefinite for the former, Overt and Null for the latter). The dependent variable was labelled *Response*.

A repeated-measures ANOVA performed on the whole set of data revealed a significant main effect of the interaction of all three variables, *Definiteness * Object type * Group* ($F(3, 114) = 5.467, p < 0.01$). In fact, *Object type* alone ($F(1, 114) = 303.189, p < 0.001$) and all other interactions with this variable (*Definiteness * Object type*: $F(1, 114) = 31.254, p < 0.001$; *Group * Object type*: $F(3, 114) = 7.66, p < 0.001$) were highly significant. On the other hand, neither *Definiteness* alone ($F(1, 114) = 2.956, p = 0.088$) nor its interaction with the between-subjects variable (*Definiteness * Group*: $F(3, 114) = 2.213, p = 0.09$) displayed a significant main effect. In order to determine where in particular these effects were arising, we ran a post hoc Tukey HSD test, which revealed that only the means of the English and Spanish groups differed significantly at $p < 0.05$ (exact difference = 0.4991), all other differences among the groups' means being non-significant.

Figures 1 and 2 and Tables 3 and 4 present the mean ratings from the three experimental groups and the control group, both in pronominal object constructions and NOCs.

As expected, the control group of native speakers of English clearly accepted all the sentences with pronominal objects, whether definite or indefinite, and rejected those with null objects, thus attesting to the validity of the test. All groups, control and experimental, distinguished between acceptable and unacceptable sentences in general: English NS: $t(23) = 22.439, p < .001$; L1B–L2S–L3E: $t(22) = 6.259, p < .001$; L1S–L2B–L3E: $t(17) = 6.503, p < .001$ and L1S–L2E: $t(52) = 9.023, p < .001$. All four groups displayed highly significant differences between their mean rates of acceptance of correct and incorrect sentences in each condition: English NS ([–definite] $t(23) = 19.325, p < .001$; [+definite] $t(23) = 20.358, p < .001$); L1B–L2S–L3E: [–definite] $t(22) = 3.808, p = .001$; [+definite] $t(22) = 8.241, p < .001$); L1S–L2B–L3E ([–definite]: $t(17) = 4.703, p < .001$; [+definite]: $t(17) = 8.308, p < .001$); and L1S–L2E ([–definite]: $t(52) = 6.55, p < .001$; [+definite]: $t(52) = 9.506, p < .001$).

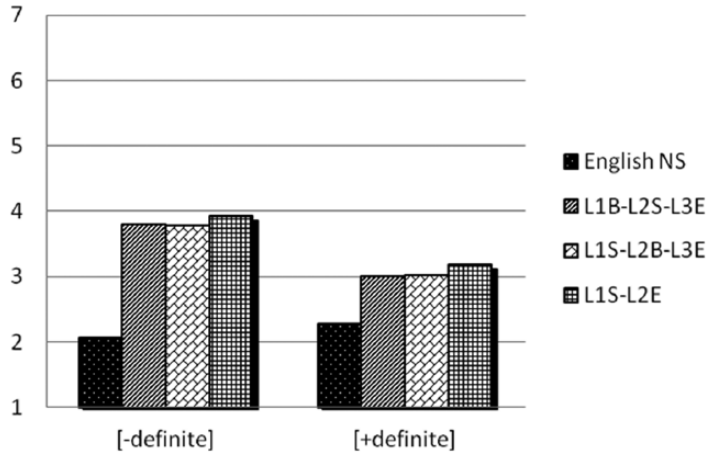


Figure 2. Null object ratings.

The analyses carried out also show that all groups, control and experimental, distinguish between acceptable pronominal objects and unacceptable NOCs in the [-definite] condition. That is, in the construction where the three experimental groups are expected to rate NOCs high, they still establish a distinction between NOCs and pronominal object constructions in favour of the latter (English NS: $t(23) = 19.325, p < .001$; L1B-L2S-L3E: $t(22) = 3.808, p = .001$; L1S-L2B-L3E: $t(17) = 4.703, p < .001$; and L1S-L2E: $t(52) = 6.55, p < .001$).

The most relevant data for the issue of which of the two background languages, Basque or Spanish, might have influenced the acceptance or rejection of NOCs are the participants' judgments of ungrammatical [-definite] and [+definite] NOCs. Based on how the three languages behave regarding null objects, one would expect to find no significant contrast in the English NS group and in the L1B-L2S-L3E, whereas a significant contrast might be expected in both the L1S-L2E and the L1S-L2B-L3E groups. As expected, the control group of English NS did not reject one type over the other significantly ($t(23) = -1.609, p = .121$). However, the three experimental groups gave [-definite] null objects significantly higher ratings: L1B-L2S-L3E ($t(22) = 3.585, p < .01$), L1S-L2B-L3E ($t(17) = 3.41, p < .01$) and L1S-L2E ($t(52) = 4.565, p < .001$). If there had been any influence from Basque, the trilingual groups should have treated both [-definite] and [+definite] NOCs similarly, but they do not.

