

Some notes on Euskaro-Caucasian phonology

This paper explores a few features of the proposed reconstruction of Euskaro-Caucasian, the putative ancestor of Basque and the North Caucasian languages, as put forth in a recent monograph. Here some features of the consonantal system are discussed, namely (I) the development of proto-Euskaro-Caucasian **m* in Basque, (II) the non-initial Basque reflexes of Euskaro-Caucasian laryngeals, and (III) the Basque noun stem allomorphs involving an alternation between /rc/ and /št/. It is shown how these details of Euskaro-Caucasian comparative phonology illuminate important unsolved problems of historical phonology on both the Basque and North Caucasian sides.

Keywords: Basque language, North Caucasian languages, comparative linguistics, Euskaro-Caucasian language family, Proto-Euskaro-Caucasian, labial nasals, laryngeals, ‘best explanation’ hypothesis

In a recent monograph (Bengtson 2017: henceforth BCR) I have undertaken to outline a comprehensive scheme of comparative and historical phonology of the Euskaro-Caucasian languages, based on the comparison of my version of Proto-Basque, which relies heavily on Michelena’s *Fonética histórica vasca* (1961, 1990, hereafter FHV), with Proto-North Caucasian and subsidiary proto-languages, according to the *North Caucasian Etymological Dictionary* by Nikolaev & Starostin (1994, hereafter NCED). Since the complete discussion of historical phonology comprises hundreds of pages of the monograph, in this paper only selected aspects are discussed.

It will be reasoned here that an examination of this selection of phonological features helps to establish that the Euskaro-Caucasian hypothesis represents the best explanation for external relations of the Basque language, and concomitantly of the North Caucasian language family, and the fruitfulness of this hypothesis is demonstrated by the cross-validating nature of the three selected features (Proto-Basque **m*; Proto-Basque **h* and **fi* in non-initial positions; Basque noun stem allomorphs with the alternation /rc/ ~ /št/), in the sense that a particular etymology may exhibit the functions of two or even three of the selected features (see **Conclusions**).¹

I. The supposed non-existent phoneme **m* in Proto-Basque

Michelena’s FHV is an exceptionally important pioneering work that remains the most valuable reference for anyone attempting a study of Basque historical phonology. In the nineteenth chapter Michelena tackled the ancient consonantal system of Basque and proposed the opposition of fortis (tense or voiceless) vs. lenis (lax or voiced) consonants:

FORTIS:	–	t	c	ć	k	N	L	R
LENIS:	b	d	s	ś	g	n	l	r

¹ It is important to note that the putative “Euskaro-Caucasian” (EuC, or “Vasco-Caucasian”) hypothesis is in no wise a contradiction of S. A. Starostin’s “Sino-Caucasian” hypothesis; rather, EuC is considered to be a subgroup of Sino-Caucasian, as discussed by Bengtson & G. Starostin (2015).

Notably absent from Michelena's scheme are the fortis labial /p/, the nasal labial /m/, and the fortis and lenis shushing sibilants /č/ and /š/, all present in modern and historically attested Basque.

Here we are only concerned with the purported absence of /m/ in Proto-Basque. Note that Michelena's proposal is hedged, as usual, with his characteristic caveat that such a hypothetical scheme should be treated with reservations, *i.e.*, it was not a hard and fast doctrine.² Nevertheless, Trask (EDB 14) states as an absolute law "that no ***m** can be reconstructed for Pre-Basque. The modern **m** was introduced into the language by the phonological changes P**{2}, P**{3} and P**{7}, described in section 6."

The phonological rules Trask referred to are:

P2. Assimilation of /n/

P1 [Intervocalic /n/ loss] was competing with another change, which sometimes won out. Intervocalic */n/ was sporadically assimilated to a preceding high vowel: to /ñ/ after /i/, to /m/ after /u/. The first was very frequent, the second uncommon. For example, Latin *pinum* 'pine' was borrowed as **pinu*, which developed to *piñu*, and Latin *cunam* 'cradle' was borrowed as **kuna*, which yields modern *kuma* in some varieties, alongside *kua*.³ This development, where it occurred, protected the nasal from loss by P1.

P3. /nb/ reduction

The cluster */nb/ is usually reduced to /m/. For example, **senbe* yields common *seme* 'son', and **unbe* yields common *ume* 'child'.

P7. /b/ nasalization

Original */b/ has almost invariably changed to /m/ in the configuration */bVn/, by a process of nasal assimilation. This process clearly preceded P1. For example, original **banats* 'grapes' has developed to **manats* and then to *mahats*; original **bini* 'tongue' has developed **mini* > *mihi* (and other variants); and Latin *sabanum* 'covering', borrowed as **sabanu*, appears today as *zamau* in some varieties. In rare cases, mainly in loan words, */b/ developed to /m/ even in the absence of a conditioning nasal, as in **zubel* 'holm oak' > B *zumel*. (Trask 2008: 25–26)

S. A. Starostin (1996: 122) objected to the notion of the complete absence of /m/ on the grounds of typology: "In Eurasia, at least, I do not know of any languages without a labial nasal ..."⁴ The prominent Vasconist Jacobsen (1995: 122) also demurred: "... I see no clear evidence that **m*- was absent from early Basque. ... I am not convinced that this assumption suffices to exclude from being native Basque several words in our sets [under discussion]: *moko* 'beak, front face' ..., ... *muin* 'pith, marrow, inner part' [also 'brain'] ..., and *mutur* 'snout, muzzle' ..."⁵

² "En un trabajo aparte [Michelena 1957], basándonos principalmente en semejanzas en el comportamiento de los fonemas, sobre todo en la coincidencia de la neutralización de oposiciones en contextos análogos, llegamos, *con todas las reservas que impone una restitución tan hipotética como ésta*, a proponer la siguiente reconstrucción del sistema fonológico principal del vasco antiguo: ... [In a separate work (Michelena 1957), based mainly on similarities in the behavior of phonemes, especially in the coincidence of the neutralization of oppositions in analogous contexts, we arrive, *with all the reservations that such a hypothetical restitution imposes*, at proposing the following reconstruction of the main system of the phonology of ancient Basque: ...]" (Michelena 1990: 373–74: *emphasis added* by JDB).

³ More precisely: Latin *cunam* 'cradle' > (AN, Azk, Sal, R) *kuna* > (B, G, EB) *kuma*, alongside (AN, Sal) *kua* (< **kūa*) and other variants: (Z) *khüña*, (A) *guia*, (G) *kuia*, (AN) *kuba*, etc. (FHV 304; OEH).

⁴ In a response to this statement Trask (1996: 128) lists a number of languages, mostly in the Americas, that allegedly lack the phoneme /m/; outside of the Americas the only languages cited are the Burmic Hakka, Kpelle (Mande, West Africa), and the Papuan Rotokas. The absence of /m/ in Hakka and Kpelle is contrary to the information found in Ruhlen (1975: 203, 225); and WALS (Feature 18A: Absence of Common Consonants) cites only one language (Eyak, now extinct, in North America) with no bilabials or nasals, and none on other continents. Trask's claim that Navajo has no /m/ would be a surprise to the thousands of Navajos who use words such as '*amá* 'mother, maternal aunt' and *mā'ii* 'coyote' (though the existence of /m/ in Proto-Athabaskan is clearly questionable).

⁵ In BCR these words are connected with North Caucasian and other words; see the BCR sets **Z.3**, **A.1**, and **A.18**, respectively, and set I.19 in this paper.

There is no dispute here with Trask's P2 rule, but some of the examples given for P3 and P7 are highly questionable. For example, **senbe* and **unbe* are based on the Aquitanian inscriptions SEMBE, OMBE- / VMME, which may or may not be identified with Basque *seme* 'son' and *ume* 'young, offspring, child' (better **hume*, as in BN *hume*, Z *hüme*), which seems to be wobbly evidence for this grand generalization. There is no direct evidence for **banats* 'grapes',⁶ where the **b* is simply generalized from other cases of **bVn* > **mVn*. Evidence is also dubious for the idea that *zumel* 'holm oak' comes from *zur* 'wood' + **bel-* 'black' (EDB 134, 381), a somewhat folk-etymological guess unsupported by external evidence.⁷ As affirmed by Jacobsen (1995: 122) the whole problem with this claim of the non-existence of /m/ is overgeneralization; just because *some* instances of Basque /m/ can be ascribed to Trask's P2, P3, and P7 rules does not necessarily mean that *all* /m/s are of secondary origin. In Azkue's (1905) standard dictionary of Basque words with initial /m/ span pages 733 through 790;⁸ it is hard to believe that *all* of these /m/s are of secondary origin or borrowed. As will become clear in the etymologies cited below, there is no support in the Euskaro-Caucasian hypothesis for an absence of the phoneme /m/ in Proto-Basque, since a significant number of words in both Basque and North Caucasian which are considered putative cognates have **m* in both proto-languages.

Based on comparison of Basque with PNC there is substantial evidence that PEuC **m* is retained as Basque /m/, initially and medially, so the following etymologies require us to re-examine the proposal by Michelena (and enthusiastically seconded by Trask) that Pre-Basque had no phoneme **m*.

On the other hand, we can find a certain grain of truth in Michelena's idea, in that no Basque dialects permit /m/ in final position, and all final nasals become /n/ or /ñ/ (see **gain*, **sain*, and other examples, I.36–I.42). Furthermore PEuC clusters of the type **-mgw-*, **-mχw-*, **-mxxw-* become Basque **b*; and in most other medial PEuC clusters original **m* becomes /n/ or disappears in Basque. In the examples the letter-number combinations in bold, like **C.28**, **P.20**, refer to the etymological sets in BCR, which provide more detailed information: attested NC words and local Basque variants, and phonetic and semantic notes; only some of the representative forms are cited here.

Initial Basque **m-*: < PEuC **m-*, **mH-*, **Hm-*, **n-* ... *-w-*:

- [I.1] Basque **maguli* / **malugi* 'strawberry'; (AN) *maguri*, (Bzt, Sal) *malubi* id. ~ PEC **niw_GV* 'a kind of berry'; Akhwakh *muq:ali* 'blackberry', Tabasaran *niq:^w / nimq:* 'strawberry' (**P.20**)
- [I.2] Basque **mahać* 'grape(s)'; (BN, L) *mahats*, (B-Bergara, Leintza) *magats* id. ~ (with metathesis) PNC **ġämćō* 'apple; medlar'; Chechen *hamc* 'medlar', Archi *anš* 'apple' (**P.17**)⁹
- [I.3] Basque **mati-n*, **mal-* 'weak, soft, flexible'; (L) *mali-n* 'weak' ~ PEC **mhālV-* / **mhänV-* 'warm, weak'; Chechen *mal-dan-* 'to weaken, loosen' (**R.63**)
- [I.4] Basque **malka-ř* 'straw'; Basque (AN-Arakil, R, Sal) *malkar* 'straw; stems'¹⁰ ~ PEC **mhělq_wV* 'root; shoot, offshoot'; Ingush *merba* 'shoot, offspring; a single straw' (**C.28**)

⁶ BCR prefers the etymology positing Basque **mahać* 'grapes': see etymology [I.2].

