Historical convergence and divergence in Basque accentuation

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ABSTRACT

Within the Basque-speaking territory, pitch-accent phenomena are found in two areas: Northern Bizkaia and Western Navarre. These two systems differ from each other in important respects. Whereas Northern Bizkaian has a system of the Tokyo Japanese type, the Western Navarrese pitch-accent contrast is reminiscent of those of languages like Swedish. The two systems are separated by a large area without pitch contrasts, where only the position of the accent is contrastive. In this paper, building in part on earlier work, I put forward a specific hypothesis that accounts for the historical connections among these different accentual systems. Particular attention is given to the accentuation of plural forms, where, at first glance, opposite patterns (accentual protraction vs. retraction) appear to be found in neighboring areas. The development of accentual contrasts in ancient Basque is also related to certain segmental alternations in compounds through a hypothesized process of glottalization.

2. keywords
accentuation, pitch-accent, stress, diachronic prosody, cliticization, accentual change

3 Languages mentioned: Basque, Spanish, Japanese, Swedish
1. Introduction

Nowadays we find pitch-accent systems in two separate areas of the Basque territory: Northern Bizkaia (e.g. Gernika, Lekeitio, see map) and Western Navarre (Goizueta, Leitza). Although these two systems have certain elements in common, especially regarding the lexical distribution of accentual classes, they also have important differences. In particular, whereas Northern Bizkaian possesses a contrast between pitch-accented and unaccented words, like that of Tokyo Japanese, in Western Navarrese there is a strong dynamic stress and all lexical words are accented, so that the lexical pitch-accent contrast found in this area is superimposed on a stress-accent system, and is more reminiscent of that of languages like Swedish. Between the two areas with pitch-accent phenomena, we find several other accentual systems without tonal contrasts, where the only word-prosodic oppositions have to do with the position of the accent. In particular, in much of this area, the accent is generally postinitial, but there is a smaller class of words with initial accent, including many plurals. I will refer to this accentual system as the Central type.

To the east of the Western Navarrese area, there is noncontrastive, generally penultimate, accent, except in the easternmost region, Zuberoa (Soule), where contrastive accent has transparently arisen from certain contractions; e.g. alhába ‘daughter’ vs. alhabá (< *alhabá-a) ‘the daughter’.

The Western Navarrese accentual system remains understudied. The question that I wish to explore in this paper is that of its genetic relationship with the Northern Bizkaian pitch-accent system and also with other Basque accentual systems.

Western Navarrese has regular postinitial accent and also has a class of words with initial accent, like the neighboring Central type. In plural words, however, the pattern is quite different. Whereas, in the Central type, the accent is retracted to the initial syllable in plural words with short stems, in Western Navarrese there is either protraction of the accent to the suffix or two accented syllables in plural forms. In the accentuation of plurals, Western Navarrese differs, in fact, from all other varieties further west, since in all Bizkaian and Gipuzkoan varieties with a singular/plural accentual contrast, the accent is retracted in the plural with respect to the singular.

From a historical perspective, Western Navarrese thus presents us with some serious puzzles. One question is how the pitch-accent phenomena that these varieties display arose and whether there is any connection with the better known Northern Bizkaian pitch-accent system in this respect. Another question is how Western Navarrese ended up with the same basic patterns as the neighboring Central type in uninflected and singular forms, but with patterns that are in some sense opposite in the plural.

Here I will claim that the most conservative Basque accentual system is the Northern Bizkaian pitch-accent type. Other systems have developed from a system of this type by various routes. In particular, as I have argued elsewhere (Hualde 2003), the Central postinitial accent system has resulted from a reinterpretation of an earlier pitch-accent system of the Northern Bizkaian type in the last few centuries. I summarize the evidence now available for this historical change in section 2. Regarding Western Navarrese, I will maintain that this system also resulted from the same sort of

* For comments I am grateful to my anonymous reviewers and to members of the audience at the Santorini conference and at the Between Stress and Tone conference, where related materials were presented.
reinterpretation, but at a much earlier historical time, before the amalgamation of plural markers, which accounts for the special accentuation of plural forms in these varieties (section 3). In section 4, I compare the historical development of the accentual systems of Bizkaian/Gipuzkoan and Western Navarrese, accounting for the surprising correspondences that we find between neighboring dialects. Finally, in section 5, I argue that Michelena’s (1958a, 1972, 1997) “classical” hypothesis which postulates postinitial stress for Ancient Basque cannot be maintained.

2. Development of postinitial accent and marked plurals in the central/western area

In this section I will review some claims that I have defended in previous work regarding accentual development in the Bizkaian and Gipuzkoan area, presenting also some new evidence and interpretation. In particular I make the following claims:

1) Until relatively recent times, pitch accent systems with a contrast between lexically accented and unaccented words and morphemes, like those currently found in Northern Bizkaia, were in widespread use throughout these provinces.

2) Within this system, many lexical accents, including those of plural words, have their ultimate origin in a rule of pre-boundary accent in clitic groups and compounds (Hualde 1993). Here I argue that this pitch feature may have originally resulted from glottalization at certain morpheme junctures.

3) Regular postinitial accent, the most widespread accentual pattern in present day Gipuzkoan and Bizkaian, has arisen from a recent reinterpretation of phrase-initial boundary events as prominence-lending pitch excursions (Hualde 2003).

2.1. Larramendi’s description of 18th century Gipuzkoan accentuation

In much of Gipuzkoa and parts of Bizkaia the accent regularly falls on the second syllable from the beginning of the word: *gizónak* ‘the man erg’, *gizónakin* ‘with the man’. In many of these varieties, a small set of words has initial accent instead. In particular, initial accent is found in the plural of nominals containing mono- and bisyllabic stems (that is, in the plural of most nominals): *gízonak* ‘the men abs&erg’, *gízonakin* ‘with the men’, as well as in all forms of words with certain marked stems: *líburu* ‘book’, *líburuak* ‘the book erg’ or ‘the books abs&erg’, *líburuakin* ‘with the book(s)’.

Larramendi (1729), in the first published grammar of Basque, based on the Gipuzkoan dialect, describes a very different accentual system. As shown with examples in (1), Larramendi (1729: 350–354; 368–369) describes a system where most uninflected (1a) and singular (1b) words have final accent. Their plurals, on the other hand, have the accent on the last syllable of the stem, before the inflectional suffix(es) (1c). In many derived words the accent falls on a syllable of the stem, generally the penultimate syllable, in their uninflected (1d) and all inflected forms, without any accentual contrast between singular (1e) and plural (1f) (some morpheme boundaries added for clarity):

(1) Larramendi (1729)

b. Singular: guizon-á ‘the man’, guizonác ‘the man ERG’, guizonarí ‘to the man DAT’, guizonarén ‘the man’s’, eche-án ‘in the house’, echetic ‘from the house’
c. Plural: guizón-ac ‘the men ABS&ERG’, guizónai ‘to the men DAT’, guizónena ‘the one of the men’, eché-etan ‘in the houses’, echétatic ‘from the houses’
e. Singular derived nouns: beguira-tzále-ari ‘to the watcher DAT’, beguira-tzále-arequin ‘with the watcher’, erri-tárr-a ‘the countryman’, erri-tárr-ari ‘to the countryman DAT’
f. Plural derived nouns: beguira-tzále-ac ‘the watchers ABS&ERG’, veldúr-tí-ena ‘the one of the fearful ones’.

