

Perception of Accentual Focus by Basque L2 Learners of English

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Abstract

This paper reflects and discusses the results of English accentual focus perception by native English listeners vs. Basque learners of English. Two focus structures were studied: focus on subject and focus on verb. Twenty native English listeners and twenty native Basque speakers took part in two different types of test: identification and naturalness ratings of focus in English sentences. There were two kinds of focus identification test: half the listeners did a multiple choice test, whereas the other half took an open test. The results show that, as was expected, Basque learners had more problems in identifying focus than native speakers. This trend was much more pronounced in the case of verb focus. For both groups of listener verb focus was more difficult to identify and considered to be less natural. Basque listeners rated subject focus in English as even more natural than native listeners did. Some of these results are probably due to first language interference since pre-verbal focus is the neutral case in Basque. However the difference in performance by Basque listeners in multiple choice and open test must be partly due to differences between their passive and active knowledge of English. In the case of verb focus it may be that this difference is also present in their knowledge of their native language and transferred to their multiple choice and open test performance: listeners may understand focus on verb in Basque even if they do not use it often themselves.

1. Introduction

Accentual focus in English is a very well known mechanism which has been the object of a considerable body of research (Halliday 1976, Gussenboven 1984, Bolinger 1972, 1989, Taglicht 1982 to mention but a few). In a fixed order language such as English, it is very often accentual prominence which signals focus domains (Danés 1967), even though sometimes ambiguously so (Halliday 1967). For instan-

*Acknowledgements. I would like to thank the help and encouragement I received from the people already mentioned in the footnotes and from several other members of the Basque Department at the UPV/EHU. I thank A. Oribe for helping me search for informants. I am also very grateful to the students who took part in these tests. They very generously made room for my tests in their spare time despite their tight work schedules.

ce, the neutral position for sentence prominence which signals “all-new focus” (Cruttenden 1986) is on the last lexical item,¹ but this may also be interpreted as narrow focus on the accented item itself or its constituent. For example, sentence (1) with focus on “a dress” could be an answer to the question “What did Mary buy?” or “What’s new?”. (Accentual focus is marked with small capitals)

- (1) Mary bought a dress

Accentual focus is not the only possibility: elision, use of pro-forms, cleft and pseudo-cleft sentences are focus devices too. The present paper will concentrate on the use of accentual focus to signal new information in the widest sense of the word (Halliday 1970), that is to say, what a speaker wants to signal as important for whatever reasons (new information, contrast, etc.); in other words, to signal what the speaker wants to draw attention to (Maidment 1990).

In Basque,² the focus of information (*galdegia*) is usually signalled by virtue of its position before the verb and accompanied by the centre of accentual prominence in the sentence. This marking is ambiguous in that it could also correspond to neutral focus or in Cruttenden’s 1986 words “all new” focus (Altube 1929, de Rijk 1969, Hualde 1996, Hualde et al 1993, 1994). In such cases although intonation prominence highlights focused information, it is sentence order itself which is considered to be the main focusing device.

As far as verb focus is concerned, in Western Basque varieties there are two possibilities: a morphemic one in which the particle *egin* is added to the verb (this is accompanied by intonational prominence on the verb) and an accentual mechanism by which the verb is emphasized without any lexical or syntactic marking. J. I. Hualde (personal communication and Hualde et al 1993, 1994) believes that accentual focus alone is used for emphasis on the propositional content of the sentence³ whereas the use of *egin* contrastively emphasizes the action expressed by the verb. The following examples, provided by Hualde, illustrate three different types of focus marking.

- (2a) Laguna etorri da.
 (2b) (Ez) Laguna etorri *egin* da.
 (2c) (Bai) Laguna etorri da.

In (2a) there is neutral focus on the whole sentence or narrow focus on the pre-verbal constituent. It could be an answer to the question “What happened?” or “Who came?”. (2b) shows morphological focus on the verb by means of accentual

(1) Except for some constructions such as intransitive sentences of the type “the kettle is boiling” in which neutral sentence accentuation falls on the subject (Bolinger 1972, Schmerling 1974) or final adverbials and vocatives which are deaccented despite being the last lexical items (Cruttenden 1990).

(2) I am indebted to J. I. Hualde and J. Lakarra for their information on Basque focus. Any mistakes must be due to my interpretation of the information they so kindly provided. I am particularly grateful to J. I. Hualde for his comments and suggestions on previous versions of this paper.

(3) Additionally, synthetic verbs preceded by lexically unaccented words, may carry accentual focus. Nevertheless, in these cases, it is the pre-verbal constituent which is semantically focused (Altube 1929, Hualde et al 1993, 1994)

prominence on itself and the addition of the particle *egin*. It would be an appropriate answer in a context such as “Your friend went away, didn’t he?” or “What did your friend do?” in which the verb is emphasized for contrastive purposes or to signal that the verb is new information. The third sentence (2c) with accentual focus on the verb and without morphological marking could be an answer to the question “Your friend didn’t come, did he?”. This would be emphasis on the proposition expressed by the sentence.