⁷ Cf. instead North Caucasian words such as Budukh *žumal*, Lezgi *ć:umal*, Agul *žimil* 'cornel (tree)' (BCR C.2).

⁸ Likewise in Aulestia & White's (1992) dictionary, where words with initial /m/ are found on pages 272–295.

⁹ Chechen *hamc* 'medlar', Khinalug *mič* 'apple', etc. For the semantic change of Basque 'grape' ~ NC 'medlar, apple' cf. Rumanian *poamă* 'fruit, apple', Moldovan *poamă* 'grape', French *pomme* 'apple', *pomme de terre* 'potato', Venetian *pomela* 'laurel', etc. (REW 6645; Buck 5.71).

¹⁰ More precisely, 'straw (of vetch); stems of bean plants after threshing' (OEH).

- [I.5] Basque **manhai* ‘table’; (Z) *māhāñ* id. ~ PEC **mfiǎʔnē* ‘door; part of door’; Bezhta *maha* ‘door-frame’ (Q.9)¹¹
- [I.6] Basque **mar[c]-fiarde* ‘fork, pruning hook’; (BN) *martxite* ‘pruning hook’¹² ~ PNC **mǎrc(w)Ē* ‘knife, sickle’; Hunzib *mišu* ‘sickle’; Chamali *mirča* ‘dagger’ (Q.17)
- [I.7] Basque **mardo* ‘robust; luxuriant’, **ardu-l* ‘healthy, strong’; (G, B) *ardul* ‘substantial, robust, sturdy’ ~ PEC **mōrLV* ‘male; man, hero’; Archi *mett-le* ‘male’, Chechen *mayra* ‘husband; brave man’ (R.58)
- [I.8] Basque **maruhi* / **mahuři* ‘strawberry’, **mar-* / **mar* ‘blackberry’; (BN-Aldude) *mahurri* ‘strawberry’, (Z) *marhüga* ‘mulberry, blackberry’ ~ PEC **mer(?)V* ‘a kind of berry’; Lak *mamari* ‘blackberry’ (P.18; see I.56)
- [I.9] Basque **meda-ı̄* ‘narrow, tight’; (G, AN) *medar* ‘narrow, tight’¹³ ~ PEC **fm̄V̄ǎV̄* ‘thin, narrow’; Chechen *nılχa* ‘thin, sparse’, (with metathesis) Bezhta *tłämmö* ‘thin, narrow’, etc. (R.39)
- [I.10] Basque **mihu-ri* ‘seed, kernel’; (BN) *mihuri*, (Z) *mühüi* id. ~ PEC **mǎhwV* ‘grain, seed; a kind of cereal’; Akhwakh *mühı* ‘seed, grain’ (C.33)
- [I.11] Basque **miko* ‘a little, little bit’; (BN, L) *miko* ‘a little, a little bit, a pinch’ ~ PEC **mikwV* ‘small; young one’; Budukh *mik’e* ‘few; a little, small’ (R.32)
- [I.12] Basque **minhi* ‘tongue’, **minco* ‘speech’, **mis-to* ‘sting (of bee), bite (of snake)’; (Z) *mı̄hı̄*, (B-arc) *mı̄ı̄*, *mı̄* ‘tongue’; northern Basque *mintzo* ‘speech, voice’¹⁴ ~ PNC **mēlçı̄* ‘tongue’; Andi *mic’i*, Tabasaran *melz*, Dargi (dial.) *limc:i* id. (A.9)
- [I.13] Basque **moc* ‘sex organs’; (c) *motz* ‘cunnus, female genitals’, *motz-ak* ‘male genitals’ ~ PEC **mǎçu* ‘hair; fibre, strip’; Avar *móc’o* ‘strip, piece’ (A.61)¹⁵
- [I.14] Basque **moku-ı̄* ‘tree trunk, tree base’; (R-Uztároz) *mokor* ‘stunted, rounded tree’ ~ PEC **mǎhōqwe* ‘oak tree’; Tsakhur *moq’* ‘oak tree, acorn’ (C.42)
- [I.15] Basque **mardo* ‘bunch, group’; (B, G, AN) *mordo* ‘bunch (of grapes); group, bunch, abundance’¹⁶ ~ PEC **mǎr[χ]o* ‘handful, armful’; Hinukh *mettu* ‘handful’, Chechen *mor* ‘armful’ (L.9)
- [I.16] Basque **moś-ko-ı̄* ‘tree trunk’; B, G, AN) *moskor* ‘trunk (of a tree), burl’¹⁷ ~ PNC **muçŬ* / **çumŬ* ‘stick, wood’; Dargi *murç’* ‘rod, stick’ (C.41)

¹¹ For NC ‘door’ ~ Basque ‘table’, probably from ‘board, plank’, from which either tables or doors may be made; for typology cf. Indo-Aryan: Old Indic *bhitta-* ‘split timber’; ‘fragment; wall’ > Dameli *bit* ‘rafter, roof-plank, table’; Pashai (Areti) *bidók* ‘table’; Panjabi *bhitt* ‘half of double door, window’, Panjabi (Kangra) *bhittu* ‘board, door, half of double door’, etc. (CDIAL 9493).

¹² For the element **-fiarde* cf. Bsq **šafiarde* ‘fork’. (G, AN, Z) *matxite* ‘machete’ is probably the source of Spanish *machete*, unlikely to be derived from Latin.

¹³ Northern Basque *mehar* is blended with Basque **menhe* ‘thin’ (BCR Z.12), of distinct origin.

¹⁴ A long discussion is devoted to “The case of Basque **minhi* ‘tongue’ ~ PNC **mēlçı̄* ‘tongue’” in BCR, pp. 219–24.

¹⁵ Compare the Basque and NC words with Burushaski **mús-ki* ‘pubic hair’ (SCG 143), an outgroup comparison that supports the original meaning ‘pubic hair’. For semantic typology, cf. Lithuanian *kūšys* ‘female pubic hair; vulva’, *kuškis* ‘wisp, tuft, bunch, shag (of hair)’, Latvian *kūsis* ‘pubic hair’, *kušķis* ‘wisp, tuft, bunch, shag (of hair)’, (dial.) *kūse* ‘vulva’; Persian *kus* ‘pubic hair’ (Steinbergs 1996, §3.2.2).

¹⁶ BCR has Basque **mordo*, but *mardo* is attested in older Basque authors (e.g., Larramendi, 18th c.), and the metathesis *morda* in parts of Bizkaia; Proto-Basque **mardo* (> (c) *mordo* by anticipatory assimilation) is a perfect phonetic match to PEC **mǎr[χ]o*. The original lateral (cf. PEC **χ*) leaves a trace in Basque (BN, L) *molkho*, (L) *mulko* ‘cluster’ (with diminutive suffix *-ko*).

¹⁷ Analyzed as **moś-* (root) + **-ko-* (diminutive suffix) + **-ı̄* (fossilized plural morpheme); see “General notes to etymologies,” following Conclusions.

- [I.17] Basque **mošu* ‘nose, face, kiss’; (G) *musu* ‘nose, snout, face, lip, kiss, point, tip’ ~ PEC **mħərçū* ‘protruding part’; Chechen-Ingush *muc’ar* ‘snout, muzzle, trunk’; Avar *móc’:u* ‘teat, nipple; tip’ (A.17)
- [I.18] Basque **muga* ‘boundary, limit’; (c) *muga* [muʎa] id. ~ PEC **mörqwǂ* ‘line, stripe’; Chechen *мова* ‘line, row’ (L.2)
- [I.19] Basque **mune* ‘brain, marrow, pith’; (Bzt) *muiñ* ‘marrow, pith, brains’ ~ PEC **mǎhnū* ‘brain, head’; Dargi *mehe* ‘brain’, Akhwakh *mina* ‘head’ (A.1)
- [I.20] Basque **mucu-ř* (< **murcu-ř*) / **muštu-ř* ‘snout, muzzle’; (BN, R-Uztárroz) *mutzur-keta* ‘rooting made by snout of a pig’, (B) *mustur* ‘snout, muzzle’ ~ PEC **mHǎřčwV* ‘snot, mucus, pus’; Andi *maču* ‘snot’, Chechen *marš* id. (A.19)
- [I.21] Basque **muti-l* ‘boy; apprentice; worker’; (c) *mutil* id. ~ PNC **mǎłǂǂ* ‘husband, male, worker’; Dargi *muru-l*, (dial.) *murʎu-l*, *murgu-l* ‘man, husband’ (J.4)¹⁸

Basque medial *-m-: < PEuC *-m-, *-mH-:

- [I.22] Basque **ama* ‘mother’, **eme* / **ema-* ‘female’ ~ (with gender reversal) PEC **ǂēmV* ‘father; paternal uncle’; Avar *emé-n* ‘father’, Akwakh *ima* ‘father’, Tsakhur *emi* ‘paternal uncle’, etc. (J.10)¹⁹
- [I.23] Basque **čamo* ‘weevil, caterpillar’; (B) *txamo* ‘caterpillar’, (G) *txamo* ‘weevil’, ~ PEC **čǎmhV* / **čwǎnhV* ‘flea; nit’; Hinukh *č’ima* ‘nit’, Tsakhur *č’in* ‘flea’ (B.45)
- [I.24] Basque **čehume* ‘half-span’; (BN) *xehume* id.²⁰ ~ PNC **čǂǂmhV* ‘span’; Tsakhur *č’im* / *č’um*, Agul *č’ib* / *č’eb* id.²¹ (L.7)
- [I.25] Basque **čimiča* ‘bedbug’, **čimi-ri-* ‘butterfly’; (B, G, Sal, R) *tximitxa* ‘bedbug’, (G) *tximirrika*, *tximirrita* ‘butterfly’ ~ PEC **čimVčV* ‘fly, butterfly’; Tabasaran *č’amč* ‘fly’, Lak *č’imuč’a-li* ‘butterfly’ (B.39)²²
- [I.26] Basque **e=meni* ‘to put’; (BN-arc) *imeni*, *imini*, (B, BN, Sal) *imiñi* id., alongside dissimilated forms (B, G, AN) *ibini*, *ipini*, *ipiñi*, etc. ~ PEC **ǂima-* ‘to stay, to be’ < **ǂiman-*; Archi *imm(a)-eχ:as* ‘to stay’, Khinalug =*mä* ‘to be’ (V.27)²³
- [I.27] Basque *(eci-)[*lamu*] ‘two days after tomorrow’; (B-arc) *etzi-luma*, (B) *etzi-limo*, *etzi-lume*, (A) {*ešçirimu*} / *ecirimu* / id. ~ PEC **ǂǂmV* ‘one day (two days) after tomorrow’; Batsbi *lamö* ‘day after tomorrow’, Karata *la-di* ‘two days after tomorrow, three days hence’ (H.9)
- [I.28] Basque **hama-(ř)* ‘ten’; (c) *hamar*, *amar* id. ~ PEC **χǂmHǎ* / **mHǂǂ* ‘handful’; Agul *χab* ‘armful’, Udi *maχ’a* ‘palm, handful’ (M.7)²⁴
- [I.29] Basque **lami-* / **limi* (~ **mili-*) ‘to lick, taste’; (AN, Sal, R) *lami-ka-tu* ‘to lick’ ~ PEC **ǂamV* ‘licking, to lick’; Andi, Karata *lam-* ‘to lick’ (V.5)

¹⁸ Note the similar suffix *-l* in Basque and Dargi.

¹⁹ In their global survey Bancel & Matthey (2013; Bancel, et al. 2015: see Table 1) found that (P)APA words, which usually denote ‘father’ or ‘dad’, denote ‘mother’ (or ‘mother’s sister’) in 6% of languages surveyed, while (M)AMA words denote ‘father’ (or ‘father’s brother’) in 26.1% of languages surveyed. In this case only two Dagestania families (Avar-Andian and Lezgian) have words for ‘father’ (‘paternal uncle’ in Lezgian) derived from PEC **ǂēmV*, while other North Caucasian words for ‘father’ derive from the expected (P)APA or (T)ATA types.

²⁰ A measure = distance between thumb and forefinger.

²¹ A measure = distance between thumb and little finger

²² This seems to be an expressive variant of a similar root: Basque **simi(n)c(a)* ~ PNC **ǂimiǂǂ* (see I.32).

²³ Older **ǂiman-* is based on Hurrian *mann-*, Urartian *man-* ‘to be’; Burushaski **man-* ‘to be, become’; Proto-Yeniseian **pan-* ‘to sit’ (SCG 140).

²⁴ The difference of Basque /a/ ~ NC/o/ could reflect ablaut allomorphs: see “General notes to etymologies,” following Conclusions.

- [I.30] Basque **limu-ri* ‘slippery, moist, smooth’; *limuri* (Z) ‘moist, humid’, (G, AN) ‘smooth, soft’, (Z, Sal) ‘slippery’, etc. ~ PEC **ḤwemV* ‘liquid’ (adj.); Avar *t̤:amí-ya-*, Andi *t̤:emi*, Lezgi *žimi* id. (R.53)
- [I.31] Basque **sama-ř* (expressive diminutive **čama-ř*); (AN, BN, Sal, Bzt) *zamar* ‘fleece, mass of wool shorn from a single sheep’ ~ PEC **čhwěme* ‘eyebrow’; Kryz *fül-c’äm*, Lak *it:a-c’ani* id.²⁵ (A.23)
- [I.32] Basque **simi(n)c(a)* ‘bedbug’; (L-Gethari) *zimintza* ~ PNC **zimižǺ* ‘a kind of stinging insect’; Dargi (Chiragh) *zimiza-l* ‘ant’, Tabasaran *c’imc* ‘ant’ (B.38)²⁶
- [I.33] Basque **sumhe* ‘a kind of tree (willow, oak)’; (Z) *zúnhar* ‘a kind of elm tree’, (Sal) *zugar* id. ~ PEC **žfūmV* ‘bush, herb; a kind of fruit’; Chechen *žolam* ‘small bushes, shrubs’ (< **žǫlVm* < **žǫm-Vl*) (C.2)²⁷
- [I.34] Basque **śama* ‘neck’; (B) *sama* ‘neck, throat’ ~ PEC **šVmV* / **mVšV* ‘spine; edge’; Avar *š:omé-li* ‘edge, end’ (A.29)
- [I.35] Basque **śami-n*; (B, G, BN, L, Z) *samin* ‘bitter, sour’, also (BN, L, Z, Bzt) ‘pungent, piquant, spicy’ ~ PEC **čěmhV* / **čwěnhV* ‘salt, salty’; Avar *c’:am* ‘salt’ (R.15)

Basque stem-final /n/ < PEuC *-m-, *-Hm-, *-mH-:

- [I.36] Basque *(beHa-)sun ‘bile, gall’; (BN) *behazun* ‘bile, gall; hatred, bitterness’, (L-Sara) *behazuñ*, *beazuma* id.²⁸ ~ PNC **čwǻymě* ‘gall, anger’; Archi *s:am* ‘gall’, Dargi (Chiragh) *sume* ‘gall, anger’, (A.88)
- [I.37] Basque **gain* ‘top, surface; above’; (Z) *gañ* ~ PEC **hǻwěmV̄* ‘head, horn’; Tsakhur *q’om* ‘summit, top’, Andi *ǻʷon* ‘horn’ (I.13)
- [I.38] Basque **hagin* ‘tooth’ < PEuC **HaǻimV*; (BN, L) *hagin* ‘molar tooth’ (B) *agin* ‘tooth, incisor tooth’ ~ (with transposition) PNC **HěmǻǺ* ‘to bite’; Khinalug *q’ini* ‘to eat’, Karata *q’:am-* id. (A.11)²⁹
- [I.39] Basque **kain*; (B) *kain* ‘fog, vapor, mist, storm clouds’ ~ PNC **ǻwǻmhV* ‘cloud, fog’; Khwarshi *qema* ‘clouds’ (G.6)
- [I.40] Basque **sain* ‘vein, root, nerve, root (of hair)’; (Z) *zañ* ‘nerve, vein, artery; root’ ~ PEC **šěhmV* / **hěmsV* ‘muscle, vein; intestine’; Chamali *s:ē*, *s:ey* ‘sinew, muscle’, Dargi *šems* ‘muscle’ (A.58)
- [I.41] Basque **sen*-[-bera] ‘soft cheese, cream cheese’; (Z) *zen-béa*, (R) *zén-bra* id. ~ PEC **Hžěmī* ‘curds, butter’; Hinukh *cen* ‘curds’ Udi *č:äin* ‘butter’ (P.6)
- [I.42] Basque **soin* ‘shoulder, (upper) back’; (AN, BN, L) *soin* ‘shoulder (general); midsection (of pork)’, ~ PEC **Hčwěymǻ* / **Hčwěynǻ* ‘leg bone’; Tsakhur *c’om* ‘shin-bone’ (A.38)

²⁵ The NC words are compounds with a word meaning ‘eye’, implying that PEC **čhwěme* itself originally had a more general meaning (‘hair, fur’), like its Sino-Caucasian cognates: Burushaski **še[m]* ‘wool’; Proto-Yeniseian **cəje* ‘hair’; Proto-Sino-Tibetan **chām*: Lushai *sam* ‘hair (of head)’, Kinnauri *tsam* ‘wool’, Garo *mik-sam* ‘eyebrow’, Limbu *mik-sāŋ* ‘eyelashes’ (SCG 27).

²⁶ See I.25, which seems to be an expressive variant of this root.

²⁷ Both Basque and EC have derivatives with the suffix *-atV: Basque: (B) *zumel* ‘holm oak’, (B, G) *zumal-ika-r*, *zumal-aka-r* ‘a kind of willow or osier’, (G) *zumal-di* ‘grove’: EC: Budukh *žumal* ‘cornel’, Kryz *žimel*, Agul *žimil* id.; Hunzib *šumal* ‘bushes, shrubs’; (with metathesis) Chechen *žolam* ‘small bushes’; Avar *žulám* / *žulán* ‘cornel’, etc. (NCED 1107).

²⁸ The Bsq word is a compound of **beha-* + **-sun*, the latter of which is compared with the EC words.

²⁹ The transposition **HaǻimV* ~ **HěmǻǺ* is typical of Sino-Caucasian and Euskaro-Caucasian (see BCR 90-91). “There are many cases where we have to reconstruct verbal root structures like *CVRV or *RVCV, based on [Sino-Tibetan] and Yeniseian evidence, while in NC their reflexes look like *VRCV (with a reduction of the second vowel, and a regular development -CR- > -RC-)” (SCP, page 1). There seems to be a transposition similar to that of Basque **hagin* in Andian languages: Andi *q’:am-*, Chamali *q’:an-* ‘to bite’, etc. (NCED 559).

