

The reconstruction of Old Common Basque accentuation: Closing open issues¹

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ABSTRACT: In the traditional view, Basque words were stressed on their second syllable at the stage before current dialectal diversification (Mitzelena 1977). This view was questioned in Hualde (1993a), where it was proposed, instead, that, at the last common stage, most Basque words were unaccented, like in modern Western (Bizkaian) varieties. Although a considerable amount of consensus has now been reached regarding the diachronic connections among modern accentual systems, a number of issues have remained open, which I address in this paper. These include the following topics: (1) Whether the tonal contrast of Goizueta (Western Navarrese) is a dialectal development or should instead be reconstructed for Old Common Basque, (2) The exact historical link between aspiration and stress in Northeastern varieties and its consequences for determining the historical connection between the reconstructed Eastern and Western-Central systems, and (3) The origin of marked accent in a protosystem without lexical accent.

KEYWORDS: Basque accent; accentogenesis; diachrony; prosodic development.

¹ I am grateful to two anonymous reviewers for very useful comments. Regarding the possibility of definitely closing open issues, I find it useful to remember Kempis' words: *Omnis perfectio in hac vita quandam imperfectionem sibi habet annexam, et omnis speculatio nostra quandam caligine non caret.*

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1. Introduction

1.1. Aims of this paper

The goal of this paper is to contribute to our knowledge of the evolution of the main Basque accentual systems since the latest common stage (Old Common Basque) by addressing three issues: (a) The origin of the tonal-accent contrast found nowadays in Goizueta and until relatively recently in a larger area of Western Navarre and neighboring Gipuzkoan towns, including Oiartzun (section 3), (b) The exact connection between aspiration and stress in the reconstructed proto-Eastern accentual system (section 4), and (c) the role of vowel-sequence contraction and other mechanisms in accentogenesis in Old Common Basque and later stages (section 5).

1.2. Brief history of research on Basque accentual systems since Mitxelena's work: Interplay between synchronic description and development of diachronic hypotheses

Mitxelena (1977) reconstructed unmarked stress on the second syllable [+2] for the most recent accentual system common to all Basque dialects (a stage now known as Old Common Basque, after Lakarra 1995, 2011a, abbreviated here as OCB). This proposal was primarily based not on modern or historical accentual facts—although Mitxelena notes the existence of a [+2] rule in some modern varieties and some contractions in toponyms that are compatible with it—but on the distribution of /h/ and aspirated stops in Northeastern dialects, observable since the first texts of the 16th-17th centuries. What we find in these aspirating varieties is that only one aspirated segment is possible within the word domain (Lafon 1958 [1999: 122]) and, furthermore, only the onset of either the first or the second syllable of the word can bear aspiration. Under the assumption that aspiration was at some historical point linked to stress-accent, Mitxelena thus reconstructs a stage where the stress-accent usually fell on the second syllable and less frequently on the first.² Since in Zuberoan, which is the only modern aspirating dialect with contrastive stress, what we find is word-penultimate stress (with final stress in exceptions), Mitxelena proposed a more recent shift of the stress-accent from the second to the penultimate syllable of the word: [+2] > [-2] (with [-1] exceptions arising at a later time through contraction).

Mitxelena (1977: 418) also concluded that the strong contractions and vowel reductions that take place in compounds give evidence for an even older stage than his reconstructed system with a [+2] accent rule, since very often it is the vowel of the second syllable that is lost or reduced in such compounds; e.g. *ardi* 'sheep' + *alde* 'group' > *artalde* 'flock of sheep'. That is, Mitxelena proposes

² In this paper I employ the word "accent" as a hypernym that includes both "stress-accent" and "non-stress-accent", in Beckman's (1986) classification. In Hyman's (2007) prosodic typology, stress systems are characterized by the properties of culminativity and obligatoriness. Not all accentual systems found in Basque qualify as stress systems under this definition, since in some of them (those of the Western or Bizkaian type) most words are lexically unaccented.

[+2] for the most recent common stage, but not for the oldest reconstructable stage.³

Although Mitxelena (1958, 1972, 1976, 1977) described several other Basque accentual systems, including his own native system, used at the time in Errenteria, Gipuzkoa, these other systems were not fully integrated in his reconstruction. Further progress had to await more extensive and accurate description and analysis of modern accentual systems than was available at the time. When this work was done, a fact that emerged clearly was that the Western system, where the basic contrast is one between lexically unaccented and accented words (as first described in Jacobsen 1972, 1975 [2022] and later in Hualde 1988, 1991),⁴ was not compatible with Mitxelena's reconstruction of [+2] for a common stage (Hualde 1993a, 1995a). Instead, necessarily the accented/unaccented contrast, with unaccented as the unmarked lexical class, must be reconstructed for Old Common Basque. This is the only hypothesis that can account for all the facts. Assuming that this was the original accentual system, other systems can be shown to have developed in a straightforward way. Assuming that the original rule was [+2] on the other hand, as in Mitxelena's reconstruction, we cannot account for the fact that in the Western system some very old borrowings are accented on the second syllable (e.g. Lat. *caepulla* > *kinpùla* 'onion', Lat. *vesīca* > *puxika* 'bladder'), but most native words lack lexical accent (e.g. *alaba* 'daughter', *iturri* 'spring, fountain') (Hualde 1993a, 1995a, 2003, 2006, 2007).

Considering only the main prosodic types, we are led to the conclusion that the Central system with unmarked [+2] accent arose through the change "[unaccented] > [+2]" by reinterpretation of phrase-initial rises (with relevant experimental confirmation in Elordieta & Hualde 2003). In the Eastern area, the evolution from OCB would have been [unaccented] > [+2] and then, in agreement with Mitxelena, [+2] > [-2] (Hualde 2007).

A more recent advance in the synchronic description of Basque accentual system was the analysis of the accentual system of Goizueta, in Western Navarre, as a pitch-accent system of the Swedish type where all words have a lexically stressed syllable, either the first or the second, and there is a contrast between two melodically different accents, high or rising vs low or falling (Hualde, Torreira & Lujanbio 2008). How to fit this system within the general historical account of OCB accentuation and its evolution is not an obvious matter and more than one view has been expressed. The view defended in this paper is presented in outline in the next subsection, 1.3, and arguments for it are developed in section 3.

³ A reviewer asks whether such compounds would have formed one or two prosodic words. Mitxelena (1974: 418) gives reconstructed examples with two stresses: **árdi-(t)ègi* or **árdi-(t)égi* 'sheep corral'. The point that Mitxelena makes is that the deletion of the second vowel appears incompatible with stress on the second syllable: ***árdi-(t)egi*. Lexicalization of compounds often results in their reduction to a single prosodic domain, with a single stress, cf. Eng. *cúpboard* (more lexicalized, one stress) vs *cúpbearer* (less lexicalized, two stresses). In modern Basque varieties there is typically a single accent in such compounds; e.g. *baso* 'forest' + *herri* 'town' > *basèrri* 'farm'.

⁴ Azkue's (1931-1932) distinction between monotonic and ditonic words can be considered an earlier attempt at capturing the nature of the unaccented/accented contrast.

1.3. Assumptions and this paper's intended contribution

Based on our current knowledge, we may distinguish two main accentual areas within the Basque-speaking territory: A Western-Central area extending from Getxo, near Bilbao, in the West, to Arantzeta, in Navarre, as its approximate eastern boundary, and an Eastern area covering the remainder of the Basque territory. What allows us to make this partition into two areas are not the accentual rules that we find, which vary substantially within each of the two areas, particularly in the Western-Central (or Getxo-Arantza) area, but the existence of systematic correspondences in accentuation between words and classes of words across local varieties throughout the Western-Central area (see Hualde 1997). Such lexical correspondences are not found when Eastern varieties are brought into the comparison. A historical account of Basque prosody must explain this state of affairs.⁵ In broad outlines, the evolutionary path assumed in this paper is as in (1)-(3):

- (1) Common stages
 - I. Pre-OCB: all words are unaccented. Final phrase-level prominence.
 - II. Lexical tonal accent develops via loanwords and through accentogenesis in compounds.
 - III. OCB: Three lexical prosodic classes: unaccented (most words), H-accented and L-accented.
- (2) Main changes in the Western-Central area after the OCB stage
 - I. Loss of H* vs L* accent contrast, except in Western Navarrese.
 - II. [unaccented] > [+2] in most Central varieties, including Western Navarrese.
Exceptions are [+1].⁶
- (3) Main changes in the Eastern area
 - I. [unaccented] > [+2] (like in Central area, but much earlier).
 - II. [+2] (& [+1]) > [-2] (with loss of all lexical contrasts).
 - III. By contraction, [-2] > [-1] in specific cases (creating new accentual contrast).