J. Lakarra thinks that although accentual focus is used contrastively (personal communication) by some speakers, this possibility is giving way to morphological marking in the speech of the younger generations. He also points out the possibility of accentual contrastive focus without *egin* with certain types of verb, for instance with nominal verbs such as *maite* (to love), *gorroto* (to hate) *hitz egin* (to speak: “make words”). For example:

- (3a) Zuk Miren maite duzu? (Do you love Mary?)
- (3b) Ez, nik Miren gorrotatzen dut (No, I hate Mary)

In some cases an extra contrastive emphasis may be accentually signalled on an element preceding the pre-verbal focus.⁴ Thus sentence (4c) could be an answer to either (4a), without the negative particle, or (4b), adding *ez*.

- (4a) Jonek madariak erosiko ditu, gainontzeko guztiak zer erosiko dute?
(John will buy the pears, what will everybody else buy?)
- (4b) Jonek fruta guztia erosiko du, ezta? (John will buy all the fruit, right?)
- (4c) [Ez] Nik sagarrak erosiko ditut (No, I will buy the apples)

However it is debatable whether *Nik* forms an intonation group of its own or it is in the same group with “*sagarrak erosiko ditut*”.

Accordingly, for whatever reason it is used, with or without morphological marking (addition of *egin*), accentual focus on the item immediately preceding the verb and accentual focus on the verb itself, should not be unfamiliar mechanisms for Basque speakers. Therefore, as a first approach to the study of English focus perception by Basque students, the above two focus domains were chosen. Those two domains were also chosen because they are less ambiguous than focus on post verbal items (see section 2 below)

This paper reflects and discusses the results of accentual focus perception by native English listeners versus Basque learners of English. The aims were to:

- Compare the degree of perceptibility of two accentual focus structures by natives speakers vs. Basque learners of English.
- Compare the acceptability or naturalness of such structures for both types of listeners.

For these purposes, two different perception tests were given to two different groups of listeners: Test 1 was an information structure test. Test 2 was a natural-

(4) I would like to thank I. Urteaga and F. Altuna for their help in working out this possibility.

ness test. Listeners were native English speakers and native Basque speakers with non-tonal western accents (see below for more details).⁵⁻⁶

For both types of listener the input consisted of the utterances of an R.P.⁷ English speaker (for more details see below and García Lecumberri 1995). Details of the intonational realization of these utterances can be found in Appendix II.

2. Materials

Information structure —multiple choice and open tests— and naturalness tests were carried out for English. The number of utterances set for listeners to evaluate consisted of twelve target sentences with eighteen distractors interspersed (see details below). Six of the target sentences had been realized by the speaker with accentual focus on the subject of each sentence and six with focus on the verb. All sentences were simple declaratives because other sentence types might have intrinsic focus markings (House 1981) and target focus domains only contained one potential accent to avoid within domain ambiguities of scope. For the same reason focus was tested on subject and on verb domains since other positions (such as focus on predicate complements) might be potentially ambiguous (see above). Additionally, Basque presents two possible focus positions, pre-verbal and verb (see above), which would correspond to the focus domains analyzed here. Therefore Basque listeners were expected to find English focus on subject and focus on verb not unfamiliar. Narrower, within constituent focus placements such as focus on prepositions, determiners, etc., were not included as this was going to be an introduction to the study of focus perception.

2.1. Stimuli

Stimuli sentences were produced by a female English speaker born in the Greater London area (Chiswick). She had a mainstream RP accent. This speaker produced twelve target sentences, six sentences for each focus type, namely, focus on subject and focus on verb which were recorded on a Digital Audio tape. The recording was done with a laryngograph and a microphone so that both the laryngeal and the speech signal were recorded on separate tracks of the tape for future analysis of fundamental frequency traces. All twelve sentences had been judged to bear the expected intonation pattern by the writer. This opinion was confirmed by external

(5) The term "tonal" Basque refers to those dialects in which fundamental frequency realization of accents may carry morphological or lexical information such as the dialects of Gernika, Lekeitio, Ondarroa, Getxo, etc. Hualde 1989a-b and 1992 refers to it as "acento tonal" and Hualde 1996 as "pitch accent". In other areas it is the placement of accents on particular syllables in a word which may convey grammatical information.

(6) These tests were also given to some speakers with tonal dialects. However, since we were unable to find a significant number of speakers their results will not be included in the present paper. Hopefully, more speakers will be found amongst next year's students.

(7) R.P. stands for "Received Pronunciation" and it refers to the accent spoken by the upper social class in Britain. It is supposed to be devoid of regional characteristics and therefore often taken as the standard British accent. Other well known terms used for this variety are "BBC English" and "Queen's English"

listeners who were native speakers of English (see García Lecumberri 1995). Target sentences were framed by 18 distractors. The whole test consisted of thirty sentences and three introductory trial sentences. Stimuli were prepared by making a copy of the original recording. This copy was only edited as far as the laryngograph signal was concerned since it produces a "humming" like disturbance on audio playback. For that, the channel where the Lx signal had been recorded was disabled and a copy was made of the speech signal recorded on the other channel. However, none of the original answers was suppressed so that the listeners were presented with 33 sentences within which the two types that were the object of study, namely focus on subject and focus on verb were randomly interspersed and adequately highlighted for the subjects to answer. All of the utterances had been prompted by wh-questions, and there were no target focus domains with more than one accentable syllable. Subjects were allowed to listen to utterances more than once and to stop the tape if they needed time between stimuli.