PEuC *-mC- clusters: PEuC **m* in these clusters is highly unstable in its Basque reflexes. In some cases PEuC **-m-*, in clusters with sibilants, seems to disappear without a trace. Some convergent North Caucasian developments are cited as well:

- [I.43] Basque **e=sari* ‘to put, sit’ ~ PEC *=*VmčVr* ‘to stand, stay’; Tsakhur ul’-o=*zar-* ‘to stand’ (V.31)
- [I.44] Basque **hace, *hac*; (B, G, AN) *atze* ‘back part (of house, boat, etc.)’, (BN, L) *hatz, atz* ‘track, trace, vestige, footprint’³⁰ ~ PNC **hāmčĔ* ‘half, middle’; Tabasaran *hac* ‘half; body from head to waist’, Ubykh *ža* ‘back part’ (L.8)
- [I.45] Basque **hic* ‘word’; (BN, L, Z) *hitz* ‘word’ ~ PNC *=*[i]mčŪ* ‘to speak, tell, talk’; Avar =*ic-*ine ‘to say, tell’ (L.10; V.52)
- [I.46] Basque **isu* ‘fright, terror’; (B-Ispaster, Markina, G) *izu*, (AN, L, Z, R, Sal) *izi* id. ~ PNC **hVmčV* ‘fear, fright’; Hunzib *hīč-* ‘to fear, afraid’ (K.6)
- [I.47] Basque **listo-* ‘hornet, wasp’, **e=lco* ‘gnat, midge, mosquito’³¹ ~ PEC **λāmčV* ‘a biting insect’; Akhwakh *ʔac’:u* ‘ant; bug, bedbug’ (B.31)
- [I.48] Basque **sisali, *sisani*; (Bzt) *zizari* ‘worm’, *zizain* ‘leech’ ~ PEC **sēmšā* ‘tadpole, water flea, bug, ant’; Chechen *sēsa* ‘tadpole’, Tsakhur *semsä-lä* ‘ant’ (B.47)

In others PEuC **-m-* is associated with the development of the Basque labial vowels /u/ or /o/:³²

- [I.49] Basque **honda-ř* ‘sand, residue, bottom’; (BN, L) *hondar* ‘sand’ ~ PEC **ʔamtV* ‘earth, ground’; Khinalug *ant* id. (D.18)³³
- [I.50] Basque **hu[m]ki* ‘to touch’; (BN, L) *hunki-tu*, (B) *uku-tu, iku-tu* id.³⁴ ~ PEC **fimčwV* ‘fist’; Bagwali *hunk’a*, Archi *χ:ik* id. (V.13)
- [I.51] Basque **[H]uśu* ‘pus, serum’; (BN) *usu* ~ PNC **h[a]mžū* ‘saliva, mucus; herpes’; Lak *unts’u* ‘snot’ (A.93)
- [I.52] Basque **i=hunc* ‘dew’; (A) *iunz* id. ~ PEC **xwǫmčwī* ‘bog, dirt’; Lak *xunc’a* ‘bog’ (E.11)
- [I.53] Basque **i=soc* ‘frost, ice’; (c) *izotz* < PEuC **žVmč(w)V* ? ~ PEC **žwVnč(w)V* ‘snowdrift, snowstorm’; Lak *zanč* ‘snow drift (in the mountains)’ (G.16)³⁵
- [I.54] Basque **konko-ř / *kunku-ř* ‘hump, joint, bone’; (R) *kunkur* ‘joint (of bones)’ ~ PNC **qāmč(w)ǎ* ‘knee, leg-bone’; Dargi *q’u(n)q’a* ‘knee’ (A.76)
- [I.55] Basque **ondo*¹ ‘joint’; (c) *gar-ondo* ‘nape, back of neck’ ~ PEC **ʔamdV* ‘joint, bone’; Avar *hod* ‘spine, backbone’ (A.77)

³⁰ “Es razonablemente seguro que *atze* [‘back part, past’, etc.] no es sino *hatz* ‘huella’ [‘track, trail’, etc.] que, en su empleo local, adquirió no sólo un nuevo valor, sino además, una *-e* adventicia” (OEH).

³¹ EB *liztor* ‘wasp’, *eltxo* ‘mosquito’ (Aulestia & White 1992); these seem to be permutations of the same root. Basque **listo-* is an example of Basque “st-clusters” that correspond, under certain conditions, to PNC sibilants (usually tense) **š*, **č*, **č̣*, **ž*, **ṣ̌* (see BCR 138).

³² To judge from North Caucasian evidence, Basque **hog^[w]i* and **ortú-* originally had labial vowels: Basque **hog^[w]i* ‘gums (mouth flesh)’, (BN, L, Z) *hobi* ~ PEC **hōmčwī* ‘mouth, throat’ (A.13); Basque **ortú-ši* ‘take off (shoes, stockings)’; **ortú-č* barefoot’ ~ PEC *=*ōmčV* ‘to put on (trousers, shoes)’ (R.9; V.34); the Basque suffixes **-ši* and **-č* apparently reverse (‘take off footwear’) the sense in EC (‘put on footwear’) (BCR 443).

³³ Because this PEC reconstruction was based on only three Dagestanian languages, Tsez, Hinukh, and Khinalug, the nature of the internal nasal (whether **m* or **n*) was not clear. Based on the Basque evidence with the labial vowel /o/, **m* may be preferable for the PEuC stage.

³⁴ In this word we have an unusual contrast between NE Basque /un/ ~ /on/ (*hunki-*, *onki-*) vs. SW Basque /u/ (*uki-*), thus a tentative reconstruction **hu[m]ki-*.

³⁵ The lack of /n/ in the Basque word could suggest that it came from PEuC **žVmč(w)V*, related by labial metathesis to PEC **žwVnč(w)V*. An **m*-cluster would more readily explain the loss of nasal and development of the labial vowel /o/ than an **n*-cluster.

- [I.56] Basque **susa* (in **mar-susa* ‘blackberry, mulberry’); (R) *mar-zuza* ~ PEC **zim̥V* ‘a kind of berry (or flower, blossom)’; Agul *ziwz-ar* ‘strawberry’ (P.19; see I.8 for the morph **mar-* / **maɾ-*)

From PEuC clusters of the type **-m̥gw-*, **-m̥χw-*, **-mxw-* nasality is lost and they become Basque **-b-*, in some cases only in certain dialects:

- [I.57] Basque **hibai* ‘river’; (BN, L) *hibai* id. ~ PEC **yim̥χwÄ* ‘river’; Godoberi *inχ:i* ‘river, brook’ (E.7)
- [I.58] Basque **hag^[w]une* / **gahune* ‘foam’; (BN, L) *hagun*, (L) *haboin*, *habuiñ*, (Z) *gahūn*, etc. ~ PEC **xwamV* / **xwamxwV* ‘foam, liquid’; Dargi (Sirgokala) *x:umx:a* ‘foam’ (E.10)
- [I.59] Basque **hog^[w]i* ‘gums (mouth flesh)’ > (BN, L, Z) *hobi*; but (Bzt) *ogi*, (B, G) *oi*, (B) *ui* ~ PEC **hōm̥gwī* ‘mouth, throat’; Akhwakh *oq’o* ‘throat’ (A.13)

This appears to be a counter-example, not yet explained:

- [I.60: see I.62] Basque **eiho* ‘to grind’, **eihera* ‘mill’ ~ PNC **Hēm̥χwV* ‘to grind’, PEC **Hēm̥χwV-rV* ‘mill, mill-stone’ (Q.20; V.68)

In several cases the **-m-* (whether it disappears or remains as /n/) is associated with the development of a Basque diphthong, /ai/, /ei/, /oi/, or /au/:

- [I.61] Basque **e=aici* ‘to milk (a cow)’; (Z) *jaitzi* ~ PNC **ām̥zŪ* ‘to milk’; Archi =*ac:a* id. (V.26)
- [I.62 = I.60] Basque **eiho* ‘to grind’, **eihera* ‘mill’; (BN, L) *eho* ‘to grind’, (L) *eihera* ‘mill’ ~ PNC **Hēm̥χwV* ‘to grind’, PEC **Hēm̥χwV-rV* ‘mill, mill-stone’; > Ingush *ah-* ‘to grind’ *ħayra* ‘mill’, etc. (Q.20; V.68)
- [I.63] Basque **e=roic* ‘cliff, fissure’; (c) *erroitz* ~ PEC **hrōm̥çwe* ‘stone’; Khinalug *ric’in* ‘stone’ (D.13)
- [I.64 = I.37] Basque **gain* ‘top, surface; above’ ~ PEC **h̥q̥wēm̥V* ‘head, horn’ (I.13)
- [I.65] Basque **gau* / **gab-* ‘night’; (c) *gau*, (AN-Ulzama) *gabe* id. ~ Proto-Lezgian **χ^f:am:* / **χ^f:an:* ‘evening, night’; Tsakhur *χ^fam* ‘night’ (H.5)³⁶
- [I.66] Basque **haic* ‘stone, rock, crag’; (BN) *haitz* ‘rock, stone’ ~ PNC **hām̥Vçö* ‘stone’; Avar *ħuc*: id. (D.15)
- [I.67] Basque **Hainc-eihar* ‘frost’;³⁷ (B-Oñate) *aintzigar* ‘faint frost on leaves’, (G-Tolosa) *antzigar* ‘fine-grained snow’ ~ PNC **yām̥zÄ* ‘snow’; Tindi *anzi* ‘snow’ (G.15)
- [I.68] Basque **haise* ‘wind’; (L) *haize* ‘wind, air’ ~ PNC **zām̥sə* ‘breath, soul; cloud, sky; god’; Akhwakh *as:i* ‘breath’, Udi *haso* ‘cloud’ (G.3)
- [I.69] Basque **hauć* ‘ashes, powder’; (L) *hauts* id. ~ PEC **yōm̥çV* ‘earth’; Batsbi *yobst* id. (F.5)
- [I.70] Basque **hauśin* / **haśuin* ‘nettle’; (BN, L) *hausin* id. ~ PEC **h̥wām̥šwi* ‘a kind of herb or weed’; Agul *haś^w* ‘caraway’ (C.23)
- [I.71 = I.39] Basque **kain* ‘fog, clouds’ ~ PNC **k̥wēm̥hV* ‘cloud, fog’ (G.6)

³⁶ S. A. Starostin cited these forms as Proto-Lezgian **χI:am:* / **χI:an:* ‘evening, night’, with a pharyngealized voiceless uvular fricative, the symbol /l/ (палочка) signifying pharyngealization, and reconstructed Proto-Sino-Caucasian **χV[n]HV* ‘dark’, based on Basque **gau* ‘night’, Proto-Lezgian **χI:an:* ‘evening’, PY **χoʔn-* ‘dark’, and PST **γVm(H)* ‘dark, shade’ (SCG 245–6; also TOB: Sino-Caucasian Database). With the symbol *[n:] in the reconstruction Starostin left open the possibility of a different nasal, namely **m:*, which is supported by the PST form, the Proto-Lezgian alternate form **χI:am:* ‘evening’ (Tsakhur *χ^fam* ‘night’), and the Basque labials in **gau* ‘night’, **gab-* (in compounds).

³⁷ The Basque word seems to be a compound of **Hainc-* + **eihar* ‘dry’ (BCR R.22), i.e. ‘dry snow’.

