

Proto-Basque Yod

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1. In the study of the historical evolution of the sound system of Basque, little use has been made of the comparative method. Instead, other procedures, such as the study of the phonetic shape of Latin and Romance borrowings into Basque at different periods, have been favored. The reason for the disuse of the comparative method is that there are very few systematic phonological correspondences between any two Basque dialects. As Martinet (1955; 372) points out, the traditional use of the comparative method to Basque dialects would result in a reconstructed proto-system of unreasonable complexity.

In the case of initial stops, to give an example, very often we find variants of the same word with voiced and voiceless sounds. E.g.: *pake, bake* "peace"; *torre, dorre* "tower"; *katu, gatu* "cat". Michelena (1976; 239) remarks that although, generally, for a given word there is only one pronunciation (either with a voiced or with a voiceless initial stop) in a given geographic point, there is no regularity in the geographic distribution of the variants. There are only greater or lesser frequencies in the distribution of initial voiced and voiceless stops. For this complex situation Martinet (1955; 372) offers as explanations the fact that the Basque linguistic community has been largely bilingual for many centuries and that exchanges among dialects must have been very frequent. The resultant picture is such that it is very difficult to distinguish what is a result of local direct evolution from the Proto-language and that which has been borrowed.

The situation of the fricatives is exceptional in that definite correspondences among dialects are much easier to establish in this area. In this paper I will make extensive use of the comparative method to sketch the evolution of Proto-Basque *y in several Basque dialects.

As Michelena (1976; 168) notes, the varying dialectal results of the evolution of *y have given rise to one of the most important differences in pronunciation among Basque dialects. This difference, nevertheless, is usually not reflected in the orthography. For this reason, and to avoid an excessive use of brackets, here I will not make use of Basque orthography. All Basque examples cited are to be given a phonetic value, as if they were written within brackets.

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The evolution of Proto-Basque *y has followed a parallel path to that of the same sound in Proto-Romance. Among Basque dialects, we find as much diversity in the pronunciation of *y as we do among Romance languages. Even neighboring dialects with otherwise quite similar phonetic inventories may present very different realizations of *y.

The evolution of *y seems to have followed one single direction: y > dž > ž > š > x. All of these different stages in the evolution of *y are represented in the dialects which survive today. This is rather similar to the situation found in Romance, where, simplifying matters somewhat, Italian stopped after the first change y > dž; French, Catalan and Portuguese underwent one further change: y > dž > ž; some Iberian language varieties like Galician, Asturian and varieties of Valencian Catalan and Aragonese went one step further: y > dž > ž > š; and finally Spanish went all the way through to x.

Among Basque dialects we find a comparable situation. Labourdin (which I will henceforth abbreviate as L) and High Navarrese (HN) have [y], Low Navarrese (LN) and some areas of Bizcayan (B) have [dž], Souletin (S) has [ž], Roncalese (R) has [š], and Guipuzcoan (G) and bordering Bizcayan areas have [x]. This description is most accurate if we take into account only word initial *y, since the evolution of intervocalic *y has often followed a different path, as we will see. The influence of neighboring Romance dialects has patently been a factor in the evolution of *y in Basque. Thus, only in dialects spoken in Spanish territory do we find š or x from *y. The constant influence of Romance languages has probably influenced the evolution of *y more than once in any given dialect, by means of uninterrupted borrowing of items containing successively different realizations of *y. This constant contact has given rise to complications in the phonemic inventory of certain Basque dialects. Unlike the case of Romance dialects, where Proto-Romance *y normally has a unique result in a given context for a given dialect, the evolution outlined above having stopped at different points, in Basque dialects different realizations of both Proto-Romance *y and Proto-Basque *y coexist side-by-side in different items or even in variants of the same item in a given dialect.

All the dialects spoken in the Peninsula, and only those dialects, contain the sound [x] in their inventory. The incidence of this sound can be very limited and in fact reduced to more or less recent loan words from Spanish, as in the HN dialect of Maya (N'Diaye, 1970; 19). This sound may also be found in a handful of native words, as in R, or it can even have become the normal result of *y—, as in G.