2.2. Listeners

Twenty subjects took part in the English perception tests. Their selection criteria were directed towards getting naive listeners. None of them were bilingual nor fluent in any language other than English. They were all British and speakers of a fairly standard variety of southern English. None of them worked in the field of linguistics nor had any phonetic training. They were all above twenty years old and had at least a secondary school education or equivalent.

Basque listeners were chosen, for obvious reasons, with very different criteria. They all had to have a fairly similar level of English (between intermediate and upper intermediate). They were all second year English Philology students at the UPV/EHU and had all passed first year English at the university. Most of them had never lived in an English speaking country or had only spent a few months there. The few (3) of them who had spent a year in the UK or USA had done so a long time ago and did not show significantly different results in their English exams from other students⁸ and were therefore included in the sample. Listeners were asked to rate their knowledge of three skills in English on a scale from 1 to 10. Listening skills self ratings ranged from 4 (1 student) to 8 (5 students).

All of the informants were native speakers of Basque (*euskaldunzaharrak*).⁹ Listeners who took the open test came from the following places: Eibar, Igurte, Lazkao, Azkoitia (2), Goierri area (2), Zarautz, Arrasate and Orio. Listeners who did the multiple choice test came from: Igurte, Itsasondo, Irurtzun, Arrasate (3), Donostia, Tolosa, Azpeitia and Zarautz.

(8) Two of them had a "B" in their English exam but so had nine other listeners. If second year half-term results are taken into account, none of these three students got one of the three "A" results recorded.

(9) Despite considerable dialectal differences, they were considered to be homogenous as far as the linguistic uses of accent in their varieties. I am grateful to J. Lakarra, L. Oñederra and R. Gómez for their help in selection and classification of listeners.

All listeners had studied English Phonetics and were enrolled in English Phonology but tests were done before they studied English intonation.

3. Informational Structure Tests

3.1. Materials

The multiple choice test was given to twenty listeners: ten native speakers of English and ten Basque L2 English learners. This test was designed in the form of four potential questions for each utterance, of which only one was right. All of them were wh-questions on a different phrase of the sentence: subject, verb, complement, predicate, subject plus verb or an all-new question.

The following is an example of the type of questions presented as choices for a sentence realized with accentual focus on the verb (option 'a' is the right one):

Stimulus: David *removed* his belongings

Options:

- a- What did David do with his belongings?
- b- Who removed his belongings?
- c- What happened to his belongings?
- d- What did David do?

Listeners were asked to concentrate on the way sentences were said and not just on their lexical content. In no case was intonation mentioned. They were told that they would hear the edited version of a conversation in which one person asked questions and another one answered them. Their task was to find the missing question in each case from amongst the four possibilities.

In the open test, twenty listeners (ten English speakers and ten "non-tonal" Basque L2 English learners) were presented with a written transcript of all sentences. Gaps were provided for the listeners to write their answer underneath each of the stimulus sentences. Instructions only differed from those given during the multiple choice test in that this time listeners were told that they had to make up the missing questions.

Basque listeners were asked to complete a questionnaire giving details about themselves (birth place and date, where they lived, languages spoken and what level, stays abroad, English exam results, etc.)

3.2. Analysis

The number of right and wrong judgements was counted for each listener. Total percentages and means were obtained for each group of listeners. Questions were considered to be right if they referred to the information structure signalled by the speaker. If a question involved elements outside the focus domain, it was classified as wrong even if focused material was also included.

Statistical analysis was done on a Macintosh with the Statview programme. Percentages were obtained for right and wrong listeners' perceptions considering the behaviour of one variable in three situations: perceptions for subject focus versus

verb focus in multiple choice tests in open tests and in both types of test as a whole. Comparative statistics are done applying paired two tailed t-tests.

3.3. Results¹⁰

Condition	English Subject	Basque Subject	English Verb	Basque Verb
Number of responses	120	120	120	120
Number of correct responses	114	97	93	50
Percentage of correct responses	95.00	80.83	77.50	41.67
t		3.41		6.34
probability		0.0009		0.0001

Table 1. English versus Basque listeners' perceptions for subject and for verb focus

Condition	M.C. English Subject	M.C. Basque Subject	M.C. English Verb	M.C. Basque Verb
Number of responses	60	60	60	60
Number of correct responses	60	50	49	38
Percentage of correct responses	100.00	83.33	81.67	63.33
t		3.43		2.38
probability		0.001		0.02

Table 2. English versus Basque listeners' perceptions for subject and for verb focus in multiple choice tests

Condition	Open English Subject	Open Basque Subject	Open English Verb	Open Basque Verb
Number of responses	60	60	60	60
Number of correct responses	54	47	44	12
Percentage of correct responses	90.00	78.33	73.33	20.00
t		1.72		7.29
probability		0.09		0.0001

Table 3. English versus Basque listeners' perceptions for subject and for verb focus in open tests

Considering we are contemplating 59 degrees of freedom and that the critical values for t in a two tailed test are $t= 2.00$ for $p= 0.05$ and $t= 2.66$ for $p= 0.01$, we can say with at least a 95% confidence level that the difference between English and Basque listeners are significant for the following variables: overall focus perception, overall verb perception, multiple choice subject and verb focus perception, open test verb focus perception. That is to say, the only variable which is not significantly different is open perception for subject focus, although it would be significant at a 92% confidence level. On the other hand, the biggest difference that can be observed between the two groups of listeners is that in verb focus perception in the open test.