⁵ A reviewer asks the question of whether there were any prestige centers that may explain the spread of accentual innovations. This is a very interesting question that is, however, very difficult to answer given the limited evidence that we have for earlier times. The evidence that we have shows the spread of changes that tend to reduce the complexity of the accentual system. For instance, from the use of accent marks in J. Leizarraga's work, we know that in the 16th century a system very much like that of modern Zuberoan was used much further west, in the Low Navarrese/Lapurdián region, where all lexical contrasts in accentuation were later lost. Similarly, from Larramendi's description it appears that systems of the modern Western type were widespread in Gipuzkoa in the 18th century, where they have evolved since then as less complex systems without the unaccented/accented contrast. Finally, the H-accent vs L-accent contrasts now found perhaps only in Goizueta was in use in a much larger area of Western Navarre and neighboring towns in Gipuzkoa in the first half of the 20th century. The major isogloss mentioned here (Western-Central vs Eastern) was produced by the change [+2] > [-2] in the Eastern area. Why this eastern change extended to the Baztan Valley but not to Bortzirriak, leaving the village of Arantzeta on the western side of the isogloss, must certainly be due to historical patterns of communication that would need to be explored.

⁶ Why exceptions —corresponding to accented words in the Western type— are [+1] is explained in Hualde (2003: 271).

In an even more condensed fashion, in OCB most words were lexically unaccented, a stage of affairs that has been preserved in Western Basque. In most of the Central area, there was a change “[unaccented] > [+2]”. We don’t know when this shift first took place in this area, but we know that it has been spreading through Gipuzkoa and neighboring areas since the 18th century (see fn. 5). In the Eastern area, there has been one more major shift: the evolution has been “[unaccented] > [+2] > [-2]”, where the first of these two shifts must have taken place in the late Middle Ages and the second shift predates the 15th century (see section 4).

Western Navarrese (Goizueta) underwent the change “[unaccented] > [+2]”, but has preserved an older contrast between two tonally distinguished accents. The evolution assumed here is thus that proposed in Hualde (2012, 2022). It only differs from the earlier proposal in Hualde (2007) in placing the origin of the H-accent vs L-accent contrast at an early common stage, instead of considering it a dialectal evolution in Western Navarrese.

In a recent paper, Egurtzegi & Elordieta (2023) offer a very good exposition of the evolution of Basque accentuation. Regarding the prosodic features of OCB and subsequent changes in Western, Central and Eastern Basque, as well as in Western Navarrese (Goizueta), the view that they offer appears to be identical to that in Hualde (2007). In agreement with the proposal in Hualde (2007) and against that in Hualde (2012, 2022), Egurtzegi & Elordieta (2023) argue that the contrast between H-accented and L-accented words found nowadays in Goizueta is a dialectal development in this area, not a feature of an earlier common stage where most words were unaccented. Both Hualde (2007) and Egurtzegi & Elordieta (2023) propose that the lexical contour that we are referring to as L-accent developed when the plural article was grammaticalized as a suffix. In this paper, I will present evidence in favor of the proposal in Hualde (2012, 2022), and, therefore, against Egurtzegi & Elordieta’s (2023) and Hualde’s (2007) view.

In their paper, Egurtzegi & Elordieta (2023) also advance an original and interesting hypothesis regarding earlier stages than those considered in this paper, taking as their point of departure Lakarra’s hypothesis of a prehistorical monosyllabic stage (Lakarra 1995, 2009, 2011b, 2013) and developing an idea in Elordieta (2011). I will not have anything to say about that hypothetical early stage here, as my focus in this paper is the reconstruction of OCB prosody and later stages.

The remainder of this paper is structured as follows: In order to understand my proposal regarding Western Navarrese accentuation, it must be placed within the context of other Western and Central accentual systems. In section 2, I thus summarize what has become established in the last few decades regarding the Western-Central proto-system and its diversification.

In section 3, I discuss how the Western Navarrese or Goizueta-Oiartzun subtype fits within the diachrony of Western-Central prosody, a topic about which, as just mentioned, different views have been expressed in recent work. It is regarding this topic that the present paper intends to make its main—but not only—original contribution, by adducing evidence that has not been considered before. Here, I show that the lexical distribution of L* and H* accents in Goizueta and the interdialectal correspondences that we can establish between Goizueta and Western

varieties should lead us to the conclusion that the OCB proto-system must have had three accentual classes (H-accented, L-accented and unaccented, with the last of these being the most general type), as proposed in Hualde (2012, 2022).

In section 4, I consider what we can determine with certainty regarding the diachronic link between the Proto-Western-Central and the Proto-Eastern prosodic systems. I argue in favor of a relaxation of a strict link between accent and aspiration in Late Medieval Eastern Basque.

In section 5, I discuss the different proposals that have been made regarding the origin of marked accentuation in the Western-Central and Eastern systems, showing that vowel contraction cannot be the oldest source of marked accent (*contra* Jacobsen's 1975 [2022] proposal). Finally, section 6 offers a brief summary.

This paper makes an original contribution to the study of the development of Basque prosody from the Old Common Basque stage in several respects:

- a) It provides new evidence, based on lexical correspondences, for reconstructing a common stage with a three-way prosodic contrast in the lexicon: unaccented vs H-accented vs L-accented (section 3)
- b) It fleshes out the historical connection between the Proto-Western-Central and the Proto-Eastern prosodic systems, reevaluating the link between aspiration and stress (section 4).
- c) It provides new arguments regarding several potential sources of accentogenesis in OCB and of marked accentual patterns in more recent stages. In particular, the role and diachrony of vowel-sequence contractions is discussed in greater detail than in all previous work.

2. The Western-Central system and its internal evolution (Getxo-Arantza)

When we consider accentuation rules, in the Western-Central region, extending approximately from Getxo in the West to Arantza in the East, we find quite a few different accentual systems. Depending on the local variety, the accent may fall on the second or the third syllable of the word as a general rule, or it may be assigned only at the phrase level to the penultimate or final syllable, among several other possibilities. In some of them, but not in all, accent is contrastive; that is, it may serve to distinguish words. This is because, together with a regular or unmarked class of words, we find exceptions to the rule, creating the possibility of having minimal pairs; e.g. Beasain: *basóa* 'the forest' (unmarked) vs *básoa* 'the drinking glass' (marked); *zakúrrei* 'to the dog, dat.' (unmarked) vs *zákurrei* 'to the dogs, dat.' (marked), etc. (Hualde 1997: 132-134).

What clearly shows the existence of relatively recent diachronic unity throughout the Western-Central or Getxo-Arantza region, in spite of synchronic diversity at present, is that, to the extent that there is a class of exceptional or accentually marked words in a local variety, these words tend to be the same in the whole Western-Central area. The geographical distribution of a set of accentually marked words was examined in Gaminde & Hualde (1995) and the accentuation of marked and

unmarked words in a large number of varieties was also exemplified and analyzed in Hualde (1997). Now that dictionaries and word lists where accentuation is indicated are available for a growing number of Basque varieties,⁷ we have strong confirmation of the fact that there is substantial coincidence, from Getxo to Arantza, in which words and classes of words are exceptional in their accentuation.

East of the Bidasoa, on the other hand, we do not find such lexical correspondences. Or, rather, to the extent that there is agreement between the two accentual areas, as in the marked accentuation of some plural forms, this is due to analogy rather than homology, in evolutionary terms (that is, not to a common origin), as discussed below in section 4. This is because the shift from [+2] (and [+1]) to [-2] in the Eastern area first postulated by Mixelena (see 3.II above) obliterated all preexisting lexical contrasts.

Within the Western-Central area, the most basic distinction that can be made in the classification of the accentual systems is between systems where unmarked or regular words are actually lexically unaccented, receiving prominence only at the phrasal level (as in Japanese), and systems where all words are lexically accented (as in Spanish or English). We may refer to systems with a class of lexically unaccented words as “Western” and to the other systems as “Central” (although this group also includes varieties spoken in Bizkaia and Araba, which geographically are in the West of the Basque Country) (Hualde 2022).

Within each of these two types there is variation in the rules, as summarized in Tables 1 and 2 (based on analysis in Hualde 1995c, 1996, 1997, 1998, 1999, 2000).

Table 1
Western-type accentual systems
(with an accented vs unaccented contrast)

	Unmarked words (unaccented)	Exceptions (accented)
Gernika-Getxo	Phrase-final accent.	First accented morpheme determines location of surface accent in the word.
Lekeitio	Phrase-final accent.	Word-penultimate accent.
Markina	Phrase-penultimate accent.	Word-antepenultimate accent.
Ondarroa	Phrase-penultimate accent (but phrase-final when vowels have been deleted).	Word-penultimate accent.
Arratia (older generation)	Phrase-penultimate accent.	First accented morpheme determines location of surface accent.

⁷ See, from west to east: Gilisasti (2003) for Urduliz, Hualde, Elordieta & Elordieta (1994) for Lekeitio, Mugarza (2006) for Mallabia, Elexpuru (2004) for Bergara, Beristain (2018, 2019) for Azpeitia, Lujanbio (2013 [2018]) for Goizueta, among others.