All dialects spoken in the Peninsula, have also lost *h. The situation nowadays, therefore, is such that none of the dialects that in a greater or lesser measure have [x], have [h] and none of the dialects that have [h], has also [x]. Coastal L has neither sound since recently it has lost [h], due, it is generally believed, to G influence. That [h] was once common to all Basque dialects can be concluded from the analysis of Medieval documents (Michelena 1976; 205).

Let us initiate our investigation with the comparison of a list of items containing [y] or derived sounds in four dialects. These are, from right to left, B of Ondarroa and Markina (O-M), G, L, and R.

Their presentation in columns from right to left corresponds to the relative location of the dialects from west to east.

B (O,M)	G	L	R	
xun	xwan, xun	yoan, gan	šwan, xwam	«to go»
xan	xan	yan	šan	«to eat»
xakin	xakin	yakin	šakin	«to know»
xay	xay	yay	šey	«holiday»
xayše	xaya	yaya	sěya	«the holiday»
xayšo	xayo	yayo		«to be born»
xokatu	xokatu	yokatu	šokatu	«to play»
lešo	leyo	leyho	lešo	«window»
kašola	kayola	kayola		«cage»
ošal	oyal	oyhal		«cloth»
	oyan	oyhan	ošan	«forest»
iše	iya	ya	ša	«already»
oyu	oxu	oyhu		«scream»
anaše	anaya	anaya	anaša	«(the) brother»
i	i	hi	yi	«thou»
barriše	berriya	berria	berria	«new»
bidie	bidia	bidea	bidia	«the path»
negar	negar	negar	nešar	«cry»

In every case, we can take the forms listed under L as similar in all relevant respects to the proto-Basque forms. We will here put aside the question of the original or derived character of post-glides [h].

2. In R, *y has regularly become [š] in prevocalic position and has remained in preconsonantal or word-final position. If there is a morpheme boundary between *y and a following vowel, there is no sound change. Of particular importance here is the boundary between stem final *y and the article —a. Compare *xeya* the holiday, from *yay + a with *anaša* (the) brother, in which the final —a is part of the stem and *y gives š. The sound change has, therefore, been: *y > š/—V, with no morpheme boundary intervening between the glide and the following vowel. It is very probable that two intermediate changes were fortition of *y to *dž and subsequent loss of the occlusive element, giving ž. This latter sound is found in S, the Norther neighbor or R with which R shares a number of both structural and phonetic peculiarities.

There are instances of prevocalic *y in R, such as *yi* < *i, «thou» or *yago* < *ago «thou stayest», but these are clearly secondary, as we can establish easily by comparison with other dialects. This innovation certainly must have taken place after *y had already begun to change.

Some relatively recent loans from Spanish present [x] in R; e.g.: *xenio* tem-

per; although older loans have [š] e.g.: *šuntatu* «join», *šaboi* «soap». From Latin *iam* the result is *ša* (cf. Sp. *ya*). A handful of native words also present [x] from *y instead of the expected [š]; e.g.: *xeyn* «sir», *xeyngoyko* «God», *xwam* «to go». These seem to be only examples of [x] from Proto-Basque *y in this dialect. These instances of occurrence of *x* could be explained away as cases of dialect borrowing. A problem presented by this explanation, however, is that the words *xeyn* and *xeyngoyko*, which are clearly related (*xeyngoyko* is literally “Lord of the heights”) present a diphthong *ey* whereas all other dialects have *aw*. This is not, on the other hand, an insurmountable obstacle for the borrowing hypothesis, since the change *aw* > *ey* could have occurred after the borrowing of those words from a dialect which had *xawn*.

An alternative explanation to that of interdialectal borrowing would be that R, whose last native speakers died in the 1970's, had begun to change [š] into [x], offering evidence for the hypothesis according to which sound change is not simultaneous and exceptionless across the lexicon, but rather starts in a core of words and progressively spreads through the lexicon. In the case of R, the change from [š] to [x] would have been favored by the introduction of the later sound through Spanish borrowings. Very possibly the overall frequency of [x] in R was quite high even if it only affected a few “native” items. Confirmation for this thesis is offered by the R version of Saint Mathews Gospel that P. Hualde wrote for L.L. Bonaparte (reproduced in Estornés Lasa 1982). Even admitting the fact that this text does not represent normal everyday discourse, it clearly shows that the sound [x], although limited to words of Spanish origin, was a completely normal sound in the dialect.

