

A cross-sectional perspective on syllabic stress transfer

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'(..)it requires a relatively high degree of cultural sophistication in both languages for a speaker to afford the structural luxury of maintaining separate subphonemic habits in each.'

Weinreich (1953:24)

1.- Introduction.

Although Weinreich doesn't mention stress in the book just quoted, I do consider a sign of sophistication to maintain separate stress patterns as well.

Due to our everyday contact with EFL students, it seemed evident that there is a high cross-linguistic influence on a suprasegmental factor as stress is. From this first impression, the hypothesis was formulated: **"EFL students tend to transfer their L1 syllable stress pattern to the Foreign Language they're learning"**. A sub-hypothesis was that **"this influence decreases as their proficiency level is higher"**.

Living in a city like Barcelona, in what many consider a bilingual environment, it seemed interesting to contrast also two different L1: Spanish and Catalan. An so I did.

The empirical data for this research was gathered from Secondary School EFL students at the IB Emperador Carlos¹, half of them having Spanish as their L1 and the other half Catalan. To avoid confusion in the terminology, and due to the fact that broadly speaking we are dealing with bilinguals, we'll consider that students who have Spanish as L1 also have Catalan as their L2, and viceversa, so we'll refer to English as FL (or L3).

Following Larsen-Freeman and Long's definitions, the present paper attempts to be a quantitative study to test the hypothesis mentioned above. Its cross-sectionality comes from the large number of subjects, sixty, whose linguistic performance is not spontaneous but controlled and collected in a single session.

2.- Procedure. Data collection.

We selected six groups of students and identified them as follows:

- Spanish1: students with Spanish as L1 and who study 1st BUP.
- Catalan1: students with Catalan as L1 who study 1st BUP.
- Spanish2: they have Spanish as L1 and study 2nd BUP.

¹ I'd like to thank my colleagues from the English Department who so kindly 'lent' me their students for this purpose.

- Catalan2: with Catalan as L1 and study 2nd BUP.
- Spanish3: students with Spanish as L1 attending 3rd BUP.
- Catalan3: with Catalan as L1 and studying 3rd BUP.

Each of these six groups was formed by ten students selected at random from the morning (m.s.) and evening shifts (e.s.) and also depending on their availability, so we had in:

- Spanish1: 5 m.s. and 5 e.s.
- Catalan1: 5 m.s. and 5 e.s.
- Spanish2: 10 m.s.
- Catalan2: 10 m.s.
- Spanish3: 10 m.s.
- Catalan3: 10 m.s.

For this selection, a Questionnaire (see Annex 1) was given to about forty students per level. We wanted first of all to determine which language they had as L1. We told them this would be absolutely personal and confidential, but we needed to know both their name and phone number to be able to call them if they were selected, as the school year was about to finish.

This Questionnaire was written in English to avoid any influence upon the answers. There were three groups of questions, the language they used when addressing their mother, their father and their brothers/sisters in three different situations:

- when trying to get something from this person
- when being angry with this person
- in a 'normal' ordinary situation.

These people are at home, so the language used when addressing them would be their L1. The students selected were those who spoke exclusively Spanish or Catalan at home.

They are the locus² of the study. The next step was to fix the linguistic corpus. We adopted the weak version³ of the Contrastive Analysis, first predicting the possible interferences and then analysing which ones took place, which didn't and why.

² Weinreich (1953:1)

³ Ellis (1985:24)

GROUP ONE. English= Spanish≠ Catalan

ENGLISH	SPANISH	CATALAN
#* <u>t</u> ympanum	t <u>í</u> mpano	ti <u>m</u> pà
* <u>f</u> ootball	f <u>ú</u> tbol	fu <u>t</u> bol
* <u>ch</u> auffeur	ch <u>ó</u> fer	xo <u>f</u> er
* <u>h</u> umid	h <u>ú</u> medo	hu <u>m</u> it
* <u>z</u> enith	c <u>é</u> nit	ze <u>n</u> it
#* <u>h</u> eroe	h <u>é</u> roe	he <u>r</u> oi
* <u>c</u> inema	ci <u>n</u> e	ci <u>n</u> ema