Table 2
Central-type accentual systems (there are no lexically unaccented words)

	Unmarked words	Exceptions
General Central	[+2] (= postinitial)	[+1] (= initial)
Antzuola-Bergara	[-2] (= penultimate)	[+1], [+2]
Azpeitia-Azkoitia	[+3]	[+1], [+2]
Hondarribia	[-1] or [-2] of stem, quantity-sensitive	[+1]
Goizueta-Oiartzun	[+2H]	[+1H], [+1L], [+ L]

In spite of the diversity of rules, however, it has been possible to establish how these systems are related to each other. Leaving aside the distinction between low and high tone accents in Goizueta-Oiartzun, the diachronic evolution linking all these accentual systems was established in Hualde (2003). In Hualde (2006) direct arguments are given against the traditional hypothesis by Mitxelena (1977: 330), most recently maintained by Martínez Areta (2004), that postulates [+2] for a stage prior to present-day dialectal diversification.⁸

The following three prosodic features have been reconstructed for the common ancestor of the Western-Central accentual system, all three of them confined nowadays to the Gernika-Getxo area (Hualde 2003):

- a) A distinction between lexically accented and unaccented words.
- b) In lexically accented words, a “first-accent-wins” rule.
- c) Phrase-initial intonational rises.

Much of the variation in this area, including the widespread change whereby unaccented words have generally become accented on the second syllable, turns out to be due to relatively recent developments (Hualde 2003, 2022).

An unsettled issue, however, is whether the contrast between a high-toned and a low-toned accent in Goizueta-Oiartzun represents a local development in an area of Western Navarre and bordering towns in Gipuzkoa or should instead be reconstructed for the common proto-Western-Central stage (and OCB), about which different opinions have been voiced. We address this issue in the next section.

3. Origin of the contrast between high-toned and low-toned accents

In the Navarrese town of Goizueta we find a system that is essentially of the Central type, with a contrast between [+2], as the regular pattern, and [+1], as the

⁸ Mikel Martínez Areta (p.c.) reminds me that Txillardegui (1984: 270-273) provides a list of toponyms, from different areas, where the vowel of the third syllable has been deleted (e.g. *Atxutegi* > *Atxuti*), which can be interpreted as evidence of accent on the second syllable. One would need to know the age of the contracted form of those toponyms. Secondly, it should be noted that even in modern varieties of the Western type, where most words are unaccented, there are accented words, including toponyms that are accented on the first or second syllable (see de Olano Martinitz-Xil & Elordieta 2018 for a recent study of accentuation in toponyms).

marked pattern of accentuation. In addition, however, the accented syllable may bear one of two lexically determined melodies: either a high (rising) accent, which we may indicate as H*, or a low (falling) accent L* (Hualde, Lujanbio & Torreira 2008).⁹ There are thus four prosodic classes in this Basque variety:

- (4) Accentual classes in Goizueta (Hualde & Lujanbio 2008)
 Class I: [+2H] *até* ‘door’, *mendí* ‘mountain’, *alába* ‘daughter’, *arrántza* ‘braying’, *basó* ‘forest’
 Class II: [+1H] *áte* ‘duck’, *úme* ‘child’, *áma* ‘mother’, *zéru* ‘sky’
 Class III: [+2L] *eskòla* ‘school’, *basèrri* ‘farmhouse’, *arrántza* ‘fishing’
 Class IV: [+1L] *bàsò* ‘drinking glass’, *àrima* ‘soul’, *zèro* ‘zero’

Similar systems were found until very recently in a relatively large area of western Navarre as well as in Oiartzun, Gipuzkoa (see Ormaetxea 1918, 1958; Ibarra 1995; Olano 2000; Hualde 2018a). The question that arises is whether the tonal contrast that is found in this area is a dialectal development or should, instead, be reconstructed for, at least, the Proto-Western-Central stage or for Old Common Basque.

In Hualde (2007: 304-314) the low accent was analyzed as double prominence; e.g. *gizónakín* ‘the men’ (= *gizónakin*), following in part an earlier analysis by Zubiri (2000). The hypothesis presented in that paper is that this prosodic type arose in this area as a consequence of the grammaticalization of the plural article, after the originally unaccented words had already acquired [+2] accentuation (whereas in much of Gipuzkoa and Bizkaia this change is clearly a much more recent change, given Larramendi’s description). The plural article would have added a second prominence: *lagún#ák*. Hualde (2007) concludes with these words:

[I]n 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. (Hualde 2007: 317)

This is essentially the same view that Egurtzegi & Elordieta defend (2023: 53): “Thus, we propose that it was the cliticization of the plural suffixes *-akl-e-* that triggered the phonologization of Accent 2 and the creation of the Goizueta system”.

Based on acoustic analysis, Hualde, Lujanbio & Torreira (2008) concluded that, in plurals and other words that had been described in Hualde (2007) as having two prominences, the second accentual peak that appears at the end of words in isolation

⁹ In order to ascertain the underlying phonological nature of the contrasting tonal melodies, we still need much more research on the tonal contours that the two types of words show under different intonational conditions.

is in fact a phrase-level phenomenon (as we also find in other Basque varieties) and that the phonological contrast is properly analyzed as one between a high or rising and a low or falling accent associated with a syllable in the root; e.g. *gizónakin* ‘with the man’ vs *gizònakín* ‘with the men’ (although in isolation or when the word is focalized there is a final peak on both words, more prominent in the plural, given that the root accent is low in this case). This led to the current understanding of the underlying prosodic contrasts in this variety, which is that given above in (4).¹⁰

In Hualde (2012) the contrast between L and H accents (together with a larger class of unaccented words) is reconstructed for the Proto-Western-Central stage, from which the modern Western system would have arisen by loss of the tonal contrast:

[T]he evolutionary differences between Goizueta and Coastal Bizkaian Basque are relatively small. On the one hand, Goizueta Basque is more conservative in having kept the accent that arose in compounds and plural phonetically different from the pitch-accentual contour of some of the earlier accented forms. On the other hand, Goizueta, like most other Basque varieties, has lost the phenomenon of accentlessness, having reinterpreted the original unaccented words as bearing accentual prominence on the second syllable. (Hualde 2012: 1349)

A stage with both L-accented and H-accented words and a larger class of unaccented words is also hypothesized for Old Common Basque in Hualde (2022).

Egurtzegi & Elordieta (2023) and Egurtzegi (2022), on the other hand, take the origin of the H* vs L* accentual contrast to be a dialectal development in Goizueta Basque, thus essentially going back to the earlier analysis in Hualde (2006, 2007):

Our proposal for the development of a contrastive H+L* is very different [from that in Hualde 2022]. We propose that Accent 2 originated more recently, in the development of the Goizueta system, and in a different set of words, namely the frequently used plurals. (Egurtzegi & Elordieta 2023: 63)

My intention here is to demonstrate that there are very good arguments for accepting a Proto-Central-Western stage with a class of unaccented words and two classes of accented words with different tonal configurations, as proposed in Hualde (2012, 2022) and against the older proposal in Hualde (2006, 2007) or its more recent elaboration in Egurtzegi & Elordieta (2023).

There are two issues that we can and should separate. The first issue is whether the existence of two tonal accents in Goizueta-Oiartzun (or Western Navarrese, since until recently it was found in a relatively large area of western Navarre, see Ormaetxea [1918, 1958]; Ibarra [1995]; Olano [2000]) is a dialectal development in this area or, instead, needs to be assumed for either the Proto-Western-Central or the Old Common Basque accentual system. The second issue is how the tonal contrast originated. We will examine the first of these two questions now, addressing the second question in section 5.

¹⁰ Egurtzegi & Elordieta (2022: 25) notice the presence of two accents in compounds like *arrà-tsaldé* ‘afternoon, evening’. Arguably the second one of these accents is phrasal, not lexical, just like in the plurals and other words with a low accent in the stem when pronounced in isolation.

One reason to reject the proposal that the “[unaccented] > [+2]” accentual change took place in western Navarre and adjacent areas of Gipuzkoa at the time plural demonstratives were being grammaticalized as articles, and thus, much earlier than in other Central areas, is that the identity in the lexical distribution of marked and unmarked accent throughout the area extends to very recent items. For instance, the contrast in Gernika between unaccented *fruterue* ‘the fruit-seller’ and *frutéroa* ‘the fruit bowl’ has its counterpart in the contrast in Goizueta between *frutéroa* and *fruteroa*. Similarly, a recent borrowing like the word for ‘coffee’ has marked accentuation on its first syllable both in Gernika-Getxo, *káfe*, and in Goizueta *kàfe* (even though Spanish *café* has final stress). We would not expect to find these coincidences in the accentuation of very recent borrowings if what is now the L* accent had developed independently in Goizueta-Oiartzun in medieval times. From Larramendi’s comments, we know that in Irun and Hondarribia the accent rule was [+2] in the 18th century, at a time when in most of Gipuzkoa the general pattern was still phrase-final accent (Hualde 1995a: 182), but the facts militate against a much earlier, medieval, chronology for the shift in the border area between Gipuzkoa and Navarre.