A system with these accentual patterns is not found anywhere in Gipuzkoa nowadays, a fact which has led some modern authors to question the veracity of Larrañendi’s description (or to consider it with some skepticism, see, e.g., Txillardegi 1984: 328–341). However, as noted by Michelena (1958a:210), it is extremely unlikely that Larrañendi’s detailed description is pure fantasy. In fact, Michelena points out that Larrañendi’s description is compatible with some brief comments on accentuation by the Gipuzkoan historian J. Martínez de Zaldibia, who died in 1575 (Michelena 1958a:211), and with the practice of some later writers, such as Lardizabal (1855), who consistently distinguishes, for instance, guizónac ‘the men ABS&ERG pl’ from guizonac ‘the man ERG sg’ (without an accent mark) (Michelena 1972:111, fn. 2). Furthermore, in Hualde (1991b) I showed that the pitch-accent system employed at present in an area of Northern Bizkaia, including Getxo, agrees with Larrañendi’s description in most respects regarding the position of accents (without coinciding exactly with it in every detail). It is thus reasonable to conclude that in Larrañendi’s work we have a reliable characterization of the accentual patterns that were most common at the time as well as some centuries before, in the Gipuzkoan and Bizkaian (or central and western) area. If a system with those features is nowadays geographically restricted to only the Northern Bizkaian area, it must be because elsewhere in these provinces the accentual system has undergone major transformations in the last two centuries.

In order to understand the origin of the special accentuation of plurals and other accentually-marked words in modern Gipuzkoan and Bizkaian varieties, it is thus sensible to consider the facts of Northern Bizkaian, a dialect which has preserved an accentual system which appears to have been general to the Gipuzkoan and Bizkaian area at least until the 18th century.

2.2. How the special accentuation of plural forms arose in the Bizkaian and Gipuzkoan areas

As just mentioned, in the Northern Bizkaian varieties belonging to what I have elsewhere called the Gernika-Getxo subtype, the position of the accent in different classes of words agrees remarkably well with Larrañendi’s description of 18th century Gipuzkoan. We must, however, make one important qualification: The words that Larrañendi gives as having final accent, are actually lexically unaccented in Northern Bizkaian and receive only phrase-final prominence. That is, the accentual pattern that Larrañendi provides for these words corresponds to their pronunciation in isolation. When not in phrase-final position (and even at the end of phrases functioning as
pragmatic topics, etc.), these words do not bear accentual prominence on any syllable. The recognition of a contrast between lexically accented and unaccented words is crucial for understanding the nature and evolution of this system.¹

In Northern Bizkaian varieties, the vast majority of morphologically simple words are unaccented (= word-final accent in Larramendi’s description), except that many borrowings, both new and old, are accented. Compounds and many types of derived words, on the other hand, are typically accented and generally bear an accent on the syllable preceding the morphological boundary (or, less commonly, on the first syllable of the second member of the compound).

(2) Compound accent in Northern Bizkaian (Gernika-Getxo subtype)

<table>
<thead>
<tr>
<th>Phrase</th>
<th>Compound</th>
</tr>
</thead>
<tbody>
<tr>
<td>sagu zarrá ‘old mouse’</td>
<td>vs. sagúzarra ‘bat’</td>
</tr>
<tr>
<td>buru andixé ‘big head’</td>
<td>vs. burúandixe ‘big-headed’</td>
</tr>
</tbody>
</table>

There is thus an obvious connection between morphological structure and accentuatedness. The historical nature of this connection is made even more transparent by the fact that enclitics also introduce an accent to their left (Hualde, Elordieta and Elordieta 1994: 59–61):

(3) Enclitic accent in Northern Bizkaian

<table>
<thead>
<tr>
<th>Phrase</th>
</tr>
</thead>
<tbody>
<tr>
<td>gizoná be(re) ‘the man too’</td>
</tr>
<tr>
<td>aitá barik ‘without father’</td>
</tr>
</tbody>
</table>

A parallel for this phenomenon is perhaps found in the enclitic accent of Classical Latin; e.g. uírum ‘of men’, but uirúm-que ‘and of men’ (Allen 1978). See also Blevins 2004:174–175 on boundary lengthening before enclitics. Nowadays the occurrence of accents has been grammaticalized and lexicalized to some extent, but it is easy to envision an earlier stage where there was only phrase-final accent, except for the “pre-boundary” accent introduced in compounds and clitic groups.²

I would like to propose that, in the Basque case, the original source of the pre-boundary accent was a glottal gesture introduced between the two members of the compound, separating the two vowels in hiatus in V#V and preventing resyllabification across morpheme-boundaries in C#V. Consider the following facts.

In a relatively large number of compounds and derived words, in final position of the first lexeme, high vowels are lost and nonhigh vowels are either neutralized in /a/ or, less commonly (especially in trisyllabic and longer lexemes), lost. These phenomena are common to all dialects of the language:

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¹ The contrast between accented (marked) and unaccented (unmarked) words was first established by Jacobsen (1972, 1975), building in part on the work of Azkue (1923, 1931-32), who distinguished between “ditonic” and “monotonic” words.

² A second important source of accented words has been provided by borrowings from Latin and Romance that have preserved the accentual pattern they had in the source language.
(4) Vowel reduction and deletion in compounds

<table>
<thead>
<tr>
<th>Compound</th>
<th>New Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>iturri 'spring' + bide 'road'</td>
<td>iturbide 'road to the spring'</td>
</tr>
<tr>
<td>abere 'cattle' + gorri 'red'</td>
<td>abelgorri 'free-roaming cattle'</td>
</tr>
<tr>
<td>baso 'forest' + urde 'pig'</td>
<td>basurde 'wild boar'</td>
</tr>
<tr>
<td>baso 'forest' + katu 'cat'</td>
<td>basakatu 'wild cat'</td>
</tr>
<tr>
<td>oilo 'chicken' + ar 'male'</td>
<td>oilar 'rooster'</td>
</tr>
<tr>
<td>etxe 'house' + jaun 'lord'</td>
<td>etxajaun 'lord of the house'</td>
</tr>
</tbody>
</table>

