Micro- and Macro-variation in Verse. A Typology of Romance Renaissance Meter

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Abstract

During the Renaissance, a new meter spread across Europe and imposed itself as the main way of versification. Every poetic tradition adapted it in its own way and, even within Romance languages, the resulting new poetic forms varied considerably from each other. The aim of this paper is to make a typology of the Romance instantiations of Renaissance meter and to analyse the elements characterising metrical variation. A significant aspect of divergence among the poetic forms is related to their tendency towards an iambic rhythm. According to the literature, the main Romance forms can be divided into three groups in this respect: 1) purely syllabic poetry of the French tradition, 2) a meter tending towards iambic rhythm of Italian and Spanish endecasyllable (Nespor–Vogel 1986; Piera 1981; Gasparov 1987) and 3) the one tending towards syllabicity of Catalan and Portuguese decasyllable (Duffell 1994; Spaggiari 2003, respectively). I propose a quantitative approach to test and compare the degree of deviation from an iambic pattern as a way to verify this grouping and to answer the ongoing question about the iambic element of Renaissance meter. I do so by analysing 20 samples (130 lines for each author, ca. 2 authors per language) and calculating the percentage of stressed and unstressed syllables in each metrical position. The samples are from major languages, namely, Italian, French, Spanish, Catalan and Portuguese, and less investigated varieties, namely Occitan, Neapolitan, Sicilian and Venetian. A phonological account supports the findings.
1 Introduction

During the Renaissance, a new meter blossomed across Europe and its great success made it the most popular verse in various poetic traditions. Nevertheless, the way of implementing the new poetic form varied from language to language. The present article proposes a typology of the Romance instantiations of Renaissance meter based on the analysis of the elements determining metrical variation. The main focus is rhythmical grouping, which can subdivide Romance Renaissance forms into three classes: 1) purely syllabic poetry of the French tradition, 2) a meter tending towards iambic rhythm of Italian and Spanish endecasillabo (Nespor–Vogel 1986; Piera 1981; Gasparov 1987) and 3) the one (almost) syllabic of Catalan and Portuguese decasyllable (Duffell 1994; Spaggiari 2003, respectively). An analysis of each meter’s deviation from a perfect iambic template sheds light on the rhythmical classes and contributes to the investigation of their motivations.

In the present study, 20 samples are considered, each of them being from one poet. They consist in almost all cases of 130 lines per sample and every language is represented by two authors. The percentage of stressed and unstressed syllables in each metrical position for each sample and its deviation from a strictly iambic pattern is calculated. The samples are from major languages, namely, Italian, French, Spanish, Catalan and Portuguese, and less investigated varieties, namely Occitan, Neapolitan, Sicilian and Venetian. Two extra samples, one from English and one from Dutch are included in order to compare their distance from an ideal perfectly iambic line with the one obtained for the Romance traditions.

The aim of this paper is to investigate three main issues: 1) the validity of the rhythmical grouping and the microvariation within the groups; 2) the meaning of “tendency towards iambic rhythm”, the elements defining it and the extent to which the tendency differs from an actual iambic poetic form; 3) the difference between traditions with a pre-Renaissance decasyllabic meter, namely, Catalan and Portuguese, and those ones, which directly adopted the new form. A model, is proposed, which can test these questions and allow more quantitative data exploration and visualization.

After a brief paragraph (2) on background information, the rhythmical question is presented (in 3). In 4, the samples are described and the methodology is outlined. Paragraph 5 presents the results of the study, while paragraph 6 is the section dedicated to discussion. A conclusive paragraph closes the paper.