Michelena (1976; 170) states that [x] is normal in the words for ‘sir’ and ‘God’ well beyond the area where the change š > x is regular. In 1956 in Huarte-Araquil and villages to the East of this within the Araquil Valley, [š] was the normal result of *y in word-initial position for speakers of the older generation, while younger speakers had [x] in the same words. However, in the words for ‘sir’ and ‘God’ [x] was the only pronunciation, even for the oldest speakers, according to a personal communication by I. Ayerbe to Michelena.

Thus, even if the area where R was spoken is quite distant from the area where *y > x is regular (Guipuzcoa), the borrowing into this dialect of pronunciations with [x] in the words for ‘sir’ and ‘God’ would seem quite conceivable, taking into account what has happened in other dialects also spoken in Navarra. For whatever reasons (Guipuzcoan priests, education of Navarrese priests in Guipuzcoan seminars) the pronunciation of [x] in the words for ‘sir’/‘lord’ (used to refer to both God and the parish priest) and for ‘God’ seems to have had a diffusion of their own. This has, doubtlessly, been helped along by the previous existence of Spanish loans with that sound in the borrowing dialects.

As far as I have been able to find, the only other item which presented [x] in R is *xwan* ‘to go’. Michelena (1976; 173) gives this form as alternating with *šwan* in the village of Isaba, while *šwan* was the only pronunciation in Uztarroiz. In the village of Vidangoz the pronunciation of this word was *fan*, and this is the form that appears in P. Hualde’s translation of the Gospel. As Michelena points out, giving examples from other dialects as well, *yw*-from *yo- has often had a spe-

cial evolution. The alternation of [x] and [f] begore [w] is also present in some Spanish dialects; e.g.: *fwera*, *xwera* 'out'.

In the word *nešar* we have [š] in R but [g] in all the other dialects. This seems to be an isolated case.

3. Moving now to G, we observe by looking at the list above that this dialect presents [x] in many items where R has [š]; but it has kept [y] in other items where this has also become [š] in R. There is evidence internal to the dialect that the change **y* x has had š as an intermediate stage. The evidence is provided by relatively old borrowings from Romance dialects which have š in the original language and have undergone a *š* > x change in G. E.g.: Gascon [*bašere*] > G *baxera* 'stoneware'. The change *š* > x in G has been general in all positions. The sound change **y* > š, however, took place in a more restricted environment than in R. Words like *xayo* 'to be born' show clearly what the environment for the first sound change must have been. Namely, **y* changed to š in word initial position in G. I will, thus, postulate that the sound changes undergone by **y* in G have been the following:

(1) *y* > š / # —

(2) š > x

There are, admittedly, two problems, with these proposed sound changes. Firstly, even though, unlike R, G has maintained **y* in intervocalic position in most cases; e.g.: *kayola*, *oyan*, *oyal*, there are many instances of intervocalic x in G. Most of them are words borrowed from Spanish; e.g.: *bidaxe* 'trip'. Some other words are older borrowings from Romance which presented š in the original language. One case is *baxera*, given above. Another example is *laxa* 'to abandon', undoubtedly from Romance *laša*. All these cases are, therefore, only apparent problems, since here we do not have intervocalic **y* undergoing changes within G; but š changing to x, which, as we said, was a context free change in G and not limited to word initial position. Nevertheless, there are still a handful of items where Proto-Basque **y* has become G x other than in word initial position. E.g.: *oxu* 'scream'.