3.4. Discussion

It is interesting to note that all speakers display worse perceptions for verb focus

than for subject focus. In the case of English native speakers it may be because, according to Halliday 1970, a focal accent may be ambiguous in its leftward scope. Consequently a sentence such as (4a) with focus on *borrowed* may be an answer to either (4b) or (4c):

- (4a) His friend borrowed the money
- (4b) What did his friend do with the money?
- (4c) What happened to the money?

However reasonable this explanation may be, it must be pointed out that most of our listeners' wrong interpretations were restricted to two sentences, numbers 11 and 12, which were thought to present a focus on predicate structure. Nevertheless, my own judgement coincided with that of external listeners in considering both sentences to bear focus on verb patterns (see traces in appendix II below). It may be that the lexical content of these two sentences (see appendix I below) may have been a misguiding factor.

It is apparent that for both native and L2 listeners open tests were more difficult. It is reasonable to suppose that students' knowledge of English is much more seriously tried in the open test and thus leads to worse results. For native English speakers' competence the open test is more of a challenge but not dramatically so. But if verb focus is also a possibility in Basque, why should students' results not have been as good as the ones for subject focus?. As far as Basque listeners are concerned, I think the open test posed an additional challenge in that it was a task that reflected their active use of focus in their own language and not just their capability of identifying patterns. Let us examine the results obtained from Basque listeners for verb focus in both different types of test in order to see how the open test was specially difficult for Basque speakers.

If we follow Hualde's view that verb focus is mainly used to emphasize the truth of the proposition expressed by the sentence, the options provided in the multiple choice would all be unsatisfactory for our listeners, since they corresponded to accentual signalling of new information. But then, the comparatively good results in multiple choice verb identification (not even statistically significantly different from the English ones) would seem illogical. Listeners should have rejected the new information on verb option more consistently since that is not the use of accentual focus with most Basque verbs (in no case were they given a "did-verb" option).¹¹ On the other hand, according to Lakarra, some Basque speakers use accentual focus on verb with other meanings, such as contrast or new information marking. This possibility together with the cross-generational use of accentual verb focus on nominal verbs (on which both authors agree) may have triggered their identifications in

(10) The results for English native perceptions are taken from García Lecumberri 1995 but statistics are slightly different since other tests were applied.

(11) For instance, Basque speakers would have preferred an option of the type "Talking about animals...your brother doesn't love animals, does he?" for the stimulus sentence "My brother loves animals" (in English the correct answer in that context would have been "My brother does love animals").

the multiple choice test since they were offered a context which corresponds to a possible pattern in Basque which speakers understand even if they do not use it themselves. Similarly, as was mentioned above, their knowledge of English could be reasonably assumed to be such that they can identify patterns even if, again, they do not produce them. However, when they have to produce the right context themselves, their active knowledge of English is being tried and the results are consequently much worse. For a non-native competence the multiple choice offers a ready solution which may trigger their passive knowledge of English, but a test such as the open one, in which active knowledge in the shape of written production is being reflected, creates more difficulties for L2 listeners.

4. Naturalness Test

As was mentioned above, the two focus domains under study in this paper are possible in Basque so our expectations were that the naturalness ratings obtained by them would be quite high. However, since the unmarked focus position in Basque is pre-verbal (Altube 1929, Hualde 1996, Hualde et al 1993, 1994) it was hypothesized that naturalness ratings for English verb focus would be significantly lower than for focus on subject.

4.1. Materials

The same tape with focused English sentences was played again. This time all listeners were provided with the same written transcript of all sentences and their respective trigger questions. Listeners were asked to rate the sentences they heard on tape between 0 and 4 ("impossible", "not very possible", "possible" "quite possible" and "totally possible" in English) and strongly encouraged to judge the appropriateness of the way each sentence was uttered in view of the question that had triggered it, without regarding lexical or syntactical considerations. For example:

Who speaks German? *Frances* speaks German3....

What did Jane do about dinner? Jane *cooked* dinner3....

4.2. Analysis

Statistical analysis was done with the same statistical package mentioned above (Statview SE) on a Macintosh computer. Means and standard deviations were obtained for each type of focus and listener. Comparisons between variables were done by applying paired, two tailed t-tests.

4.3. Results

Condition	English Subject	Basque Subject	English Verb	Basque Verb	English All	Basque All
Number of responses	120	120	120	120	120	120
Mean response	3.63	3.72	3.58	3.18	3.61	3.45
Standard Deviation	0.72	0.58	0.69	0.84	0.71	0.77
t	-0.94		4.15		2.35	
probability	0.35		0.0001		0.02	

English versus Basque listeners' perceptions for subject focus and verb focus.

There is no significant difference in subject perception although Basque listeners rate it as more natural. As far as verb focus is concerned, however, there is a significant difference in that English listeners consider it to be more natural than Basque listeners do. Overall the difference is significant at a 98% (0.02 probability) confidence level.

4.4. Discussion

Overall, there is a significant, albeit small, difference between naturalness ratings given by native and non-native speakers for focused sentences as a whole since native listeners consider accentual focus as slightly more natural than Basque speakers do. This may be an obvious result in that native listeners were rating not only their own language, but a speaker with an accent not too dissimilar to their own. On the other hand, L2 listeners might have been expected to be less discriminating in a foreign language and therefore, more likely to accept anything which sounded native as natural.