2 Background: Romance Renaissance meter

Renaissance meter spread all over Europe and became the most common and prestigious way of versification in numerous traditions. For the purpose of the present paper, the focus will be only on the Romance traditions, which implemented the new poetic form; but the Renaissance meter played a significant role in Germanic poetic traditions as well.
Italian *endecasillabo* represents the canonical Renaissance poetic form. It was also the main source from where the poetic trend quickly spread across countries and poets. The origins of the meter, though, need to be found in Occitan poetry, in the verse elaborated by troubadours (Beltrami 1986; Di Girolamo–Fratta 1999; Billy 2000); they were the first to elaborate the ten-syllable line. The new poetic form reached Italy via the *Scuola Siciliana* and the international and vibrant cultural center that was the court of Frederick II in Sicily (Di Girolamo 2008). There, poets started imitating the Occitan meter, which, then, reached the Peninsula. From the verse of Petrarcha, it spread to Spanish and, later on, to poems written in Neapolitan, Venetian and Sicilian. French already presented a decasyllable (Gasparov 1987), which was substituted by the alexandrine during the Renaissance. A particular case is constituted by Catalan and Portuguese poetry, which already presented a ten-syllable line in their tradition. Consequently, with the blossoming of Renaissance, the pre-existing meters were slightly modified in order to accommodate the new poetic trends (Ramírez 1985; Duffell 1994 for Catalan and Spaggiari 2003 for Portuguese).

The incorporation of Renaissance meter into the various poetic traditions did not lead to one unique result. In fact, the instantiations varied significantly from each other and presented only few characteristics in common. Interestingly, though, despite all variations in the way of implementing the new poetic form, none of the Romance languages developed a strictly iambic meter. This was the case, instead, when the meter was incorporated into Germanic traditions; it, in fact, represents a strong clear cut between the implementation of Renaissance meter into Romance languages and into Germanic ones: while Germanic poetry developed an iambic meter, Romance tradition preserved the colon-based element of the source poetic form.

Romance Renaissance meters are composed by ten metrical positions, where the tenth needs to be filled by a stressed syllable. One extrametrical syllable (or feminine ending) can occur line-finally. Some of the languages present a higher percentage of these optional positions; for example, in Italian, the majority of lines ends with one extrametrical syllable. This is due to the large amount of paroxytone words in the Italian lexicon (Duffell 1991; Gasparov 1996: 122). On the contrary, languages like Catalan and (to a lesser extent) Venetian, whose lexicons are rich in oxytone words, present less often extrametrical positions in their poetry. In (1), an example of verse rich in extrametrical positions, namely the Italian endecasillabo, is given; the example in (2), shows some Catalan lines, all with oxytone line-final words.

(1) Italian *endecasillabo*  
Gli occhi di ch’io parlai sí caldamente,  
Et le braccia et le mani et i piedi e’l viso,  
Che m’avean sí da me stesso di viso,  
Et fatto singular da l’altra gente  

(Francesco Petrarca, Sonnet 292, Canzoniere)

(2) Catalan decasillàb  
Qui no es trist, de mos dictats no cur,  
o’n algun temps que sia trist estat,  
e lo qui es de mals apassionat,  
per fer se trist no cerque loch escur;  

(Ausiás March, Cants d’Amor)
In this respect, it is important to observe that, despite the widespread presence of the eleventh extrametrical syllable among most traditions, no tradition developed a fully eleven-syllable meter but they all preserved the optionality of the eleventh syllable.

In addition, all Romance ten-syllable forms have some kind of mid-line break. However, its optionality, position and type vary significantly. From this perspective, two main groups can be distinguished, based on the type of break present in the line; the optionality and the position follow from this distinction. An obligatory and fixed (right after the fourth position) caesura, which coincides with a word boundary, is attested in French, Occitan and Catalan verse; the other traditions, instead, present what I would define as a mid-line break: not fixed, but whose position can actually vary across the same poem (it usually occurs after the fourth or the sixth syllable) and not strongly necessarily marked in every line. This type of mid-line break does not usually coincide with a word boundary but is preceded by a prominent position. In (3) and (4), the two types of mid-line pause are shown:

(3) Mid-line break
Muerte, prisión no pueden, ni embarazos quitarme de ir a veros, como quiera,
desnudo espíritu o hombre en carne y hueso.
(Spanish, Garcilaso de la Vega, Sonetos)

(4) Caesura
D’autant que l’Art peut moins que la Nature, c'est œuvre mien, qui sus le vif est pris,
Est moins parfait, et moins digne de prix.
(French, Jacques Peletier)

In (3), the Spanish example illustrates how the mid-line break does not need to coincide with word-boundary and how its position can vary across different lines of the same poem. In fact, while the first two lines present the prominent position on the sixth syllable and a clear break marked with a comma right after the following word-boundary, the third line has a less marked prominent position on the fourth syllable. In (4), instead, the caesura coincides in every French line with a word-boundary and is, occasionally, marked by a comma.

