DOUBLE RHOTIC CONSONANTS IN INTERVOCALIC CONTEXT: A STUDY ABOUT THE POSSIBILITY OF GEMINATION IN ANCIENT PORTUGUESE PERIOD

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▪ ABSTRACT: This article aims to study the Phonology of the ancient Portuguese from the troubadour period, specifically investigating the rhotic consonants found in 250 poems in medieval Galician-Portuguese. Our goal is to verify whether there were two rhotic phonemes in opposition at that time or, from the phonological point of view, the sound represented by <rr> could be interpreted as a geminate variant from the one represented with <r>. The analysis is based on non-linear phonological models. The method is based on the observation of the possibility of variation in the trill spelling, in order to appoint the relations existing between letters and phonemes, and on the study of the behavior of <rr> within the syllable and the word. The cases showed evidences that among vowels the double rhotic fills two slots in the syllable internal organization. We acknowledge the existence of only one rhotic phoneme in Archaic Portuguese, the weak-r, which phonetically presents two variants, a simple one, represented by two graphemes (<r>/<rr>), and a geminate one, represented by the double rr (<rr>).

▪ KEYWORDS: Archaic Portuguese; syllable structure; gemination; Medieval Galician-Portuguese cantigas; rhotic consonants.

Introduction and objectives

This study aims to promote a phonological analysis of the grapheme <rr> in intervocalic position during the medieval phase of Portuguese, aiming to confirm or not the occurrence of the gemination phenomenon and to investigate the consequences of this process to consider the existence of one or more rhotic phonemes in the language used at that time. Thus, we aim to verify whether, from a phonological point of view, the trill <rr>, between vowels, can be interpreted as a geminate variant of simple <r>. To do so, we opted for a corpus formed by 250 medieval Galician-Portuguese chants:

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100 *Cantigas de Santa Maria* (CSM), on the religious side, and 150 secular works, 50 from each of the three canonical genres (*de amor* [love songs], *de amigo* [friend songs] and *escárnio e maldizer* [satirical songs]). There were three criteria adopted for the selection of the secular assortment, based on the analysis made by Massini-Cagliari (2015): representativity, electing authors from all periods; location, since Galician, Portuguese and Castilian poets lived in the same area; and social status, once there were troubadours belonging to the high (kings, nobles and clergy) and to the low society (minstrels).

We start from the conjecture that an appropriate understanding of past events contributes to the clarification of the present moment, the reverse being also true, that is, the language's present state is capable of clarifying certain processes of transformations already concluded (PAIVA; DUARTE, 2012). The old documents are passed down to us through copyists and with the increments deemed necessary by modern editors. In view of this, Paiva and Duarte (2012) argue that a good way to deal with these issues is to control the chosen genre and to establish comparisons with the current situation, a fact that guarantees greater credibility regarding the previous phases of the language. In this article, we have adopted such a critical perspective of analysis and selected a collection of songs that enabled a phonological description of Archaic Portuguese (AP) rhotics. At this stage in history, the Portuguese language was in the process of shaping its writing and presented great fluctuation in the spelling, a fact that helps to prove or disprove hypotheses about the linguistic system of the language spoken during the 13th century.

The choice to focus on the archaic period in the discussion of the possible gemination of intervochallic rhotic consonants derives from the possibility of contributing to the discussion about the phonological status of these consonants in current Portuguese, on the Brazilian and Portuguese sides. Regarding Brazilian Portuguese (henceforth BP), the consideration of strong-r as the gemination of two weak-r was first postulated by Câmara Junior. (1953). The author himself, however, in a later work (CÂMARA JUNIOR, 1985[1970]), reassesses his position, considering the existence of two phonemes in contrast: weak-r (tap) and strong-r (which presents great variation in its pronunciation – CAGLIARI, 2007). Regarding European Portuguese (EP), Mateus and d'Andrade (2000) propose a single simple subjacente rhotic, the opposition between [R] and [ɾ] being an opposition between simple and geminate rhotic. Massini-Cagliari, Cagliari and Redenbarger (2016) present the conundrum of the phonological status of rhotics in BP and EP and conclude that, to this moment, scholars have not yet reached an agreement.

However, with regard to Portuguese's historical ancestor, Latin, there seems to be not so much controversy regarding the phonological status of rhotic consonants, considering the existence of a single rhotic phoneme, which could be pronounced as simple or geminate. In fact, Maurer Jr. (1959) considers only one rhotic consonant in the context of simple consonants of Vulgar Latin, which would have preserved, in this respect, the structure of Classical Latin. In turn, Ravizza (1940, p.12) characterises

the syllabic structure of the double rhotic, stating that "of two equal consonants, one belongs to the preceding vowel and the other to the next". For Faria (1970, p. 105), "Latin *r* was a pre-palatal trill, like Italian *r*, being produced by the vibration of the tip of the tongue", considering that the behaviour of the geminate, at that time, was similar to what still occurs in Italian. Maurer Jr. (1959, p. 49) considers the survival of gemination in Italian "abundant evidence that Vulgar Latin preserves, in general, old geminates until the end of the imperial period", which includes the rhotics.

Regarding AP, there are some studies that show the graphic variation between <r> and <rr>, such as Maia's (1997). However, not many studies consider the language's phonological level, determining whether there was only one or two rhotic phonemes at the time and, as a consequence, if there was possibility of germination. By inserting two distinct phonemes, /ɾ/ and /ř/, Mattos and Silva (2006) considers that there were two opposing phonemes, discarding the occurrence of phonological gemination. Massini-Cagliari (2015), in turn, accepts the possibility of germination in AP.

Given the discrepancies in the consideration of rhotics gemination possibility of in their Latin origin (certain) and in the present (controversial), a study of gemination in AP is strategic, as a medial historical point between these historical moments.

Corpus

Mongelli (2009) claims that troubadour lyrical work differed from other poetry because it had a great alliance with music and because it was inserted in a feudal atmosphere in which thematic choices were quite restricted. The medieval artist came very close to expressing their states of mind, even though their poetry is not considered to be confessional. In them, the individual is dissolved in the general. Massini-Cagliari (2015) points out that both branches of the archaic works were written in a palatial language, limited to the court, despite being geographically and functionally distant. In secular songs, the poetic language consists of an artistic use of the population's native language. In the religious ones, the poetic language used is AP, since the nobility believed that this (foreign) speech was more appropriate to praise Virgin Mary's virtues.

