

Grammaticality intuitions of bilingual and monolingual Basque EFL learners¹

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La mayor flexibilidad y conciencia metalingüística de la mente bilingüe se consideran factores que pueden contribuir a facilitar la adquisición de una tercera lengua. El objetivo del presente trabajo es averiguar si el bilingüismo tiene un efecto positivo en la conciencia metalingüística. La hipótesis de trabajo era que el bilingüismo (euskera-castellano) estaría relacionado con niveles superiores de conciencia metalingüística. Sesenta alumnos bilingües y sesenta monolingües cumplieron un test de juicios de gramaticalidad (conocimiento implícito) con corrección de las frases que considerasen agramaticales (conocimiento explícito). Los análisis que se llevaron a cabo para comparar los resultados de los grupos de la misma edad arrojaron diferencias significativas a favor del grupo de alumnos monolingües tanto en su conocimiento implícito como explícito del inglés. Estos resultados apoyan los obtenidos en trabajos anteriores en los que se indica que los monolingües no están en desventaja cuando adquieren una lengua extranjera.

Research has seen the greater flexibility and enhanced metalinguistic awareness of the bilingual mind as factors that can contribute to facilitating the acquisition of a third language. The aim of this study was to find out whether bilingualism does in fact have a positive effect on language awareness. Bilingualism (Basque-Spanish) was expected to be associated with higher levels of language awareness. Sixty bilingual and sixty monolingual students were asked to complete a grammaticality judgment task (implicit knowledge) with correction of sentences judged to be ungrammatical (explicit knowledge). The analyses carried out comparing the results of the same age groups show statistically significant differences in favor of the monolingual learners both in their implicit and their explicit knowledge of English. Our results support previous work which shows that monolinguals do not seem to be at a disadvantage when learning a foreign language.

¹ The research reported on in this paper was possible thanks to a grant by the Spanish Ministry of Education and Culture (DGICYT #PS95-(X)25). This grant is here gratefully acknowledged. Our thanks also go to the teachers of the ikastola *Lourdesko Ama* in Urretxu-Zumárraga (Guipúzcoa), to the primary and high school teachers of the center in Romo (Vizcaya), and to Vicente Núñez Antón (Department of Econometrics and Statistics - University of the Basque Country) for the statistical analysis of the data here presented. All errors in their interpretation remain my responsibility.

1. Introduction

Research during the last thirty years has shown that bilingualism has no negative effects on the individual's mental abilities (Pearl and Lambert, 1962; Baker, 1993 among many others), but that, on the contrary, it is associated with social and cognitive advantages. For example, it has been claimed that the bilingual mind has greater flexibility and enhanced metalinguistic awareness, that is, it can solve language problems in a more effective way (Ben-Zeev, 1977; Bialystok, 1987). These two factors—greater flexibility and enhanced metalinguistic awareness— could also contribute to facilitating the acquisition of a third language.

The aim of the present study, part of a larger transversal and longitudinal project presently being carried out, was to find out whether bilingual (Basque-Spanish) learners did better than their monolingual (Spanish) counterparts in a grammaticality judgment (GJ) task given in English. The hypothesis was that bilingual learners would do better than monolingual learners, a hypothesis that is intuitively attractive and also supported by research (Thomas, 1988; Bild and Swain, 1989; Cenoz, 1991 and Klein, 1995). The paper is structured as follows: first, I present some background on (i) the linguistic situation in the Basque Autonomous Community, (ii) bilingualism and L3 learning and (iii) the implications of the Universal Grammar (UG) parameter-setting model in cases involving the acquisition of an L3. The methodology (subjects and procedures) of the study is then described, followed by the analysis of the results and some final comments.

2. Background

2.1 Basque nowadays

Basque is a unique non-Indo-European language whose origins are not well known. Although its use was excluded from the public domain during the 1939-1977 period, the 1978 Spanish Constitution allowed its use in education, government services and mass media. Spanish is, however, the main vehicle of communication and just about 30% of the Basque population is proficient in this language.

Both Spanish and Basque are used either as languages of instruction or as subjects in Basque schools. There are currently three different educational models in the Basque Autonomous Community:

- ◆ Model A: students enrolled in this model are native speakers of Spanish who have all their subject load in Spanish except for 3-4 hours per week devoted to the study of the Basque language.
- ◆ Model B: half of the school subjects are taught in Spanish, half in Basque.

- ◆ Model D: bilinguals in Spanish and Basque ². All instruction received in Basque except for 3-4 hours per week of Spanish language.