The second problem is that the second rule given above should have had as a result the disappearance of the sound [š] from G. However, this has not been the case. In particular, there are two sets of exceptions. One of them is formed by items containing what we could call «expressive š». The other set of exceptions is constituted by instances of š resulting from the palatalization of [s] and [š] after [i] and [y]. Both palatalization processes, "expresive palatalization" and "conditioned palatalization" are widespread phenomena in Basque and not limited to the G area. Each palatalization process may affect a different set of segments and may produce somewhat different results in different dialects. In some areas of G, for instance, conditioned palatalization after [i] or [y] produces the following results:

n —> ñ /egina/ [egina] 'done'

l —> λ /mutila/ [mutila] 'the boy'

t —> t' /ditut/ [dit'ut] 'I have them'

ts,tś —> tš /itśaśo/ [itšaśo] 'sea'
 s,ś —> [š] /ayše/ [ayše] 'easy'

Depending on the geographical areal, the palatal realization of the coronals can be obligatory or optional and a following vowel may or may not be required for the palatalization to take place. The important point here is that [š] produced by this palatalization rule only exceptionally has changed to [x]. A way to account for this fact is to say that when the change $\check{s} > x$ took place it affected only underlying /š/ or that the added rule was ordered before the conditioned palatalization rule. An alternative explanation would postulate that [š] resulting from the palatalization rule. An alternative explanation would postulate that [š] resulting from the palatalization of /s/ or /ś/ did not exist when the change from \check{s} to x took place. This is quite plausible, since, nowadays, for many speakers of G, "conditioned palatalization" is only obligatory for /in/ and /il/.

As for "affective palatalization", whose functions are to form diminutives or somehow express affection, the same two explanations would in principle be possible. However, the hypothesis of the relatively new presence of [š] in G would be harder to prove since, firstly, the affective palatalization of /s/ and /ś/ is very widespread in all the Basque territory and, secondly, there is no non-palatalized form of the diminutive suffix -še. The evidence seems to be in favor of the hypothesis according to which the change of \check{s} into x affected underlying /š/ but not derived [š]. Nowhere is x used as affective variant of \check{s} or \check{s} . This would be against the general process of formation of affective forms, which is a palatalization process. Occasionally a \check{s} resulting from the conditioned palatalization of \check{s} has become x such as Deusto (B) *elexa* < *eleša* < **eleisa*. But this has never occurred in the case of «affective \check{s} » since in these words the palatal sound has a semantic value. A mixture of velar and palatal sounds would probably be less suitable to convey a given shade of meaning.

A last set of data that we have to account for is constituted by items which present word initial $t\check{s}$ resulting from \check{s} . These are cases where \check{s} did not change to x but rather to $t\check{s}$. The \check{s} in these examples is never a result of Proto-Basque * \check{y} . One source has been Romance \check{s} ; e.g.: *šapel* > *tšapel* 'hat'. Another source is affective \check{s} in word initial position.

The affective realization of, for instance, *suri* 'white' is, in G, *tšuri* (cf. L *šuri*). The sound $t\check{s}$, being palatal, is still appropriate to carry the semantic information of affectiveness, unlike the velar x . In some words which are clearly the neutral and affective variants of the same lexical item, there has been a semantic change and the connection between the two is not felt by the speakers any longer. One example is the case of *sori* 'luck' and *tšori* < *šori* 'bird'.

Exceptionally, some word initial affective \check{s} 's have been retained, as in *šesen* 'little bull' from *sesen* 'bull'.

G, therefore, underwent a change.

$\check{s} > t\check{s} / \#$ —

which preceded chronologically the change from * \check{y} to \check{s} and depleted the G lexicon of word initial \check{s} . When the change to \check{s} of Proto-Basque * \check{y} took place, ini-

tial *š* from other origins had already become *tš*. The result is that, now, in word initial position, G has *x* where L has *y*, but it has *tš* where L has *š*.