The CSM, along to set of secular lyric, constitute a very rich selection of the compositions made and disseminated throughout the Iberian Peninsula. If, on the one hand, the CSMs are characterised by manifesting the remarkable religiosity of the time, on the other hand, the secular works show their enormous representativeness by covering different periods, places, social categories and nationalities. The research corpus, as can be seen, was designed to represent the wide range of singularities of the documentation produced by the troubadours. Massini-Cagliari (2007) argues that the secular Galician-Portuguese collection is composed of more than 1700 works, the authorship of which is attributed to about 160 authors. It should be noted that very little of this production has survived to the present day, with only three songbooks remaining, in which there are general compilations, and five single sheets containing one or more

poems. The religious songbook, also known as *mariano* [Marian], in turn, consists of 427 CSM and its elaboration is considered to be the work of the monarch D. Alfonso X, of Leão and Castela, and his collaborators.

Even six centuries later it is possible to glimpse all the intimacy, the customs and the nature of medieval society by reading the secular songs, which reflect the specificities of life back then. The *cantigas de amor*, 'love songs', according to Massini-Cagliari (2007), are those in which the troubadour addresses his lady directly. They express blind or absolute submission to the loved one and follow a *sentimental formalism*. To Bueno (1968), in this genre there is predominance of a courtly or aristocratic social environment. It is characterised by being more cultured, intended to be read and recited by the most learned of the time. Lanciani (1993) considers that this type of poem is not aimed at a real woman, but at an abstraction. *Cantigas de* amigo, 'friend songs', are more committed to dance and music and, compared to love songs, are much more popular and national. This genre's theme revolves around a female voice that portrays her loving-suffering for her friend, her longing and distress due to his absence, her complaining and mourning for the obstacles imposed by her mother to see her beloved and even her thanking for the help and understanding. These songs are written by men, although they appear under the speech of a woman.

Finally, the *cantigas de escárnio e* maldizer, 'satirical songs', encompass not only moral, literary and political satires, but also personal backbiting, tensions, tears and parodies. Massini-Cagliari (2007) points out that both works were written with the purpose of speaking ill of someone, however, in the *cantigas de escárnio* this was done in a hidden, ambiguous way, and in the *cantigas de maldizer* in a blatant, direct way, with no disguises. As a consequence of the use of several *oblique* words of dubious meaning, this type of song, regarding form, was not so popular and neared the genres seen as more erudite. Mongelli (2009) argues that these songs, in addition to referring to characters, places and concrete situations, providing a rich panorama of the everyday life of the population of the Middle Ages, gained significant prestige for containing comic nuances.

With regard to *Marian* songs, Leão (2007) and Massini-Cagliari (2015) claim that the collection was made in the second half of the 13th century and that, should its author not be the king, it would never have existed, because its royal condition provided the necessary means to perform such a luxurious feat. To Leão (2007), the monarch himself composed and translated a large number of texts; however, he delegated most of the production to his collaborators, who, according to Parkinson (1998), could only have been the troubadours known from that period. Despite the researchers' efforts, there are still doubts about which of them, among many, were part of the king's team. Filgueira Valverde (1985) ponders that the collective work marking the CSM is revealed by the use of certain verses, such as: *quero que seja colocado,* 'I want [it] to be placed', regarding the inclusion of a miracle in the collection (CSM 219), and *ordenéi que se escrevera*, 'I ordered that it should be written', a segment detected in CSM 295. It is important to note that the native language of D. Alfonso X was Castilian, although the

CSM were written in Galician-Portuguese, a language appreciated in the troubadour phase as being more appropriate to artistic practice.

The CSMs can be of two types: miracle and praise. Mongelli (2009) states that the king organised the religious collection as a rosary, once every ten miracle-narratives he added one of praise. Miracle songs are known for telling the Virgin Mary's interventions in favour of her faithfuls in different settings. Those of praise are more subjective and narrate the praises of D. Alfonso X, who praises the virtues and beauty of the Saint in a contemplative way. It is worth emphasising that the religious songs have a circular theme, since their focus always ends up returning to the image of the mother of God, who is portrayed as an *indulgent lawyer next to her son* (BERTOLUCCI PIZZORUSSO, 1993). Castro (2006) argues that the work's ideology rests on the idea that the kingdom of Leon and Castile was blessed, as was its ruler.

Methodological procedures

In order to determine the possibility of gemination of rhotic consonants in intervocalic position in AP, it is necessary to consider evidence from three different levels of analysis which are, however, correlated: graphic, phonetic and phonological. All of these levels can bring clues of the (non-) occurrence of rhotic gemination; however, no clues originating from these levels alone can make up the final word on the issue.

At the graphical level, we shall observe variations in representation between <r> and <rr>, such variations were already shown to be possible at that historical moment (MAIA, 1997), but may constitute, in specific cases, simply copy errors. Thus, all environments in which <rr> occurs inside words were verified, as well as the different types of alternation identified in the songbooks folios. We have mapped whether the occurrence of variation occurs within the same song or in different songs and/or codices.

The occurrence of the graphic variation and the observation of the position in which the grapheme mapped in the syllable occurs bring evidence of the phonetic realisation and the phonological function of the rhotic observed. However, to determine the phonological status as simple or geminate, it is crucial to observe the behaviour of the rhotic's phonological context (for example, if diphthongs or nasal consonants occur in the previous syllable). The confluence of clues from these three levels, which are interrelated but should not be confused, may point to a more positive conclusion regarding the possibility of rhotic germination in AP. Thus, it is necessary to consider that both the verification of the graphic variation and the verification of variation in pronunciation (as it still occurs in BP and EP), alone, do not lead to an automatic conclusion as to gemination, since the consideration of the rhotic behaviour within the syllable and its relationship with the surrounding syllables are crucial, because what is being sought is an answer regarding the language's phonological system at the time.

Therefore, the first methodological step was the collection of all words spelt with rhotics in the corpus. The words located were grouped by song and by genre, and

systematised in classification tables, in which the occurrence of the referred segments was analysed according to their position in the syllable and in the word. The context filled in the syllabic unit is decisive for the type of realisation of the consonant. This way, the cases of duplicated rhotic in the spelling were confronted in different environments, such as attack and coda.

To classify double consonants as simple or geminate, at the phonological level, the relevant context considered is their occurrence at the beginning of a syllable and in the middle of a word. In the word *acorrer* (CSM 36), for example, the trill <rr> starts the third syllable and fills the middle of the word, an ideal environment for us to find out if these AP consonants occupy, at the same time, the coda of the first syllable, closing it, and the attack of the subsequent syllable, in which it is phonetically concretised. The syllabic closing context is one of the main points of the analysis that is now proposed, since the behaviour of the rhotic segments in this position can reveal whether or not there was phonological opposition between <r> and <rr> in the archaic period of the Portuguese language.

