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Proceedings of the 25th Annual Meeting of the Berkeley Linguistics Society (2000), pp. 348-358

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Patterns of correspondence in the adaptation of Spanish borrowings in Basque

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1. Introduction

It has often been remarked that, when borrowings are adapted, foreign sounds tend to be replaced by their closest equivalent in the borrowing language (cf., for instance, Paul 1880, Holden 1976, Picard & Nicol 1982). However, the notion of 'closest equivalent' is not always well defined (Haugen 1950, Hyman 1970). This may give rise to a certain amount of variation in the adaptation in the early stages of borrowing from a given source-language. As the number of bilingual speakers increases or the influx of loanwords from a given language becomes steady, conventional ways of adapting borrowings will become established in the community (Haugen 1950). For instance, as both Picard & Nicol (1982) and Paradis & LaCharité (1997) note, whereas in European French the English voiceless interdental fricative /θ/ is replaced by /s/, in Quebec French this sound is systematically adapted as /t/ (see Hyman 1970 for similar examples). Since European French and Quebec French have essentially identical consonantal inventories, we are dealing here with an established pattern in each community, a conventionalized adaptation. In fact, as Paradis & LaCharité also point out, the closest sound to /θ/ in French would perhaps be /f/, at least from an acoustic point of view (cf. also Hock & Joseph 1996:259-270).

Haugen (1950:213) states that "the bilingual speakers who make the first substitutions are in a rough way carrying on an operation of comparative linguistics". Poplack & Sankoff (1984:130) also note that "the process of borrowing is carried out in a regular way on the community level and is not a series of random accidents". Once a pattern of adaptation becomes conventionalized, phonetic/phonological considerations no longer apply.

In a situation of prolonged, centuries-long, bilingualism, the result may be the existence of adaptation rules which lack any synchronic motivation at all, the original phonological reason for them having been obscured by subsequent changes in the two languages in contact. Speakers may still productively employ conventionalized patterns of adaptation even if these do not make any phonological or morphological sense from a synchronic point of view. That is, the adaptations that borrowings undergo may go beyond what is required by the phonology or morphology of the borrowing language.

The Basque-Romance case offers us one such case of prolonged and intense contact. Basque has been in contact first with Latin and then with Romance for over 2000 years. The impact of Latin and its daughter languages on the Basque lexicon has been massive and profound (see Michelena 1974). Concerning the topic of this paper, conventionalized patterns of loanword adaptation have persisted for many centuries. Some of these patterns or rules of adaptation, which originally were phonologically motivated, have become essentially arbitrary rules as the phonological structure of the borrowing and lender language has changed. For instance, as I discussed in Hualde (1993), Spanish words ending in *-ón* are systematically adapted into central and western Basque dialects (and standard Basque) as ending in *-oi* (e.g. Sp. *balón* → Bq. *baloi* 'ball' and other examples in

(1), which could be greatly multiplied (Other differences observable in the examples are purely orthographic):

(1) Sp. -ón —> Bq. -oi

<u>Spanish</u>	<u>Basque</u>	
camión	kamioi	'truck'
macarrón	makarroï	'macaroni'
avión	abioi	'airplane'
electrón	elektroi	'electron'

It is important to note that words in Basque may indeed end in *-on*, e.g.: *gizon* 'man', *azkon* 'dart', *on* 'good'. These loans would be perfectly well-formed in Basque without undergoing any adaptation.

The reason for this adaptation rule is only found in much earlier historical stages of the two languages involved. Basque adopted a large number of loanwords from Latin during the first centuries of contact. These loanwords were nativized and underwent the same subsequent sound changes as the native vocabulary. One of these sound changes was the loss of intervocalic *-n-*, which took place at least by the beginning of the 11th century, perhaps much earlier (Michelena 1977:301-310); e.g.: Lat. *catena* > Bq. *katea* 'chain', Lat. *ballena* > Bq. *balea* 'whale' (with nasalization of the vowels at an intermediate stage). In particular, in loanwords in *-one*, we have the evolution *-one* > *-oe* (still preserved in some dialects) > *-oi*. For example, if the Latin/Romance word *ratone* 'rat' was borrowed into Basque before the deletion of intervocalic *-n-*, it would have been adapted as **arratone* (since initial rhotics are disallowed in Basque). Subsequently, **arratone* > *arratoe* > *arratoi*. On the other hand, in Spanish final *-e* was lost after a single coronal consonant towards the end of the 11th century; e.g.: *amore* > *amor* 'love', *ratone* > *ratón*. These two changes (in Basque and in Spanish) created a pattern of correspondence, Sp. *-ón* : Bq. *-oi* which was seized upon by bilingual speakers and is still productively applied to new borrowings with complete consistency.