GROUP TWO. English= Catalan ≠ Spanish

ENGLISH	SPANISH	CATALAN
#* <u>a</u> tmosphere	atm <u>ó</u> sfera	atmos <u>f</u> era
* <u>t</u> extile	text <u>í</u> l	t <u>è</u> xtil
#* <u>T</u> ibet	T <u>í</u> bet	Ti <u>b</u> et
#* <u>m</u> ed <u>u</u> lla	m <u>é</u> dula	medu <u>l</u> .la
<u>O</u> edipus	Edi <u>p</u> o	È <u>d</u> ip
#* <u>H</u> elsinki	Hels <u>i</u> nki	Hè <u>s</u> inki

GROUP THREE. English≠ Spanish≠ Catalan

ENGLISH	SPANISH	CATALAN
#* <u>o</u> boe	ob <u>o</u> e	obo <u>è</u>
<u>O</u> lympiad	Olimpi <u>a</u> da	Olimpi <u>à</u> da

GROUP FOUR. Spanish= Catalan≠ English

ENGLISH	SPANISH	CATALAN
labor <u>a</u> tory	laborator <u>o</u>	laborator <u>i</u>
gener <u>a</u> lly	general <u>m</u> ente	general <u>m</u> ent
gover <u>n</u> ment	gobiern <u>o</u>	govern <u>o</u>
spec <u>i</u> ally	especial <u>a</u>	especial <u>a</u>
circu <u>i</u> t	circu <u>i</u> to	circu <u>i</u> t
flu <u>i</u> d	flu <u>i</u> do	flu <u>i</u> d
ol <u>i</u> ve	ol <u>i</u> va	ol <u>i</u> va
Vik <u>i</u> ng	Vik <u>i</u> ngo	Vik <u>i</u> ng
gram <u>o</u> phone	gram <u>ó</u> fono	gram <u>ò</u> fon

* selected

error made

We selected the words from Group One and Group Two because in both cases Spanish and Catalan were different among themselves and one of them had the stress on the same vowel as the English word, so that the transfer from L1 to L2 was more obvious. The only item excluded was *Oedipus* for its being a first name. *Oboe*, from Group Three, was also inserted in the list as it could also throw some light upon the matter. This list includes mainly polysyllabic words of Latin origin; as both Spain and England were invaded by the Romans, we have many words with almost the same spelling. According to Weinreich (1953), homonymy is one of the reasons why borrowings take place. Ard and Homburg (in Gass and Selinker, 1983:157) agree saying that transfer always occurs under the conditions of similarity between L1 and L2.

The phonetic transcription has not been included in this study because we were only interested in the stress, thus the stressed vocalic sound has been underlined.

We made eight sentences, sounding as natural as we could, containing these thirteen items. These sentences had not more than two or three, usually just one, 'test words', while three other sentences were inserted in between as distractors (numbers 2, 5 and 8). The following was the list given to the students:

- 1.- The atmosphere in the Tibet is very humid.
- 2.- Yesterday I wrote a letter.
- 3.- Romario is considered a heroe on football.
- 4.- Helsinki is not famous for its textile factories.
- 5.- They're masters of their lives.
- 6.- He had an operation on his tympanum.
- 7.- The zenith is the last film I've seen in the cinema.
- 8.- Take your life in your hands.
- 9.- A medulla transplant was necessary to save his life.
- 10.- He's so rich that he has a chauffeur to drive him everywhere.
- 11.-Both the oboe and the violin are my favourite instruments.

Their reading was recorded individually in the English Department, and as they were taking an exam in the next door classroom, they couldn't tell one another about these sentences.

3.- Outcome description.

There were errors in the stress in seven of these thirteen words. Surprisingly, the rate of errors was higher in Group Two (4 out of 5) whereas in Group One it was 2 out of 7. Let's see now what mistakes were made in each word, who made them and how often.

	Spanish1	Catalan1	Spanish2	Catalan2	Spanish3	Catalan3	Total
atmosphere	5	4	4	4	2	3	22
atmosphere	2	1	2	1	2	4	12
Helsinki	6	7	10	8	6	7	44
medulla	8	9	10	9	9	8	53
oboe	2	4	7	3	5	4	25
tympanum	0	1	2	3	2	2	10
tympanum	1	0	0	1	0	0	2
Tibet	1	0	0	0	0	0	1
heroe	0	0	0	0	0	1	1

Fig. 1

Atmosphere has proved to be the most problem-arising among all; two different transfers have taken place: *atmosphere* and *atmosphere*, and 34 times.