- [I.72] Basque **koipe* ‘rendered fat, grease’; (AN, BN, L) *goipe* ‘butter, animal fat, melted fat, grease’ ~ PEC **kāmpā* ‘butter; sour cream’; Tindi *k’wabi* ‘sour cream’ (P.9)
- [I.73] Basque **lainho* ‘fog, mist, vapor’; (BN, L) *lanho* ‘vapor’, (Z) *lānhú* ‘mist, fog’ < PEuC **λamHV* ~ (with metathesis) PEC **hemλĀ* ‘dream’; Godoberi *hanlu* ‘fog, cloud’, Karata *hantt’u* id. (G.7)
- [I.74] Basque **paita* ‘duck’; (B) *paita* id. < PEuC **pHām[ʔ]V̄* (SCP 30) ~ PEC **bHāmʔV* ‘duck’; Dargi *baʔ* id. (N.24)
- [I.75] Basque **saie* ‘vulture’, (arc) ‘eagle’; (B, G, BN, Z) *sai* ‘vulture’ ~ PEC **çwāmʔV̄* ‘eagle, vulture’; Karata *c’:ūyi* ‘eagle’, Andi *c’:un* ‘eagle, vulture’ (B.13)
- [I.76 = I.40] Basque **sain* ‘vein, root, nerve, root (of hair)’ ~ PEC **sēhmV / *hēm̄sV* ‘muscle, vein; intestine’ (A.58)
- [I.77 = I.42] Basque **soin* ‘shoulder, (upper) back’, etc. ~ PEC **Hçwēymǎ / *Hçwēynǎ* ‘leg bone’ (A.38)

In the following cases a trace of the original nasal is left as Basque /n/:

- [I.78 = I.49] Basque **fionda-ř* ‘sand, residue, bottom’ ~ PEC **ʔamtV* ‘earth, ground’ (D.18)³⁸
- [I.79 = I.50] Basque **hu[m]ki* ‘to touch’³⁹ ~ PEC **fimkwV* ‘fist’ (V.13)
- [I.80 = I.52] Basque **i=hunc* ‘dew’ ~ PEC **xwǐmçwǐ* ‘bog, dirt’ (E.11)
- [I.81 = I.54] Basque **konko-ř / *kunku-ř* ‘hump, joint, bone’ ~ PNC **qǎmq(w)ǎ* ‘knee, leg-bone’ (A.76)
- [I.82 = I.73] Basque **lainho* ‘fog, mist, vapor’ ~ (with metathesis) PEC **hemλĀ* ‘dream’; Godoberi *hanlu* ‘fog, cloud’ (G.7)
- [I.83] Basque **e=ncu-n* ‘to hear, listen’; (c) *entzun* id., (dial.) ‘to smell (odors)’ ~ PNC **=ǎmçĔ* ‘to know, see’; Hunzib *=ǎc’-* ‘to see’ (V.48)
- [I.84 = I.67] Basque **Hainc-eihar* ‘frost’ ~ PNC **yǎmzĀ* ‘snow’ (G.15)
- [I.85] Basque **lance-ř* ‘drizzle, fog’; (Z) *lántzer* ‘drizzle, fine rain’, ~ PEC **lǎ[m]çV / *lwǎçV* ‘to filter, sift’; Bezhta *tatsa-ri* ‘sieve’ (G.9)⁴⁰
- [I.86 = I.55] Basque **ondo*¹ ‘joint’ ~ PEC **ʔamdV* ‘joint, bone’ (A.77)
- [I.87] Basque **tanta*, **tanto* ‘drop, dung pellet’; (c) *tanta* ‘drop (of liquid)’ ~ PEC **tēmtV* ‘dirt, dust’; Andi *toto* ‘saliva’ (E.13)
- [I.88] Basque **tintV* ‘gland, uvula’; (BN) *tinto-la* ‘uvula’, ~ PEC **tēmʔV* ‘freckle, spot’; Bezhta *t’ot’i-lo* ‘pimple’ (A.34)

II. Archaic laryngeals in Basque

The Basque aspirate /h/, which is still a contrastive phoneme in northern dialects (L, BN, Z), and is attested in older texts of the southern dialects as well, is treated separately in FHV (523-26) by Michelena, who “clearly assumed that a phoneme **h* was found in Proto-Basque” (Jacobsen 1995: 123), while Trask (1995: 9) thought that the “pre-Basque aspiration was not etymological, but was merely a suprasegmental feature” (BCR 37).

³⁸ Because this PEC reconstruction was based on only three Dagestanian languages, Tsezi, Hinukh, and Khinalug, the nature of the internal nasal (whether **m* or **n*) was not clear. Based on the Basque evidence with the labial vowel /o/, **m* may be preferable for the PEuC stage.

³⁹ In this word we have an unusual contrast between NE Basque /un/ ~ /on/ (*hunki-*, *onki-*) vs. SW Basque /u/ (*uki-*), thus a tentative reconstruction **hu[m]ki-*.

⁴⁰ For semantic typology, cf. Swedish *sil* ‘strainer’, *sila* ‘to strain; trickle, pour (of rain)’, etc.

In North Caucasian “laryngeals are the most unstable class of consonants ... Their exact reflexes are often hard to establish (especially in [Proto-Nakh] and [Proto-Andian], where in some cases we use the symbol H, denoting an arbitrary laryngeal)” (NCED 62). Even more so, in the reconstruction of Proto-Sino-Caucasian “laryngeals in general are very unstable phonemes and tend to disappear easily. They are most numerous and best reconstructed in PNC, with ... correspondences in other families” (SCP 22).

In Basque we can probably reconstruct, at the most, two laryngeals: **h*, which remains as /h/ in all three of the aspirating dialects (BN, L, Z = Basque dialects in France), and **h̄* which has the reflex /h/ in BN and L but zero in Z. Whether this **h* / **h̄* opposition should really be traced back to Proto-Basque is, so far, uncertain; possibly it is the result of dialect borrowing or some other force. It is of interest, however, that the PNC uvular fricative **χ* always corresponds to Basque **h*, never to Basque **h̄* (BCR 167-69).

Both **h* and **h̄* are lost in the non-aspirating dialects (B, G, AN, R, Bzt, Azk, Sal = “Spanish” Basque dialects), except in some of the earliest records, and in some cases where old **h* between vowels has become the voiced velar continuant [v], phonemically /g/ and traditionally written as *g*, e.g. (B, G, AN) *igar* [iʋar] ‘dry’ < **eihar*; cf. PEC **hwēri* ‘morning, dawn’ (BCR R.22), and (R, Bzt) *agur* [aʋur] ‘palm, hollow of hand’ < **a=huř*; cf. PEC **kHwōrV* ‘hole, pit’ (BCR A.67).

Basque also preserves some laryngeals in combination with resonants, often with the laryngeals no longer existing as such in modern Caucasian languages. For example, the EC etymon represented by Avar *qʷ:warí-da-b* ‘narrow, cramped’ was reconstructed by Nikolayev & Starostin as PEC **q̄warHV* ‘thin, narrow’ (NCED 933). The cognate proposed for this word is Basque **garhi*, attested with /rh/ in northern Basque *garhi* ‘thin, slender, slim, slim-waisted’; in some Lezgian languages, for example, the reflex of **H* may consist of a pharyngealized initial consonant, e.g. Agul *qʷ:ure-* ‘thin, emaciated’.⁴¹

Basque transposed laryngeals (in relation to PNC). In the following cases Basque has a laryngeal **h* between vowels or in clusters, while the hypothesized PNC or PEC cognate has a laryngeal in a different position or different vowel structure. Note the contemporary NC cognates with a laryngeal or pharyngeal (/h/, /h̄/, /ʎ/, /ʎ̄/, /ʎ̄̄/), or a pharyngealized vowel (/ạ/, /ẹ/, /ị/, /ọ/, /ụ/);⁴² laryngeals and pharyngeals can also influence accent patterns in Avar,⁴³ and various other changes to vowels and consonants.⁴⁴ Selected Basque and NC cognates are cited:

[II.1] Basque **barhe* ‘slug, snail’; (BN, L, Z) *barhe* ‘slug’ ~ PEC **bHōr-* (in **bHōr-χwV̄V* ‘snake, snail, worm’); Lak *bařčalu* ‘snail’ (with pharyngeal /ạ/) (B.28)⁴⁵

⁴¹ “Pharyngealization (and the pharyngealization of uvulars in particular) [in Tsezian, Lak, Dargwa, Lezghian, Ubykh] is apparently the result of the fall of certain laryngeals ..., therefore we do not reconstruct a special pharyngealized uvular series for PNC” (NCED 59).

⁴² “Pharyngealized vowels in Lak, [Proto-Dargwa] and [Proto-Lezghian] usually correspond to each other rather well and can be traced to PEC fallen laryngeals (not only in initial combinations, but in medial clusters as well, ... In addition to Lak, Dargwa and Lezghian languages pharyngealization is also present in [Proto-Tsezian] and [Proto-West Caucasian]” (NCED 83).

⁴³ “A typical feature of the emphatic laryngeals is that nouns that contain them reveal in Avar an immobile accent paradigm (the so-called ‘Paradigm A’), while words with plain laryngeals (or without laryngeals) have in Avar either an oxyton or a mobile accent paradigm (paradigms B and C)” (NCED 62).

⁴⁴ “One can also pay attention to the unmotivated variation of voice/voicelessness (and also glottalization) in some PWC reflexes. The reasons for a secondary voicing in PWC are not clear yet (it could be possibly connected with the fall of laryngeals in PWC)” (NCED 48); “The development of vowels is also influenced by pharyngealization (that appears as a result of the fall of laryngeals)” (NCED 72).

⁴⁵ Alternatively the PEC proto-form could have been **wHōr-*, since all attested forms belong to languages in which PNC **w* and **b* have merged as /b/. The same situation holds for the next set.