After mapping the songs, the data were examined qualitatively, based on the instrumental provided by non-linear phonological theories. Although the study in question comprises historical work, it does not aim at the development of a diachronic analysis of the language, but tries for the realisation of a synchronous characterisation of a moment in the past (MATTOS E SILVA, 1989). Within the perspective we hold, no occurrence can be disregarded, since even a single variation occurrence can bring important clues about the limits between the possibilities and the impossibilities of the lexicon, which are never exhausted, since the linguistic system of any living language presents continuous dynamism.

Brief considerations about the concepts of syllable and gemination

The study undertaken is guided by non-linear phonological models, in particular metric and autosegmental theories. Through an outline of the most important aspects of such approaches, which have been used in order to reach generalisations in languages, we reflect on the syllabic unity and the gemination phenomenon. It is necessary to emphasise that our intention was not to conclude any discussion regarding the theme, but rather to provide the reader with an overview of the issues pertinent to the present work.

The syllable was not deeply analysed in the first studies of Standard Generative Phonology, as words were understood as linear sequences of consonants and vowels, that is, there was no characterisation of the deepest aspects of the syllabic structure, such as tone and stress. However, when non-linear phonologies appeared, there was a deepening of these researches, a fact that led to a new representation of the syllable. According to Collischonn (2005), the Autosegmental Phonology posits that the syllable's internal organisation is composed of independent layers, one of which represents the syllables, which are directly linked to the segments. Therefore, the relationship

established between the elements is the same. Alves (2017) highlights that, in this theory, the syllabic unit is defined by the absence of an internal hierarchy among the elements that constitute it. The theoretical model thus assumes that the syllable structure is ordered only on the CV layer, that is, each available context is associated with one or more regions of that layer, in a linear way.

In Metrical Phonology, on the contrary, the segments that form the syllabic unit are structured hierarchically. This way, the syllable comprises an attack (A) or onset (O), and a rhyme (R), which integrates a nucleus (Nu) and a coda (Co). Any position, with the exception of the nucleus, can be empty. This proposal follows Selkirk (1982), who calculates a much closer relationship between the vowel in the nucleus and the consonant in the coda than between that vowel and the consonant that occupies the onset. That said, the author's representation guarantees greater interrelation between the nucleus and coda units. The internal organization conceived by Selkirk (1982) makes it possible to apply certain phonological rules to specific syllable constituents, without having to encompass the entire syllable. The peak + coda grouping in a constituent is seen by Selkirk (1982) as a universal aspect, which encompasses the composition of all languages, regardless of their syllabic pattern.

Several researchers in the field have committed to studying the attack-rhyme model, which sees the syllable as a combination of three parts: the nuclear environment is always occupied by a vowel and is indispensable in Portuguese. The other two slots are peripheral and optional, the onset and coda being filled with consonants and able to appear at the beginning or middle of the word in a simple or branched way. According to Alves (2017), the position assumed by the vowel and consonant segments in the syllabic unit determines their distinctive or allophonic character. Considering this, the discussion of the phonological status of the element, within a linguistic system, cannot be disconnected from considerations about the syllable structure of the language in question. After all, as mentioned by Massini-Cagliari (1992), the syllable consists of a fundamental unit of the phonology of languages, being a domain in which the application of various phonological phenomena occurs. It is, in effect, understood as an essential, basic organization (BISOL, 1999).

In several languages of the world there is a differentiation between light and heavy syllables, the composition of the syllable being a decisive factor for the syllable weight or quantity. Heavy syllables are those in which more than one element occupies the rhyme. So, syllables made up of only vowels are light. Collischonn (2005) explains that the attack slot is irrelevant to the syllable weight, that is, branched attacks do not make the syllable heavy. In *prêmio* 'prize', for example, *prê* is a light syllable, although it has three elements. As can be seen, the fact that a syllabic unit contains more than two segments does not mean that it is heavy, since the weight is determined by its internal structure and not by the number of elements that it may or may not contain.

Hyman (1975) points out that syllables consist of weight units, traditionally known as morae (μ). This proposal argues that a heavy syllable contains two morae and a light one only one mora. According to Massini-Cagliari (1999), CVV syllables are always

bimoraic or heavy. The weight of CVC syllables varies according to the different languages: the languages that count the elements of the nucleus consider it monomoraic and those that add up the segments that make up the rhyme (nucleus + coda) judge it as bimoraic. The moraic approach proves to be fundamental, given that it offers a treatment for geminate consonants. In moraic theory, a long segment is represented as a double association and a single segment, with a single line of association. The consonant of the geminate type has one underlying mora and is attached, at the same time, to the coda and to the onset. The syllable quantity is considered as a binary opposition, μμ being the maximum number of morae that a syllable can carry. Even if a consonant is attached to CVC or CVV syllables, it is integrated to the last mora and does not provide more weight to the syllable. Collischonn (2005) states that the approach in question conceives length as a property independent of the other characteristics of the element. Furthermore, when a segment is erased due to a phonological rule, its length can remain intact and be reattached to another neighbouring element. This process occurs in numerous languages and is called compensatory lengthening.

Regarding gemination, Goldsmith (1990) clarifies that if two identical consonants appear between vowels, in intervocalic environment, they belong to two separate syllables, that is, the first element forms the coda of the left syllable and the second, the onset of the right syllable. Massini-Cagliari (2015) notes that the double rhotics are understood as complex in BP, since the <rr> distribution integrates two slots within the internal syllable structure. The study of gemination is closely linked to the postulates of the moraic approach, considering that the weight and context of the segments within the syllabic constituent are decisive. It is also related to the syllabic length, from the phonetic perspective of the language. Weight is not relevant to differentiate phonemes in Portuguese, but that does not make it irrelevant. According to Massini-Cagliari (1992), speakers are able to assign a large amount of length to syllables when producing utterances in social interactions, the main motivation of which being the stress.

Regarding the geminates weight, they are considered to have only one mora, since part of the consonant is found in the coda of the previous syllable and the other part is in the onset of the syllable in which it is done phonetically; and the onset carries no mora, therefore not contributing to the weight of the syllable (PERLMUTTER, 1995). Goldsmith (1990) shows that there are two types of gemination: the true ones, multiply associated, constituted within a simple morpheme; and the false ones, which are the result of the combination of two equivalent segments, since they are located in different morphemes. In this way, false geminates can be seen as the accidental juxtaposition of equal features, to the extent that the real ones consist of their systematic association. It is necessary to consider that only the geminates considered to be true can be used in the analysis of the length.

Cedeño and Morales-Front (1999) determine that geminate consonants have two phonological properties: integrity and inalterability. These elements are characterised by resistance to the clashes of linguistic processes that could apply to them. Therefore, it is not possible to separate them by epenthesis rules, as it would violate their integrity. Nor

is it possible to change only one of its parts, a fact that would represent an infringement of the inalterability principle. The addition of an epenthetic vowel in the middle of a geminate causes the crossing of associated lines, which causes agrammaticalities. Perlmutter (1995) believes that it is not possible to introduce one or more elements into the intervocalic geminates, since they are a single consonant segment that is worth two. Within nonlinear theories, the most correct way to reproduce consonants of this type and long vowels is through multiple association.