Tympanum is the only one which also presents two possibilities of transfer *tympanum* and *tympanum*, but with a much lower frequency (12 times), being the first the most common.

If we have a look at Fig. 1, *atmosphere* is about twice more frequent than *atmosphere*, due perhaps to hipercorrection; and the group which makes the most mistakes is Catalan3; these were the first striking data, the number of errors doesn't decrease as the level is higher. On the other hand *atmosphere* should have been higher among Spanish speakers as it corresponds to the Spanish stress⁴, nevertheless it happens only in Spanish1 and 2, not 3.

After these two, the word that presents the highest number of errors is *medulla*, 53, and very high among all six groups, from 8 to 10 times, with no relevant difference between the Spanish and Catalan-speaking groups.

Then we have *Helsinki*, in which the Catalan influence doesn't help the Catalan speakers at all; The Spanish transfer takes place 44 times. Here we start to wonder, why doesn't L1 always affect L2?

Oboe is a three-syllable word both in Spanish and Catalan, and the only one from our list whose stress falls in a different vowel in each language.

⁴ This is the negative transfer that Gass and Selinker (1983: 51) describe as 'a process which occurs whenever there is a statistically significant predominance in the native language of one of two alternative linguistic entities, which is then paralleled by such predominance in an analysis of the attempted production of a foreign language, the predominant entity being an error since it deviates from an experimentally established norm of that foreign language.'

ENGLISH
oboe

SPANISH
oboe

CATALAN
oboe

It's the first word which shows quite a big difference between, for instance, Spanish² and Catalan², as it had been expected in most cases.

Tibet and *hero*e needn't be mentioned as just one student made those mistakes.

After this, we can have a quick glance at Annex 2. Having the errors classified into languages and levels, the direction of the graphics should always be decreasing, but it only happens in Fig. 2 being the number of errors, even then, higher than in Spanish¹. Most striking is Fig. 3 where *atmosphere* and *atmosphere* experience a parallel increase.

4.- Discussion⁵.

Neither the hypothesis nor the sub-hypothesis have been fully confirmed. Let's remember them.

Hypothesis: "EFL students tend to transfer their L1 syllable stress pattern to the Foreign Language they're learning".

Sub-hypothesis : "this influence decreases as their proficiency level is higher".

We are going to review the whole process.

The first step was to determine the students' L1. What we considered the mother tongue is not necessarily the language the students use most. They spend about eight hours per day at school, plus some two hours with their friends or somewhere else, and about three hours at home in the evening. Therefore, their exposure to L1 is shorter than to L2. Then, we may have somebody whose L1 is Spanish but who uses Catalan at the school and with his/her⁶ friends, and then Catalan is expected to affect him more than Spanish.

As we mentioned in the Introduction, we are dealing with bilinguals, with two languages in a constant contact. Weinreich(1953:1) says that two languages are in contact if "they are used alternatively by the same persons". The media in Barcelona have made this contact between the Spanish and Catalan languages become closer, because it has introduced in the Spanish-speaking homes an only Catalan-speaking TV (TV3 and Canal 33). What's more the policy implemented by the Educational Authorities is for the almost exclusive use of the Catalan language in the schools.

Conclusion: transfer, both positive and negative, can take place, for these students,

⁵ I am most grateful to the Research Center of Applied Linguistics and the University of Cambridge for allowing me to use their libraries.

⁶ Due to my female condition, I used to refer to people in general as s/he, and use adjectives and pronouns as his/her, him/her; nevertheless, as Ellis (1985, pg. 3) puts it, both teacher and students will be referred to as 'he, 'his', 'him' for stylistic convenience, intended as unmarked forms.

from either their L1 or L2. We could say, using Harding and Riley's (1988) own words that these students are in a home-language/ outside-language environment rather than L1/ L2; these numbers simply indicate the order of acquisition, not the duration of their exposure to them.

For proving the former hypothesis, one should take monolingual Catalan speakers from some village in the Pyrenees and monolingual Spanish speakers from Alicante or Salamanca, who aren't influenced by any other language.

And what about the corpus? We could state that these words are either equally known by all three levels (e.g. *football, cinema*), or it was the first time they came across with them (e.g. *tympanum, zenith, chauffeur, Tibet*), at least in the English class.