These facts have been interpreted before as evidence that at some stage, common to all Basque dialects, there was dynamic stress, probably on the initial syllable of the second member of the compound, causing the fall or reduction of the unstressed last syllable of the first member (Michelena 1988[1958]: 235–236, 1985: 416–418, see also Martínez Areta, to appear a, b). This hypothesis is, however, hardly compatible with the pitch-accent of Northern Bizkaian. Furthermore, it is important to notice that in some cases the reduction in compounds goes beyond the deletion of the final vowel of the first lexeme, affecting also the preceding consonant. In particular, voiced plosives preceding a deleted vowel are systematically devoiced and neutralized, generally in /t/ (Azkue 1923, Villasante 1976, Hualde 1991:83):

(5) Consonantal changes in compounds

<table>
<thead>
<tr>
<th>Compound</th>
<th>New Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>begi 'eye' + azal 'skin'</td>
<td>betazal 'eyelid'</td>
</tr>
<tr>
<td>begi 'eye' + buru 'head'</td>
<td>bepuru (via *bet-buru) 'brow'</td>
</tr>
<tr>
<td>idi 'ox' + aurre 'front'</td>
<td>itaurre 'leading oxen'</td>
</tr>
<tr>
<td>ardi 'sheep' + ile 'hair'</td>
<td>artile 'wool'</td>
</tr>
<tr>
<td>ardi 'sheep' + alde 'group'</td>
<td>artalde 'herd of sheep'</td>
</tr>
<tr>
<td>ardi 'sheep' + gazte 'young'</td>
<td>arkazte (via *art-gazte) 'young sheep'</td>
</tr>
<tr>
<td>errege 'king' + bide 'road'</td>
<td>errepide (via *erret-bide) 'king’s road'</td>
</tr>
</tbody>
</table>

I would like to suggest that the historical presence of glottal constriction at the morpheme boundary is responsible for these changes. Vowels followed by glottalization would acquire nonmodal voicing, ultimately tending to be devoiced and lost. If lost, the glottalization affected the preceding consonant, devoicing it: *ardi'ale > *ard'alde > artalde. The greater acoustic resemblance of a glottal stop with /t/ may also explain the change from /g/ to /t/ as in *begi'azal > *beg'azal > betazal.

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3 In *V#C sequences (e.g. begi ‘eye’ + gaitz ‘bad’ > *bet’gaitz > bekaitz ‘envy’) the glottal gesture may have been originally present, or we may have a later, analogical, extension of the compositional form bet- from the *V#V context, where glottalization could be seen as serving the function of separating the two vowels in hiatus across a morpheme boundary. In favor of the former view, it appears to me that the glottal hypothesis also contributes to explain the seemingly anomalous devoicing of initial voiced stops in the second member of some compounds where the preceding vowel has not been deleted (e.g. mendi ‘mountain’ + behe ‘under’ > mendipe ‘foot of mountain’, uste ‘opinion’ + gabe ‘without’ > ustekabe ‘unawares’) and the occasional presence of spontaneous prenasalization in the same context (e.g. leku ‘place’ + berri ‘new’ > Lekunberri). In Basque (as in Spanish), intervocalic voiced “stops” are systematically realized as continuant in intervocalic position. A preceding glottal stop would have prevented spirantization in *mendi'be, *leku'berri, leading to phonological restructuring.

In north-eastern dialects (spoken in France) with phonemic aspiration, a nonetymological aspiration is often found on the initial onset of the second member of compounds with monosyllabic first members, as Michelena (1985: 417-418), points out: gau ‘night’ + erdi ‘half’ > gauherdi ‘midnight’; on ‘good’ + etsi
Glottal constriction is a well-known potential source of phonological tone (see Kingston 2003). In, at least, the western and central area (and perhaps in the entire Basque territory), I submit, this postulated glottal constriction at the morphological boundary of compounds and similar constructions produced a phonologized lowering of F0, giving rise to a HL contour associated with the last syllable of the first lexeme (or, some times, with the first syllable of the second lexeme).

Given the general distribution of lexical accents, in Hualde (1993) I advanced the hypothesis that the accent of plural forms can be explained as another instance of pre-boundary accent (although I did not consider the presence of glottalization as an explanatory factor). Under this hypothesis, the marked accentuation of plurals has the same origin as the rule that assigns accents to compounds and clitic groups.

For this explanation to work we must assume that, at the relevant historical point, stem+pl sequences had the same morphological structure as compounds or clitic groups, but stem+sg sequences did not:

(6) Pre-boundary accent:

\begin{align*}
\text{burú#andi} & \quad \text{‘big-headed’} & \quad \text{(compound)} \\
\text{laguná#be(re)} & \quad \text{‘the friend too’} & \quad \text{(clitic group)} \\
\text{lagün#ak} & \quad \text{‘the friends’} & \quad \text{(plural)} \\
\text{Not in sg.} & \\
\text{lagun-ak} & \quad \text{‘the friend ERG sg’} & \quad \text{(phrase-final accent)}
\end{align*}

Singular and plural morphemes have the same morphological suffix status in modern Basque and both derive from earlier free demonstratives (Michelena 1981, 1977:218, Irigoyen 1985, Azkarate and Altuna 2001). Nevertheless, Michelena (1981) has shown that there is evidence, from the treatment of vowel sequences, that singular morphemes became fused with the word to their left earlier than plural demonstratives did. The hypothesis in Hualde (1993) is thus that singular demonstratives were already suffixes at a stage when plural endings still had the status of clitics and, consequently, were subject to the pre-boundary accent rule operating in clitic groups and compounds.

Or, in terms of the hypothesis developed here, plurals presented the context for the introduction of the glottal gesture that eventually gave rise to a pitch-accent in Bizkaian and Gipuzkoan.

\footnotesize{\begin{itemize}
\item \text{‘consider’} > \text{onhetsi} ‘accept’; \text{jan} ‘eat’ + \text{-ari} > \text{janhari} ‘food’, \text{haur} ‘child’ + \text{-ide} ‘relative’ > \text{aurhide} ‘sibling’, blocking resyllabification. We interpret these facts as showing that, in the relevant dialects, the original glottal boundary gesture eventually merged with /h/ from other sources.
\end{itemize}}

\footnotesize{\begin{itemize}
\item There is some interdialectal variation in the position of the accents in compounds. Accent on the last syllable of the first member appears to be more common, but in some varieties the accent is placed on the initial syllable of the second member. There are also varieties where both patterns are attested (see, e.g., Gaminde 1999). In words bearing accented suffixes, the accent usually occurs on the syllable preceding the suffix; that is, accentually marked suffixes tend to be preaccenting. But notice in (1d–f) that for Larramendi some derivational suffixes bear the accent. In present-day Northern Bizkaian as well, the suffix \text{-garren} ‘ordinal’ may be preaccenting or accented depending on the dialect, e.g. \text{zazpigarren} or \text{zazpigárren} ‘seventh’.
\end{itemize}}
2.3. From phrase-final to postinitial accent