This correspondence rule turns out to have a set of systematic exceptions. Spanish words ending in *-ción* or *-sión* lose the final nasal but do not add a final vocoid, as can be seen in the examples in (2):

(2) More specific pattern: Sp. loanwords in *-ción*, *-sión*

Sp. *-ción* [-θjon] —> Bq. *-zio* [-ʃio]

Sp. *-sión* [-sjon] —> Bq. *-sio* [-ʃio]

<u>Spanish</u>	<u>Basque</u>	
edición	edizio	'edition'
información	informazio	'information'
institución	instituzio	'institution'
conclusión	konklusio	'conclusion'
versión	bertsio	'version'
tensión	tentsio	'tension'

The application of the more specific rule, which reflects a correspondence between suffixes, usually bleeds the more general one.

We see that when Basque/Spanish bilingual speakers adapt new borrowings (which is a common occurrence in the present situation of near universal bilingualism on the part of Basque speakers), they employ a number of internalized

and conventionalized analogical patterns of adaptation which reflect essentially arbitrary correspondences between the lexicons of the two languages. In this paper I will focus on a couple of phenomena reflecting the existence of patterns of correspondence which are restricted to very specific phonologically (and sometimes semantically) defined classes of words. First, I will consider the adaptation of Spanish words ending in *-o*, which constitute one of the major lexical classes of nouns and adjectives in this language (and thus a common source of borrowings). Secondly, I will examine the accentual adaptation of borrowings in some central and western dialects of Basque. Excluded from this study are more-or-less conscious adaptations used only in written and academic registers.¹

2. Adaptation of Spanish words in *-o* into Basque

A particularly striking phenomenon is found in the adaptation into Basque of Spanish words with the common *-o* ending. In many, old and recent, borrowings from Spanish, final *-o* is raised to *-u* in Basque (e.g.: Sp. *piso* → Bq. *pisu* 'apartment' and examples in (3)). This is surprising because many native Basque words end in *-o* (e.g.: *beso* 'arm', *baso* 'forest', *ardo* 'wine', *itsaso* 'sea'):

(3) Sp. *-o* → Bq. *-u*

<u>Spanish</u>	<u>Basque</u>	
soldado	soldadu	'soldier'
consenso	kontsentsu	'consensus'
congreso	kongresu	'congress'
artículo	artikulu	'article'
insecto	insektu	'insect'
dato	datu	'data'

Whereas many Spanish words ending in *-o* undergo the adaptation illustrated in (3), many others do not, as the examples in (4) show:

(4) Sp. *-o* → Bq. *-o*

<u>Spanish</u>	<u>Basque</u>	
comunismo	komunismo	'communism'
instintivo	instintibo	'instinctive'
público	publiko	'public'

Again, the reason for the change Sp. *-o* → Bq. *-u* in those items undergoing it is to be found in the history of the two languages in contact. Whereas final *-u* was preserved in the first borrowings that Basque adopted from Latin (e.g. Lat. *libru* > Bq. *liburu* 'book', Lat. *cirru* > Bq. *kirru* 'cleaned flax', Lat. *cattu* > Bq. *katu* ~ *gat(h)u* 'cat', Lat. *taratru* > Bq. *Daratulu* 'borer', Lat. *gypsu* > Bq. *kisu* ~ *gisu* 'gypsum'), in Spanish, unstressed final *-u* became *-o* by a regular sound change (e.g.: Lat. *libru* > Sp. *libro*, Lat. *cirru* > Sp. *cerro* 'hill', Lat. *cattu* > Sp. *gato*, Lat. *taratru* > Sp. *taladro*, Lat. *gypsu* > Sp. *yeso*). This change in Spanish gave rise to a correspondence Sp. *-o* / Bq. *-u* in cognates. Old borrowings from Romance (as opposed to Latin) such as *leku* 'place' < Rom. *luco* (< Lat. *locu*) and *ispillu* 'mirror' < Rom. *espiġo* (< Lat. *speculu*) appear to already show this adaptation, by which *-u* replaces final *-o* in borrowings. This correspondence, which never had a phonological or morphological motivation, is still used in the adaptation of borrowings, even though, as indicated, there are also numerous counterexamples.