Then, on one hand, it shouldn't have been expected the 3rd BUP students to be more skillful than the 1st year ones. On the other hand, it reveals that although 3rd BUP students should begin to master the English general syllable stress pattern, they are not. They aren't in such a high level as to abstract yet; they ignore that in English any syllable of a polysyllabic word can carry the main stress; they may know where to stress some words and that's all. What's more, both Spanish/Catalan² and Spanish/Catalan³ are groups composed exclusively by morning shift students, who traditionally are more skilful than the evening ones.

5.- Pedagogical implications. Conclusions.

It is clear that the hypotheses haven't been fulfilled, and we've tried to explain the possible reasons for this. It is also clear that students make mistakes when stressing syllables and that sometimes it is a negative transfer problem. Where the transfer is made from is not so clear in this paper.

Nevertheless for us, as teachers, one thing is evident: stress patterns ought to be systematically taught and practised. There is no doubt about its importance. Cutler (1984)⁷ indicates that "stress patterns play a crucial role in listener's recognition of words, and Bansal (1976)⁸ states that "errors in stress are the most important cause of unintelligibility in Indians' pronunciation of English".

We know for sure that errors in stress not only affect Indians; when speaking with natives, it has happened to anyone stressing the wrong syllable and making it impossible for the listener to understand that word; at that time we couldn't believe why, if most of the individual sounds had been well pronounced; we thought they didn't want to make any effort; but in fact, Joanne Kenworthy (1988)⁹ explains that

⁷ in Odlin (1989: 117).

⁸ also in Odlin (1989:117).

⁹ Kenworthy (1988: 28).

“what they hear doesn’t match with what they have in their mental dictionary”. It may also happen the other way round, if learners of English expect a word to have a particular stress pattern, they may not recognise it when the native speaker says it.

Now that self-access is so fashionable, individual practice would be highly advisable in a language laboratory if available, with a self-study text and an audio-tape with a key. After a little practice, students could be given the chance to mark stress patterns themselves so that they can develop self-monitoring techniques.

In *Tesol Quarterly*¹⁰, there is a review of the most recent books on Pronunciation, in

¹⁰ Vol. 27. Number. 4. Winter 1993.

which stress plays an important role. Also in this Quarterly, Samuda explains how necessary these books are when dealing with pronunciation; this is because most teachers, mainly non-native ones, lack confidence in their ability to 'treat' all students' pronunciation problems. On the other hand, it is highly discouraging for a learner to find out that his progress is not as fast as he expected. Then, an individualised program is necessary.

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ANNEX 1

QUESTIONNAIRE

Name:

Group:

Phone number:

Mark with a X the language you use in each situation.

	SPANISH	CATALAN	ANYONE
1.- When you speak with <u>your mother</u> and you want to get something from her (buy something, permission for going somewhere..) you speak in . .			
2.-When you get angry with <u>your mother</u> you speak in . . .			
3.- In a normal situation you speak with <u>your mother</u> in . .			
4.- When you speak with <u>your father</u> and you want to get something from him (buy something, permission for going somewhere..) you speak in . . .			
5.-When you get angry with <u>your father</u> you speak in . . .			
6.- In a normal situation you speak with <u>your father</u> in			
7.- When you speak with your <u>brother/sister</u> and you want to get something from him/her (buy something, not telling your parents about something..) you speak in			
8.-When you get angry with your <u>brother/sister</u> you speak in			
9.- In a normal situation you speak with your <u>brother/sister</u> in . . .			