However if we look at the differentiated scores for subject and verb focus we can see that L2 speakers are not being undiscriminating. English subject focus is considered to be more natural by Basque listeners than by English listeners, even though the difference is not statistically significant. However, since it is a reversal of the overall pattern it must be studied in more detail. This tendency is not due to their ready acceptance of native sounding speech but to native language influences. Although focus on subject is a very frequent alternative in English, it still is a marked, non-neutral accentuation pattern. In Basque, on the other hand, accentual focus on the pre-verbal constituent is applied by default, it being ambiguous between neutral (all new or broad focus on the whole sentence) and narrow marked focus on the constituent where the accent falls (Hualde et al 1993, 1994, Hualde 1996). Therefore, we could conclude that Basque listeners considered our items with focus on subject so very natural because that is the unmarked case in their native language.

Focus on verb was considered by both native and non native speakers to be less natural but still within the categories "quite possible" and "totally possible". Nevertheless, the difference between the two groups of listeners is significant in that English listeners assign focus on verb higher ratings than Basque speakers do. This corresponds to the facts which have been discussed about Basque verb accentual focusing: it is quite possible with certain meanings (emphasis on the lexical content of the verb) but there are few verbs and speakers which would resort to accentual focus without morphological marking for contrastive or new information meanings (as was the case in our naturalness test). Nevertheless, Basque listeners rated verb focus structures quite high considering the problems they had experience in their identification.

5. Conclusions

Non native listeners were consistently worse at identifying English focus than native listeners, which is hardly surprising. Basque listeners were better at identify-

ing English focus on subject than focus on verb and, interestingly, they considered focus on the pre-verbal constituent to be more natural than English listeners did. This must be due to the fact that focus on the pre-verbal constituent is the most familiar, de-fault pattern in Basque. For our Basque speakers accentual focus on verb with a new information meaning is not a mechanism they use in Basque and probably not in English either, but they can understand it since they have been exposed to it. Therefore, when given a ready made context they understand it but if they have to produce it themselves, they run into problems. This would also explain why the identification problems experienced by Basque speakers with focus on verb do not seem to have a correspondingly outstanding reflection on their naturalness ratings. It may be the case that, since when they were rating the sentences, focus triggering questions were given for all sentences, some listeners were able to identify the well-formedness of such structures given the appropriate context. It is open to debate whether on seeing the focus trigger (a pronominal question) listeners considered the utterances quite natural because of their knowledge of English (since according to Hualde such questions would rarely trigger accentual focus on verb in Basque unless it was accompanied by morphological focus, i.e., insertion of *egin* after the verb) or whether they identified the similarity with their native pattern for nominal verbs or even a similar pattern with other verbs even if they themselves no longer use it (cf. Lakarra). In any case, whatever the extent of use of verb focus in Basque, it did not seem to have an important favourable influence on our listeners identification of this pattern in English.

Works cited

- Altube, S., 1929, *Erderismos*, Bermeo: Gaubekaren irarkolan.
- Bolinger, D. L., 1972, "Accent is Predictable, (if you're a mind-reader)", *Lg* 48: 633-644.
- _____, 1989, *Intonation and its Uses*, Stanford: Stanford University Press.
- Cruttenden, A., 1986, *Intonation*, Cambridge: Cambridge University Press.
- _____, 1990, "Nucleus placement and three classes of exception". In *Studies in the Pronunciation of English: A commemorative volume in honour of A. C. Gimson*, 9-18, S. Ramsaran (ed.), London: Routledge.
- Danés, F., 1967, "Order of Elements and Sentence Intonation", *Intonation*, 216-232, D.L. Bolinger (ed.), 1972, Harmondsworth: Penguin.
- García Lecumberri, M. L., 1995, *Intonational Signalling of Information Structure in English and Spanish*, Bilbao: UPV/EHU.
- Gussenhoven, C., 1984, *On the Grammar and Semantics of Sentence Accents*, Dordrecht: Foris Publications.
- Halliday, M. A. K., 1967, "Notes on transitivity and theme in English, Part 2", *Journal of Linguistics*, 3: 2, 199-244.
- _____, 1970, *A Course in Spoken English: Intonation*, Oxford: Oxford University Press.
- _____, 1976, "Theme and information in the English clause", in *Halliday: System and Function in Language*, 174-188, G. Kress (ed.), Oxford: Oxford University Press.
- House, J., 1983, "Nucleus and focus: a pilot study", *Speech Hearing and Language: Work in Progress*, UCL., 69-85, V. Hazan and A. J. Fourcin (eds.), London: Department of Phonetics and Linguistics, UCL.
- Hualde, J. I., 1989a, "Acentos vizcaínos", *ASJU* 23.1, 275-325.