When we try to determine what conditions the application of the Sp. *-o* → Bq. *-u* adaptation in the modern language, what becomes apparent is that speakers use very specific analogical patterns. Examination of current usage in standard Basque shows that in most cases there is widespread agreement on one solution or the other, but there are also instances of fluctuation. Consistent patterns of adaptation are found when the word ends in a common suffix or pseudosuffix:

(5)

a. Sp. *-ismo* → Bq. *ismo*

<u>Spanish</u>	<u>Basque</u>	
cinismo	zinismo	'cinicism'
comunismo	komunismo	'communism'
optimismo	optimismo	'optimism'
turismo	turismo	'tourism'

b. Sp. *-ivo* → Bq. *-ibo* (in both languages, [-iβo])

competitivo	konpetitibo	'competitive'
activo	aktibo	'active'
positivo	positibo	'positive'
informativo	informatibo	'informative'

c. Sp. *-ico* → Bq. *-iko*

público	publiko	'public'
político	politiko	'politic'
democrático	demokratiko	'democratic'
económico	ekonomiko	'economic'

d. Sp. *-mento* → Bq. *-mentu* ~ *-mendu*

elemento	elementu	'element'
funcionamiento	funtzionamentu ~ funtzionamendu	'functioning'
cargamento	kargamentu ~ kargamendu	'loading'

e. Verbal participles. Sp. *-do* → Bq. *-tu*

funcionado	funtzionatu	'function, work'
clasificado	klasifikatu	'classify'
coordinado	koordinatu	'coordinate'
invertido	inbertitu	'invest'
dimitido	dimititu	'resign'
deducido	deduzitu	'deduce'

In examples like these, what we have is a correspondence between suffixes in the two languages. Basque has in fact borrowed a number of derivational suffixes from Latin and Romance. The reason for a change in the final vowel from *-o* to *-u* in recent borrowings from Spanish in the simplest cases is that the Spanish suffix is being replaced by a cognate suffix in Basque which has final *-u* because it was borrowed from Latin in this manner, as it is the case with *-mentu* ~ *-mendu*.

Of particular interest among the cases is the adaptation of verbs, illustrated in (5e). In borrowed verbs, the *-do* ending of regular Spanish participles is replaced by

-tu to give rise to the Basque perfective participle, which is the basic form of the verb in Basque:

The participial suffix *-tu* was borrowed from Latin with the first borrowings from this language and has become the only productive way to form perfective participles in Basque from other categories (nouns and adjectives): *gorri* 'red' → *gorritu* 'reddened'; *garbi* 'clean' → *garbitu* 'clean' (V); *luze* 'long' → *luzatu* 'lengthen'.

After final *-u* became *-o* in Spanish and intervocalic *-t-* voiced, new borrowed participles would be adapted replacing their ending by what had in fact become a Basque suffix. This pattern of adaptation continues up to the present.²

There is also a strong tendency to replace final *-o* with *-u* in Spanish in nouns ending in *-to* or *-do*, which formally resemble participles. In the adaptation of some of these nouns we even find devoicing: Sp. *-do* → Bq. *-tu* by formal analogy with the participles:

(6) Adaptation of Spanish nouns in *-do*, *-to*

	<u>Spanish</u>	<u>Basque</u>	
a.	proyecto	proiektu	'project'
	instituto	institutu	'institute'
	objeto	objetu	'object'
	concepto	kontzeptu	'concept'
	ganado	ganadu	'cattle'
	segundo	segundu	'second'
	kurdo	kurdu	'Kurdish'
	contrato	kontratu	'contract'
	texto	testu	'text'
	contacto	kontaktu	'contact'
b.	estado	estatu	'state'
	privado	privatu	'private'
	diputado	diputatu	'deputy'

In general, in the adaptation of Spanish loanwords ending in *-o*, Basque speakers will try to establish analogies taking the final syllables of the word into account. If there is some partial identity between the last or two last syllables of the word and some recognizable suffix, there is a strong tendency to treat the borrowing as corresponds to words bearing that suffix. Thus, as mentioned, Spanish nouns ending in *-do* or *-to* will normally take final *-u* in Basque by analogy with the participles. A principle of analogy can also be applied with respect to older borrowings. Thus, for instance, the modern adaptation Sp. *peso* → Bq. *pisu* may be based on an analogy with the older borrowing *pisu* 'weight', from Spanish *peso*.