The accentual facts described in the previous section correspond to the Gernika-Getxo subtype of Northern Bizkaian and substantially also to Larramendi’s description. Although this system has undergone a number of changes in other Bizkaian and Gipuzkoan dialects, in all of them, to the extent that they have a sg/pl contrast, the accent is always retracted in the plural with respect to the singular:

(7) sg/pl contrast in Bizkaian and Gipuzkoan varieties

<table>
<thead>
<tr>
<th>Variety</th>
<th>Singular Form</th>
<th>Plural Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gernika (NB)</td>
<td>gixonák/gixónak</td>
<td>gixonantzakó/gixonéntzako</td>
</tr>
<tr>
<td>Lekeitio (NB)</td>
<td>gixonák/gixónak</td>
<td>gixonentzakó/gixonentzáko</td>
</tr>
<tr>
<td>Markina (NB)</td>
<td>gizónak/gízonak</td>
<td>gizonantzáko/gizonentzáko</td>
</tr>
<tr>
<td>Antzuola (WG)</td>
<td>gizónak/gízonak</td>
<td>gizonandáko/gízonendako</td>
</tr>
<tr>
<td>Beasain (Central)</td>
<td>gizónak/gízonak</td>
<td>gizonantzat/gizonantzt</td>
</tr>
</tbody>
</table>

In (7), Gernika, Lekeitio and Markina are Northern Bizkaian varieties with an accented/unaccented contrast. The accent indicated in singular forms is phrasal (phrase-final in Gernika and Lekeitio, and phrase-penultimate in Markina). The various historical shifts that account for the different rules of accent assignment in these varieties are discussed in Hualde (1993) for Lekeitio and Hualde (2000) for Markina (see also Hualde 1998 for Azkoitia).

To understand the diachronic evolution of the Central system, exemplified by Beasain in (7), it is crucial to pay close attention to the tonal structure of Northern Bizkaian, which, as mentioned, we take to continue the original state of affairs (see also Hualde, Elordieta, Gaminde and Smiljanić 2002). Typically what we find when we observe the pitch contour of words and phrases in isolation or in a prominent position within the sentence is a pitch rise from the first to the second syllable of the phrase, the pitch remaining high up to the accented syllable, from which point there is a drastic fall. The accented syllable may or may not have a higher pitch than preceding syllables, what matters is that there is an immediate fall. This is illustrated in Fig. 2.

In Hualde (2003) it is argued that the Central system with a postinitial/initial accentual contrast has resulted from a progressive retraction of accentual peaks and a reinterpretation of syllables bearing non-accentual phrase-initial rises (usually the second syllable) as accented, starting from a system of the Northern Bizkaian type. That is, there was a reinterpretation of the locus of prominence from the syllable with a pitch fall to the syllable aligned with a (phrase-)initial rise:
(8) Shift of accent from tonal fall to tonal rise

a.

\[ \begin{array}{c}
\text{O O O O} \\
\text{> O O O O}
\end{array} \]

b.

<table>
<thead>
<tr>
<th>Northern Bizkaian Bq.</th>
<th>Central Basque</th>
</tr>
</thead>
<tbody>
<tr>
<td>/Ø\ O O O</td>
<td>Ó O O O (no change)</td>
</tr>
<tr>
<td>/Ø\ O O O</td>
<td>Ó O O O (no change)</td>
</tr>
<tr>
<td>/O O O O</td>
<td>Ó O O O</td>
</tr>
<tr>
<td>/O O Ø O</td>
<td>Ó O O O</td>
</tr>
</tbody>
</table>

The special initial accentuation of plurals with short stems in Central varieties follows automatically from the location of accents in the pitch-accent system of the transitional Markina area, where a number of accents have been shifted to the left.\(^5\)

(9) sg/pl contrast in words with ‘short’ and ‘long’ stems

<table>
<thead>
<tr>
<th>Gernika</th>
<th>Markina</th>
<th>Central</th>
</tr>
</thead>
<tbody>
<tr>
<td>gi/xon\a</td>
<td>gi/zô\na</td>
<td>gizôna</td>
</tr>
<tr>
<td>gi/xô\nak</td>
<td>/gi/\zonak</td>
<td>gizonak</td>
</tr>
<tr>
<td>pe/lotarix\a</td>
<td>pe/lotarix\e</td>
<td>pelotariya</td>
</tr>
<tr>
<td>pe/lotari\x\ek</td>
<td>pe/lot\d riv\xek</td>
<td>pelotariyak</td>
</tr>
</tbody>
</table>

We find marked initial accentuation in the Central system where in the transitional Northern Bizkaian systems there is a rise on the initial syllable, and postinitial accent everywhere else.

The reinterpretation in (8) most likely took place under the influence of Spanish, since in this language there is a quite strong correlation between pitch rises from a valley and syllables with lexical stress. Some experimental evidence for this hypothesis was gathered in Elordieta and Hualde (2003a). In this study, participants (classified as 10 native speakers of a Northern Bizkaian variety, 15 native speakers of other Basque varieties and 16 second language speakers of Basque with native language Spanish) were asked to indicate the syllable where they perceived primary accentual prominence in a list of words recorded by a native speaker of Northern Bizkaian and presented in random order. The results show that the native Spanish speakers were very accurate in correctly perceiving the position of the accent in words with intended initial and postinitial accent (87% and 91% correct responses, respectively). Their accuracy, however, decreased

\(^5\) A difference is, however, found in forms with longer inflectional endings than the absolutive and ergative. Whereas in Markina the accent has been regularized on the antepenultimate syllable of the word (Hualde 2000), in other varieties the position of the accent has become fixed on the syllable that bears it in the absolutive and ergative, in a columnar fashion. A system with columnar regularization (i.e. with accent on the same syllable in all forms of the plural inflectional paradigm of a word) is the direct antecedent of the Central type.
dramatically in judging words with lexical accent beyond the second (such as *txistularídxentzako* ‘for the flutists’, *Gernikétxik* ‘from Gernika’, *alargúneri* ‘to the widows’, *itturrikóak* ‘the ones of the fountain’), where they “incorrectly” perceived postinitial accent, instead, 77.5% of the time, as well as in judging lexically unaccented words bearing phrase-final accent (such as *alargunerí* ‘to the widow’, *alabiená* ‘the one of the daughter’, *txistularidxé* ‘the flutist’, *gixonarí* ‘to the man’, *txistularidxentzakó* ‘for the flutist’), for which perceived postinitial accent reached 65% (vs. only 6% for Northern Bizkaian speakers, who correctly identified the final syllable as accented in 82% of their responses). These experimental results show that native speakers of Spanish who are learning Basque as a second language do tend to hear accentual prominence on the syllable that contains a pitch-rise from an F0 valley (normally the second). This lends support to the hypothesis that influence from Spanish in a situation of generalized bilingualism may have been a triggering factor in the emergence of postinitial accent in Bizkaian and Gipuzkoan varieties.