4. Finally, let us undertake the analysis of the evolution of **y* in the B varieties of Ondarroa and Marquina, on the G border. This dialect is like G in having [x] from **y* in word initial position, but differs from G and is similar to R in presenting [š] intervocalically, where G has [y]. In instances in which R kept [y] (before a morpheme boundary) we also find [š] in O-M. According to Rotaetxe (1978: 81), varieties of neighboring villages in the B area, such as Lekeitio and Elantxobe, have [dž] in those contexts in which O-M has [x] (word initially); and have [y] in the contexts where O-M has [š] (intervocalically). These facts may lead us to conclude that in O-M the evolution of **y* has followed two different paths. The two changes that affected **y* in G, **y* > š > x / #, spread to these B varieties. When this process was completed a new change took place affecting all remaining instances of [y]. Chronologically, therefore, we have the following sound changes in O-M (omitting intermediate stages in 1 and 3):

- (1) *y* > š / # — e.g.: *yan* > šan
 (2) š > x — šan > xan
 (3) *y* > š / — V — kayola > kašola

The third of these changes added a phonological rule to the grammar of O-M which is still productive. This can be observed in treatment of diphthongs created by the suffixation of the article *-a* to stems ending in a vowel. These diphthongs, some of which also arise in the verbal morphology, are treated in different ways in different dialects. Here I will present O and M data together with G data, which, as we shall see, are also relevant:

	G	M	O	
/neška+a/	neška	neškie	neški	'the girl'
/etše+a/	etšia	etšie	etši	'the house'
/bašo+a/	bašua	bašue	bašu	'the forest'
/mendi+a/	mendiya	mendiše	mendiše	'the mountain'
/ešku+a/	eškua	eškue	ešku	'the hand'

In the three dialects, the phonetic shapes of the nouns without the determiner are identical to the phonological representations of the stems given. The different changes only take place when the determiner is added. In O-M there are different vowels in some cases (stems ending in *-a* and *-i*) when the plural marker *-ka* is added, e.g.: O ind. *neška*, sg. *neški*, pl. *neškak*.

Here we are interested in *-i*-final stems since the addition of the article causes an intervening glide to appear in G and a [š] in O-M in these cases. However, it would be relevant to take a look at the process as a whole. In G we have the following rules:

(4) Glide insertion

$$\emptyset \longrightarrow \left[\begin{array}{c} - \text{ syll} \\ - \text{ cons} \\ \text{round} \\ \text{back} \end{array} \right] \left[\begin{array}{c} + \text{ syll} \\ + \text{ high} \\ \text{round} \\ \text{back} \end{array} \right] \text{ --- } v$$

(5) Raising of mid vowels

$$\left[\begin{array}{c} + \text{ syll} \\ - \text{ low} \end{array} \right] \longrightarrow [+ \text{ high}] / \text{ --- } \left[\begin{array}{c} + \text{ syll} \\ + \text{ low} \end{array} \right]$$

(6) Reduction of a sequence of two low vowels

$$\left[\begin{array}{c} + \text{ syll} \\ + \text{ low} \end{array} \right] \longrightarrow \emptyset / \text{ --- } + \left[\begin{array}{c} + \text{ syll} \\ + \text{ low} \end{array} \right]$$

The other change that is needed for stems ending in a high back vowel is produced by a rule common to many western Basque dialects (cf. B *dau* 'he has it', *dae* /*dau*+*e*/ 'they have it'):

$$(7) w \longrightarrow / V \text{ --- } V$$

In M the situation is somewhat different. First, unlike G, glide insertion only takes place after a front high vowel in M:

$$(8) \emptyset \longrightarrow y / i \text{ --- } V$$

Secondly, a sequence of two low vowels is only reduced if followed by a consonant in the same rhyme:

(9)

$$\left[\begin{array}{c} + \text{ syll} \\ + \text{ low} \end{array} \right] \longrightarrow \emptyset / \text{ --- } \left[\begin{array}{c} + \text{ syll} \\ + \text{ low} \end{array} \right] \begin{array}{c} C \\ R \end{array}$$

Otherwise, low vowels are treated together with mid vowels. I will assume that the low vowel in Basque is [− back], for which there is solid phonetic evidence (cf. Alvarez Enparantza, 1980, pp. 26-27 and sources cited therein):

(10)

$$V \longrightarrow \left[\begin{array}{c} - \text{ low} \\ + \text{ high} \end{array} \right] / \text{ --- } \left[\begin{array}{c} + \text{ syll} \\ + \text{ low} \end{array} \right]$$

We have, thus, the following intermediate stages in M:

/neška+a+k/	--->	/néskak/	(by rule 9)
/neška+a/	--->	/neškia/	(by rule 10)
/etše+a/	--->	/etšia/	(by rule 10)
/mendi+a/	--->	/mendiya/	(by rule 8)
/bašo+a/	--->	/baśua/	(by rule 10)
/ešku+a/	--->	/eškua/	

Then a vowel harmony rule applies:

(11)

$$[+ \text{syll}] \text{ --- } > \quad [- \text{low}] \quad \left/ \quad \begin{bmatrix} + \text{syll} \\ + \text{high} \end{bmatrix} \right. \quad c_{\emptyset} \text{ --- } \#$$

This rule, which also accounts for the alternation *-a/-e* with consonant final stems (e.g. *lagune* 'the friend' / *gisona* 'the man'), gives final forms for all words with the exception of those whose stem ends with a high front vowel, where rule (3) seen above now applies. In O a new rule was introduced in this system, which, at this point in the derivation, deletes a vowel after another high vowel, to produce the final forms in this dialect:

(12)

$$V \text{ --- } > \quad \emptyset \quad / \quad \begin{bmatrix} + \text{syll} \\ + \text{high} \end{bmatrix} \text{ --- } \#$$

Evidence for the position that these rules are active rules in the grammar of O-M is offered by the adaptation of new borrowings. In particular, borrowed *y* is regularly transformed into *š* in these dialects. To give an example, Sp. *playa* is analyzed in O as *play+a* and rendered as *plaše* 'the beach'.

5. As we have seen, the rather complex distribution of *y*, *š*, and *x* across Basque dialects can be accounted for by postulating several independent changes in the same direction but in somewhat different phonetic environments. The direction of the change has been in every case as follows: (1) fortition of yod; (2) loss of the occlusive element; (3) devoicing; (4) velarization. The cycle thus formed need not be completed and can have stopped at any of the stages. In the case of the O-M dialect, we have seen how, after the completion of a first cycle of changes which affected **y* in a restricted environment (word initially), a new series of changes was initiated, this time affecting all remaining instances of prevocalic *y*. In R, the most straightforward account would need to postulate only one series of changes of **y* into *š* in an environment less restricted than that of the first identical change in G and O-M but more restricted than that of the second change in that direction in O-M.

A situation rather similar to that of O-M Basque is found in Porteño Spanish. After the change of Proto-Romance **y* into *x* was completed in Spanish, a new series of changes in the same direction, affecting remaining instances of *y*, was initiated. For some speakers of Porteño Spanish *š* is the present result of this second series of changes (cf. among others, Fontanella de Weinberg, 1979).

A second remarkable phenomenon is the behavior of “affective *š*” in G, which has failed to become a velar. This seems to offer evidence against the Neogrammarian hypothesis of exceptionless sound change. It could be inferred that when a sound is, within well-defined contexts, endowed with some semantic value, that sound in those instances might be unaffected by a sound change which affects the same sound outside of those semanticized contexts. In our case, “affective” instances of *š* were spared from velarization. Had those instances of *š* undergone the change to *x* unexceptionally, the symmetry of the semantically opposed sets of sounds (palatal versus non-palatal) would have been destroyed. In this respect we must note that a chronologically previous change that affected *š* in word initial position did not exclude “affective” instances. This was a change from *š* to *tš* and therefore did not affect the semantically relevant point of articulation.

At first glance Basque seems an unlikely object for the successful application of the comparative method. This for three reasons: first, because it is an isolated language without known related languages; second, because it has been under the constant influence of other languages in a situation of widespread bilingualism for many centuries; and third, because exchanges among dialects have been frequent. Nevertheless, we have seen that in one area, the evolution of the yod, comparison among dialects has proven fruitful to determine the concrete details of this evolution in specific dialects.

SOURCES

The basic work of consultation for this and any other aspect of the historical evolution of the sound systems of all Basque dialects is Michelena (1976). Also from a historical point of view, although limited to Latin and Romance borrowings into Basque see Mujika Urdangarin (1982). Allières (1979) contains a comparative study of the main Basque dialects. The Roncalese data are mainly from Estornés Lasa (1968 and 1982). For the dialect of Marquina Rollo (1925) was consulted and for the neighboring dialect of Ondarroa, Rotaetxe (1978). N'Diaye offers information on the dialect of Baztán, classified by her as Labourdin and by others as High Navarrese. The most complete dictionary, with indication of dialect source, is Azkue (1905).