We next consider the three experimental groups in more detail. With respect to the L1S-L2E group, the prediction was that they should accept the pronominal object constructions (both definite and indefinite) and those NOCs referring to a [-definite] object, as is the case in standard Spanish. If they exhibit transfer from Spanish, they should reject NOCs referring to a [+definite] entity. This is what Figures 1 and 2 illustrate: the participants accept both definite and indefinite pronominal object constructions but rate definite constructions a bit higher than indefinite ones ($M = 6.2138$ vs. 5.686). They rate [-definite] NOCs ($M = 3.9326$) higher than [+definite] ones ($M = 3.19$). Furthermore, these participants rate [-definite] objects with a mean rating of 5.687 when they are denoted by overt pronouns and with a mean rating of 3.9326 when there are denoted by null pronouns, thus displaying a highly significant difference between the two ($t(52) = 6.55, p < .001$). They also show a higher rate of acceptance of sentences with [+definite] pronominal objects (6.2138) vs. null objects (3.19), another statistically significant difference ($t(52) = 9.506, p < .001$).

Table 3. Pronominal object ratings.

	[-definite]		[+definite]	
	Mean	SD	Mean	SD
English NS	6.4722	0.5123	6.5208	0.4754
L1B–L2S–L3E	5.7312	1.1619	6.2319	0.6311
L1S–L2B–L3E	5.8067	1.0210	6.2067	1.0820
L1S–L2E	5.687	1.0149	6.2138	0.8967

Table 4. Null object ratings.

	[-definite]		[+definite]	
	Mean	SD	Mean	SD
English NS	2.0625	0.7907	2.2847	0.7763
L1B–L2S–L3E	3.8043	1.7347	2.9942	1.5933
L1S–L2B–L3E	3.7867	1.7559	3.0160	1.5149
L1S–L2E	3.9326	1.3836	3.1900	1.6510

Let's now consider the trilingual groups. Regarding the L1B–L2S–L3E group, if Basque has some influence on the participants' L3 English interlanguage, they should judge both [+definite] and [-definite] NOCs with equal ratings. What the findings show is that these participants accept both [+definite] ($M = 6.2319$) and [-definite] ($M = 5.7312$) pronominal object sentences; they give a rating higher than the midpoint of the scale to indefinite NOCs ($M = 3.8043$ in the 7-point Likert scale) but reject definite NOCs ($M = 2.9942$). As for the Spanish bilinguals, this trilingual group also gives indefinite NOCs significantly higher ratings than definite ones ($t(22) = 3.585$, $p < .01$).

As for the L1S–L2B–L3E group, if Spanish has a stronger influence than Basque, then this group should behave as the Spanish bilinguals. That is, they should rate highly sentences with [-definite] and [+definite] pronominal objects and [-definite] NOCs but they should reject [+definite] NOCs. As expected, these participants rate sentences with [-definite] ($M = 5.8067$) and [+definite] ($M = 6.2067$) pronominal objects highly and reject [+definite] NOCs ($M = 3.016$). However, they rate [-definite] NOCs with a rating higher than the middle of the scale ($M = 3.7867$). Thus this group, as the other two experimental groups, gives indefinite NOCs significantly higher ratings than definite NOCs ($t(17) = 3.41$, $p < .01$). If Basque, their second language, had had a stronger influence than Spanish, then this group should have accepted both [+definite] and [-definite] pronominal and NOCs, which is not the case.

Discussion and conclusions

In this paper we have analysed the acceptability in context of pronominal constructions and NOCs in the L3 English interlanguage of Basque–Spanish learners. To the best of our knowledge, this research topic has not been considered in the L3 acquisition literature so far. The combination of languages in this study is of special interest because each of the three languages involved displays different constraints on null objects. Thus, Basque allows for a null object option across-the-board; Spanish has the possibility of an empty object, but only with generic (what we called [-definite])

referents; and English, the L3 of the participants, does not allow object drop in the standard variety. The participants in the study included a control group of English NS and three experimental groups: L1B–L2S–L3E, L1S–L2B–L3E, who were specifically chosen in order to compare the effect of the native and the second language on the acquisition of the L3, and an L1S–L2E group. Participants were presented with test items with a context and two sentences underneath. Both stories and test sentences were displayed in written and aural format on a computer screen. The participants had to rate the experimental test sentences, previously recorded by native speakers of American English, on a Likert scale of 1 to 7.