- [II.2] Basque **berho* ‘bramble, thicket’; (L) *berho* id. ~ PEC **bHörV* ‘a kind of thorny plant’; Lak *burū* ‘thistle’ (with pharyngeal /ʊ/) (C.14)⁴⁶
- [II.3] Basque **bitho* ‘hair, mane’; (BN) *bilho* id. ~ PNC **pVhVtV* ‘feather, mane’; Dargi *pəhala* ‘feather’ (with pharyngeal /a/ and voiceless pharyngeal fricative /ħ/) (A.20)
- [II.4] Basque **čahal* ‘calf, heifer’; (Z) *xáhal* id. ~ PEC **HčwīlV̄* / **HlīčwV̄* ‘heifer, calf’; Ingush *šasa* ‘calf’, Avar *šáč’ár* ‘heifer’ (N.11)
- [II.5 = I.24] Basque **čehume* ‘half-span’; (BN) *xehume* id. ~ PNC **čV̄mhV* ‘span’; Tsakhur *č’im* / *č’um*, Agul *č’ib* / *č’eb* id. (with pharyngeal /i/, /ʊ/ or /e/) (L.7)
- [II.6] Basque **ethe* ‘word, speech’; (BN, L) *elhe* id. < **e=tehe* ~ PEC **lēHwV* / **tēHwV* ‘word’; Dargi *luši* ‘number’ (L.11)
- [II.7] Basque **geHeti* ‘ox; beef, meat’ / **i=lo=ketV*;⁴⁷ (L-arc) *geheli* ‘(fresh) beef’ (17th c.); (BN) *ikhel* ‘fattened ox’, (AN) *ikela* id.; (L) *okhela*, *okheli* ‘meat; piece (of meat, cheese), morsel’ ~ PEC **q̄hwētV̄* / **q̄wēt̄hV̄* ‘large female domestic animal (cow, mare)’; Dargi *q^{ʳ(w)}al* ‘cow’, Lak *ul* ‘cow’, Avar *šalá* ‘mare’⁴⁸ (P.12)
- [II.8] Basque **fierce* / **fiešte* ‘intestine’; (BN, L) *hertze* id., (BN-arc) *halsarr-ak* ‘entrañas’ < **fierce-ř*; ~ PNC **čĀrHV* / **HĀřčV* / **rHĀčV* ‘stomach, abomasum’; Avar *šorčo* ‘intestine’, Andi *ručo-l* id. (A.54; SCG 180)
- [II.9] Basque **fodoe* ‘cloud’; (BN) *hodei* ‘cloud, thunder’ ~ (with metathesis) PEC **dwiHV* ‘wind’; Dargi *dəʃ* id. (with pharyngeal /a/ and voiced pharyngeal fricative /ʕ/) (G.4)⁴⁹
- [II.10] Basque **itha-ř* ‘pea(s), bean(s)’; (Z) *ilhar* ‘beans’ < **i=hVta-ř* ~ PEC **hōwt[ā]* ‘bean(s), lentil’; Tsezi *hil* ‘pea(s)’, Avar *holó* ‘bean(s)’ (O.8)
- [II.11] Basque **lahar* ‘thorn, bramble’; (BN, L) *lahar* ‘bramble, creeping thorn’, (Bzt) *lagar* id. ~ PEC **λwřřV* ‘leaf’; Karata (Tokita dial.) *alzi*, Lezgi *riq^ř-äy* id. (C.17)⁵⁰
- [II.12] Basque **leher* ‘pine (tree)’; (Z) *leher* id. ~ PEC **λfwētū* ‘a kind of tree’; Lak *halu* ‘grove’, Lak (Arakul dial.) *x^walu* id., Avar *ł:alú* ‘yew-tree’ (C.7)
- [II.13] Basque **luHur* ‘earth, ground, land’; (BN-Baigorri) *luhur*, (B) *luur* id. ~ PNC **lhēmŁwř* ‘earth’; Avar *rat^ł*: ‘earth, ground’, Tsakhur (Gelmets dial.) *nok* ‘field’ (with pharyngeal /o/) (D.1)⁵¹
- [II.14 = I.2] Basque **mahać* ‘grape(s)’ ~ PNC **āmćō* ‘apple; medlar’ (P.17)
- [II.15 = I.8] Basque **mařuhi* / **mahuri* ‘strawberry’ ~ PEC **mer(?)V* ‘a kind of berry’; Lezgi *mere* ‘blackberry’ (P.18)⁵²
- [II.16] Basque **sahar* ‘old’ (human), ‘old person’; (BN, L) *zahar* ‘old (human, animal, plant), old person’, (Bzt) *zagar* id. ~ PNC **swērho* / **r(h)ěswō* ‘old; year’; Avar *asrá-ya-* ‘old, worn out’ (R.40)

⁴⁶ **bHörV* or **wHörV* (see the preceding note).

⁴⁷ Here we have an unusual case of the extended, unprefixated form **geHeti* coexisting with forms with fossilized class prefixes (articles), *ik(h)el(a)*, *ok(h)eli/a*; in the latter the syllabic structure is syncopated from three to two syllables and the initial plosive is devoiced, which also occurs in a few other etymologies (BCR 128–29).

⁴⁸ Note Dargi pharyngealized /q^{ʳ(w)}/, Lak pharyngeal /ʊ/, Avar pharyngeal fricative /ʕ/.

⁴⁹ For semantic connections of ‘wind’ ~ ‘cloud’, cf. Basque **haise* ‘wind’ ~ Akhwakh *as:i* ‘breath’ ~ Udi *haso* ‘cloud’, etc. (BCR G.3).

⁵⁰ The Lezgi form represents metathesis (< Proto-Lezgian **riλ^w*). For semantic typology of ‘leaf’ ~ ‘thorn’ cf. Old Indic *třna-* ‘grass, blade of grass, straw’, Slavic *trůnũ* ‘thorn’, Gothic *þaurnus*, Eng. *thorn*, etc. (Buck 8.51).

⁵¹ Initial Avar /t/ and Tsakhur /n/ are the regular reflexes of PNC initial **l-*, when preceding **-m-* in the same root; Avar /t^ł:/ and Tsakhur /k/ are the regular reflexes of the PNC tense lateral affricate **Ł* (NCED 53, 55, 131).

⁵² Here NCED suggests a laryngeal with the notation (?). The Basque evidence for /h/ is quite clear.

- [II.17] Basque **solho* ‘meadow, field’; (L) *sorho* ‘meadow’⁵³ ~ PEC **čHätu* ‘earth, ground, sand’; Lak *š:alu* ‘earth, ground’ (with pharyngeal /a/) (D.3)
- [II.18 = I.33] Basque **sumhe* ‘a kind of tree’; (Z) *zúnhar* ‘a kind of elm tree’, (Sal) *zugar* id. ~ PEC **šfūmV* ‘bush, grass; a kind of fruit’; Chechen *žolam* ‘small bushes, shrubs’ (< **žǝlVm* < **žǝm-VI*) (C.2)

PEuC medial laryngeal clusters: In each of these cases northern Basque retains /h/ in a resonant + /h/ cluster /Rh/, and the PNC/PEC cognate also has a /Rh/ cluster, usually in the same order as in Basque; there are two possible cases of metathesis [II.27, II.28]. Selected Basque and NC cognates are cited:

- [II. 19] Basque **arhe* ‘harrow, rake’; (BN, L) *arhe* id. < **harhe* ~ PEC **karhV* ‘harrow’; Avar *vár-ize* ‘to harrow’, *vári* ‘wooden ladder’ (Q.14)
- [II.20] Basque **betħa-ř* ‘forehead, side, edge’; (BN, L) *belhar* ‘forehead’ ~ PEC **bġāthǝ* ‘edge, end’; Lezgi *p:el*, Kryz *bel* ‘forehead’ (A.5)
- [II.21] Basque **butha-ř* ‘breast, chest’; (BN, L) *bulhar*, (Z) *búlhar* id.⁵⁴ ~ PEC **gwālhē* ‘udder, breast’; Avar *vwári* ‘udder’ (A.40)
- [II.22] Basque **bur(a)ho* ‘curse, blasphemy, hatred’; (BN, L) *burho*, (B, G) *birago* ~ PEC **gwātho* ‘gossip, rumor; offence, anger’; Avar *v^wel* ‘gossip, rumor; abuse’, Tsakhur *qal* ‘offence, anger’ (K.1)
- [II.23] Basque **elhi* ‘finger’ < **helhi*; (BN, L) *erhi* ‘finger’, (B) *el-eztun* ‘finger-ring’ ~ PEC **χġtHe* ‘sleeve’; Rutul *χili-di* ‘mitten’ (A.69)
- [II.24] Basque **ethi* ‘cattle, herd’; (L) *elhi* ‘cattle, livestock, herd, flock’ < **hethi* ~ PEC **χwōlhV* / **χHwōlV* ‘cattle, cows’; Chechen *hēlī* ‘cows’ (N.5)
- [II.25] Basque **garhi* ‘thin, slender’; (BN, L) *garhi* ‘thin, slender, slim, slim-waisted’ ~ PEC **ǵwarHV* ‘narrow, thin’; Agul *q:ure-* ‘thin, emaciated’ (R.59)
- [II.26] Basque **gurhi* ‘butter, grease’; (Z) *gurhi* ‘fat, grease, butter’ ~ PEC **χarHV* / **χHərV* ‘butter, cheese’; Lezgi *vəri*, Rutul *χ^hara-d* ‘butter’ (P.7)
- [II.27] Basque **ithu-n* ‘dark, night’; (BN) *ilhun* ‘night’ < PEuC **ħilHu-* ~ (with metathesis) PNC **ʔlġħ* ‘night’; Chamali *yeħa*, Tindi *reħa* id. (R.18)
- [II.28 = I.73, I.82] Basque **lainho* ‘fog, mist, vapor’ ~ (with metathesis) PEC **ħemħĀ* ‘dream’; Godoberi *hanlu* ‘fog, cloud’ (G.7)
- [II.29 = I.5] Basque **manhai* ‘table’ ~ PEC **mfiǵnē* ‘door; part of door’ (Q.9)

Archaic Basque laryngeals, apparently lost in PNC: There are four cases, all involving PNC/PEC tense sibilants (**š*, **š*, **š*), in which the Basque cognate contains an internal laryngeal, but the PNC/PEC cognate does not. In NCED there is a hint that may explain this: “The [PEC] root [**šwāyV*] ‘last year’ may have also contained a laryngeal,” based on the pharyngeal vowel /a/ in Archi *š^wāš* ‘last year’ (NCED 975). The implication may be that Basque preserves an archaic laryngeal that was lost in PNC/PEC or absorbed into the tense sibilant, in the case of the ‘last year’ set and the other three sets.

- [II.30] Basque **ihās* ‘last year’; (Z) *ihaz*, (B, G, AN) *igaz* [ivas] id. < PEuC **iHašV* ~ (with metathesis) PEC **šwāyV* ‘last year’ (< **šwāyHV* or **šHwāyV* ?); Chamali *sas:*, Archi *š^wāš* id. (H.3)
- [II.31] Basque **sathui* ‘quick, nimble, flexible’, etc.; (L) *zalhui* id. ~ PNC **šitV* ‘light (of weight)’ (< **šitHV* or **šHitV*?); Archi *s:ala* id. (R.42)

⁵³ The supposed derivation of this word from Latin *solum* (or a Romance descendant) is rejected here, for phonetic and semantic reasons; the corresponding loanword in Basque is (G) *zoru* ‘ground, floor’, (B, G) ‘sole (of shoe)’ (see BCR 238).