If no obvious analogy is available, some more general principle will apply. This more general principle may be the preservation of final *-o*. Nevertheless, especially in the written language, final *-o* may be changed to *-u* even in the absence of a specific analogy in this direction by a sort of "hypercorrection"; that is, so the word will look more different from its Spanish source and, consequently, more Basque. In local dialects, different patterns of adaptation have been established with different endings and the tendency to replace Spanish *-o* by *-u* may be weaker or stronger.³ We will consider the very specific adaption pattern of Spanish nouns in *-ero* which is employed in some Bizkaian dialects below, as it also involves interesting facts of accentuation.

To summarize this section, a peculiar fact in the adaption of Spanish borrowings in Basque is the fact that in some cases final *-o* is replaced by *-u*, a change for which there is no phonological motivation. We may explain this phenomenon in the following fashion: Basque borrowed a great number of Latin words ending in *-u*. When final *-u* became *-o* in Romance, Basque/Romance bilingual speakers could make the generalization that when a Romance word ending in *-o* has a Basque cognate, this cognate would end in *-u*. A correspondence rule was thus established for the adaptation of new borrowings. As more and more borrowings were taken from Spanish, this adaptation rule weakened and became increasingly restricted. The adaptation preserved its strength when a correspondence between foreign and nativized morphemes or even 'endings' could be established. Nowadays, local varieties differ in favoring *-o* or *-u* in new borrowings and in the analogical patterns that are operative. Very specific analogical patterns of adaptation are also observable in the behavior of speakers of Standard Basque. In the current situation of near-universal bilingualism on the part of Basque speakers, the spontaneous adaptation of Spanish borrowings in Basque discourse is a common phenomenon. A Basque speaker who uses a word such as *produktibo* 'productive' or *kontzeptu* 'concept' will not necessarily know whether s/he is repeating a Basque word which s/he has learned or whether s/he has in fact adapted it spontaneously from his/her Spanish lexicon.

3. Accentuation of loanwords in Gernika (western Basque)

The accentual adaptation of Spanish loanwords in Basque dialects offers further examples of arbitrary, conventionalized patterns of adaptation. There is substantial diversity regarding accentuation within the Basque territory (see Hualde to appear a, for an overview), and dialects also differ in the strategies that are used in the accentual adaptation of loanwords. In this and the next sections we will consider some especially interesting adaptation phenomena, respectively, in the western (or Bizkaian) dialect of Gernika and the central (or Gipuzkoan) dialect of Beasain.

Some western Basque dialects (the coastal Bizkaian varieties) possess a pitch-accent system with a basic distinction between accented and unaccented words. Whereas accented words have a fixed accent on a given (non-final) syllable, unaccented words are only subject to a rule of phrase-final accentuation. The word *esku* 'hand' and all other items in (7a) are unaccented. In (7b), in contrast, the word *léku* 'place' is accented:

(7) Gernika Basque: accented and unaccented words

a.	lau eskú	'four hands'
	eskué	'the hand'
	eskue dá	'(it) is the hand'
	esku ederrá	'the beautiful hand'
b.	lau léku	'four places'
	lékue	'the place'
	lékue da	'(it) is the place'
	léku ederrá	'the beautiful place'

Whether Spanish loanwords are assigned to one or the other class depends on established patterns. Spanish oxytones are treated as unaccented words (word final prominence is interpreted as phrase-final) and proparoxytones as accented. In the case of paroxytones we have a more complex situation. In general, Spanish paroxytones will be adapted as accented or unaccented depending on their specific

ending. Perhaps the most striking case is that of the adaptation of Spanish words ending in *-ero*. These are adapted with the unaccented ending *-eru* if the meaning of the word is 'profession, occupation', but with the accented ending *-éro* if the meaning is 'place, receptacle'. Thus, for instance, Spanish *frutero* 'fruit seller; fruit bowl' gives rise to two Basque words in the dialect of Gernika (and similarly in other local dialects of the northern Bizkaian area): unaccented *fruteru* 'fruit-seller' and accented *frutéro* 'fruit bowl'. The examples in (8) are given in the absolutive singular, which is the citation form in Basque (*-a* suffix, but *-e* if the preceding vowel is high):