- _____, 1989b, "Otro acento vizcaíno: Getxo", *ASJU* 23.3, 809-818.
- _____, 1992, "Notas sobre el sistema acentual de Zeberio", *ASJU* 26.3, 767-776.
- _____, 1996, (To appear), "Basque accentuation", *Word Prosodic Systems in the Languages of Europe*, H. van der Hulst (ed.), Berlin & New York: Mouton de Gruyter.
- _____, G. Elordieta & A. Elordieta, 1993, "Focalización y prosodia en vascuence vizcaíno", *ASJU* 27.3, 731-749.
- _____, _____, 1994, *The Basque dialect of Lekeitio*, *ASJU Supplements*.
- Maidment, J. A., 1990, "Focus and Tone in English Intonation", *Studies in the Pronunciation of English: A commemorative volume in honour of A. C. Gimson*, 19-26, S. Ramsaran (ed.), London: Routledge.
- Rijk, R. P. G. de, 1969, "Is Basque an SOV. language?", *FLV* 1.3, 319-351.
- Schmerling, S. F., 1974, "A re-examination of 'normal stress'", *Lg* 50: 66-73.
- Taglicht, J., 1982, "Intonation and the assessment of information", *Journal of Linguistics* 18: 213-230.

Appendix I: Sentences and trigger questions

Subject Focus Sentences

1. Isabel paid the waiter / Who paid the waiter?
2. Andy came for a meal / Who came for a meal?
3. I ordered those dishes / Who ordered those dishes?
4. My neighbour gave a reward / Who gave a reward?
5. Miranda studies languages / Who studies languages?
6. The boy plays the violin / Who plays the violin?

Verb Focus Sentences

7. Gary manages their restaurant / What does Gary do in their restaurant?
8. His friend borrowed the money / What did his friend do about the money?
9. My brother loves animals / How does your brother feel about animals?
10. Diane admires his music / What does Diane think of his music?
11. The war divided the region / What did the war do to the region?
12. David removed his belongings / What did David do with his belongings?