An even stronger reason for assuming a three-way phonological contrast for the Proto-Western-Central accentual system becomes apparent when we consider the development of unmarked [+2] vs marked [+1] accentuation in Goizueta, under the hypothesis in Hualde (2003), and taking into account the lexical distribution of L* and H* accents established in Hualde & Lujanbio (2008), and Lujanbio (2013 [2018]). The question is whether we can account for the dialectal correspondences that we find concerning the lexical distribution of the H* and L* accents in Goizueta without assuming a contrast between two types of accent at the common stage when the language also had a majority class of unaccented words.

Let us start with words whose stem has three syllables (generally four in their singular and plural absolute). Unmarked words with this structure have [+2H] accent in present-day Goizueta: *abératsa* ‘the rich one’, *ittúrria* ‘the spring, source, fountain’, see (5). These words are unaccented in Gernika-Getxo, a feature that must be reconstructed for the proto-system. As argued in Hualde (2003) and later work, in the correspondence Western “[unaccented] :: Central [+2]”, unaccented is older. In the following derivations, we provide the hypothesized old contour and its evolution in Goizueta Basque, adding some modern Goizueta examples:

- (5) Originally unaccented 3-syllable-stem words (Unmarked pattern)

$\underline{\quad}$ <u>o</u> / o o o [unaccented]	>	o ó o o [+2H]	a.bé.ra.tsa, i.ttú.rrí.a
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Among accentually marked words with this structure, we find two types in Goizueta: [+1L], e.g. *mèdikua* ‘physician’, *lèngusua* ‘the cousin’, *màkulua* ‘the walking stick’ and [+2L], e.g. *belàrria* ‘the ear’, *aingèrúa* ‘the angel’, *basèrria* ‘the farm’. That is, in marked words of this size, the accent is always low and may fall either on the first or on the second syllable. These are for the most part words that are accented in Gernika-Getxo, with the accent falling on either the second or the

first syllable as well. That is, all original accents in words with three syllables in the stem have a L* melody in Goizueta:

(6) Originally accented 3-syllable-stem words

$\frac{\bar{o}}{[+2]} / \bar{o} \backslash o \ o$	>	$o \ \acute{o} \ o \ o$ [+2L]	be.là.rrí.a, ain.gè.ru.a, ba.sè.rrí.a
$\frac{\bar{o}}{[+1]} / \bar{o} \ o \ o \ o$	>	$\acute{o} \ o \ o \ o$ [+1L]	mè.di.ku.a, lèn.gu.su.a, mà.ku.lu.a

To summarize so far, in historically unaccented words, a phrase-initial rise on the second syllable produces a H* accent on the second syllable in Goizueta. In originally accented words, where prosodically there is a fall following the first or the second syllable in Gernika-Getxo, we find a L* accent in Goizueta. In other words, a phrase-initial rising configuration LH becomes a rising accent (here noted as H*) and a word-initial lexical accent, realized as rise-fall contour on the initial syllable, results in a falling accent (noted as L*) on that syllable in Goizueta.

Original accents further to the right than the second syllable were necessarily lost after the reinterpretation of the initial rise as locus of the accent, since only one syllable in the word may bear lexical prominence. Consequently, the accentual contrast between singular and plural is lost in words with longer stems, so that, for instance, plural *emakuméak* ‘the women’ ends up with unmarked [+2H*] accent (see Hualde [2003] for Beasain, Hualde [2012: 1348]).

(7) Longer words: original [+3], [+4]

$\frac{\bar{o}}{[+2H]} / o \ o \ o \ \bar{o}$	>	$o \ \acute{o} \ o \ o$ [+2H]	emakuméak > e.má.ku.me.ak
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So far, everything is as expected from the evolution posited in Hualde (2003) without the need to postulate more than one type of tonal-accent for the proto-system: We find a complementary distribution where words in Goizueta have a L* accent if in the proto-Western-Central system they were accented on either the first or the second syllable and we find a H* accent otherwise (i.e., both in formerly unaccented words and also in words that had an accent beyond the second syllable). This complementary distribution is no longer found, however, when we consider words with only two syllables in their uninflected form. In these words, the facts are as summarized in (8):

(8) Goizueta: Words with bisyllabic stems

- a) Unmarked words have [+2H].
- b) Marked words have a L* accent if accented on the second syllable, [+2L].
- c) If words are accented on their first syllable on the other hand, we find two possibilities, either [+1L] or [+1H]

Diachronic derivations that may have produced these different patterns in Goizueta with bisyllabic stems are shown in (9) (Examples: *zakúrra* ‘the dog’, *gizóna* ‘the man’, *zakúrrak* ‘the dogs’, *tipùla* ‘the onion’, *màillua* ‘the hammer’, *sùsmao* ‘the

suspicion', *màlkoa* 'the tear', *màisua* 'the teacher', *lórea* 'the flower', *pùtzua* 'the well', *zérúa* 'the sky', *sémea* 'the son', *gáuzua* 'the thing', *mérkea* 'the cheap one'):

(9) Words with two-syllable stems

$\bar{o} / \bar{o} o$ [unaccented]	>	$o \acute{o} o$ [+2H]	<i>za.kú.rra, gi.zó.na</i>
$\bar{o} / \bar{o} \bar{o}$ [+2]	>	$o \grave{o} o$ [+2L]	<i>za.kù.rrak, ti.pù.la</i>
$\bar{o} / \bar{o} \bar{o}$ [+1]		$\grave{o} o o$ [+1L]	<i>mài.llu.a, sùs.mo.a, màl.ko.a, mài.su.a</i>
		$\acute{o} o o$ [+1H]	<i>ló.re.a, pù.tzu.a, zé.ru.a, sé.me.a, gáu.za, mér.ke.a</i>

In principle, we have two options to account for these facts. A first possibility would be to conclude that there was an unconditioned split in Goizueta, with some words with initial accent developing a L* accent and other words developing a H* accent, in an apparently random fashion (or under some conditions that are no longer recoverable). The other logical possibility is to conclude that the difference between the two classes of words was present in the proto-system.

The choice between these two alternatives becomes clear when we consider the types of words in each of these of two accentual classes and their etymology. We do this in (10), with examples from Hualde & Lujanbio (2008):

(10) Bisyllabic stems with initial accent in Goizueta

1. High accent

- a. Borrowings: *ánka* 'leg', *árma* 'weapon', *lóre* 'flower', *pùtzu* 'well', *págo* 'beech', *zérú* 'sky, heaven', *gáuzua* 'thing', *géla* 'room', *kále* 'street', *méza* 'mass', *páke* 'peace', *néke* 'tiredness', *mútu* 'mute'
- b. Ancient compounds: *séme* 'son' < *sen+be, *úme* 'child' < *un+be
- c. Word-initial vowel contraction: *ári* 'ram' < *ahari*, *áte* 'duck' < *ahate* (ultimately also a borrowing, Lat. *anātem*), *lámot* 'Saturday' < *larunbat*

2. Low accent

- a. Borrowings: *árbol* 'tree', *bàso* 'drinking glass', *màisua* 'teacher', *disko* 'disc, record', *libru* 'book', *màilu* 'hammer', *pèna* 'sorrow', *kòtxe* 'car', *pùnta* 'point', *silla* 'chair', *sùsmo* 'suspicion'... (and a large number of recent borrowings)
- b. Native words (postpositions and compounds): *áurre* 'front', *átze* 'back', *tàrte* 'between', *bèste* 'other', *èuzki* 'sun' < *egu+zki, *mènpe* 'under'
- c. Medial contraction: *èya* 'truth' < *egiia, *màlko* 'tear' < *madari+ko (also morphologically complex)

As we see in (10), with bisyllabic stems, [+1H] is mostly found in old borrowings (and a couple of very ancient compounds, like *séme* ‘son’), and [+1L], instead, in postpositions, words with certain contractions and a large number of borrowings, in general more recent than those with H* accent.¹¹

An important observation to make is that two-syllable-stem native words with [+1L] accent in Goizueta (*àurre* ‘front’, *bèste* ‘other’, *èya* ‘truth’, etc.), as well as many of the borrowings in this class, tend to also be accented in other Western and Central varieties, whereas words with [+1H] accent in Goizueta (*lóre*, *pútzu*, *zéru*, *séme*, *gáuza*, *géla*, *méza*, *páke*, *néke*, etc.) are almost always *unaccented* in those other varieties (except for words showing contraction, which are also accented in some Central varieties).¹² However, the marked accent in the latter group of words cannot possibly be an innovation in Goizueta, given the old age of many of the loanwords. As mentioned, more recent loanwords receive an L* accent; cf., e.g., *zéru* ‘sky, heaven’ (older loanword) vs *zèro* ‘zero’ (recent loanword).

Given these facts, we are led to the conclusion that the tonal contrast that nowadays we find in Goizueta already existed in the common proto-system. That is, the accent that developed at the latest during the Proto-Western-Central stage (and more likely during the OCB stage) in, for instance, **egu+zki* > *èguzki* ‘sun’, **baso+erri* > *basèrri* ‘farm’, **beha+garri* > *belàrri* ‘ear’ as well as shorter words like **madari+ko* > *màlko* (see EHHE), *bèste* ‘other’, and with postpositions like *àurre* ‘front’, *àtze* ‘back’, etc., was phonetically distinct from that in old two-syllable borrowings like *gáuza*, *páke*, etc., and in the much older compounds *séme*, *úme* (as hypothesized in Hualde 2012, 2022). Words in the latter group mostly became unaccented further west, only occasionally retaining their accent, whereas those in the former group systematically kept their accent. The Goizueta facts show that the melody that arose in compounds is the one that became generalized in later borrowings as well.