(8) Adaptation of Spanish words in Gernika Basque

a.	<u>Spanish</u>	<u>Gernika Bq.</u>	
	frutero	fruterue	'fruit seller' (unaccented)
	basurero	basurerue	'garbage collector'
	barbero	barberue	'barber'
	cartero	karterue	'mailman'
	panadero	panaderue	'baker'
b.	frutero	frutéroa	'fruit bowl'
	basurero	basuréroa	'garbage can'
	azucarero	asukaréroa	'sugar bowl'
	gallinero	gallinéroa	'chicken pen'

The reason for this peculiar bifurcation could be the following. Some Spanish 'occupation' words in *-ero* were borrowed first. These had their final vowel analogically changed to *-u* and were regularized by adapting them to the major accentual class. A productive pattern was created for the adaptation of this specific group of words. Later, when other words in *-ero*, but with a different meaning, were also borrowed, they were not recognized as members of the same group, because of the semantic difference, and were left basically unadapted, with preservation of final *-o* and of the position of the accent as in Spanish.

Both patterns of adaptation in (8) apply in a completely productive manner to new borrowings. On purely phonological grounds, a Spanish word such as *autobusero* 'bus driver' should be left unchanged, resulting in the Gernika Basque word **autobuséroa*, with the definite. However, given the patterns of adaptation that have been established, this is not an option. By analogy with words with the same ending and similar meaning, this word must be adapted as *autobuserue*, and this is what speakers will do rather unconsciously.

4. **Accentuation of loanwords in Beasain (central Basque)**

In many central Basque varieties words are usually accented on the second syllable (provided that the second syllable is not also the last one), but some exceptional words present initial accent instead. Among the exceptional words, many of them are borrowings where the position of the accent has been preserved, including some very old borrowings, such as those in (9b). We will concentrate on the variety spoken in Beasain, in southern Gipuzkoa:

(9) Beasain Basque: accentual patterns

Regular accentual pattern [+2]:

zakúrre 'the dog', zakúrrekin 'with the dog'

alárgune 'the widow', alárgunentzat 'for the widow'

Marked accentual pattern [+1]:

dénporea 'the time' (< Lat. témpora)

líburue 'the book' (< Lat. líbru)

Spanish loanwords accented beyond the second syllable from the beginning of the word undergo accent retraction to the second syllable (Basque examples are given in citation form, i.e. with the definite article *-a* or, after a high vowel, *-e*):⁴

(10) Beasain Basque: accentual regularization of borrowings

<u>Spanish</u>	<u>Beasain Bq.</u>	
maratón	marátoia	'marathon'
ascensór	azénsorea	'elevator'
tentación	tentázioa	'temptation'
manifestación	manífestazioa	'demonstration'
pintalábios	pintálabiosa	'lipstick'
calendário	kaléndarioa	'calendar'
albaricóque	albárikokea	'apricot'
telegráma	telégramea	'telegram'
lavadora	labádorea	'washing machine'
bicicléta	bizíkletea	'bicycle'
matadéro	matáderoa	'slaughterhouse'
automático	autómatikoa	'automatic'

This unremarkable adaptation is required to make these loanwords conform to the accentual pattern of the dialect. Words cannot be accented beyond the second syllable.

There are, however, more remarkable adaptations. In particular, Spanish four-syllable proparoxytonic words are systematically adapted with initial accent, even when in the original form they bear the accent on the second syllable and therefore would conform to the unmarked accentual pattern of Beasain Basque :

(11) Beasain: Adaptation of Spanish proparoxytones

<u>Spanish</u>	<u>Beasain Bq</u>	
micrófono	míkrofonoa	'microphone'
semáforo	sémaforoa	'traffic light'
teléfono	télefonoa	'telephone'
bolígrafo	bóligrafoa	'ballpen'
artículo	ártikulue	'article'
católico	kátolikoa	'Catholic'
telégrafo	télegrafoa	'telegraph'
kilómetro	kílometroa	'kilometer'
eléctrico	életrikoa	'electric'
simpático	sínpatikoa	'nice'
mecánico	mékanikoa	'mechanic'
península	péninsulea	'peninsula'
matrícula	mátrikulea	'license'

There is no phonological reason why the loans in (11) should undergo asccent shift. Unlike the adaptation in (10), this is a phonologically unmotivated adaptation, a conventionalized arbitrary rule of correspondence. The questions is: How could this adaptation rule have become established? A possible scenario would

be the following. Trisyllabic proparoxytonic loanwords, which among proparoxytones are especially common, would be adapted with their original accentual pattern, which is one of the two possible accentual patterns in Beasain Basque: *plátano* → *plátanoa* 'banana', *lámpara* → *lámparea* 'lamp', *zócalo* → *zócaloa* 'platform', *plástico* → *plástikoa* 'plastic'. Originally, the pattern from which these forms arose was "Spanish proparoxytones are adapted as marked words with initial accent"; or, in other words, "the position of the accent is maintained in Spanish words with initial accent".