The study of English as a foreign language, the L2 for monolingual students and the L3 for the bilinguals, stands out from that of other foreign languages in the Basque Autonomous Community. According to the information provided by the EUSTAT (Basque Statistical Center), non-university level students enrolled in English classes make up 96.1% of that population. People studying French (3.2%) and German (0.6%) follow at quite a significant distance.

2.2 Bilingualism and L3 learning

The issue of whether knowing more than one language will help learners in the acquisition of an additional one has been investigated with mixed results. As we have already mentioned, there are several studies that show that learners who are already bilingual appear to acquire an L3 more easily than monolinguals acquire an L2 (cf. Thomas, 1988; Bild and Swain, 1989; Cenoz, 1991, and Klein, 1995). Other studies have found no differences between the performance of monolingual and bilingual learners (cf. Genesee and Lambert, 1983; Lebrun and Baetens Beardsmore, 1993) and still a third group of studies claims that there is no clear connection between previous language experience and nonnative language acquisition (Nayak et al. 1990; M. Thomas, 1990).

2.3 The UG Parameter-setting model of acquisition

As Klein (1995:423) points out, an important question for research within the UG parameter-setting model of acquisition involves its implications in cases of third language acquisition: “We might ask whether bilinguals or multilinguals organize their previous nonnative linguistic knowledge to aid in learning a new language”. As she says, an intuitive way of looking at the issue would be to expect that the more languages learners acquire, the better they get at it. But, alternatively, a parameter-setting model implies that:

the number of times one sets parameters should have no effects at all if the innate language faculty (UG) is still operative and all parameter values are still available to the nonnative language learner. If the parameter settings of antecedent languages also differ from those of the target language, there should be no substantial differences between unilinguals and multilinguals (Klein 1990: 424)

² As Cenoz and Valencia (1994:197) point out, all students who are instructed in Basque are labelled as bilinguals because it is assumed that they know Spanish, the dominant language.

Therefore, and regarding our study, we would not expect any substantial differences between the bilingual and the monolingual learners because both Basque and Spanish are pro-drop languages and their parameter settings differ from those of English (the L3 and L2, respectively).

3. Methodology

3.1 Subjects

Our subjects were 120 students, half bilingual in Spanish and Basque and the other half monolingual in Spanish. The 60 bilingual students were enrolled in model D in the Basque school (ikastola) ‘Lourdesko Ama’ in Urretxu-Zumarraga (Guipúzcoa). They all came from the same socio-economic background and the same social environment. As Table 1 illustrates, these students were divided into two groups according to their age: Group I with 30 11-12 year old students (13 males and 17 females) and Group II with 30 14-15 year old students (14 males and 16 females):

Table 1. Bilingual (Basque-Spanish) subjects

Model	#	Sex	Age	(mean)	Start	Years of instruction
D	30	13M	11-12	11.3	8-9	4
		17F				
D	30	14M	14-15	14.2	11-12	4
		16F				

The monolingual students were enrolled in model A in a primary and a secondary school in Romo (Vizcaya). As Table 2 illustrates, these students were also divided into two groups according to their age: Group I’ with 30 11-12 year old students (14 males and 16 females) and Group II’ with 30 14-15 year old students (10 males and 20 females):

Table 2. Monolingual (Spanish) subjects

Model	#	Sex	Age	(mean)	Start	Years of instruction
A	30	14M	11-12	11.3	8-9	4
		16F				
A	30	10M	14-15	14.9	11-12	4
		20F				

The characteristics that all the 120 learners shared were the following:

- (i) they had studied English for three years and they were in their fourth year of instruction (total number of instructional hours: 396 - approximately)
- (ii) they had never been studying in an English speaking country
- (iii) they had not taken - and were not taking- any English classes outside the classroom setting.

3.2 Procedure³

In a theory of UG, judgments of grammaticality have been argued to reflect an individual's linguistic competence (cf. Cowan and Hatasa 1994; Gass 1994). In this study, all participants completed a written GJ task asking for a judgment of whether a sentence was a possible English sentence or not. If it was not, the students were asked to make the relevant changes. They were given a total of 30 sentences related to aspects of the so-called pro-drop parameter (Chomsky, 1981; Rizzi, 1982; White, 1985):

- (i) six ungrammatical sentences with missing subjects:

**We will be late for school if don't take this bus*

- (ii) five ungrammatical sentences with subject-verb inversion:

**Slept the baby for three hours*

- (iii) six sentences relevant to the that-trace effect: two (2) were ungrammatical in English with extraction of subject and the complementizer *that* in position:

**Who did you say that arrived late?*

and four were grammatical with *that* omitted:

Who do you think will win the prize ?