There is thus quite strong evidence that postinitial accent in Gipuzkoa/Bizkaia has resulted from the reinterpretation of an older pitch-accent system with an accented/unaccented contrast. This change has been relatively recent (post Larramendi) and is still going on in the Bizkaian and Gipuzkoan area (see Hualde, Mugarza and Zuazo 2003 for the Bizkaian variety of Mallabia, Irurtzun 2003, 2004, for the Gipuzkoan variety of Errenteria). The special accentuation of plural forms predates the emergence of postinitial accent in this area. Plurals and other words with marked initial accent in the modern Central system are historically lexically accented (as opposed to unaccented) words.

3. Western Navarrese

In Western Navarrese, the unmarked pattern is postinitial accent, like we find nowadays in most Gipuzkoan and some Bizkaian varieties. Also like in these dialects, there is a smaller class of uninflected and singular words with initial accent. In plural nominals, however, we find a radically different pattern, an issue to which we will return.

The available evidence leads us to the conclusion that in the Bidasoa valley and adjacent areas of Western Navarre, postinitial accent is a much older phenomenon than in Gipuzkoan. Again, Larramendi’s ([1969]: 301) testimony indicates that in his time postinitial accent was a feature that set apart some Basque varieties on the Gipuzkoan/Navarrese border (the Bidasoa Valley) from those further west.

There are other facts supporting the conclusion that Western Navarrese has had a different evolution than the Central varieties, in spite of sharing with them the same basic rule of postinitial word-accent assignment. As Michelen (1972) points out, the physical realization of word-accent in this dialectal area differs greatly from what we find in Bizkaian and Gipuzkoan varieties: “[t]his Bidasoan stress system clearly distinguishes itself from the neighboring ones by several remarkable epiphenomena: great difference of intensity between accented and unaccented syllables, lengthening of stressed vowels, frequent loss of posttonic syllables, etc.” (Michelen 1972: 115).

Unique features of the Western Navarrese variety are the presence of greatly reduced vowels in unstressed syllables and their complete deletion, giving rise to consonant clusters that are completely unattested elsewhere in Basque (including
geminate clusters), as in the examples in (10) from the variety of Arantza, where syncope is particularly pervasive (Hualde 1997:114–118):

(10) Post-stress vowel deletion (Arantza, W. Navarrese)

elízatik > elíztik ‘from the church’
tomátekoa > tomátkua ‘the one of the tomato’
polítena > polítna ‘the prettiest one’
ánketan > ánktan ‘in the legs’
atétatik > atétik ‘from the doors’ (vs. atétik ‘from the door’)

In the example in Fig. 3 (from Hualde 1997), eskóptkua ‘the one of the rifle’, we have a sequence of three stops as a consequence of a double application of post-stress vowel deletion. In this example the Spanish word escopéta ‘rifle’ was adapted with postinitial stress, according to the general rules of accentuation of the dialect; then, the post-stress vowel was deleted: eskópeta > eskópta. Inflectional suffixation causes a second application of post-stress vowel deletion: eskópta-ko-a > eskóptkua.

3.1 The singular/plural accentual contrast in Western Navarrese

What crucially sets Western Navarrese apart from other dialects is the prosody of plural forms. Whereas, as mentioned, in Central varieties with postinitial accent the accent is retracted to the initial syllable in plural forms, in Western Navarrese it has been claimed that the syllable containing the suffix receives prominence. This is shown in (11). The examples are from Olano (2000: 135) and correspond to the variety of Areso, a small village about 4 km to the west of Leitza:
(11) Western Navarrese of Leitza/Areso (Olano 2000)

- gizónak in du ‘the man did it’
- gizonak in due ‘the men did it’
- gizónai gertatu zaio ‘it happened to the man’
- gizonái eman die ‘they gave it to the men’

- gizónakin ‘with the man’
- gizonakin ‘with the men’

Again, the Central rule is accent retraction in the plural, as in (12). The pattern in (12) is found only a few kilometers from Leitza, for instance in Hernani, just across the provincial border between Navarre and Gipuzkoa (see Gaminde 1998a: 130–131). In neighboring varieties we find, thus, the same rule in the unmarked case, postinitial accent, but “opposite” rules in the plural, protraction vs. retraction of the accent. These surprising facts of accentual dialectology have been noticed before (Hualde 1997: 141, Zuazo 1997, Olano 2000) but no explanation has ever been provided.

(12) Central accentual system (widespread in Gipuzkoa)

- gizónak egin du ‘the man did it’
- gizonak egin dute ‘the men did it’
- gizónai gertatu zaio ‘it happened to the man’
- gizonái eman die ‘they gave it to the men’

- gizónakin ‘with the man’
- gizonakin ‘with the men’

In the Western Navarrese variety of Goizuela, which has been described by Zubiri and Perurena (1998), Zubiri (2000), most uninflected words also have post-initial stress, like até ‘door’, itxé ‘house’, alába ‘daughter’ arráselde ‘evening’, although a small number have initial stress, like áma ‘mother’, séme ‘son’, árima ‘soul’. Regarding the singular/plural distinction, for Goizuela, Zubiri (2000) states that in both singular and plural forms there are two stressed syllables: there is stress on the stem (on the same syllable as in the uninflected form: the postinitial or the initial) and another stress is placed on the final syllable of the word. According to Zubiri, the difference between the singular and plural patterns would be that, whereas in the plural the stress of the final syllable has as much prominence as that of the stem, in the singular the final syllable has secondary stress.6 This rather subtle contrast in relative prominence would be enhanced by durational means in a somewhat complex way; e.g., gizónakin ‘with the man’ (where

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6 Similar descriptions have been provided in Ibarra (1995) and Gaminde (1998b) for other Western Navarrese towns (Goldaratz, Beruete and other villages in the Basaburua and Imotz valleys). Thus, according to Ibarra (1995:358-359), in the singular the primary accent is on the first or second syllable of the word and there is a secondary accent on the final syllable; in the plural, instead, the primary accent is on the suffix. Ibarra presents acoustic evidence in the form of F0 measurements and narrow-band spectrograms. See also Hualde 1999.
the grave accent indicates secondary stress) vs. gizóngakín ‘with the men’. In bisyllabic inflected words of stems with postinitial stress, there would be only a durational contrast between singular and plural, as in besó:k ‘the arm ERG sg’ vs. besók ‘the arms ABS&ERG pl’.