The variation in the *cancioneiros*

As shown by Mattos e Silva (2006, p. 43), regarding the medieval period of Portuguese, "reflections of grammarians" and "other types of texts in which comments on linguistic uses appear" have not survived, the remaining documentation being characterised by graphic variation, since a standard norm was not yet established. Huber (1986 [1933]) comments that, despite the diversity of graphic representations that characterised AP, the language was uniform in general, emphasising that the graphic oscillation was also perceived in the choice of punctuation, which appeared quite heterogeneously in the songbooks.

From the perspective of those who decipher the writing of the work, there may be difficulties in graphic delimitation between the letters. In the words in which the vowel graphemes <i> and <u> were side by side, for example, there was a lot of segmentation difficulty in reading, a fact that caused the need to add superscript dots on the Is. With regard to punctuation, the copyists of that time did not transcribe it, but introduced one or the other when they saw fit. Although there was not yet a system of pre-established orthographic rules during the 13th century, it is evident that the scribes and authors reflected on the language of that time and wrote according to some general parameters. There were even certain patterns and graphic uses specific to each medieval *scriptorium*. During the process of making the compositions, a large number of individual stylistic features were lost due to the existence of specific models, which were followed in order to standardise the writing used by the team of professionals. Given the above, Parkinson (1998) suspects that the indications of authorship located in the songs are mere literary conventions.

The criteria adopted by copyists and writers from the archaic period were determined by the user's awareness of their own linguistic system. Sometimes the variation of a form is due to a stylistic preference of the composer. In this regard, Massini-Cagliari (2015) argues that the variations resulting from a selection based on style should be considered situations of deviation, since the speaker, after evaluating all lexical options available based on the language's restrictions hierarchy, decides to consciously *suspend* their judgement and then adopt another one, in order to promote the effect that they, with artistic pretensions, wish to obtain. In view of this, the use of one form and not another may have been motivated by different factors, among them the style assumed

by the scribe or troubadour/minstrel in the creation of the work, with the aim of refining their craft through innovations in the literary language chosen.

Much is discussed about the possibility of obtaining traces of the variety spoken in the past of a language, of which there are no oral records, using as a resource the written texts remaining from that phase of history. In the present study, we believe that the fact that there was still no standardised norm in AP favoured the reproduction of singularities of the spoken language in written documents. On the subject in question, Mattos e Silva (2006) argues that the absence of grammatical control ended up resulting in frequent variations, which reflect some of the uses of the language. For the author, what is written mirrors the voice of the past and "it speaks to us", although not entirely, of its "first use". Therefore, the act of analysing the variation in the songbooks provides numerous clues to some perception of the voices that were pronounced in antiquity.

It should be noted that the written documentation of AP is defined not only by alternations in spelling, but also in morphology and syntax. Mattos and Silva (2006) claims that, through the graphic variation, signs of phonic realisations coexisting in the past of the language can be inferred, while through morphological and syntactic changes structural possibilities in use in the period can be seen, such possibilities are indicators for changes that have occurred and that, based on grammatical norms, written works start to omit, since only a part of the existing variations is chosen to compose the orthographic system of languages. That said, the remaining texts from the 13th century are a significant subsidy to understand and analyse the language used daily in troubadour society, despite the numerous limitations and difficulties inevitably imposed during the process of transferring oral production to written record.

Data collection

As mentioned, the work undertaken here aims to bring new information about the phonological status of the rhotic consonants in AP, contributing to the consolidation of a phonological mosaic of the language realisations of the Middle Ages. Therefore, a sample of 672 occurrences of <rr> was collected in the corpus examined. It should be emphasised that all data were organized according to the environment occupied within the syllable and the word.

Table 1 – Mapping of the <rr> grapheme regarding its position within the syllable.

Position in the syllable	<rr>
Beginning	672 (100%)
Middle	-
End	-

Source: Authors' elaboration.

Table 2 – Mapping of the <rr> grapheme regarding its position within the word.

Position in the word	<rr>
Beginning	45 (6,7%)
Middle	627 (93,3%)
End	-

The totality of <rr> occurrences appeared at the beginning of syllables and predominantly in the middle of words, which may indicate that the segment represented by that specific grapheme was a geminate one, which fills, at the same time, the coda of the previous syllable, closing it, and the onset of the following one. In Table 2, we see that 93.3% of these consonants are in intervocalic context, an ideal position for gemination to occur. The mapping of medieval codices revealed a variety of graphic forms, which differ not only from one songbook to another, but also within each compilation. Within certain songs, a word can take on more than one spelling, vestiges of a period in which an orthographic norm established by law did not yet exist. Although there are different types of variation in the corpus, in this article we focus on the RR-IR-YR variation, in order to make our argument viable, from a practical point of view. In addition, it was necessary to make a selection to avoid repetition. Thus, Chart 1 exposes only a small portion of the variations found.

Chart 1 – RR-IR-YR variation.

Author	Song genre	Word	Variation	Songbook with variation	Songbook without variation
João Peres de Aboim	Friend	verrá 'will come'	veira	CBN	CV
João Lopes de Ulhoa	Friend	verria 'would come'	ueiria	CBN	CV
João Garcia de Guilhade	Friend	morrendo 'dying'	moirendo	CBN	CV
Paio Gomes Charinho	Friend	averrá 'will happen'	aveira	CBN	CV
João Airas de Santiago	Friend	verrá 'will come'	ueira	CBN	CV
Pero de Berdia	Friend	verrá 'will come'	ueira	CBN	CV
Lopo	Friend	verrá 'will come'	veyra	CBN	CV
Paio Soares de Taveirós	Love	morreu 'died'	moireu	CA/CBN	