By abduction or reanalysis (Andersen 1973) the resulting interlingual correspondences were reinterpreted by some speakers as providing evidence for an adaptation rule of the form "Spanish proparoxytones are adapted in Basque with initial accent". From this reanalysis adaptations like those in (11) started to appear.

The thing to be noted is that loanwords like those in (11) would be perfectly well-formed in this Basque dialect with their original accentual pattern left intact. The shift of the accent to the initial syllable is the product of an essentially arbitrary convention for the adaptation of borrowings.

4. Conclusion

As others have argued (Hyman 1970, Danesi 1985, and many others), research on the adaptation of borrowings can offer important insights on the psychological aspects of phonology. I believe that the facts reviewed in this paper provide evidence bearing on the nature of morphophonological alternations. There is a school of thought in phonology which sees morphophonological alternations as synchronically motivated processes which need to be explained by means of postulated universal and innate phonological mechanisms (in Optimality Theory innate constraints). In an alternative view (e.g., among others, Bybee 1994, Hualde to appear b), morphophonological alternations are seen as learned correspondences among lexical items which may appear to be phonetically motivated only to the extent that the context for the sound change that originated them has been preserved. Crucially, the learnability of such correspondences does not depend on their phonological naturalness.

In situations of prolonged language contact, conventional patterns of adaptation of loanwords are adopted by all members of the community. With time, these conventional adaptations may become completely arbitrary from a phonological point of view. The interlingual correspondences that have been considered in this paper constitute evidence for arbitrary correspondences among lexical items in the two languages of the bilingual speaker which are applied in a productive manner as adaptation rules. Any search for phonological naturalness would be misguided, since their source, in many cases, is to be found in complex evolutions and analogies. Given that bilingual speakers employ such arbitrary patterns of correspondence between their two lexicons, it seems plausible that the same procedure is also applicable within the lexicon of a single language. What I am suggesting is that even productive phonological rules should be properly viewed as learned patterns of alternation whose relative 'naturalness' is irrelevant for the speaker.

Notes

* For help of various types, I am grateful to Inma Muñoa, Jennifer Cole and Daniel Silverman.

¹ The scope of this paper is restricted to the Basque/Spanish contact situation. For the adaptation of borrowings in the the French Basque area, see Haase (1992).

² In Bizkaian or western Basque, unlike in the other dialects, whereas very old borrowed verbs have the suffix *-tu*, more recent borrowings (beginning already in the Middle Ages) preserve the Spanish ending with only a change from final *-o* to *-u*; e.g. *cumplido* > *kunplidu* 'fulfill' (in other dialects, *kunplitu*). More recently, as the *-d-* has been lost in the ending *-ado* in the regional variety of Spanish, this has also affected the shape of these borrowings in Bizkaian; e.g. *conta(d)o* > *kontau* 'count; tell' (in other dialects, *kontatu*).

³ A complicating factor is the existence in many dialects of a rule raising mid vowels to high before another vowel. This rule has a pervasive effect in inflection and partially obliterates the distinction between stems ending in *-o* and stems ending in *-u*. In these dialects, the contrast between, for instance, *beso/besoa* 'arm/the arm' and *buru/burua* 'head/the head' has been replaced by *beso/besua*, *buru/burua*, where the inflected forms present the same sequence *-ua*. This has created some instability in the assignation of specific nominals to the *o*-final or the *u*-final class in some of these varieties. But also in dialects without this process, the assignment of Spanish borrowings to the *o*-final class or the *u*-final class may follow different patterns. To give only one example, in some Bizkaian varieties studied in Irigoyen (1984), Spanish nationality adjectives in *-ano* are adapted with final *-u*, unlike in standard Basque and most other dialects; e.g.: *amerikanu* 'American', *italianu* 'Italian'.

⁴ For the Beasain data I am grateful to Fidel Altuna.

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