The native speaker group accepted all the sentences with pronominal objects, and, as expected, rejected NOCs, thus demonstrating the validity of the test. Our findings also showed that both the native speaker group and the experimental groups distinguished between acceptable pronominal objects and unacceptable NOCs.

The ratings of the three experimental groups point to a successful acquisition of the impossibility of NOCs in the standard variety of English, as all groups establish clear differences between grammatical and ungrammatical sentences. We consider this the most important finding of our study.

As mentioned above, the two trilingual groups were chosen to determine whether Basque or Spanish would influence the L3 English null objects. If these English learners had shown across-the-board acceptance of NOCs, they would have demonstrated some influence of Basque, since in this language all null objects are fully acceptable. If, on the contrary, they had displayed a rejection of [+definite] NOCs and acceptance of [–definite] NOCs, they would have clearly shown influence from Spanish, since in Spanish the acceptability of null objects is split along these semantic lines. The Basque-dominant trilingual group gave [–definite] NOCs significantly higher ratings than [+definite] NOCs. The exact same behaviour was attested to in the Spanish-dominant group. In other words, the two trilingual groups behaved along the same lines, and also along the lines of the L1S–L2E group, thus exhibiting a clear influence of Spanish in the rating of unacceptable English NOCs. We could view this pattern of findings as the influence of the native language, or L1 transfer; however, it is L1 transfer only for the Spanish-native groups. For the Basque dominant group, this behaviour constitutes L2 transfer.

As previously mentioned, the variety of Spanish spoken by the participants in the present study is Basque Spanish, a variety of Spanish so much influenced by Basque that objects in it can be dropped across-the-board. Even under those circumstances, the two trilingual groups behave similarly to the bilingual one, as can be visually appreciated in Figures 1 and 2, although the bilingual group does not speak Basque Spanish (all the participants in that group came from monolingual Spanish cities). Thus the comparison of the trilingual groups with the bilingual one suggests a much stronger influence of mainstream Spanish in the acquisition of the properties of L3 English. Our findings, then, challenge the logical suggestion that Basque Spanish speakers in the Basque Country might carry the influence of Basque null objects into their L3 English. This finding does not preclude, of course, the ubiquitous use of null object in their spoken and/or written Spanish, which we did not test.

The findings reported on above seem to indicate that Spanish, whether as an L1 in the L1S–L2B–L3E group or as an L2 in the L1B–L2S–L3 group, influences the trilingual groups' ratings of NOCs. Neither the absolute L1 transfer model nor the L2 status factor model seem to be supported, since we have demonstrated a decisive influence of the native as well as the second language, for each of our trilingual groups. At first glance, the CEM appears to be supported, since the two trilingual groups are ultimately successful in establishing a contrast in their L3 grammar between acceptable sentences with pronouns and unacceptable sentences with null pronouns. As seen above, the TPM also predicts that Spanish will be perceived by the learners

as the typologically similar language, because of lexical similarities, hence they will choose Spanish as the influential language. This prediction seems to be consistent with our findings. However, we should add that there seems to be nothing typological in the transfer process (perceived or otherwise) featured in the latest version of this model. It is only structural and lexical similarity that matters in its new instantiation (in our view rendering the name of this model somewhat misleading).

The TPM also predicts that the whole of the ‘similar’ grammar will be the (almost) initial state of L3 acquisition. In order for this latter claim to be definitively supported, one would need a different study design. One such possible design (among others) will involve at least two properties in the same L1–L2–L3 language configuration: one property where the L2 and L3 are similar and one property where the L2 and the L3 differ (assuming that the L2 and the L3 are the structurally similar languages). The prediction would be that learners would do better on the former than on the latter property, because the helping L2 will have its facilitative effect.

Our study has shown that the participants were successful in the L2/L3 acquisition of English null objects, but only to the extent that all three experimental groups were able to overcome the (harmful in this case) effect of Spanish. Much more research on this topic is clearly needed, using different modality tasks incorporating fresh grammatical and semantic properties with new language combinations (Özçelik, 2013). The puzzle of L3 acquisition is quickly being pieced together.

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Notes

1. Abbreviations used in the Spanish and Basque glosses: ABS = absolutive; CL = clitic; DAT = dative; ERG = ergative; PART= partitive; PRS = present; PST = past; M = masculine; SG = singular; PL = plural; 1 = first person; 3 = third person; [e] = phonologically silent argument. We used the Leipzig glossing rules, see <http://www.eva.mpg.de/lingua/resources/glossing-rules.php>
2. As the same researchers mention (2012, p. 5), Basque does not have third-person pronouns for the subject, direct or indirect objects. When a third person has to be referred to explicitly, demonstratives have to be used.

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