Author	Song genre	Word	Variation	Songbook with variation	Songbook without variation
Paio Soares de Taveirós	Love	morreu 'died'	moireu	CBN	CA
Martim Soares	Love	verrá 'will come'	ueira	CBN	CA
Martim Soares	Love	terrá 'will have'	teira	CBN	
Airas Carpancho	Love	morrer 'to die'	moirer	CBN	CA
Airas Carpancho	Love	moiro 'I die'	morro	CBN	CA
Nuno Rodrigues de Candarei	Love	morrer 'to die'	moirer	CBN	CA
Nuno Rodrigues de Candarei	Love	morrerey 'I will die'	moirerey	CBN	CA
Pero Garcia Burgalês	Love	morrer 'to die'	moirer	CBN	CA
Pero Garcia Burgalês	Love	morro 'I die'	moiro	CA/CBN	
João Nunes Camanês	Love	moir'e 'I die and'	morre	CBN	CA
João Nunes Camanês	Love	moiro 'I die'	morro	CBN	CA
João Soares Coelho	Love	morro 'I die'	moiro	CA/CBN	
João Lopes de Ulhoa	Love	lh'averrá 'will come to you'	ueira	CBN	CA
Mem Rodrigues Tenoiro	Love	morrera 'will die'	moirera	CBN	CA/CV
João Garcia de Guilhade	Love	moira 'that you die'	morra	CV	CBN/CA
João Garcia de Guilhade	Love	morrer 'to die'	moirer	CBN	CA/CV
João Vasques de Talaveira	Love	morrerei/y 'I will die'	moirerey	CBN	CA/CV
Pero de Armea	Friend	moiro 'I die'	morro (CBN) moyro (CV)	CBN/CV	
D. Afonso López de Baian	Satirical	espadarron 'big sword'	espadairon	CBN	CV
Afonso Meéndez de Beesteiros	Satirical	guerra 'war'	gueira	CBN	

Author	Song genre	Word	Variation	Songbook with variation	Songbook without variation
Airas Pérez Vuitoron	Satirical	correola (nickname)	coyreola	CBN	CV
Estêvan da Guarda e Don Josep	Satirical	querrá 'will want'	queyra	CBN/CV	
Joan Baveca e Pedr'Amigo	Satirical	erra 'err'	eyra	CBN	CV
Joan Garcia de Guilhade	Satirical	ferrou 'shoed a horse'	feirou	CBN	CV

Source: Authors' elaboration.

Chart 1 shows that this type of variation can happen within a verbal paradigm (*morrer/moirer/moiro/moire/moira* etc. 'die'), in verbs and in nouns (*guerra/gueira* 'war'). The terms *correola/coyreola* refer to an anthroponym used by Airas Pérez Vuitoron in one of his poems. The IR-YR variation occurs copiously in the data and is configured as a graphic alteration, given that in the 13th century <i> and <y> were used alternately for stylistic reasons. Occasionally, when a word occurs more than once in a work, it can be written in different ways, sometimes with <i>, sometimes with <y>, which reiterates the striking diversity of the productions from the archaic period.

Variation data analysis

In this section, we present a phonological interpretation of the mapped data and verify how the material analysed confirms or not the existence of the gemination phenomenon. Somenzari (2006), when investigating the possibilities of gemination during the medieval phase of Portuguese, promoted a study of the double consonants present in the Galician-Portuguese lyric. For the author, the use of duplicate spelling for consonant segments does not represent a gemination mark, in almost all cases. The only case in which geminate status is attributed is <rr> between vowels; the other double consonants, as well as the <rr> data at the beginning of words and in syllable attacks after consonants, consist of simple elements, from the phonological point of view of the language. The argument chosen by Somenzari (2006) to advocate for the presence of intervocalic gemination of the double trill in AP is based on the RR-IR-YR variation.
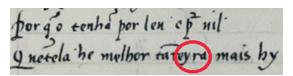
The concept of syllabic weight is important for explaining this variation, which so widely encompasses the data from our research and the events portrayed in the work of Somenzari (2006). The diphthong (vowel + i/y) occupies two positions in the rhyme,

one in the nucleus and one in the coda, forming a heavy syllable. In order for the initial syllable of the words (***morrer*** 'to die', ***erra*** 'err', and so on) to keep the same syllable weight as the first syllable of the varying terms (***moirer*** 'to die', ***eyra*** 'err'), <rr> must be interpreted as geminate. Thus, the diphthong's semivowel completes the syllable coda, an environment also occupied by the double consonant in non-varying terms. When analysing <rr> as geminate, the correspondence between the words spelled with <ir> / <yr> and <rr> is maintained.

This discussion demonstrates that intervocalic <rr> integrates two positions in the syllable internal organisation, one in the coda of the first syllable, closing it, and another in the attack slot of the consecutive syllable unit. Therefore, the premise adopted considers that the phonological system of AP was still similar to that of Latin, differing from the current one. It is significant to emphasise that the consideration of a geminate is the only possibility capable of elucidating the variation mapped by us and by Somenzari (2006), in which the succession of two different sounds (a vowel + a trill written as <r>) is equivalent in quantity (one mora, licensed by the coda) and in function to a double consonant <rr>.

This fact does not necessarily imply that there was only one rhotic sound (= phone) in AP. What the consideration of gemination in intervocalic position demonstrates is that, even though there are two rhotic phones (the tap [ɾ] and the trill [r], as there are to this day European Portuguese), they were not in phonological opposition and symbolised the production of the same phoneme of the language. This hypothesis was first thought for BP and EP by Câmara Jr. (1953) and represents a continuation of the Latin system, in which there was only one rhotic phoneme, which could be geminated. Abaurre and Sandalo (2003) claim that the fricative and retroflex realisations produced today, alongside the tap and the trill, are new in the history of the language spoken today in Brazil.
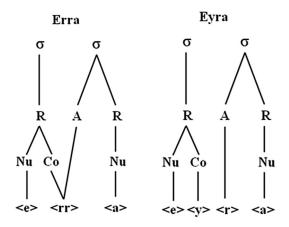
Figure 1 – *erra/eyra* ('to err') variation. "*porque o tenham por leve, por mi, quant'ela é melhor, tant'erra mais* i"[1]

Source: Facsimile edition of the *Cancioneiro da Biblioteca Nacional de Lisboa* – Colocci-Brancuti (1982, p.260).

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[1]   'because even if they are considered poor, the better it is, the more they ramble about.'

(1)

Erra **Eyra**

The syllabic trees presented in **1** show what has been verified so far: because *erra* and *eyra* represent the same word, the quantity of syllables tends to be the same in the two terms. This is not automatic; the phenomenon is more natural when the same number of morae is maintained. The *ey* diphthong makes the first syllable from *eyra* heavy, with two underlying morae. The second syllable of the word is light, since it carries one mora, once the onset does not contribute to the moraic amount. Thus, for an equivalence between *erra* and *eyra* to exist, <rr> is divided and occupies two environments in the syllable structure, the coda and the onset. With this, the initial syllable of *erra* is closed by the rhotic consonant <r> and becomes heavy, with a branched rhyme. The next syllable is equal in weight and in **CV** configuration to the last syllable of the word *eyra*, both preserving only one unit of weight within the nuclear or central context.

Michaëlis de Vasconcelos (1946) confirms, through a brief passage pondering over the course of the Portuguese language, the existence of the RR-IR-YR variation. Câmara Junior's historical works, as well as the studies developed before him by philologists, already testified to this.