⁵⁴ One of the cases of PEuC **gw* > Basque **b*: see also the next set, and BCR 93–94, 167.

- [II.32] Basque **sethai* ‘plain, prairie’; (BN, L) *zelhai* ‘plain, flat land’, ‘flat’ (adj.) ~ PEC **ʒəlV* ‘plain, plateau’ (< **ʒəlHV* or **ʒHəlV* ?); Avar *c:or* ‘plain’ (D.5)
- [II.33] Basque **sutfio* ‘hole’; (BN, L) *zulho*, *zilho* ‘hole, burrow’, (B) *sama-zulo* ‘gullet’ (‘neck-tube’) ~ PEC **śwōtV* ‘hollow tube’ (< **śwōtHV* or **śHwōtV* ?); Avar *šulu* ‘pipe’, Lezgi *sulu-r* ‘throat’ (I.12)

III. Basque /rc/ ~ /št/ stem alternation

As noted by Michelena (FHV 363–65), in a very few cases Basque exhibits a stem alternation between medial/final /rc/ and /št/. It so happens that PNC provides a key, since these Basque words correspond to NC words containing PNC clusters of **r* + sibilant affricates (**c*, **ć*, **č*):

- [III.1] Basque **borc* / **bošt* ‘five’, **bošte-ko* ‘hand’ ~ PEC **b[ə][r]cV* ‘paw; part of arm or leg’; Tsezi *besi* ‘fist’, Tabasaran *bac* ‘paw’ (M.6)⁵⁵
- [III.2 = II.8] Basque **herce* / **hešte* ‘intestine’; (BN, L) *hertze*, (B, G, AN) *este* id. ~ PNC **HĀřčV* / **rHĀřčV* / **čĀřHV* ‘stomach, abomasum’; Avar *řorčo* ‘intestine’, Andi *ručo-l*, Chechen *čŭ-r-aš* ‘intestines’ (A.54; SCG 180)
- [III.3] Basque **fiorci* / **fiošti* ‘sky, storm’; (L) *hortz-adar*, *holtz-adar* ‘rainbow’,⁵⁶ (B) *osti* ‘storm, thunder’ ~ PEC **HĀřčwVn* ‘to become cloudy, gloomy’; Karata (Anchikh, Archo dial.) *orč-* ‘to become cloudy’, Avar *roč:n-* id. (G.12)
- [III.4 = I.20] Basque **mucu-ř* (< **murcu-ř*) / **muštu-ř* ‘snout; edge, extremity’ ~ PEC **mHĀřčwV* ‘pus; mucus, snot’ (A.19)
- [III.5] Basque **Perc* / **Pešt* ‘cauldron, pail’;⁵⁷ (G, AN) *pertz*, (AN, BN, Bzt, Z, R) *bertz*, (BN-ms) *best* ~ PEC **parčē* ‘water jug’; Avar *parč:i* ‘earthenware water jug’. (Q.23)

The distribution of /rc/-forms ~ /št/-forms is not regionally determined in Basque: for example, *bost* ‘five’ prevails both in the far west (B, G) and far east (Z, R), with *bortz*, *borz* in most of the more central dialects; *este* ‘intestine’ is mostly southwestern (B, G, AN), with (*h*)*er(t)ze* elsewhere; the same dialect may have both variants of **fiorci* / **fiošti*: (BN-Garazi) *ortzi* ‘storm cloud’ / *ostegun* ‘Thursday’; (Z) *ortze* ‘storm’ / *ostégün* ‘Thursday’, etc. (See the long lists of related words in EDB 316–19; Trask 1997: 278.)

Michelena sought to explain this alternation as stemming from a sandhi feature in compounds, in which a multistep change of **rtz* > **rzt* > **rst* > **st* /št/ occurred. Whatever the mechanism, it is likely that **berc*, **borc*, **herce*, **fiorci*, **mu(r)cu-ř* were originally the free-standing nouns, and **best-*, **bošt-*, **hešt-*, **fiošt-*, **muštu-*, respectively, were the stem variants used in compounds or before suffixes. Subsequently the two allomorphs were confounded and merged, so that the /rc/-forms could then be used in compounds, and /št/-forms in free-standing forms. It is interesting that the Basque words with this alternation all have NC cognates with the rhotic + sibilant clusters **rc*, **rć*, **rč*.⁵⁸

⁵⁵ Problematic: outside of Basque the cluster **rc* is supported only by Avar *púrc:i* ‘ham’ (which may be secondary, < **bVc:-ri*: see NCED).

⁵⁶ The L words are compounds with **a=dar* ‘horn’, i.e. ‘sky-horn’; the form *holtz* (for *hortz*) by dissimilation from the following rhotic.

⁵⁷ **P* signifies “some labial stop,” since attested forms have both /p/ and /b/.

⁵⁸ Except Basque **berce* / **bešte* ‘other’, for which a satisfactory NC cognate has not been found. Possibly it is related in some way to Basque **bi* ‘two’ (cf. Udi *pə*, Lak (Kumukh dial.) *pk'i* ‘two’ < PNC **qHwā* id.), as in the common semantic link of ‘second’ and ‘other’.

In the following cases Basque has **št* or **st* corresponding to a PNC **r* + sibilant cluster, but without any known stem alternations:

- [III.6] PEuC **r[...]ś*: Basque **aštu-n* ‘heavy’; (B, G) *astun* ‘heavy, weighty; important, serious’ ~ PNC **=HrV̄yśĒ* ‘thick, dense, fat’; Chechen *=arst-* ‘to fatten, become fat’, Tsez̄i *ḷašyū* ‘thick (of a flat object)’ (R.29)
- [III.7] PEuC **rš*: Basque **b=ušte-l* ‘rotten’; (L) *bustel*, (Z) *üstel* id. ~ PNC **=VršĒ* ‘to rot, ferment’; Dargi (Chiragh dial.) *=arš- / =urš-* ‘to rot’, Udi *baš’a(y)* ‘rotten’ (*b=aš’a-* ?) (R.45)⁵⁹
- [III.8] PEuC **rč*: Basque **ga[ś]te* ‘young (person), youth’⁶⁰ ~ PNC **kwirčĒ / *kwirčĒ* ‘young (of animals, birds)’; Lak *karč* ‘puppy’, Khwarshi *k’uč’i* id. (R.66)

Conclusions

It is affirmed here, based on ample evidence, that a phoneme **m* did exist in Proto-Basque, as well as in Proto-Euskaro-Caucasian, and that it remained quite stable in Basque in most initial and medial environments. But PEuC **m* did indeed disappear, or change to /n/, especially in reflexes of internal PEuC clusters. Thus Trask’s doctrine that “no **m* can be reconstructed for Pre-Basque” (based on a more cautious suggestion by Michelena) turns out to contain a small smidgen of truth.

There is also copious evidence that the Proto-Basque laryngeals **h* and **h̄* are preserved intact in northern Basque reflexes of the same words in which a laryngeal is postulated for Proto-North Caucasian or Proto-East Caucasian (according to NCED). In internal clusters northern Basque frequently preserves these laryngeals in cases where there is only circumstantial evidence of them in modern North Caucasian languages (e.g., as pharyngealized consonants and vowels, or as particular accentual patterns). This is one of several ways in which Basque is more conservative than its cousins, the North Caucasian languages.

At the same time, Basque naturally exhibits some important innovations. Phonetically, a much simpler vowel and consonant system developed in Basque than Proto-Euskaro-Caucasian is thought to have had (BCR chapter IV). Grammatically, the Euskaro-Caucasian noun class system loses its productivity, but leaves traces in fossilized prefixes such as **be/*bi=*, **e/*i=*, **o/*u=*, etc. (BCR chapter V). Lexically there is, for example, the development of a new word for ‘eye’, **b=egi* (originally ‘seer’, cf. PEC **=agwV* ‘to see’), while North Caucasian (**ʔwīʔi* ‘eye’; Dargi *ule*, Abkhaz *á-la*), Burushaski (**-l-či / *il-* ‘eye’) and Yeniseian (**de-s* ‘eye’)⁶¹ retain the older form, which Basque preserves only in the truncated form **le-* in words for ‘eye-tooth’ (**le-t-agin*), and in the verb **uter-tu* ‘to understand, comprehend; foresee, suspect; feel, sense’ (see BCR, etymologies A.8, A.11, A.12, V.14).⁶² Other Basque innovations are evident, for example, in kinship terminology and numeral words that are radically different from those of North Caucasian; here we see the results of innovations on both sides (see BCR 329–336; 344–48).

Greenberg (1995: 207) refers to an essential attribute of a “best explanation” hypothesis of linguistic relatedness. “Such hypotheses have a further important characteristic, which we may call fruitfulness, That is, they can be built upon and lead to further discoveries and explanations of hitherto puzzling phenomena.” Seven decades earlier Edward Sapir had written in

⁵⁹ Udi *possibly* has the same fossilized class prefix (**b=*) as postulated in the Basque form.

⁶⁰ The reconstruction **ga[ś]te* is provisional, since dialectal evidence /*gaste/* ~ /*gašte/* is ambiguous.

⁶¹ Proto-Yeniseian lacks initial laterals, and the initial resonants **l-*, **l̄-* and **n-* regularly become **d-* (SCP 38, 68).

⁶² George Starostin proposed the **b=egi* and **uter-tu* etymologies. The Basque verb is typologically similar to Greek ὑπόψομαι ‘I shall suspect’, with -οψ- < PIE **okw-s-* ‘eye’ (Buck 17.44).

a letter that the Sino-Dene hypothesis “is all so powerfully cumulative and integrated that when you tumble to one point a lot of others fall into line” (letter to Alfred Kroeber in 1921, quoted in Golla 1984: 374). So it is with the Euskaro-Caucasian hypothesis. Just within the small selection of etymologies discussed here, several of them figure in more than one of the three major topics discussed: [I] the labial nasal **m*; [II] archaic Basque laryngeals; [III] the /rc/ ~ /št/ alternation, for example:

- [I.2] = [II.14] Basque **mahać* ‘grape(s)’ ~ PNC **šämćō* ‘apple; medlar’;
 [I.8] = [II.15] Basque **mařuhi* / **mahuri* ‘strawberry’ ~ PEC **mer(?)V* ‘a kind of berry’;
 [I.5] = [II.29] Basque **manhai* ‘table’ ~ PEC **mfǎžnē* ‘door; part of door’;
 [I.20] = [III.4] Basque **mucu-ř* / **muřtu-ř* ‘snout; edge, extremity’ ~ PEC **mHǎřčwV* ‘pus; mucus, snot’;
 [I.24] = [II.5] Basque **čehume* ‘half-span’ ~ PNC **čǎmhV* ‘span’;
 [I.33] = [II.18] Basque **sumhe* ‘a kind of tree’ ~ PEC **šřǎmV* ‘bush, grass; a kind of fruit’;
 [I.73] = [I.82] = [II.28] Basque **lainho* ‘fog, mist, vapor’ ~ PEC **hemǎǎ* ‘dream’; Godoberi *hanlu* ‘fog, cloud’;
 [II.8] = [III.2] Basque **fierce* / **hešte* ‘intestine’ ~ PNC **HǎřčV* / **rHǎřčV* / **čǎřHV* ‘stomach, abomasum’; Avar *řorćō* ‘intestine’.