In spite of its apparent complexity, Zubiri’s description appears to be fundamentally correct, with two precisions: Firstly, the patterns that Zubiri describes are those of words in isolation, and include phrasal phenomena together with word-level ones. Secondly, what Zubiri describes as a complex contrast of (perceived) duration is fundamentally a contrast between different tonal contours in singular and plural forms.

Fig. 4 shows an F0 contour for a singular/plural minimal pair /mendiri/ ‘to the mountain, DAT’ vs. ‘to the mountains, DAT’. In both words there are two tonal excursions, on the second and on the third syllables. There is, however, a difference in the prominence of the two tonal contours between the two examples. In the singular example, the second peak is downstepped; in the plural, on the other hand, the tonal contour on the final syllable shows a wider excursion. All of this agrees with Zubiri’s description, given above, in what respects the presence of two accents in both singular and plural and the existence of a difference in relative prominence.

If we now consider the realization of the contrast when the word is not in final position, what we find is that the secondary prominence on the final syllable of the singular disappears, as in Fig. 5; whereas in plural words the final syllable has primary prominence, as in Fig. 6. That is, we must conclude that the final (secondary) prominence in singular words in isolation is a phrasal phenomenon. In the plural, on the other hand, it is word-level prominence.

These facts agree with an observation by N. Ormaechea:7 “in the part of Navarre whose Basque I know best… they delete the final accent in singular agents; in the plural, on the other hand, they preserve it: or, in other words, in the former the final syllable has grave accent; in the latter, acute accent: Gizonak egin du [‘the man did it’]. Gizonák egin

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7 Ormaechea’s work has been essentially ignored by later authors. This is likely due in part to the fact that his description is often very difficult to interpret, as he uses analogies from Gregorian chant. But, indubitably, another reason is that the facts that he described (based on Western Navarrese) were clearly at variance with the linguistic intuitions of other researchers on Basque accentuation, who spoke varieties from the Gipuzkoan/Bizkaian area. For a long time, research on Basque accentuation was mired in controversies among writers who seemingly failed to realize that the descriptions they offered were mutually incompatible, not because they had different interpretations of a common set of facts, but because the local varieties on which they were basing their analyses had very different accentual systems (compare Ormaechea 1958 and Michelen 1958b).
We should note that Ormaechea uses the grave accent to indicate low tone, not secondary stress. That is, what Ormaechea is telling us is that the last syllable of ergative singular *gizonak* has a low tone, whereas the segmentally identical plural bears a high tone on its last syllable.

The analysis of F0 contours shows that in the singular there is consistently a clear drop in pitch after the lexically stressed syllable of the stem, whereas in the plural this tonal fall is much shallower, because of the presence of a tonal peak on the last syllable of the word. A possible analysis of these facts would be to postulate that the accent of the stem is circumflex (H*L) in the singular and acute (H*) in the plural, which has another accent on the suffix. This is shown in (13) for the examples in Figs. 7 and 8.

(13) Goizueta: sg/pl contrast

<table>
<thead>
<tr>
<th>a lá bak   (sg)</th>
<th>vs.</th>
<th>a lá bák   (pl)</th>
</tr>
</thead>
<tbody>
<tr>
<td>H* L</td>
<td></td>
<td>H* H*</td>
</tr>
</tbody>
</table>

The same contrast obtains with stems belonging to the marked class with initial stress, as illustrated in Fig. 9:

(14) Goizueta: sg/pl contrast, words with initial stress, /áma/ sg vs. pl (Fig. 9)

<table>
<thead>
<tr>
<th>â mak (ERGsg)</th>
<th>vs.</th>
<th>á mák (ABS&amp;ERGpl)</th>
</tr>
</thead>
<tbody>
<tr>
<td>H*L</td>
<td></td>
<td>H* H*</td>
</tr>
</tbody>
</table>

This is different from the situation in dialects of the Central type, where the singular/plural contrast is always neutralized in the case of stems with initial accent. More generally, in all Bizkaian and Gipuzkoan varieties with a singular/plural accentual contrast, this contrast is neutralized for words of the marked class (lexically accented stems in Northern Bizkaian). This clearly shows that in Western Navarrese we are dealing with a different development.

The analysis given in (13) and (14) is confirmed when we observe the corresponding pitch contours of bisyllabic forms with unmarked postinitial stress, as in Fig. 10 and Fig. 11. Recall that, for Zubiri, the singular/plural contrast would in this case be expressed solely by a difference in vowel duration, since there are only two syllables and there is stress on the second syllable in both cases. What we can see in Fig. 10 is that in the singular form *mendik* ‘the mountain ERGsg’ there is a syllable internal fall after the

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8 “En la parte de Navarra cuyo vascuence me es más familiar [...] suprimen el acento final en los agentes singulares; en el plural por el contrario le conservan: ó para expresarme de otro modo, en el primer caso la sílaba final lleva acento grave; en el segundo le lleva agudo. *Gizonàk egin du. Gizonàk egin dute.*”
accentual peak which does no occur in Fig. 11 in plural mendik ‘the mountains ERGpl’ (in both cases the contour is more complex because the word has been produced as a topic with a continuation boundary).

(15) Goizueta: sg/pl contrast in bisyllabic inflected forms with regular postinitial accent mendik ‘the mountain ERG sg’ < *mendí-ak (Fig. 10) vs.
    H*L

mendik ‘the mountains, ERG pl’ < *mendí-ák (Fig. 11)
    H*

On the other hand, if there are several syllables between the end of the stem and the end of the word, the accent associated with plural inflection aligns with the last syllable of the word, compare Fig. 12 (alâbana ‘the one of the daughter) and Fig. 13 (alâbaná ‘the one of the daughters’).

Let us summarize our observations regarding the accentuation of inflected forms in Goizueta. In singular forms, the stressed syllable in the stem (postinitial or initial in a lexically specified manner) is associated with a prominent HL (circumflex) contour. If the word is phrase-final (in citation form), there will be a second, less prominent, peak on the final syllable of the word. In plural forms, on the other hand, the most prominent accent is on the last syllable of the word. The lexically stressed syllable in the stem is usually also associated with a less prominent peak (which does not trigger downstep of the suffixal peak). If the same syllable is the locus of lexical and inflectional accent (in words with unmarked postinitial accent with historical contraction of a heteromorphemic vowel sequence: mendí-ak > mendik), the singular has a syllable-internal dip (a L tone) which is absent in the plural. All these patterns are consistent with a lexical contrast between H*L in the singular and H* H* in the plural. In general, this can be expressed as a simpler contrast between words with one accent and words with two accents (plurals), but the existence of a singular/plural prosodic contrast in bisyllabic forms with postinitial stress like mendik seems to require lexical specification of some tones.