Appendix II: Pitch traces

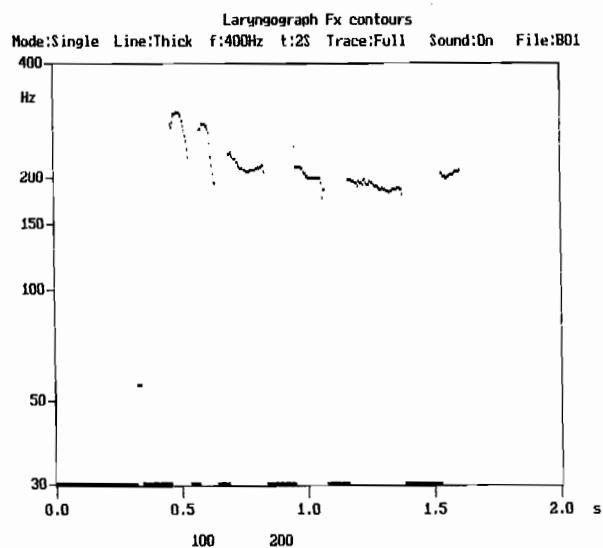


Fig. n°: 1	Sntc. n°: 1	Focus: Subject
Text: Isabel paid the waiter		

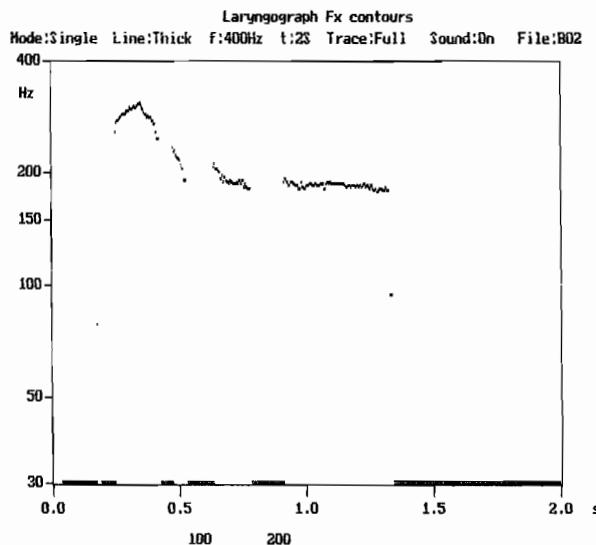


Fig. n°: 2	Sntc. n°: 2	Focus: Subject
Text: Andy came for a meal		

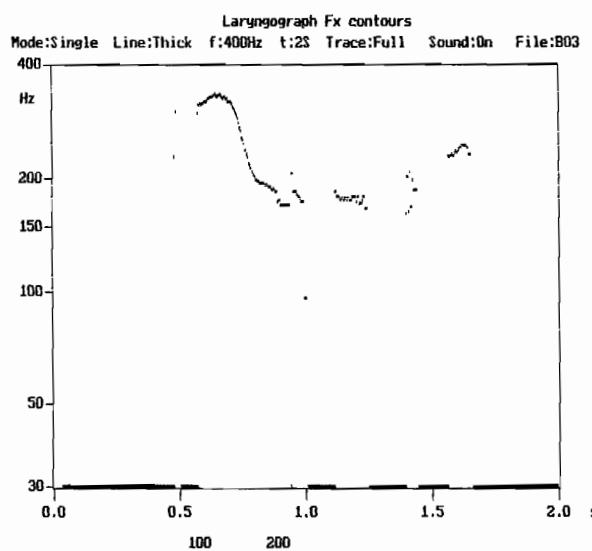


Fig. n°: 3	Sntc. n°: 3	Focus: Subject
Text: I ordered those dishes		

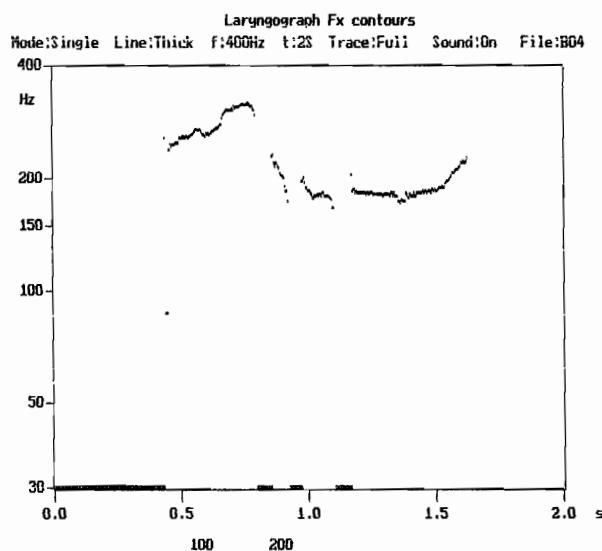


Fig. n°: 2	Sntc. n°: 2	Focus: Subject
Text: My neighbour gave a reward		

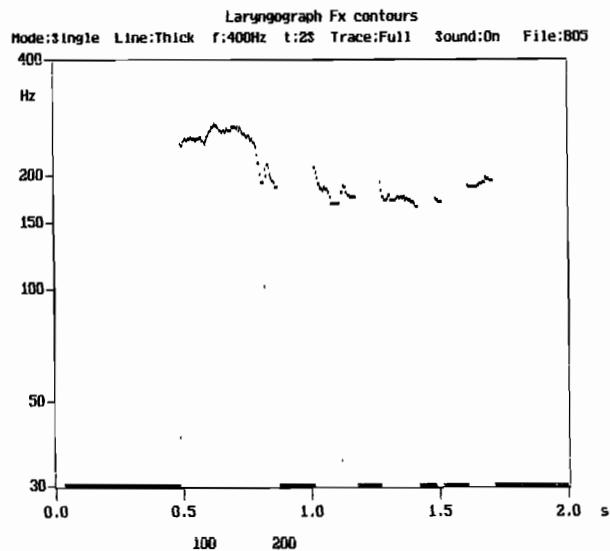


Fig. n°: 5	Sntc. n°: 5	Focus: Subject
Text: Miranda studies languages		

100 200

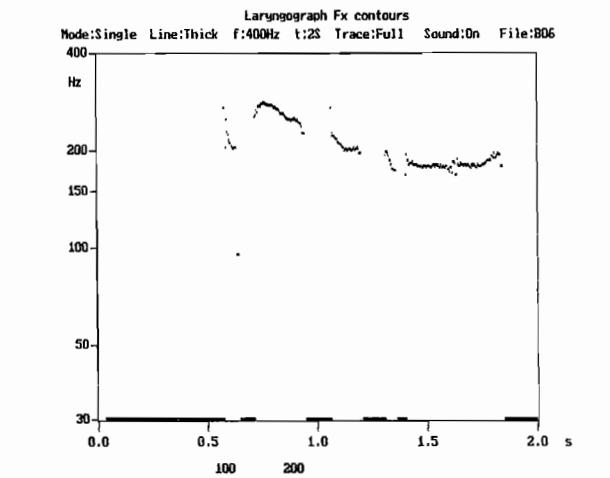


Fig. n°: 6	Sntc. n°: 6	Focus: Subject