These and other cases function as a kind of cross-validation (the same etymology confirmed by more than one rule), and exemplify what Sapir meant by “when you tumble to one point a lot of others fall into line.”

General notes to etymologies

1. The fossilized plural or collective suffix **-ř* occurs in many Basque nouns (see BCR 76-78). In this paper see etymologies [I.4] Basque **malka-ř* ‘straw’; [I.14] Basque **moku-ř* ‘tree trunk, tree base’; [I.16] Basque **moś-ko-ř* ‘tree trunk’; [I.20 = III.4] Basque **mucu-ř* / **muřtu-ř* ‘snout, muzzle’; [I.28] Basque **hama-ř* ‘ten’; [I.31] Basque **sama-ř* / **čama-ř* ‘fleece, shorn wool; mane’; [I.49 = I.78] Basque **fonda-ř* ‘sand, residue, bottom’; [I.54 = I.81] Basque **konko-ř* / **kunku-ř* ‘hump, joint, bone’; [I.85] Basque **lance-ř* ‘drizzle, fog’; [II.8 = III.2] Basque (BN-arc) *halsarr-ak* ‘entrañas’ < **fierce-ř*; [II.10] Basque **itha-ř* ‘pea(s), bean(s)’; [II.20] Basque **bethia-ř* ‘forehead, side, edge’; [II.21] Basque **butha-ř* ‘breast, chest’.

2. Basque correspondences to PNC lateral affricates **ǎ*, **ǎ* (= **ǎ*), **ǎ* in initial (*Anlaut*) position. Basque laterals are very simple: only the resonant /l/ appears in initial position: see [I.27] Basque **(eci-)[lamu]* ‘two days after tomorrow’ ~ PEC **ǎǎmV* ‘one day (two days) after tomorrow’; [I.30] Basque **limu-ri* ‘slippery, moist, smooth’, etc. ~ PEC **ǎǎwemV* ‘liquid’ (adj.); [I.47] Basque **listo-* ‘hornet, wasp’ ~ PEC **ǎǎmčV* ‘a biting insect’; [I.73] Basque **lainho* ‘fog, mist, vapor’ ~ PEC **hemǎǎ* ‘dream’; [II.11] Basque **lahai* ‘thorn, bramble’ ~ PEC **ǎǎwřřV* ‘leaf’; [II.13] Basque **luHuř* ‘earth, ground, land’ ~ PNC **lhěmǎwř* ‘earth’. (In cases I.73, II.11 and II.13 there has been metathesis. See BCR 154-55 for further examples and explanations.)

3. Basque correspondences to PNC lateral affricates **ǎ*, **ǎ* (= **ǎ*), **ǎ* in medial (*Inlaut*) position. There are two main reflex types, (a) Basque /rd/, and (b) Basque /rt/. See BCR 156–58 for further examples and a possible explanation of reflex (a) *vs.* (b). In this paper, with reflex type (a), see etymologies [I.7] Basque **mardo* ‘robust; luxuriant’, **mardu-l* ‘healthy, strong’ ~ PEC **mōřEV* ‘male; man, hero’; [I.9] Basque **meda-ř* ‘narrow, tight’ (< **merda-ř*) ~ PEC **fmǎǎǎǎ* ‘thin, narrow’; [I.15] Basque **mardo* ‘bunch, group’ ~ PEC **mǎř[ǎ]o* ‘handful, armful’; With reflex type (b) see [I.21] Basque **muti-l* ‘boy; apprentice; worker’ (< **murti-l*) ~ PNC **mǎǎǎǎ* ‘husband, male, worker’. The Basque reflexes are the same whether the proto-phoneme was simple (e.g., **-ǎ-*) or in a cluster with a resonant (e.g., **-rǎ-*, **-lǎ-*).

4. Matches between Basque and NC vowels may reflect a hypothetical Euskaro-Caucasian apophony (*Ablaut*) system (see BCR 106–110). The clearest evidence for such a system are found in some lexicalized traces in Basque, for example the Basque adjective **ośo* ‘whole, complete’ (R.65) and the verb **aśe* ‘to be filled, satiated’ (V.66), parallel with PNC **=fiǎčV* / **=fiǎčV* ‘full, to fill’ (NCED 525), as in Proto-Nakh **=uč-* ‘to be filled, satiated’ / **=ač-i(n)*

‘heavy’ (Chechen =üz-na ‘full’ / =eza ‘heavy’), corresponding to Bsq *ošo / *aše, respectively. As regards PNC nouns, this system was based on an opposition of mid vowels for the direct case *vs.* high vowels for oblique cases (see NCED 81-82), exemplified by the noun *nëwqũ [direct] ‘tear(s), pus’ *vs.* *nřwqř- [oblique] (NCED 848); in Basque this alternation was lexicalized as regional variants, southwestern Basque *negar* ‘weeping; tear(s)’ *vs.* northeastern Basque *nigar* id. (BCR 106–07; A.78). A hypothesis needing further testing suggests that some vowel matches, such as *i ~ *e, in [I.30] Basque *límu-ri ‘slippery, moist, smooth’ ~ PEC *λHwemV ‘liquid’, and [I.48] Basque *sisa-li ‘worm’, *sisa-ni ‘leech’ ~ PEC *sēmsā ‘tadpole, water flea, bug, ant’, could have resulted from the lexicalization of different apophonic allomorphs.

5. It is postulated in BCR that certain initial syllables in Basque derive from fossilized remnants (“stage III articles”) corresponding to the class/gender markers in Proto-North Caucasian that persist in most of the modern NC languages (BCR 11–12; 58–71). It happens that within the collection of etymologies in the current paper there are a few examples of the fossilized articles *e=, *i= and *o=: see [I.47] Basque *e=lco ‘gnat, midge, mosquito’ ~ PEC *λāmc̣V ‘a biting insect’; [I.52 = I.80] Basque *i=hunc ‘dew’ ~ PEC *xwiṃc̣wī ‘bog, dirt’; [I.53] Basque *i=soc ‘frost, ice’ ~ PEC *ẓwVṇc̣(w)V ‘snowdrift, snowstorm’; [I.63] Basque *e=roic ‘cliff, fissure’ ~ PEC *hṛṃc̣we ‘stone’; [II.6] Basque *e=the ‘word, speech’ < *e=tehe ~ PEC *ḷēHwV / *ṭēHwV ‘word’; [II.7] Basque *i=ketV ‘fattened ox’ / *o=ketV ‘meat; piece (of meat, cheese), morsel’ ~ PEC *q̣hwēřV̄ / *q̣wēřhV̄ ‘large female domestic animal (cow, mare)’; [II.10] Basque *itha-ř ‘pea(s), bean(s)’; (Z) *ilhar* ‘beans’ < *i=hVta-ř ~ PEC *hōwt[ā] ‘bean(s), lentil’.

6. **Reconstructions:** Reconstructions based on attested forms are designated by [*], in the usual manner. More speculative or less substantiated “quasi-reconstructions” are designated by [+]. For example, PEuC *HaçimV ‘tooth’ is a possible, but not necessarily the *only* solution to reconciling Basque *hagin ‘tooth’ and PNC *HēmçĀ ‘to bite’, by a common type of transposition (see I.38); likewise PEuC *e=tehe is a possible, but not necessarily the only conceivable intermediate form between Basque *ethe ‘word, speech’ and PEC *ḷēHwV / *ṭēHwV ‘word’ (see II.6).

Abbreviations of languages and dialects

A	Araban: old Basque dialect of Araba (Álava) province (= Michelena’s <i>meridional</i>)
AN	Alto Navarro = High Navarrese (Basque dialect)
arc	Archaic or obsolete form
Azk	Aezkoan (Basque dialect)
B	Bizkaian = Biscayan (Basque dialect)
Bzt	Baztanese (Basque dialect)
BN	Bas-navarrais = Low Navarrese (Basque dialect)
c	Common Basque: the form in all dialects / or the most widespread form
dial.	dialectal
EB	<i>euskara batua</i> (standard Basque)
G	Gipuzkoan (Basque dialect)
L	Lapurcian = Labourdin (Basque dialect)
PEC	Proto-East Caucasian
PEuC	Proto-Euskaro-Caucasian
PNC	Proto-North Caucasian
PWC	Proto-West Caucasian
R	Roncalese (Basque dialect)
Sal	Salazarese (Basque dialect)
Z	Zuberoan = Souletin (Basque dialect)

Abbreviations of sources

BCR	Bengtson (2017)	FHV	Michelena (1990)
Buck	Buck (1949)	NCED	Nikolaev, Starostin (1994)
CDIAL	Turner (1962–66)	OEH	Michelena (1987–)
EDB	Trask (2008)	SCG	Starostin (2005b)

SCP Starostin (2005a)

TOB Starostin (1998–2005)

WALS Dryer, Haspelmath (2013)

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Джон Бенгтсон. Заметки об эускара-кавказской фонологии

Статья посвящена обоснованию ряда особенностей фонологической системы, реконструируемой для праэускара-кавказского языка (предполагаемого общего предка баскского и северокавказских языков) и опубликованной в недавней монографии автора. Детальному анализу подвергаются следующие моменты: (I) развитие праэускара-кавказского сонанта **m* в баскском; (II) отражения эускара-кавказских ларингалов в начальной позиции в баскском; (III) чередование /rc/ ~ /št/ в алломорфах некоторых баскских именных основ. В статье показано, как сценарий, предлагаемый для праэускаро-кавказского, позволяет объяснить ряд важных нерешенных проблем в исторической фонологии и морфонологии как баскского языка, так и северокавказской семьи.

Ключевые слова: баскский язык, северокавказские языки, сравнительное языкознание, эускара-кавказская языковая семья, губные носовые, ларингалы