The researcher made sure that the students were familiar with the lexical items included in the GJ task. The instructions were presented in Basque to the D-model students and in Spanish to the A-model ones. The distinction between implicit and explicit knowledge established by Bialystok (1981) was adhered to here. That is to say, we understand that simple GJ tasks reflect information about implicit knowledge, knowledge *of* language, whereas explicit/analyzed knowledge, knowledge *about* language, is reflected in additional tasks such as correction of errors.

³ Here we just report on the procedure used for the GJ task. As mentioned above, this research is part of a larger study in which both oral and written data from students of different age groups are being collected.

4. Results

In Tables 3 and 4 we can see the differences between the bilingual and monolingual group of young learners.⁴ An asterisk (*) indicates a statistically significant difference ($p < 0.01$) when bilinguals and monolinguals were compared in the relevant cases under study. Percentages are provided here for ease of reference but the statistical procedure used, the two-sample binomial test, consists in the comparison of the relevant proportions in both groups.

Table 3. Grammaticality judgments. GROUP I (11-12 year olds/ bilinguals)

	DK	C	I
MS	44%	47%	9%
sv	40%	44%	16%
that-t	62%	30%	8%
✓that-t	52% ³	4%*	14%

Table 4. Grammaticality judgments. GROUP I' (11-12 year olds/ monolinguals)

	DK	C	I
MS	5%	49%	46%
sv	2%	65%	33%
that-t	2%	77%	21%
✓that-t	5%	71%*	24%

The statistically significant differences that are relevant for the present study are the following:

- (i) identification as incorrect of ungrammatical sentences:
 - a. with missing subjects (bilinguals: 9% vs monolinguals: 46%)
 - b. with subject-verb inversion (bilinguals 16% vs monolinguals: 33%)
 - c. **that*-trace (bilinguals: 8% vs monolinguals: 21%)
- (ii) identification as correct of grammatical *that*-trace sentences (bilinguals: 34% vs monolinguals 71%)

⁴ **DK** stands for 'don't know', which was not an option given to the students but had to be included because the subjects did not offer an answer. **C** stands for 'correct' and **I** for 'incorrect'. ***MS** stands from the ungrammatical sentences with missing subjects; ***SV** for the ungrammatical sentences with subject-verb inversion; ***that-t** for the ungrammatical *that*-trace sentences and **Vthat-t** for the grammatical *ito*-trace sentences.

Let us consider now the data in Tables 5 and 6, bilingual and monolingual groups of older learners:

Table 5. Grammaticality judgments. GROUP II (14-15 year olds/ bilinguals)

	DK	C	I
MS	44%	20%	36%
sv	47%	23%	30%
that-t	53%	43%	4%
✓ that-t	61%	36%*	3%

Table 6. Grammaticality judgments. GROUP II' (14-15 year olds/ monolinguals)

	DK	C	I
MS	6%	26%	68%
sv	5%	12%	83%
that-t	2%	73%	25%
✓ that-t	6%	72%*	22%

Again, the statistically significant differences that are relevant for the present study are the following:

- (i) identification as incorrect of ungrammatical sentences:
 - a. with missing subjects (bilinguals: 36% vs monolinguals: 68%)
 - b. with subject-verb inversion (bilinguals 30% vs monolinguals: 83%)
 - c. *that-trace (bilinguals: 4% vs monolinguals: 25%)
- (ii) identification as correct of grammatical *that*-trace sentences (bilinguals: 36% vs monolinguals 72%)

One aspect that needs special mention is the high percentage of DK answers given by the two groups of bilingual students compared to their monolingual counterparts.

Let us analyze now the results from the further analysis of incorrect sentences provided by both groups. As previously mentioned, this further analysis of the sentences that are considered ungrammatical by the learner requires the intervention of explicit linguistic knowledge. We use here the terminology adopted by Arthur (1980) and reported on in Gass (1983) to make distinctions concerning the terms *grammatical* and *ungrammatical*. We refer to grammatical/ungrammatical from the learner's point of view as *grammatical* (L) or *ungrammatical* (L), respectively, and we refer to grammatical/ungrammatical from the perspective of standard English as *grammatical* (E) or *ungrammatical* (E). Tables 7 and 8 summarize the relevant results:

Table 7. Recognition and Correction of Ungrammatical (E) Sentences

GROUP 1(11-12 /bilinguals)	
• Total number of ungrammatical (E) sentences.....	247
(19 subjects answered x 13)	
• Number of sentences recognized as ungrammatical (L).....	73=30%
• Of those sentences recognized as ungrammatical (L)	
total of appropriately corrected.....	7 = 9%
GROUP 1(11-12 /monolinguals)	
• Total number of ungrammatical (E) sentences.....	286
(22 subjects answered x 13)	
• Number of sentences recognized as ungrammatical (L).....	98=34%
• Of those sentences recognized as ungrammatical (L)	
total of appropriately corrected.....	24=24%