(16) Goizueta: summary of analysis of sg/pl contrast

<table>
<thead>
<tr>
<th>sg:</th>
<th>âmak</th>
<th>alâbak</th>
<th>alâbantzat</th>
<th>mendiri</th>
<th>mendik</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>H*L</td>
<td>H*L</td>
<td>H*L</td>
<td>H*L</td>
<td>H*L</td>
</tr>
</tbody>
</table>

glosses: ‘the mother ERG’, ‘the daughter ERG’, ‘for the daughter’, ‘to the mountain DAT’, ‘the mountain erg’
The neighboring Western Navarrese variety of Leitza differs from Goizueta in some respects. As mentioned above in (11), Olano (2000) indicates a single accent in plural forms, on the first syllable after the stem:

(17) Goizueta vs. Leitza: plural accentuation

<table>
<thead>
<tr>
<th></th>
<th>Goizueta</th>
<th>Leitza</th>
</tr>
</thead>
<tbody>
<tr>
<td>'the men'</td>
<td>gizónák</td>
<td>gizonákin</td>
</tr>
<tr>
<td>'with the men'</td>
<td>gizónakín</td>
<td>gizonák</td>
</tr>
</tbody>
</table>

My own observations for Leitza (including some analysis of F0 contours) tend to confirm Olano’s description. It is likely that Goizueta has innovated the shift of the accent to the final syllable of the word in plural forms with polysyllabic suffixes. In having two stressed syllables (in the stem and in the suffix) in plural forms, on the other hand, Goizueta appears to be more conservative. Given Ormaechea’s (1918, 1958) comments regarding the musical character of the accent in the Leitza area (including comparison with Ancient Greek), it appears that the simplification of plural contours with preservation of only the most prominent of the two adjacent accents is a very recent development in Leitza. That is, for these two Western Navarrese varieties we may reconstruct plural forms such as *gizón-ák ‘the men’, *gizón-ákin ‘with the men’ for the very recent past.

We now have gathered all the evidence needed to solve the puzzle of the historical relation between the singular/plural accentual contrast in Western Navarrese and in Gipuzkoan and Bizkaian varieties.

4. A puzzle solved

A surprising fact of Basque accentual dialectology is that, in Western Navarrese varieties with a singular/plural accentual contrast, the accent appears to shift towards the end of the word in the plural, instead of being retracted to the initial as in neighboring Gipuzkoan varieties, with which they share the same basic pattern of postinitial accent in the unmarked case. The historical puzzle is thus that neighboring varieties with the same accentual rules in other cases have apparently developed opposite accentual shifts in the plural.

To solve the puzzle we must realize that the facts that should be compared are different. To begin with, the postinitial/initial contrast in Gipuzkoan varieties is a recent development from an older contrast between unaccented and accented words still preserved in Northern Bizkaian (0 accents vs. 1 accent). Secondly, whereas in the Western Navarrese variety of Leitza the accent appears to shift to the ending in plural forms, in neighboring Goizueta plural forms actually have two accents, and this seems to

9 In Basaburua and Imotz the accent of such plural forms also falls on the first syllable of the inflectional suffix (Ibarra 1995: 380-384).
10 In Arantza, on the other hand, there is no singular/plural contrast in accentuation.
represent a more conservative stage within Western Navarrese (1 accent vs. 2 accents). At first glance we have accent retraction in the plural in Bizkaian and Gipuzkoan and accent protraction in the plural in Western Navarrese. If we compare the most conservative systems in both areas, what we see, instead, is a common phenomenon: plural forms have one extra accent when compared to uninflected and singular words in the unmarked class.

(18) Plural accentuation: Bizkaian/Gipuzkoan vs. Western Navarrese
a. Apparent contrast:
   Bizkaian/Gipuzkoan: accent retracted in pl
   W. Navarrese: accent protracted in pl

b. True historical contrast: Number of accents per word

<table>
<thead>
<tr>
<th></th>
<th>Bizkaian/Gipuzkoan</th>
<th>W. Navarrese</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unmarked sg</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Pl</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

Once we notice this underlying similarity, the historical connection is clear. As mentioned above, arguably in the Bizkaian/Gipuzkoan area plural words are lexically accented because historically they had a different morphological structure from singular forms and were assigned an accent by the same rule that assigns accents to compounds and clitic groups. For Western Navarrese as well, we may assume exactly the same historical distinction between singular and plural morphemes. The different results in the two areas would be due to the fact that Western Navarrese already had word-accent in all content words at the stage when plural markers became bound morphemes:

(19)

<table>
<thead>
<tr>
<th></th>
<th>Bizkaian/Gipuzkoan</th>
<th>W. Navarrese</th>
</tr>
</thead>
<tbody>
<tr>
<td>sg:</td>
<td>lagun-a</td>
<td>lagún-a</td>
</tr>
<tr>
<td>pl:</td>
<td>lagún#ak</td>
<td>lagún# ák</td>
</tr>
</tbody>
</table>

In other words, the differential grammaticalization of singular and plural markers took place in the same manner in both areas. In both cases, the plural adds an accent. The results of the suffixation of the plural are different in the two areas because at the relevant time Bizkaian/Gipuzkoan had only phrase-final accent, whereas Western Navarrese already had word-stress (postinitial/initial), presumably because of the same sort of reinterpretation that took place in the Central area many centuries later.

5. Final considerations: Ancient Basque accentuation

Michelena (1958a, 1972, 1977), in order to account for the distribution of aspiration and aspirated stops in dialects with this feature (almost always restricted to one of the two syllables of the word) claims that, at some stage, Ancient Basque must have had postinitial stress-accent, a feature that, he speculates, may have been preserved in
modern day Western Navarrese.\textsuperscript{11} There are, however, good reasons to believe that of the two systems, postinitial and phrase-final, phrase-final accent is the older.

Maintaining Michelena’s “classical” hypothesis would entail that phrase-final tonal accent in Northern Bizkaian developed somehow from postinitial stress-accent (and in Gipuzkoan there was a round-trip evolution: postinitial $\rightarrow$ phrase-final $\rightarrow$ postinitial). It is hard to envision how an earlier system with postinitial stress-accent may have developed into the phrase-final pitch-accent system we find in Northern Bizkaian. Furthermore, in Hualde (1995) I showed that, at the time Basque came in contact with Latin, regular accent could not possibly have been postinitial in Bizkaian. A very strong reason for this conclusion is that old borrowings from Latin with stress both on the first syllable (\textit{célla} $\rightarrow$ \textit{géla} ‘room’, \textit{témpera} $\rightarrow$ \textit{dénbora} ‘time’) and on the second (\textit{uessícca} $\rightarrow$ \textit{puxíka} ‘bladder’, \textit{caepulla} $\rightarrow$ \textit{kipúla} ‘onion’, \textit{cattilu} $\rightarrow$ \textit{katílu} ‘bowl’) belong to the class of accented words in Northern Bizkaian. If at the time of borrowing the regular pattern of accentuation had been postinitial, the Latin borrowings in this second group would now belong to the general unaccented class.