Text: The boy plays the violin		

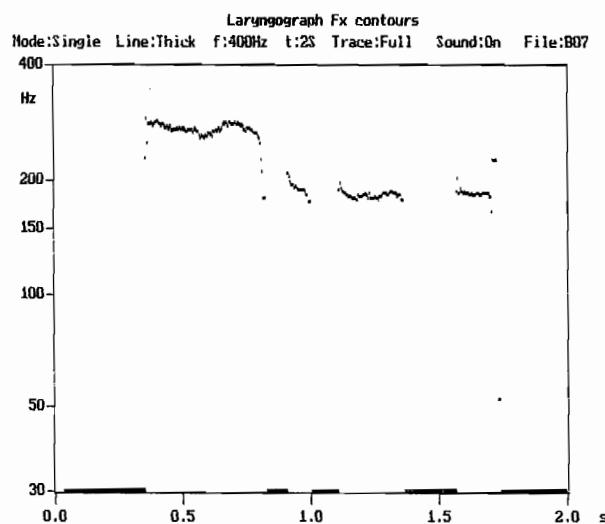


Fig. nº: 7	Sntc. nº: 7	Focus: Verb
Text: Gary manages their restaurant		

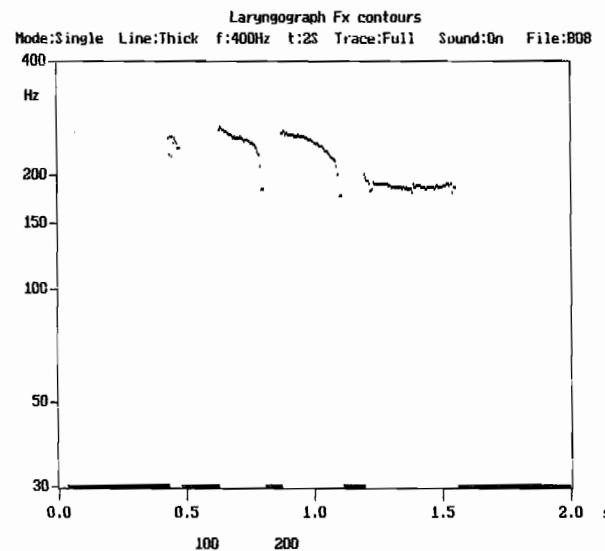


Fig. nº: 8	Sntc. nº: 8	Focus: Verb
Text: His friend borrowed the money		

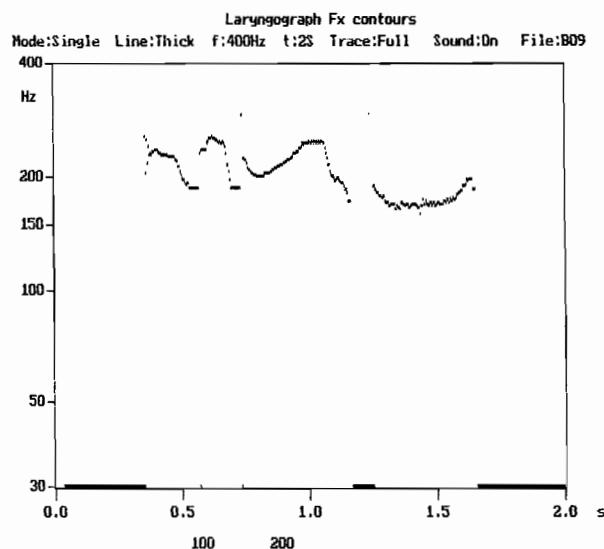


Fig. n°: 9	Sntc. n°: 9	Focus: Verb
Text: My brother loves animals		

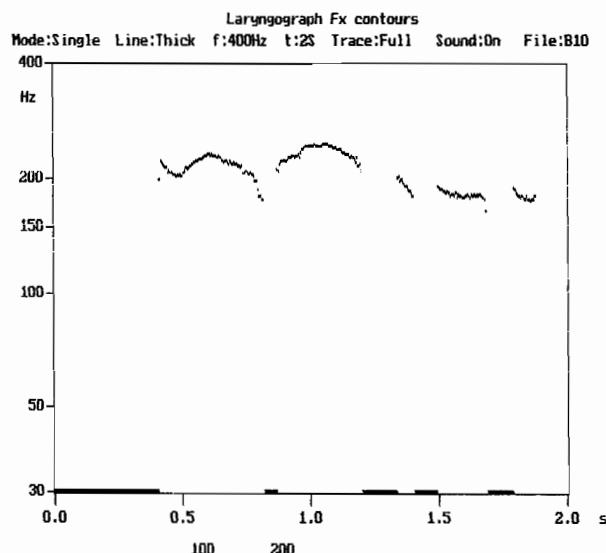


Fig. n°: 10	Sntc. n°: 10	Focus: Verb
Text: Diane admires his music		

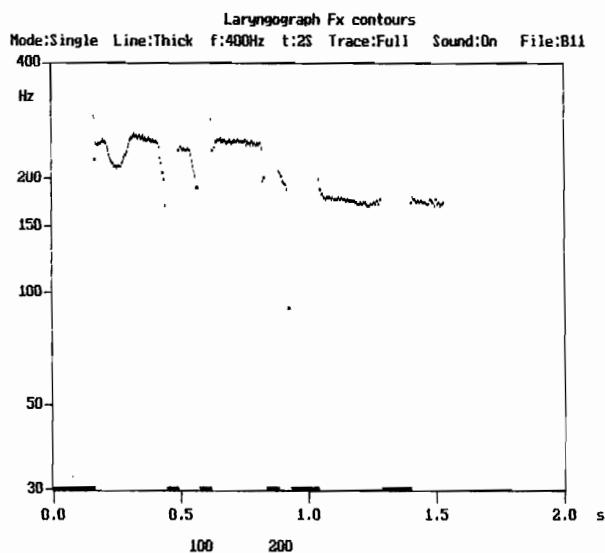


Fig. n°: 11	Sntc. n°: 11	Focus: Verb
Text: The war divided the region		

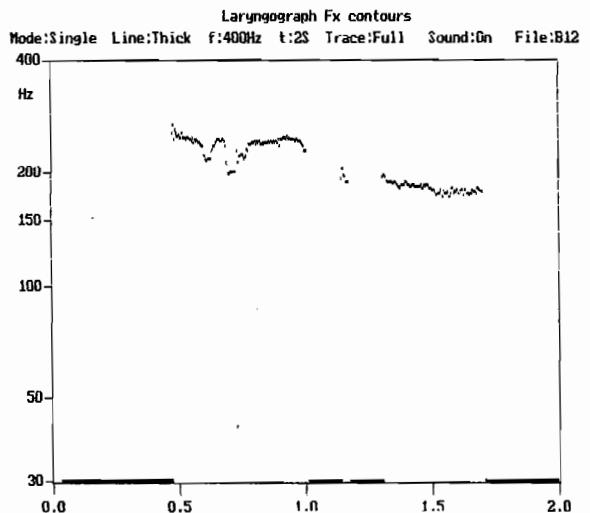


Fig. n°: 12	Sntc. n°: 12	Focus:
Text: David removed his belongings		