Table 8. Recognition and Correction of Ungrammatical (E) Sentences

GROUP II (14-15 /bilinguals)	
• Total number of ungrammatical (E) sentences	351
(27 subjects answered x 13)	
• Number of sentences recognized as ungrammatical (L)	165=47%
• Of those sentences recognized as ungrammatical (L)	
total of appropriately corrected	98=59%
GROUP II (14-15 /monolinguals)	
• Total number of ungrammatical (E) sentences	364
(28 subjects answered x 13)	
• Number of sentences recognized as ungrammatical (L)	235=64%
• Of those sentences recognized as ungrammatical (L)	
total of appropriately corrected	163=69%

When the corresponding statistical test was used to contrast the groups of young bilingual and monolingual students, we found that there was no significant difference as far as the number of sentences identified as ungrammatical (L) (bilinguals: 30% vs monolingual 34%) but the difference was significant as far as how many of those sentences

identified as ungrammatical (L) were appropriately corrected (bilinguals 9% vs monolinguals 24%). The differences in those two aspects were statistically significant in both cases for the group of older bilingual and monolingual students. Specifically, the percentage of sentences identified as ungrammatical (L) by the bilinguals was 47% and it was 64% for the monolinguals; the bilinguals recognized 59% of those sentences as ungrammatical and the monolinguals 69% of them.

5. Discussion

As mentioned before, research on bilingualism and L3 learning has yielded mixed results (cf. 2.2). The data reported on in this paper show significant differences in favor of monolingual learners both in their implicit and explicit knowledge of English when responding to a GJ task. They, therefore, support previous work (cf. Tena, 1989; Wagner et al., 1989) showing that monolinguals do not seem to be at a disadvantage when learning a third language. They also support more recent research (cf. Llorca et al. 1998) showing that there is little beneficial effect of bilingualism on the students' metalinguistic awareness.

Some other issues should be commented on here, though. In this study we have just considered a very specific grammatical domain; we have just looked at sentences that illustrated some of the properties argued to be encompassed by the pro-drop parameter. There is considerable disagreement among linguists as to what precisely this cluster of properties consists of. Studies so far conducted on the pro-drop parameter suggest that L2 learners fail to show the full cluster of properties associated with the parameter, either in terms of what they transfer from the LI, or in terms of what properties of the L2 they successfully acquire. That, however, was not an issue in this research. Our main interest was to test whether bilingual learners would do better than their monolingual counterparts in this specific type of task.

We could see if our data support Zobl's (1993) claim about multilinguals having a wider grammar than unilinguals. When studying potential differences between unilinguals and multilinguals in GJ tasks of English constructions that represent narrow (more restrictive) versus wider (less restrictive) grammars, Zobl concluded that "there is [...] some evidence for an inverse relationship between the conservatism of the learning procedure and the pool of linguistic knowledge available to it" (1993:193). That is to say, people that speak more than one language overgeneralize in their hypotheses and include less restrictive constructions in the target language. In the majority of the twelve grammatical domains studied by Zobl, multilinguals express less conservative judgements than unilinguals. However, in the domain related to the omission of subject pronouns, unilinguals present wider grammars.

If we look at our data, Tables 3, 4, 5, and 6 show that that is exactly what happens with our subjects. In the groups of young bilinguals and monolinguals (Tables 3 and 4), the former accept ungrammatical sentences with missing subjects 47% of the cases whereas monolinguals do it in 49% of the cases. The same goes for the older groups

(Tables 5 and 6): bilinguals 20%, monolinguals 26%. But we have also seen in those tables that those differences are not statistically significant.⁵

As for the ungrammatical subject-verb inversion sentences and the ungrammatical r/iaf-trace ones, the data show that monolingual students accept more of those ungrammatical sentences as incorrect than their bilingual counterparts.⁶ That is, according to our data, monolinguals have wider grammars.

In short: although more research needs to be done with these two groups of learners, probably narrowing down the type of grammatical domain analyzed, the data we have collected so far indicate that bilinguals obtain statistically significant worse results than their monolingual counterparts in a written GJ task given in English, their L3 and L2 respectively. The results support then the idea that monolinguals do not seem to be at a disadvantage when learning a foreign language.

⁵ It should be noted, though, that in Zobl's study (1993) none of the between-group differences on the grammatical domains surveyed reached statistical significance.

⁶ The only exception is subject-verb inversion in the groups of 15-16 year old bilinguals and monolinguals.

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