> If the Galician-Portuguese said, for example, *moiro* 'I die', *comio* 'I eat', and *cômio* 'I eat', *dôrmio* 'I sleep', *arço* 'I burn', *perço* 'I loose', *menço* 'I measure', *senço* 'I feel' – because such are the exact phonetic representants of *morio* – (from *morior*) *comedo*, *ardeo*, *perdeo*, *mentio*, *sentio* – those who came later preferred to take the infinitives *morrer*, *comer*, *dormir*, *arder*, *mentir*, *sentir*, as bases for the regular or analogical present forms *morro*, *como*, *durmo*, *ardo*, *minto*, *sinto*[2] (MICHAËLIS DE VASCONCELOS, 1946, p.16, our translation).

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[2] Original: "*Se os galego-portugueses diziam, por ex.: moiro, cômio, e coimo, dôrmio, arço, perço, menço, senço, – porque tais são os representantes foneticamente exactos de morio – (por morior) comedo, ardeo, perdeo, mentio,*

What this quote exemplifies is that, in its origin, <rr> was derived from a <r> and a <i>, that is, there were two morae in its structure. The consideration of the presence of two morae in the first syllable of *morrer* 'to die', at the beginning of its constitution as a Portuguese word, determines that, already in that phase of history, the double rhotic between vowels took two contexts in the organisation of the syllabic unit and added to its weight. It is worth mentioning that, although the author states that medieval writing was phonetic, we assume the perspective of Massini-Cagliari (1998), who adduces a set of arguments that prove that AP spelling cannot be considered a faithful transcription of the speech sounds, even though it brings some reliable evidence of the pronunciation of that time.

It is interesting to note that the substitution of a diphthong for a rhotic consonant is not a phenomenon exclusive to the language's past. Similar cases to that described by Michaëlis de Vasconcelos (1946) can be found today, which is what occurs in the word *besouro* 'beetle'. Although its orthographic representation has a diphthong (*ou*), it tends to disappear during its phonetic realisation. In this way, a comparison between these variations can be established, because, despite the temporal distance that separates such occurrences, they relate to the same linguistic process.

In the words *besouro* 'beetle' and *moirer* 'die' we have a diphthong that gives weight to the syllable and a simple rhotic that follows. In both words, the diphthong leads to a trill. According to Wetzels (2000), geminates are never preceded by diphthongs in BP, as the coda of the initial syllable must be empty to be able to take in part of the segment. In view of this, the disappearance of the diphthong allows the emergence of another realisation for the accompanying rhotic, which changes from a tap to a trill. The phonetic realization of *besouro* 'beetle' can still maintain the tap in certain BP varieties, however, the diphthong is not preserved in most cases. In **2**, we show some of the possible pronunciations of the term:

(2)

Besouro 'beetle':
[bi'zoʊ̯ɾu], [bi'zoɾu], [bi'zohu], [bi'zoxu], [bi'zoɦu] etc.

The variation data of the pretonic vowel, whose realisation alternates between [e] and [i], were not indicated because this is not our focus. What the examples express is the non-co-occurrence of the diphthong with trill, that is, there is no *besourro in BP speech, even though there is *besorro*, which reinforces the possibility of the presence of intervocalic gemination in the troubadour period, since, as argued by Câmara Junior (1985 [1970]), after diphthongs there can only be one simple element, among the rhotic consonants.

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sentio – os pósteros preferiram tirar dos infinitivos morrer, comer, dormir, arder, mentir, sentir, os presentes regulares ou analógicos morro, como, durmo, ardo, minto, sinto" (MICHAËLIS DE VASCONCELOS, 1946, p.16).
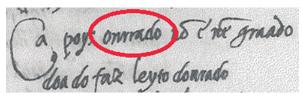
The words *omrado/onrrado* 'honoured', *valredes/valrredes* 'you (pl.) will come', *salrá/salrrá* 'will go out', in which the double rhotic appears after a heavy syllable, expose a counter-argument for considering germination in AP, however, also point to solutions that resolve the deadlock. As shown, the codices do not categorically present the graphic configuration of the words, which constantly vary in the choice of single and double consonants. Thus, the fact that a term is written with <rr> does not mean that, from a phonological perspective, this grapheme represents /rr/. The variations found make it possible to claim that these changes occur exclusively at the level of writing, that is, the double rhotic can be considered a simple consonant phonologically. As an example, we illustrate below the alternation *omrado/onrrado* 'honoured', in order to support our argument.

Figure 2 – *Omrado* 'honoured'. "*Ca, pois honrado nom é, nem graado, doado faz leito dourado"³*

Source: Facsimile edition of the *Cancioneiro da Biblioteca Nacional de Lisboa* – Colocci-Brancuti (1982, p.615).

Figure 3 – *Onrrado* 'honoured'. "*Ca, pois honrado nom é, nem graado, doado faz leito dourado*"⁴

Source: Facsimile edition of the *Cancioneiro Português da Biblioteca Vaticana* (1973, p.153).

The favourable position for the occurrence of gemination consists of an open CV or V syllable before <rr>. In the highlighted words, the antecedent coda is filled by another consonant element, which is not <r>, hence them being defined as occurrences that go in the opposite direction of what we defend. The preceding context and the syllabic structure are essential for verifying the (non-)germination of the rhotic in AP, since they determine the possibility of this consonant behaving as a complex one. Since Portuguese does not have a medieval grammar or dictionary from the period,

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3   Translation: 'Here, for he is not honoured nor generous, and makes what he is given into a golden bed'.

4   Translation: 'Here, for he is not honoured nor generous, and makes what he is given into a golden bed'.

the cases in question were looked up in the Glossary developed by Mettmann (1972), which despite contemplating only the words present in the CSM, can be used to reflect on issues related to the lexicon of secular songs, since the language used in the two branches of Galician-Portuguese lyric does not present significant divergences.

The verbs mentioned (*onrar/onrrar* 'to honour', *sair* 'to leave' e *valer* 'to be worth') assume different inflections and derivations in the archaic texts, but only some of them carry a consonant that closes the syllable in front of the rhotic written as <rr>. The transitive verb *onrrar* 'to honour' only appears conjugated in the infinitive and in derived forms, such as the feminine nouns *onrra* 'honour'/*desonrra* 'dishonour' and the adjective *onrrado/a* 'honoured'. The intransitive verb *sair* 'to leave' keeps only one tense in which a consonant precedes the double rhotic, which is the third person singular of the indicative future. Regarding the *valer* 'to be worth' inflections, three of them have CVC closed syllables before <rr>. The lateral element <l>, which is in coda position, gives a second unit of weight to the initial syllable of the words listed below:
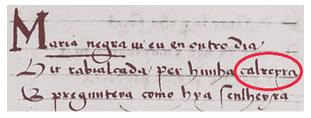
1. *Valrria* (he/she would be worth);
2. *Valrrá* (he/she will be worth);
3. *Valrredes* (you (pl.) will be worth).