It is not sensible to assume that the marked accent of very old loanwords such as *gáuza* ‘thing’ < Lat. *causa*, *páke* ‘peace’ < Lat. *pacem*, etc., is an innovation in the Goizueta area. Neither can we assume that native words like *àurre* ‘front’, *bèste* ‘other’, *èuzki* ‘sun’, etc., which are accentually marked in the whole Western-Central area, have innovated their accent in Goizueta. The only possible conclusion is that both classes of words were accented in the common system, but had different tonal melodies, and that, in bisyllables, a H* accent on the initial syllable was later generally lost in the Bizkaian-Gipuzkoan area, with few exceptions.

To conclude, Goizueta is conservative in having preserved a binary contrast in melody, but is innovative in having lost the original class of unaccented words, which have become [+2H], like in other Central varieties. The Gernika-Getxo type

¹¹ The prosodic adaptation of modern borrowings from Spanish in Goizueta Basque follows systematic patterns: (a) if the stress in Spanish falls on the first or the second syllable from the beginning of the word, it is adapted with a low accent on that syllable, e.g. Sp. *maléta* > Goizueta *malèta* ‘suitcase’; (b) if the stress in the Spanish word is beyond the second syllable, in Goizueta it is adapted with a high accent on the second syllable, e.g. Sp. *elefánte* > Goizueta *eléfante* (Hualde 2012: 1345-1346). The reasons for such specific adaptation rules remain in need of further analysis.

¹² Gaminde & Hualde (1995) found marked *séme* in three Western varieties, among 45 or so local varieties with a class of accentually marked words included in their dialectal survey.

remains closest to the proto-system, but has lost the H* vs L* melodic contrast, through the change “[+1H] > [unaccented]” with bisyllabic stems.

Whereas in Hualde (2022) it is suggested that old borrowings with low accent in Goizueta (e.g. *àrima* ‘soul’) may have shifted accentual class by analogy, the derivations that we have provided in (5)-(9) above show the process to have been rather regular: all historically accented words, whether the word is native or a loanword, are L-accented in Goizueta if the stem has three or more syllables. Only in words where the stem has exactly two syllables do we find a contrast between two types of marked accentuation, which coincides to a very large extent with different etymological sources for the accent.

It does not seem to me that the hypothesis in Hualde (2007) or the similar proposal in Egurtzegi & Elordieta (2023) can easily account for the interdialectal correspondences shown above or the distribution of accentual classes in Goizueta that we have just reviewed, including a contrast between H* and L* tonal melodies restricted to [+1] words with short stems. The hypothesis in Hualde (2007) and Egurtzegi & Elordieta (2023) also assumes an early diachrony for the origin of [+2] unmarked accentuation in Goizueta-Oiartzun, by linking it to the grammaticalization of the plural article. That leaves a considerable amount of agreement between Goizueta and Western varieties in the accentuation of recent loanwords unaccounted for. Of the two alternative hypotheses, only the one in Hualde (2012, 2022), with a three-way contrast (unaccented vs H* vs L*, at least in words with two-syllable stems) reconstructed for the proto-system, is consistent with all the facts and explains them.

Let us consider now typological matters. Is the reconstructed system with three prosodic classes too complex? In Egurtzegi & Elordieta (2023), it is argued that a three-way accentual opposition, [unaccented] vs H* vs L*, would be typologically unusual, which would be a reason to disprefer this reconstruction. We may note, however, that similar accentual systems with a three-way contrast are well attested, including in Osaka Japanese, where besides unaccented words, there are two classes of accented words differing in their melody (see for instance Pierrehumbert & Beckman 1988). The three-way contrast among level, falling and broken (glottalized falling) accent in Latvian may also be mentioned in this respect (see Kariņš 1997; Hualde & Riad 2018). See also Gómez-Imbert & Kenstowicz (2000) for compounds in Barasana. Other things being equal, it would be preferable to reconstruct a simpler proto-system, as Egurtzegi & Elordieta (2023) reasonably argue; but other things do not appear to be equal. The account in Hualde (2007) appeared to be viable at the time when it was initially formulated, before we had more precise information regarding the lexical distribution of accentual patterns in Goizueta. Now that that information is available (see Hualde & Lujanbio 2008; Lujanbio 2013 [2018]) and the correspondence between the Goizueta accentual classes and those of other Central and Western systems can be established, as we have done here, it has to be discarded.

Regarding the original phonetic nature of the contrast between the two tonal accents that we are labeling H* and L*, we can only speculate. It may have been a difference in tonal configuration, as in Central Swedish, in peak alignment (i.e. early peak vs late peak) as in Serbian/Croatian/Bosnian (see, e.g., Smiljanić & Hualde 2000) or the L* accent resulting from morpheme-concatenation may have been glottalized, as in the Latvian broken accent or the Danish *stød* (which corresponds

to one of the two contrasting tonal accents in Swedish/Norwegian), among other alternatives. This issue is further discussed below, in section 5.

Before we move to that topic, however, we need to consider another issue that so far has not received enough attention in work on Basque accentuation: the specific diachronic link between the reconstructed Central-Western accentual system and the reconstructed Eastern system, so that we may arrive at the Old Common Basque system. I turn to this topic in the next section.

4. On the diachronic link between the Eastern and Central-Western accentual systems

East of the Bidasoa river, the most common pattern is penultimate accentuation, [-2] (Txillardegui 1984; Hualde 1997). In part of this area, in varieties spoken north of the Pyrenees (which I will refer to as “Northeastern Basque”),¹³ we find aspirated consonants, from whose restricted distribution Mitxelena (1977) concluded that, at an earlier time, the stress-accent must have fallen on the second syllable, or on the initial in the marked case. That is, Mitxelena postulated that the reason why in Northeastern Basque there can be only one aspirated segment (/h/ or aspirated stop) in the word and that aspiration is further restricted to one of the first two syllables of the word is that at an earlier stage aspiration was a correlate of stress. The link was later broken by a sound change that shifted the accent to the penultimate syllable: [+2] > [-2] (and, implicitly also [+1] > [-2]). As a hypothesis for Old Common Basque, which is what Mitxelena actually claims, a [+2] stage is problematic, as it is incompatible with the distribution of marked accent in Western-Central Basque and what we can establish about the evolution of this system (Hualde 1995a). We know in addition that medieval Basque aspiration did not have the restrictions that are later found in Northeastern dialects. Mitxelena (1977: 418) himself concluded that his [+2] stage must be more recent than the formation of old compounds. These are among the reasons given in Hualde (2006) to reject Mitxelena’s reconstruction of unmarked [+2] accent as a valid hypothesis for the Old Common Basque stage.

On the other hand, if we restrict Mitxelena’s hypothesis to Eastern Basque, we can link this reconstructed system with primarily [+2] accentuation to the Western-Central proto-system. We may assume that the same reinterpretation of phrase-initial boundaries as postinitial stress that has happened in recent times in the Central area took place much earlier in the East. That is, in the case of the majority class of words, the evolution in Eastern Basque has been “[unaccented] > [+2] > [-2]”. This proposal has first made in Hualde (2006, 2007: 316) and it is also found in more recent work (Hualde 2022; Egurtzegi & Elordieta 2013, 2023).¹⁴

The evidence for this hypothesis, however, is weaker than that for establishing the diachronic link among all the varieties in the Getxo-Arantza area. The reason

¹³ In the classification of accentual areas from a historical perspective adopted in this paper, two main areas are thus distinguished, each of them further divided in two: Central-Western (including Western and Central) and Eastern (including High Navarrese east of the Bidasoa and Northeastern).

¹⁴ A step-by-step evolution of the Roncalese accentual system, starting from OCB is offered in Hualde (2017).

is that we do not find any accentual correspondences at all between Eastern and Central-Western systems. Whereas the fact that words like, for instance, *bigarren* ‘second’ and *lengusu*, among many others, have marked accentuation in both Getxo and Arantza (and varieties in between) is strong evidence for a common prosodic stage, such correspondences are not found east of the Bidasoa river. As Egurtzegi & Elordieta (2023) remark, in the Eastern area old loanwords do not preserve marked accentuation, unlike in the Western and Central areas. Since, by hypothesis, both [+2] and [+1] later became [-2] in the Eastern area, all accentual evidence for older contrasts involving old borrowings and old compounds would necessarily have been obliterated. Although in Zuberoan, Roncalese, and formerly in a larger Eastern area, we find exceptions to the general rule of accentuation these are due to more recent developments, postdating the [+2] > [-2] shift (e.g. *neskâa* > *neská*, see Mitxelena 1954, 1977; Hualde 1993b, 1995b, 2017, 2022).