En este trabajo se hace uso del método comparativo para trazar la evolución de la *yod* en tres dialectos vascos: guipuzcoano, roncalés y vizcaíno de Ondárroa y Marquina. En todos los dialectos vascos, la *yod* ha seguido la misma línea evolutiva. Sin embargo, hay que notar dos factores de variación. Por una parte, la evolución ha alcanzado distintas etapas en distintos dialectos y, por otra, el contexto fonológico en que la *yod* ha sido afectada, varía de un dialecto a otro.

En Roncalés, obviando estadios intermedios, *yod* cambió a *š* en posición prevocálica siempre que no hubiera una frontera morfé mica entre la *yod* y la siguiente vocal. En guipuzcoano, *yod* cambió a *š* fundamentalmente en posición inicial de palabra y sólo esporádicamente en otras posiciones. Después *š* cambió a *x*. Este segundo cambio, sin embargo, no afectó a *š* de otros orígenes, para lo cual se proponen algunas explicaciones. Finalmente, en vizcaíno de Ondárroa y Marquina, después de que la evolución de *yod* a *x* se completó como en guipuzcoano, una nueva serie de cambios tuvo lugar, afectando a instancias de *yod* que habían permanecido inalteradas.

BIBLIOGRAPHY

- ALLIERES, J. (1979) *Manuel Pratique de Basque*. París: A & J Picard.
- ALVAREZ ENPARANTZA, J. L. (1980) *Euskal Fonología*. San Sebastián: Ediciones Vascas.
- AZKUE, R. M. (1905) *Diccionario vasco-español-francés*. 2 vol. Reprinted 1969, Bilbao: La Gran Enciclopedia Vasca.
- ESTORNES LASA, J. (1978) *Erronkari'ko Uskara'[Roncal Basque]*. San Sebastián: Auñamendi.
- ESTORNES LASA, J. (1982) "Jesu-Kristo gore jeinaren Ebanjelio Saintiua. Pedro Prudenziio Hualde Mayo. Oraiko ortografiaz eta anotazione batzuk. «[Holy Gospel of Our Lord Jesus Christ. Pedro Prudenziio Hualde Mayo. In today's Orthography and with some commentaries]. *Fontes Linguae Vasconum*, 39, pp., 43-104.
- FONTANELLA DE WEINBERG, M. B. (1979) *Dinámica social de un cambio lingüístico: la reestructuración de las palatales en el español bonaerense*. México: Univ. Nacional Autónoma de México.
- LAFITTE, P. (1962) *Grammaire Basque: Navarro-Labourdin Littéraire*. Edition Revue et Corrigée. Reprinted 1979, Donostia [San Sebastián]: Elkar.
- LAFON, R. (1952) *Etudes Basques et Caucasiqes*. *Acta Salmanticensia*, V, n. 2. Salamanca: Univ. de Salamanca.
- MARTINET, A. (1955) «La reconstruction structurale: les occlusives du Basque». *Economie des changements phonétiques*. Bern. pp. 370-88.
- MICHELENA, L. (1976) *Fonética histórica vasca* 2nd. ed. San Sebastián: Imprenta de la Diputación de Guipúzcoa.

- MUJICA URDANGARIN, L. (1982) *Latina eta Erromanikoaren Eragina Euskaran (Euskal Lexikoaren Azterketa Bideetan)*. [Influence of Latin and Romance on Basque. Analysing the Basque Lexicon]. Donostia [San Sebastián]: Sendoa.
- N'DIAYE, G (1970) *Structure du dialecte basque de Maya*. The Hague: Mouton.
- ROLLO, W. (1925) *The Basque Dialect of Marquina*. Amsterdam: H. J. Paris.
- ROTAETXE, K. (1978) *Estudio Estructural del euskara de Ondárroa*. Durango (Vizcaya): L. Zugaza.