The other possibility, and the one that I have defended in this paper, is that postinitial accent, in Western Navarrese and elsewhere, derives from a phrase-final tonal-accent system, which just developed into a postinitial system in Western Navarrese (and in other eastern regions) at a much earlier time than in other dialects further to the west. In Western Navarrese this development took place before the cliticization of plural markers. Since, as we saw, the change phrase-final $\rightarrow$ postinitial is well attested in Gipuzkoan and some Bizkaian varieties, and, on the other hand, the origin of the Northern Bizkaian pitch-accent system is rather difficult to conceptualize starting from postinitial stress-accent, I believe we are led to the conclusion that phrase-final tonal accent is the older of the two systems and that, therefore, Michelena’s reconstructed postinitial accent corresponds to a later stage, which is (or was) found only in some varieties of the language and through which Northern Bizkaian never went.

Although, after Michelena, postinitial accentuation has been recently assumed for Ancient Basque by several authors (see Igartua 2002, Martínez Areta to appear a,b), Michelena (1977: 418), in fact, admits that the stage with postinitial stress-accent that he had reconstructed must be more recent than the neutralization and deletion of vowels in compounds considered above in (4) and (5), since the vowel that is reduced or deleted in compounds is often that of the original second syllable, which would seem incompatible with the presence of stress on that syllable: “The contradiction is solved in great part by admitting that the generalization of the fixed accent on the second syllable is more recent and therefore later than the loss and change of vowel quality of the vowels in the initial member of compounds” (Michelena 1977: 418, my translation JIH).\textsuperscript{12} Michelena is silent regarding the chronology of his proposed fixed accent on the second syllable, but since some of the elements that enter in these compounds and show these alternations are borrowings from Latin (e.g. \textit{errege} ‘king’ $\leftarrow$ Lat. \textit{rege(m)}, \textit{katu} ‘cat’ $\leftarrow$ Lat. \textit{cattu(m)},

\textsuperscript{11} Michelena does not consider the accentuation of plurals in Western Navarrese varieties with a sg/pl contrast.

\textsuperscript{12} “La contradicción se salva en buena parte admitiendo que la generalización del acento fijo sobre la segunda sílaba es más reciente y posterior por lo tanto a la pérdida y cambio de timbre de las vocales en el miembro inicial de los compuestos”
abere ‘cattle’ < Lat. habere in the examples in (4) and (5)), it is clear that Michelena’s postinitial accent hypothesis could only be valid for a later stage.

Furthermore, even if we accept Michelena’s conclusion that the distribution of aspiration in eastern dialects (spoken in France, the only ones that present aspiration in modern times) is to be explained by assuming that the locus of aspiration was also the locus of accentual prominence at some historical point, from this it only follows that the dialects of the eastern area went through a stage with postinitial accent (e.g. ákher < *akhér ‘billy goat’). But it does not follow that this stage is “ancient” or common to the entire language.\footnote{In fact, from the available documentary evidence it appears that aspiration was much less constrained in its distribution in Roman and medieval times (Trask 1997: 158, Igartua 2002), so that a link between aspiration and accent is more difficult to establish for these earlier periods.}

In this paper, I have argued that the development of contrastive accent in western dialects may be directly linked to the facts that produced these segmental changes in compounds. Now that the evidence for a more or less recent change from phrase-final to postinitial accent in a number of western and central varieties has also accumulated, we are led to conclude that the same change may have taken place at an earlier time in Western Navarrese as well as in eastern varieties with present or historical postinitial accent, so that it is sensible to assume an early stage with noncontrastive phrase-final prominence for Ancient Basque.

To summarize, at the earliest reconstructable stage, Ancient Basque lacked word-accent and possessed only phrase-level prosody: a rise at the beginning of the phrase and a fall at the end. Word-accent arose in compounds as a consequence of a glottal separation gesture that became associated with a HL contour (at least in Bizkaian and in Gipuzkoan) and also produced some conspicuous segmental alternations. The class of accented words grew with the assimilation to it of other morphological formations such as clitic groups and plural words, as well as of loanwords that preserved the accent of the source language. This is essentially the system that we still find in Northern Bizkaian. In other areas of these provinces, the system has changed in different ways. Importantly, in many areas (Central system) the phrase-initial rise was reinterpreted as the locus of the accent, giving rise to postinitial accent in the unmarked case. This change has taken place in the last two or three centuries. In the Western Navarrese area the same change from phrase-final to postinitial unmarked accentuation took place, but at a much earlier date, before the suffixation of plural markers, so that this morphological process created words with two accents. This has evolved into a system with dynamic stress-accent where the presence of two accents in the same word in plurals results in tonal contours that are reminiscent of those found in languages like Swedish.
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Fig. 1. Map of the Basque provinces. In this paper we are concerned with the dialects spoken to the west of the vertical line: Bizkaian, Gipuzkoan and Western Navarrese. The dashed line indicates the approximate southern limit of the Basque language at present.
Fig. 2. Northern Bizkaian. *lagunen alabia etorri da* ‘the friend’s (sg) daughter has come’. In this sentence all words are lexically unaccented. In the preverbal phrase *lagunen alabia* ‘the friend’s daughter’, the pitch rises on the second syllable and remains high up to the last syllable, which receives phrase-final accent. (Figure adapted from Hualde, Elordieta, Gaminde & Smiljanic 2002).
Fig. 3. Waveform and spectrogram of eskoptku(a) ‘of the rifle’ by a speaker from Arantza (Western Navarrese). Notice the three consonant cluster /ptk/. (from Hualde 1997)
Fig. 4. Goizueta. /mendiri/ ‘to the mountain DAT sg’ (left) vs. ‘to the mountains DAT pl’ (right)
Fig. 5. Goizueta. *alábari esan dio* ‘he said it to the daughter’

Fig. 6. Goizueta. *alábari eman ditet* ‘I gave it to the daughters’
Fig. 7. Goizueta. alâbak esan do ‘the daughter said it’

Fig. 8. Goizueta. alâbak ekarri dute ‘the daughters brought it’
Fig. 9. Goizueta.  ámak ekarri do ‘the mother brought it’, ámák ekarri dute ‘the mothers brought it’
Fig. 10. Goizueta. *mendik arbola asko tto* ‘the mountain has many trees’

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Fig. 11. Goizueta. *mendik arbola asko ttuzte* ‘the mountains have many trees’

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Fig. 12. Goizueta. *alâbaná da* ‘it is the one of the daughter’

Fig. 13. Goizueta. *alâbaná da* ‘it is the one of the daughters’