ANNEX 2

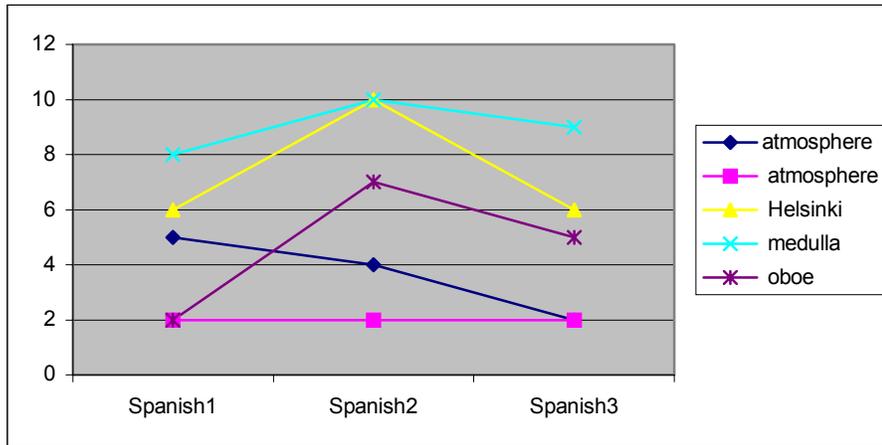


Fig. 2

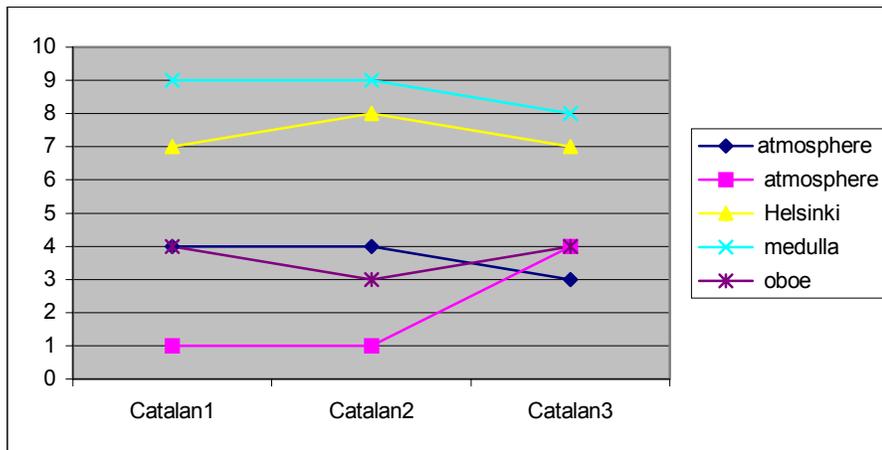


Fig. 3

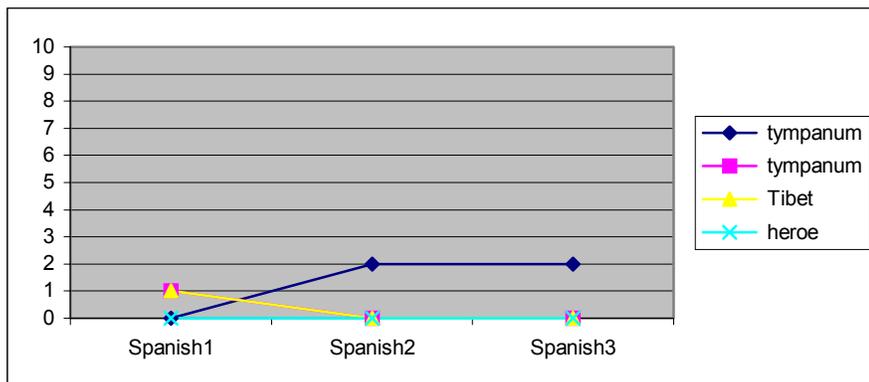


Fig. 4

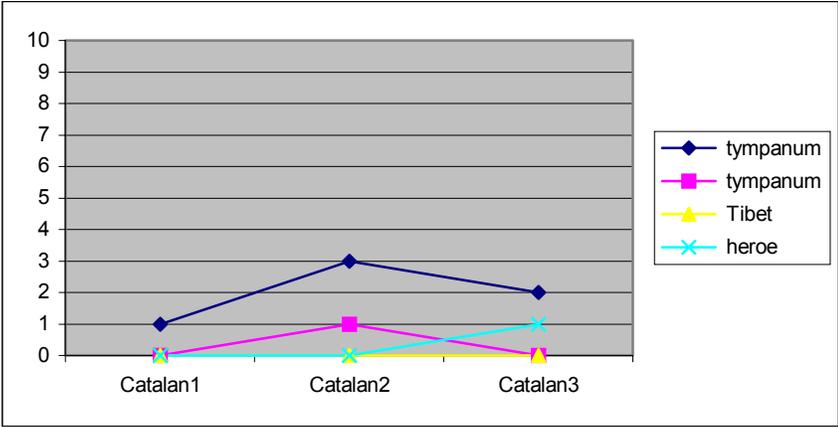


Fig. 5