Whereas, given these changes, we cannot expect any old accentual distinctions to have been preserved in the East, such evidence for older accentual patterns could in principle be derived from the distribution of aspiration. As mentioned, Mitxelena suggests a link between the location of aspiration and stress-accent at an earlier stage. At this stage, by hypothesis, the general rule would have been [+2], but there would also have been [+1] exceptions, since aspiration is also found word-initially. If this were so, we might at least expect to find evidence for the older accentuation of words containing an aspirated sound. Assuming that [+2] was the regular rule, following Mitxelena, words like *erhi* ‘finger’, *erho* ‘kill’ would have been regular [+2] words, whereas other words like *harri* ‘stone’, *herri* ‘village’ would have been exceptional words with [+1] accent. The problem is that this distribution of aspiration does not coincide at all with the marked and unmarked patterns in the Western-Central area.

By and large, accentual exceptions in the Western-Central area are explainable from their etymology: these are borrowings, morphologically complex words and words that have undergone a contraction (Mitxelena 1972; Jacobsen 1975 [2022]). Taking aspiration in Northeastern Basque as an indication of which syllable was accented before the shift, on the other hand, no clear pattern emerges regarding the distribution of /h/. Why, for instance, *herri* vs *erhi*?

Regarding the distribution of aspirated stops, the facts are more clear: word-initially (in words of two or more syllables) they appear as aspirated essentially only in borrowings (Hualde 2018b), although not necessarily in the same borrowings that have marked accent in the Western-Central area. Mitxelena suggests that the lack of aspiration of the stop in *bake* ‘peace’, *mortuak* ‘desert’, *lekoa* ‘league’, *arku* ‘arch’, etc. vs its aspiration in other loanwords like *bothere* ‘power’, *bekhatu* ‘sin’, *althare* ‘altar’, *arkha* ‘ark’ can be explained as preservation in the former group of stress on the first syllable (Mitxelena 1977: 409, 583), e.g. Lat. *pácem* > *báke* vs Lat. *peccátum* > *bekhátu* and, by assimilation to the general pattern, Lat. *árca* > *arkhá*.

We may need to postulate a weaker connection between stress-accent and the laryngeal fricative than perhaps Mitxelena (1977) envisioned.¹⁵ An established fact is

¹⁵ “[C]reemos que es admisible seguir pensando que, en determinada época, la aspiración sólo se ha conservado o producido *delante* de la vocal acentuada que sería así de ordinario la de la segunda sílaba de la palabra” (Mitxelena 1977: 407-408).

that the aspirated fricative—whatever its exact phonetic nature at different points in history, see Manterola & Hualde (2021)—was once common to all Basque varieties. It is also clear that in Roman and early medieval times this segment did not have the restrictions in its distribution later found in Northeastern varieties, since we may find both aspiration after the second syllable and more than one aspirated segment in the same word, both in the medieval documentation (e.g. *Sarricohuri*, *Larrabara*, *Elhorzahea*, *Hurizabar*, *Harriolha*, *Olhaerrea*, *Hascarzaha*, etc.) and in the Aquitanian inscriptions from Roman times (e.g. *Habanni*) (Mitxelena 1977: 206-207; Manterola 2005; Salaberri 2018).

By relaxing the connection between aspiration and stress-accent, we may hypothesize that after the [+2] pattern was established in the Eastern area, /h/ could occur not only in stressed syllables, but also in word-initial syllables. That is, it would be precisely like in those modern dialects of English, including General American English, where there can be aspiration if a syllable is either word-initial or stressed, but not otherwise. That is, there is aspiration on (a) stressed initial syllables, e.g. *history*, *hispanist*, *héad*, *húrry*, (b) stressed non-initial syllables, e.g. *ahéad*, *prohíbit*, *vehícular*, and (c) unstressed initial syllables, e.g. *histórical*, *hispánic*, but not in (d) unstressed non-initial syllables, e.g. *pro(h)ibition*, *vé(h)icle*, where the *h* is not pronounced. This is a possibility that Mitxelena (1977: 409) actually allows: “Se comprende que la inicial haya conservado alguna vez la aspiración, aunque no llevase acento”. The rather large group of Basque words with word-initial /h/ shows that this is more than an occasional occurrence. If this hypothesis is correct, the initial aspiration in words like *harri*, *herri*, etc. does not tell us whether the word had unmarked [+2] or marked [+1] accentuation at the relevant stage.

On the other hand, for the aspirated stops we can maintain a stronger historical connection between aspiration and stress-accent, even though in modern Zuberoan no such connection is found (see Hualde in prep.). The phonological contrast between /p t k/ and /p^h t^h k^h/ is an innovation in Northeastern Basque (Mitxelena 1977). Before the [+2] & [+1] > [-2] shift, voiceless stops would have been allophonically aspirated only when stressed. After the shift of the stress, the contrast was phonologized. Under this interpretation, the historical connection between Proto-Western-Central and Proto-Eastern accentuation first suggested in Hualde (2006) can be maintained.

The hypothetical fixing of the stress-accent on the second syllable of the word in Northeastern Basque, although much older than in Western and Central varieties with this rule, would not have to be especially ancient. Notice that in a word like *sorbo* ‘field, plot’ (< Lat. *solum*) the lateral should not have undergone rhotacism if the aspiration was present at the time when the rule applied, since rhotacism requires an intervocalic context. That is, the evolution was necessarily *solo* > *soro* > *sorbó*. There is some evidence that intervocalic rhotacism of the lateral dates to the late Middle Ages. Basque/Romance toponymic doublets such as *Arabal/Álava*, *Aiaral/Ayala* (vs *Aramaio/Aramayona*) show that rhotacism in Basque postdates the fixing of the Romance form of these Basque toponyms. The documented existence of *bilibil* ‘round’ in the 11th century for modern *biribil* (see *OEH*, s.v.) leads us to

the same conclusion. (The simplification of geminate *-l.l-* is an even later sound change).¹⁶

An apparent difficulty for Mitxelena's hypothesis that in Northeastern Basque older [+2] has become [-2] is that it requires a shift of stress leaving one of its correlates behind; e.g. **akhér, *akhérra > ákher, akhérra* 'billy goat, the billy goat', where in the earlier stage the aspiration of the stop is an automatic effect of the stress and, after the shift, it is unpredictable and thus phonemic. Although puzzling, we note that similar developments, where a stress correlate is left behind, have been suggested for the development of the two-peaked accent in Swedish (Riad 1989), in the shift from final to penultimate stress in Welsh (Williams 1999) and in the standard account of the origin of the rising/falling accent contrast in Neo-Štokavian varieties of Serbian, Croatian and Bosnian. In Hualde (2022) it is argued that the contrast between aspirated and unaspirated stops had become phonologized before the shift by paradigm leveling (e.g. *sár, sarthú* 'enter, entered' vs *hár, hartú* 'take, taken').

To summarize this section: Proto-Western-Central (PWC) Basque must represent a more conservative stage than Proto-Eastern Basque (PE) (for which unmarked [+2] is reconstructed), since a clear path of development can be traced from the Western-Central proto-system to the Eastern proto-system—a path of development that is furthermore attested in the evolution from PWC to the Central system in recent times. In the other direction, starting from [+2], there is no possible link that would give us the distributional facts of modern Western varieties. The existence of marked accentual patterns of indisputably old borrowings and compounds in the Western-Central area but not in the Eastern area offers support for the more conservative character of our reconstructed PWC accentuation.

The last issue that I would like to consider in this paper is the origin of accent in OCB, starting from a pre-OCB stage without lexical accent. I turn to this issue in the next section.

5. Accentogenesis in Old Common Basque

In section 3, we concluded that OCB must have had two classes of lexical accented words, differing perhaps in their melody, in addition to a larger class of unaccented words. Assuming that at an even earlier stage all words were lexically unaccented, what remains to be explained is the ultimate phonetic origin of lexical accent in non-borrowed words; that is, the phenomenon of accentogenesis in Basque.

As has often been remarked, including in work by Jacobsen and Mitxelena, the vast majority of words with marked accentuation in Western and Central varieties fall into a few well-defined classes:

¹⁶ For comparison, in Spanish, where *-l.l-* is palatalized, palatalization of the geminate was a productive rule as late as the 15th century, affecting sequences created by assimilation; e.g. *cantarlo > *[kantál.lo] > [kantálo]*. Geminate *-l.l-* was preserved as such in the Aragonese variety of Bielsa until the first decades of the 20th century (Badia Margarit 1950).

- (11) Typology of accentually marked words
- a) Some inflected forms: All words are accentually marked when they bear one of a set of accent-inducing inflexional suffixes, including among others all plural suffixes and the verbal nominalizer *-tze-*.
 - b) Many compounds and derived words.
 - c) Borrowings, including both very old ones and recent ones.
 - d) Words that have undergone a contraction.

Different authors have given relatively greater or lesser weight to these sources. The most radical position in this respect was expressed by Jacobsen (1975 [2022]), for whom vowel contraction would have been the original source of accents in a system where prior to this event all words were unaccented. Jacobsen's proposal has received relatively little attention, no doubt because it was made in a manuscript that had remained unpublished until very recently. I evaluate this proposal in the next subsection, before turning to other types of accented words.