Regarding syllables closed by consonants in Portuguese, Câmara Junior (1985[1970]) explains that, after a nasal vowel (that is, a syllable closed by the nasal archiphoneme /N/), only strong sound occurs, never the weak-r. In other words, terms like *genro* 'son-in-law' and *honra* 'honour' have a mandatory pronunciation, always with strong-r. This fact shows that, although these words have a strong realisation, the grapheme represented is simple. A similar analysis can be undertaken regarding *omrado/onrrado* 'honoured', since, according to Massini-Cagliari (2015), the roll of consonants in syllable-closing position in AP was already similar to that of BP. This fact leads to the confirmation of our conjecture that <rr> after a closed syllable must be understood as a graphic variant of simple <r>. Thus, the presence of the double trill in *onrrado* 'honoured' can signal the writer's desire to express, through writing, a more marked articulation.

In the secular collection, we found a single occurrence in which <rr> appears portrayed as <lr>, the *carreira/calreyra* 'path' variation. This occurrence allows for new arguments that the duplicate rhotics, at that moment in language history, could be phonologically geminates. The appearance of *calreyra* illustrates that, in the unfolding of a geminate in two parts, or, in the opposite movement, when two segments merge into a geminate, the compensatory length always proves to be very significant. In a phonological phenomenon, when an element associated with a mora is suppressed, the mora is preserved and is passed down to another segment. Therefore, if /l/ is deleted, the mora linked to that sound (which has a mora, because it is in the context of the coda) will remain, being linked to the rhotic, which becomes long, or geminate, or double. The elements undergo certain changes; however, the syllable quantity remains exactly
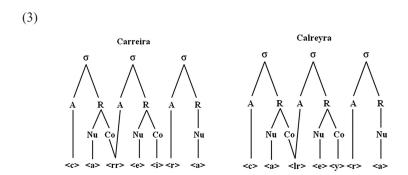
the same. Therefore, the length comprises a mechanism capable of compensating for the disappearance of segments of the word.

Figure 4 – *carreira/ca**l**reyra* variation. "*Maria Negra vi eu, em outro dia,*
ir rabialçada per uma carreira; e preguntei-a como ia senlheira"[5]

Source: Facsimile edition of the *Cancioneiro Biblioteca Nacional de Lisboa* – Colocci-Brancuti (1982, p.625).
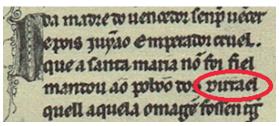
Next, we present the tree representation of the words *carreira* and *calreyra* 'path', in order to demonstrate that, in both cases, the consonants fill the coda of the preceding syllable and the attack of the next one, at the same time. Therefore, it is clear that the graphemes <rr> and <lr> have the same length:

(3)

A very similar case was found in Macedo's work (2019), which reinforces the existence of a wide variety of graphic forms at that time. The word *Israel* was portrayed as *Irrael* in CSM songs 4 and 27 of the religious collection. In the variation in question, the disassociation of the fricative <s> originated a double rhotic by compensatory lengthening. In figure **5**, we present a reproduction of the Escorial codex, known as the Musicians codex. It is important to point out that the highlighted alternation appears in all Marian songbooks.
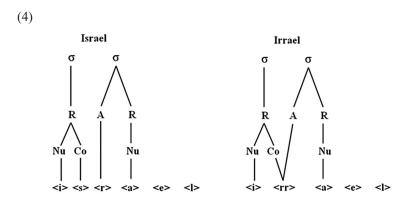
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5   Translation: 'I saw Maria Negra, another day, going her way with her rump high, and asked her why she was alone'.

Figure 5 – *Israel/Irrael* variation.

The <s> segment, from *Israel*, is in the syllable's coda position and therefore carries a mora. Its erasure, however, does not result in the disappearance of the weight unit, which is preserved and associated to another element. As can be seen, when a segment is suppressed due to the application of phonological rules, its length remains intact and gets linked to another slot located in the immediate vicinity. In *Irrael*, the erasing of the fricative <s> generated the lengthening of the rhotic, which incorporated the previous coda's mora and became doubled or geminate. Thus, the increase in the temporal duration of the rhotic offset the omission of the consonant <s>, a phenomenon known as compensatory lengthening (HOGG; McCULLY, 1987). Example **4** clarifies what is described:

(4)

As reported in this section, the data collection made it possible to understand the presence of the consonant gemination of intervocalic double rhotics in the archaic stage of the Portuguese language, considering that the trill <rr> fills two contexts within the internal syllable organisation and has greater duration than its simple counterpart. The counter-argument found was solved by the research corpus itself, since the large

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6   Translation by Kulp-Hill (2000, p. 37-38): "…the Mother of the Conqueror always conquers. Later, Julian, the cruel emperor who was unfaithful to Holy Mary, commanded the people of Israel to bring him that image."

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number of variations present in the codices showed that, in cases where <rr> appears after a syllable closed by consonant, the double trill does not mirror a long segment, from phonological point of view. In addition, no data in which a diphthong precedes the double rhotic was observed in the sample, which favours our interpretation that <rr> can be geminate between vowels, because, for this, the preceding syllable coda must be free, to be able to take in one of the parts of the consonant.

The rhotics present an expressive amount of variation in the BP spoken in the present, especially when taking regional varieties into account. However, it is not its great diversity of realisations that draws the most attention, but the controversies regarding its phonological status, both in past periods of Portuguese and nowadays. What can be found in the literature are two views: 1) the Portuguese language has two trills, one strong and one weak; 2) Portuguese has a single rhotic phoneme, which, for some, is strong-r and, for others, weak-r. For Massini-Cagliari (2015), the fact that double elements cannot appear at the beginning of the word is the first reason to analyse their phonological status, given that, if they were simple consonants, such a restriction would not be justified. As for the investigation carried out by Somenzari (2006), Massini-Cagliari (2006) argues that there is no conclusion as to the underlying form of the rhotic in AP. As no cases were found in which strong-r is located after a syllabic closing in the middle of a word, the author states that Somenzari (2006) might have risked an interpretation that considered tap as the basic form of the medieval rhotics.

The perspective assumed here uses Latin and the EP to formulate considerations about the discussion, given that the AP consists of a compatible intermediate point at which both speeches converge. In the Latin language, the intervocalic environment encompassed a simple /r/ and a geminate /rr/ (composed through the merging of two segments with identical articulations), which led to oppositions such as, for example, *ferum* (*feroz*, 'fierce') **x** *ferrum* (*ferro*, 'iron'). The underlying phoneme was a tap, with strong /rr/ being a phonologically geminate segment, that is, a succession of equal consonants between which a syllabic boundary landed (CÂMARA JUNIOR., 1953). Italian still preserves this configuration today with regard to geminates. In addition to promoting the maintenance of the Latin geminates, it created new ones through assimilation.