5.1. Dating accentogenesis from contraction of vowel sequences

As Jacobsen (1975 [2022: 288]) points out, the existence of a connection between vowel contraction and marked accent in some Basque varieties has long been noticed, since there are minimal pairs where the member with marked accent is known to have undergone reduction of a sequence of identical vowels. These include the two minimal pairs that Jacobsen mentions, for which we give examples in (12) from two varieties with regular [+2] accent, Zumaia and Goizueta:

- (12) a. Goizueta (Lujanbio 2013 [2018]) [+2H] vs [+1H]
 até 'door' vs áte 'duck' < ahate
 arí 'thread' vs ári 'ram' < ahari
- b. Zumaia (Gaminde & Hazas 1998: 61) [+2] vs [+1], inflected forms:
 atía 'the door' átia 'the duck'
 aríxa 'the thread' árixa 'the ram'

These contractions are clearly rather recent since forms like *ahate*, *ahari* are documented elsewhere. It should thus be evident that, whereas these contractions have indeed given rise to marked accent, they cannot possibly be the original source of marked accent in OCB.

A word that is quite consistently accentually marked in Central and Western varieties is *egia* 'truth' (Getxo, Urduliz *égi*, Lekeitio, *é(g)i*, Mallabia *égixe* [inflected], Bergara *égi*, *égixa*, Azpeitia *égi*, *égiye*, Goizueta *èia*). This word is in fact also attested as *egiia*, *aigie* (OEH), which may explain its marked accentuation in modern dialects through contraction of an older vowel sequence. Again, given the attestation of forms with vowel sequences, this contraction necessarily postdates the common stage.

Some other accentually marked words that have undergone contraction, are also either morphologically complex words or borrowings, so that it is difficult to identify contraction as the actual reason for their special prosody. Thus, in etymologically complex words like *baso* 'forest' + *erri* 'town' > *basèrri* ~ *básèrri* (Goiz. *basèrri*) 'farm', *beha* 'listen' + *garri* > *belaarri* > *belàrri* ~ *bélarri* (Goiz. *belàrri*) 'ear', *oilo* 'chicken' + *ar* 'male' > *óilar*

(Goiz. *ollār*) ‘rooster’, among many others, either the contraction or the complex morphological structure could be seen as the reason for the marked accentuation. A morphologically complex word where we can tell that the accent is actually older than the contraction is *lehen* ‘first’ + *gusu* ‘cousin’ > *léngusu* (Goiz. *léngusu*) ‘cousin’. The reason to conclude that in this compound word the marked accent is older than the contraction is that in the Central variety of Beasain we find *léngusu* with both marked initial accent and a long vowel (if the transcription in Hualde 1997 is correct).

Jacobsen’s hypothesis relies on an understanding of the chronology of marked-accent-inducing contraction in Northeastern dialects that now appears to be incorrect. These facts, of course, were much less clear when Jacobsen wrote his paper.

As is well known, in Zuberoan most words have penultimate accent [-2], but we find [-1] in words that have undergone contraction at the end of the word, including the definite forms of nouns ending in /-a/ such as *alhabá* ‘the daughter’ < *alhaba+a* (vs *alhába* ‘daughter’) and nominal forms bearing the ergative plural suffix, as in *mithilé* ‘the male servants’. If we accept Mitxelena’s explanation for the distribution of aspiration, however, it is obvious that the [-1] pattern is modern (although already found in Leizarraga’s 1571 translation of the New Testament). Necessarily, [-1] postdates the [+2] > [-2] shift. In the case of words like *alhabá* ‘the daughter’, the following stages can be reconstructed and approximately dated:

(13)		~ 900	~ 1200	before 1500	
	*aLaba ha >	*aLabaa >	alhábaa >	alhabáa >	alhabá
		[unaccented] >	[+2] >	[-2]	[-2]

The grammaticalization of free demonstratives as bound articles may have taken place around the 9th century (Manterola 2015). The contraction that produced final accentuation, however, may be much more recent, and must have taken place after the accent shift from [+2] to [-2] in Northeastern Basque, although in any case prior to the 16th century. It is clear that if the contraction of the vowel sequence had taken place before the shift of the accent to the penultimate syllable it would not have produced marked final accent in contracted forms. The marked accent of Zub. *alhabá* ‘the daughter’ is thus the result of a fairly recent contraction and thus, contrary to Jacobsen’s view, cannot be used as evidence for a very early source of marked accent arising from vowel contraction.

Furthermore, the sequence /a+a/ has been preserved unchanged to this day in some Gipuzkoan varieties that nevertheless have a system with contrastive accent. Thus, Gaminde & Hazas (1998: 61-64) document a geminate vowel /-a+a/ in the variety of Zumaia. This is a Central variety, where the regular pattern is [+2], with marked [+1]. For bisyllabic words with unmarked accentuation, we find the pattern in (14a) in the absolutive singular, whereas marked words or unmarked but longer words in /-a/ have reduced the sequence, (14b) (see Gaminde & Hazas 1998 for more examples). That is, the sequence /aa/ is preserved when the accent falls over the first of the two adjacent vowels:¹⁷

¹⁷ In this dialect, plural and singular forms are accented in the same way, with the same results regarding long vowels: *neskáak* ‘the girls’, *alábak* ‘the daughters’.

- (14) Zumaia (Gaminde & Hazas 1998)
- | | | |
|---------------|--------|--------------|
| a. /neska+a/ | neskáa | ‘the girl’ |
| /salda+a/ | saldáa | ‘the soup’ |
| b. /déndaa+a/ | déndaa | ‘the store’ |
| /ánka+a/ | ánka | ‘the leg’ |
| c. /abarka+a/ | abárka | ‘the sandal’ |
| /aldapa+a/ | aldápa | ‘the hill’ |

Notice that subsequent vowel contraction in accented syllables as well in a system like this should result in a contrast between a class of /-a/ words with shifting accent (*néska* ‘girl’, *neská* ‘the girl’), and another class with fixed accent (*ánka* ‘leg’, *ánka* ‘the leg’). In Zuberoan, and more generally in Northeastern Basque, the shift of the stress-accent to the penultimate ([+2] > [-2]) must obviously have predated the contraction of the sequence, since we do not find any exceptions to final accent with /-a/-final words. Crucially, in Zumaia the existence of a class of words with marked accentuation (*ánka*, *déndaa*, etc.) predates the contraction of /-a+a/ in singular definite forms.

Zumaia is a Central variety. In the Western area, we do not find such double vowels in the definite singular, since the expected sequence /a+a/ appears dissimilated to /ea/ in the singular since the earliest texts; e.g. /alaba+a/ *alabea* ‘the daughter’.¹⁸ In plural inflection, on the other hand, the long vowel /aa/ in words like *néskaak* ‘the girls’, *alábaak* ‘the daughters’ is documented in several Western areas, including 19th c. Markina. Words with such sequences are accentually marked, but so are all other plural words.¹⁹

Regarding the marked accentuation of plural forms, Jacobsen notes the coincidence in this respect between Western-Central and Eastern varieties, with the important difference that in the East (Zuberoan and Roncalese), the absolutive plural does not have marked accentuation (e.g. *mithilak* ‘the male servants, ABS.pl’ vs *mithiléak* ‘the male servants, ERG.pl’). Jacobsen argues that the Eastern pattern is the original one, and that accentuation in the ABS.pl in Western and Central Basque is due to analogical extension. The ABS.pl vs ERG.pl accentual difference is no doubt related to the fact these two suffixes are segmentally different in this area, whereas this distinction is not made in the Western-Central area.

Jacobsen is correct in proposing that the Eastern ERG.pl suffix *-ék* arose from contraction, but again this would be a relatively recent phenomenon. Manterola

¹⁸ It is very likely the case that the sequence /ea/, rather than resulting from dissimilation, actually arose via the epenthesis of a palatal glide between the two identical vowels, which is a phenomenon that has wide diffusion in Basque (cf. *Santa Yageda*, *atera+a* > *ateraia* ‘taken out’, *da+a* > *daia* - *dea*; Mitxelena 1977: 115) and has parallels in other languages, such as Northern Portuguese (e.g. *a alma* > [ajalma] ‘the soul’ [Oliveira *et al.* 2017]), followed by monophthongization of /aj/ > /e/; that is, WBq /alaba-a/ > */alabajal/ > /alabea/.

¹⁹ As reported in Hualde (1997: 129), in Oñati ([+2]), around 1990, older speakers kept all such sequences: *alábaak*, *neskaak* (vs sg *alábia*), but younger speakers tended to reduce them if unstressed (just like in Zumaia). In Markina, the accent in trisyllabic plural forms was retracted one syllable to the left; e.g. *lagúnek* > *lágunek* ‘the friends’, *sagárrak* > *ságarrak* ‘the apples’; but we find *alábak* ‘the daughters’, which shows that the contraction is so recent that it even postdates the shift of the accent in this local dialect: *alabáak* > *alábaak* > *alábak* (Hualde 2000).