As modern EP maintains the tap and the trill productions, from a phonetic point of view, it is possible that these were the phonetic realisations of these sounds in the medieval stage. This way, the biggest change occurred in the Portuguese spoken in Brazil, which acquired fricatives such as strong <rr> and retroflexes varying with the tap. Starting from these considerations and from what we have discussed so far, we recognise that the rhotic phoneme of AP, a period whose native speakers we have no contact with, consists of the tap and that the phonological opposition between strong-r and weak-r, in intervocalic context, is a consequence of the twinning of two weak-r (ɾ + ɾ).

Renowned scholars, such as Wetzels (1997), Mateus e D'Andrade (2000), Monaretto (1997) and Lopez (1979), assume this perspective for present-day BP. In agreement

with the authors mentioned, we rely on the occurrences of variation found to support our reflections. Monaretto's (1997) work shows that the tap has a larger distribution context and tends to be realised more regularly, in addition to being the consonant that emerges in phrasal resyllabification. The researcher explains that the realisations of strong-r at the beginning of words and syllables are the result of a reinforcement rule capable of converting a tap into a strong-r. According to the point of view defended, the weak-r is located in all linguistic environments and is, therefore, in the deep structure of the language.

In the context of contrast, that is, between vowels, we argue for the idea that there is a simple rhotic /ɾ/ in opposition to the sum of two /ɾ + ɾ/. In *caro* 'expensive', for example, the underlying phoneme comes to the surface, whereas the word *carro* 'car' has two weak taps, one in coda position (*car-*) and another in an initial context (*-ro*), which together form a strong consonant. Due to the performance operation of the OCP (Obligatory Contour Principle), which censures sequences of adjacent analogous elements at the melodic level, the two weak-r are reduced to one, with double bond, a fact that reinforces that the strong rhotic integrates two temporal environments in the syllable's internal structure. In *caro* 'expensive', the tap differs from the trill by its simple branch. Thus, the contrasting value that the intervocalic context manifests in the Portuguese system is understood by us as a result of gemination, exposed through a double-bond structure, which is opposed to a simple-bond weak-r. That said, we adhere to the group of authors who defend the hypothesis of the presence of only one vibrant in Portuguese, which is the tap and presents two variants, a simple one, identified in the folios of the archaic songbooks by one or two graphemes (<r>/<rr>), and another geminate, always with double representation (<rr>).

Conclusion

Data analysis revealed that the results obtained were significant for the understanding of the rhotics behaviour in the course of the 13th century. The methodology was based on the verification of the possibility of alternation in the graphic representation of trills, in order to establish the existing relationships between letters and sounds, and on the study of the element represented graphically as double in all possible syllabic environments. By investigating the occurrences, it was possible to draw certain conclusions about the rhotics, which deserve special mention. In intervocalic position, the double consonant can be considered geminate at the phonological level, since it fills two temporal contexts in the internal organisation of the syllable and, therefore, manifests longer length than its simple counterpart. We did not find in the corpus any occurrence of diphthong before <rr>, which contributes to our interpretation, given that the coda of the previous syllable must be empty in order to receive part of the segment.

As for the rhotics phonological status throughout the Middle Ages, we consider that only the tap appears in the deep structure of Portuguese. In view of the above, we join

the researchers who defend the existence of a single vibrant phoneme in the language, that being the tap, which has two variants, a simple one, represented by <r> or <rr>, and another, geminate, predominantly spelt as <rr>. By recognising the weak rhotic in the AP subjacency, we assume that the phonological opposition between strong-r and weak-r, in intervocalic environment, is configured as a result of the gemination of two weak-r. It is worth mentioning that we start from the opinion of Zucarelli (2002), regarding the configuration AP diphthongs, considering that the author postulates that the semivowel has the same function as the consonant that closes the syllable, that is, considering the presence of only one anchoring place in the syllabic centre. Thus, the diphthong's semivowel integrates the coda, closing the syllable. In this article, we admit that the diphthongs of the RR-IR-YR variation are in the nucleus and in the coda, which strengthens our reflections. As we have shown, the diphthong (of *moirer* 'die', for example) expresses the same structural distribution as a vowel + a simple consonant (*morrer* 'die'). Therefore, *moi* and *mor* are syllables with branched coda.

Finally, with regard to the phonetic realization of the <r> and <rr> segments at that time in Portuguese history, it is significant to bear in mind that, due to the wide variety of graphic representations found in archaic collections, there was certain instability in the recording of these consonants. Sometimes words would appear written with <r>, sometimes with <rr>, a fact that can signal a desire of the writer to express phonetic variations through spelling. Certainly, the oral production of the troubadour language was of taps and trills, given what is currently verified in Portuguese spoken in Europe. By examining the remaining poems from the 13th century, it is possible to conjecture that the use of simple and duplicate forms aimed at portraying these two types of pronunciation and, as there was not yet an official spelling, there was, to some degree, certain fluctuation in the adoption of the rhotic elements in the songs created in the Iberian Peninsula.

Acknowledgment

BARRETO, D. A. R. J.; MASSINI-CAGLIARI, G. Consoantes róticas duplas em contextos intervocálico: estudo da possibilidade de geminação na época arcaica do português. **Alfa**, São Paulo, v.66, 2022.

▪ *RESUMO: O objetivo deste artigo consiste em estudar os fenômenos fonológicos do português falado na etapa trovadoresca, investigando especificamente as consoantes róticas presentes em 250 poemas medievais galego-portugueses. Nosso propósito é o de verificar se, naquela época da língua, havia dois fonemas róticos em oposição, ou se, do ponto de vista fonológico,*

o som intervocálico geralmente representado por <rr> poderia ser interpretado como sendo uma variante geminada do usualmente grafado como <r>. A análise da amostragem foi feita a partir dos modelos fonológicos não-lineares. O método eleito se embasa na observação da possibilidade de variação na escrita das vibrantes, a fim de determinar as relações existentes entre letras e fonemas, e no estudo do comportamento fonológico de <rr> no interior da sílaba e do vocábulo. Os casos demonstraram que, entre vogais, a rótica dobrada preenche dois contextos temporais na organização interna da sílaba. Reconhecemos a existência de apenas um fonema rótico no PA, o r-fraco, que, foneticamente, apresenta duas variantes, uma simples, retratada nos cancioneiros por um ou dois grafemas (<r>/<rr>), e uma geminada, de representação dupla (<rr>).

- *PALAVRAS-CHAVE: Português arcaico; estrutura silábica; geminação; cantigas medievais galego-portuguesas; consoantes róticas.*

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