(2005) has convincingly argued that the Western-Central homophony between ABS.pl and ERG.pl is the older state of affairs. The origin of the marked accent throughout the plural paradigm in the proto-Western-Central system (and in Old Common Basque) has to be sought elsewhere. As with all old accentual contrasts, this marked accent was lost in Eastern Basque after the [+2] > [-2] shift. It independently arose again in a subset of the plural cases through contraction.

To conclude this subsection, it is clear that a marked accentual pattern has its origin in the contraction of a number of cases, as Jacobsen defended. These contractions are, however, for the most part relatively recent and cannot be seen as the original cause of accentogenesis in OCB.

We thus need to consider other sources of accents at the pre-OCB stage where all words were lexically unaccented. The role of old loanwords is clear. In fact, the presence of such marked loanwords in accentual systems where monomorphemic native words are unaccented was given in Hualde (1993a) and subsequent publications as an important reason for rejecting Mitxelena's [+2] hypothesis for the old common stage. What remains to be assessed is the connection between marked accent and morphology.

5.2. Accentogenesis in morphologically complex words

A large number of compounds and derived words used throughout the entire Basque Country show a marked accentual pattern and must be reconstructed as accented for OCB: *basèrri* 'farmhouse', *oilàr* 'rooster', etc. In some Western and Central varieties the pattern shows productivity, since there are productive derivational suffixes that consistently induce marked accentuation and certain types of compounding are also accompanied by marked accent, allowing for distinctions such as *sagú-zarra* 'the bat (compound)' vs the lexically unaccented phrase *sagu zarrá* 'the old mouse' (see Hualde & Bilbao 1992, 1993 for Getxo; Hualde, Elordieta & Elordieta 1994: 55-56 for Leikeitio). Relatedly, certain elements productively behave as preaccenting clitics, inducing an accent on the last syllable of the phrase to which they attach, as in Leikeitio *laguná be* 'the friend too', *laguná barik* 'without the friend' (Hualde, Elordieta & Elordieta 1994: 59-61). The preaccenting character of comitative *-gaz* 'with', which attaches to inflected noun phrases (e.g. *laguná-gaz* 'with the friend') can be understood in the same fashion. Synchronically, these are simply morphologically or syntactically conditioned accentual rules without an obvious phonetic reason.

In addition to marked accent, another phenomenon in old compounds is the existence of strong contractions, involving the loss of the last vowel of the first member (or the reduction to /a/ of non-high vowels in bisyllabic stems) and further changes to consonants that become morpheme-final after vowel deletion as in *artizar* 'planet Venus' < *argi* 'light' + *izar* 'star', *betazal* 'eyelid' < *begi* 'eye' + *azal* 'skin', etc. In Hualde (2006, 2007) and in Oñederra (2013) it is argued that such alternations are best explained as having resulted from a glottal stop having been inserted at some historical point at a compound boundary. Most likely, originally such a glottal stop may have been inserted to separate heteromorphemic vowel sequences, as in *begi?azal* (Hualde 2007: 317, note 3, Hualde 2022: 48, note 20), and then the glot-

talization phenomenon itself or its effects would have been extended to other phonological contexts, e.g. *begi* ‘eye’ + *gaitz* ‘bad’ > *bekaitz* ‘envy’.

In Hualde (2007) it is further suggested that a glottal stop or glottalization at morpheme boundaries may also provide a phonetic explanation for accentogenesis in compounds. The hypothesis is that a glottal stop may have induced a pitch drop that was phonologized as accent (see Kingston 2011). To account for the tonal contrast preserved in Goizueta, we must assume that the accent that arose under these conditions in OCB was phonetically different from that present in older accented words: *baso?erri* > *basèrri*, *oilo?ar* > *oilàr*, etc., with a different contour from older native *sème* ‘son’ and borrowed *gáuza* ‘thing’, for instance.

This hypothesis has the weak point that the segmental and suprasegmental phenomena in morphologically-complex words are only partially overlapping. Although many compounds are accented and accent-insertion in compounds is a productive rule in some Western varieties, quite a few old compounds showing reduction of the first member are actually unaccented (e.g. Urduliz *betondo* ‘eyebrow’ < *begi* ‘eye’ + *ondo* ‘side’, *betule* ‘eyelash’ < *begi* + *ule* ‘hair’). The correlation between the two phenomena of marked accent and contraction is thus not perfect. More importantly, whereas in this account the marked accentuation of plural forms is assimilated to that of compounds, in accented plural forms we do not find the consonantal and vowel changes that are found in old compounds; e.g. *begi-ak* > *begi-ak* ‘the eyes’, not **bet-ak*, which is what would be expected from hypothetical *begi?ak*. One would need to assume that analogical pressure prevented such segmental developments in inflection.

Another way to account for the difference in segmental effects would be to postulate two different back consonants. Uncontroversially, the modern suffixal determiners derive historically from independent consonant-initial demonstratives. This consonant is /h/ in most areas where it is preserved, but /g-/ , /k-/ in some Navarrese varieties. It may have been a postvelar /x/ at an earlier time (Manterola & Hualde 2021). The accentual difference between singular and plural words in OCB may have been due to the loss of the consonant in the singular determiner, before it did in the plural, creating vowel sequences in hiatus that, in the case of /a+a/, were solved in the West by epenthesis: **alaba-a* > **alabaja* > *alabea*. In the plural, preservation of the back fricative would have prevented epenthesis, but this consonant induced prosodic effects that were phonologized as accent: *alaba?ak* > *alabàak* (for the relative chronology of the affixation of singular and plural determiners, see Mitxelena 1981 and Manterola 2005).

Another alternative is to disassociate accentogenesis in compounds and plurals from the segmental effects that we find in derivation and subcompounds. Although the effects on vowels and consonants that are found in compounds are best explained by glottalization, this is not necessarily the source of the accent in inflectional structures. Following Hualde (1993) and subsequent work, I have claimed above that at the pre-OCB stage the only prosodic prominences were phrase final (like in modern French). Assuming a stage where singular determiners were already affixes but plural ones were clitics (Mitxelena 1981), we would have, for instance [sagarr-á] ‘the apple’, [sagarr ederr-á] ‘the beautiful apple’ vs [sagárr][ók] > ‘the apples (proximative)’ [gure sagarr edérr][ók] ‘our beautiful apples’, the accent clash in the clitic structure

giving rise to an accent that evolved as L* in Goizueta and became neutralized with the accentual configuration present in loanwords in Western Basque. The phonetic development would thus have been along the lines suggested in Hualde (2007) and Egurtzegi & Elordieta (2023) for Western Navarrese, but at the OCB stage, giving rise to a system containing both unaccented words and two distinct types of lexical tonal accents.

The reasons for the accented character of other inflectional suffixes remains, nevertheless, unclear and in need of further research. At the current stage of our investigation, it is hard to know why, for instance, ablative *-ti* - *tik(a)* and imperfective *-t(z)en*, as well as the nominalizer *-t(z)e*, on which it is built, are accentually marked in Western Basque, whereas allative *-ra* and locative *-an* are not, to give some examples.

6. Conclusion

In this paper I have given arguments for hypothesizing a prosodic system with three lexical classes: unaccented, H-accented and L-accented at the most recent common stage of all present and historically-documented Basque accentual systems (OCB). A system with a simpler two-way distinction between accented and unaccented words cannot account for the lexical distribution of L-accent and H-accent in Goizueta or for the correspondences that we find between this variety and other varieties.

I have also explored the link between the two main prosodic systems, Central-Western and Eastern and the evidence that the distribution in Northeastern varieties can provide regarding the location of the accent at earlier stages.

Finally, I have addressed the issue of accentogenesis in OCB and at more recent stages. The conclusion that I have reached is that vowel contraction, although a common source of marked accentuation throughout the Basque Country, is not a very old source. Regarding accented non-borrowed words, I have remarked that, independently of the possible role of glottalization in accentogenesis in compounds, other phonetic mechanisms appear to be necessary to explain the origin of the accent in inflectional domains, where the segmental phenomena associated with compounding are not found. We are not yet in a position to be able to explain why specific inflectional and derivational suffixes are either accented or unaccented. This is an area that must be left for further research.²⁰

²⁰ A reviewer suggests that a list of hypotheses rejected in this paper should be provided for clarity. These would include the following: (a) An Old Common Basque [+2] stage, as proposed in Mitxelena (1977), Martínez Areta (2004), section 4; (b) The hypothesis that the H-accent vs L-accent contrast is due to a dialectal development in Western Navarrese, as opposed to it being a feature of OCB or, minimally, of the Western-Central proto-system (against Hualde 2007 and Egurtzegi & Elordieta 2023), section 3; (c) The proposal that vowel contraction is the original source of accentogenesis in OCB (against Jacobsen 1975 [2022]), section 5.

Abbreviations

EHHE = Lakarra, Manterola & Seguro (2019).

OEH = Euskaltzaindia (2023).

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