The Catalan case is somehow a step in-between the French/Occitan model and the mid-line break of the other traditions, since it presents aspects from both groups. In fact, while the Catalan meter has a proper caesura, fixed and corresponding with a word boundary, this is not always as strongly marked as the French one. On the other hand, the fourth position, which is right before the caesura, is obligatorily prominent and always filled by a stressed syllable. From a phonological perspective, if we assume that French does not have word stress (Féry 2001, 2003) and, hence, cannot have metrical marking on the foot level, it, consequently, needs to have a strongly marked caesura as the metrical element determining the metrical pattern1 (Duffell 1994; Beltrami 2002). On the other hand, Catalan could mark the pause at the middle of the line with a word stress but stylistically still preserves the caesura.

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1 The claim about French not having word stress and, consequently, not presenting metrical marking on lower levels than the cola are still disputed issues. In the present paper I follow these theoretical assumptions and, for the sake of brevity, I do not discuss the opposite hypotheses here.
Caesura and mid-line break are related to each other and constitute the answer to the same need, namely generating a pause in the middle of the line. In fact, Beltrami (2002: 298) observes that the mid-line break attested in the Italian meter represented the way of adapting the caesura of the source poetic form, the Occitan decasyllable, in the recipient language. A proper caesura, which divided a bipartite line, was transformed into the requirement of having a prominent position in the middle of the line producing some kind of syntactic break. Another innovation of the Italian meter was the fact that the mid-line break was no longer mainly only after the fourth position but became more and more common also after the sixth position. It is important, however, to mention that the possibility of having a pause after the sixth position was already attested in Occitan poetry, even if this was extremely rare (Di Girolamo–Fratta 1999).

Finally, Romance traditions can be divided into three groups based on their rhythmical properties: completely syllabic, tending to iambic and tending to syllabic. The French form is considered a purely syllabic meter. This means that no colon-internal stress pattern is normally attested and this can be accounted for by considering the lack of word stress of the language, as mentioned before; the marking of stress on the phrase level causes the two stressed positions to be placed before the caesura and line-finally. Italian and Spanish meters tend towards an iambic rhythm (Nespor–Vogel 1986; Piera 1981; Gasparov 1987). Gasparov (1987) has calculated the “index of iambicity” of their lines and proved that indeed the metrical forms tend rather towards iambic meter than towards syllabism; however, he observes, they cannot be considered as fully iambic, due to the large possibility of deviating from such a rhythmical alternation. In conclusion, Catalan and Portuguese poetic forms are described in the literature as syllabic (Navarro 1991; Duffell 1994; Spaggiari 2003, respectively), having only the mid-line prominent position and the line-final position as obligatorily stressed. In addition, in Catalan, the fifth position is sometimes filled with a stressed syllable, in order to reinforce the break between the first and second colon of the verse (Duffell 1994). As for Venetian, Sicilian and Neapolitan, the prediction is that they would to some extent tend to an iambic rhythm.

3 The question: the tendency towards iambic rhythm

It has been claimed that Italian endecasillabo and its English version, the iambic pentameter, are both built on a metrical template where weak and strong positions alternate, leading to a sequence of iambic feet (Kiparsky 1977; Hanson 1997). The difference between the Italian and the English instantiations of the template, it has been argued, lies in the fact that, while the latter presents constraints on the foot level requiring the iambic alternation, the former, instead, no constraint appears to be present regulating the foot (Hanson 1997). Some requirements are present on the colon-level and, more specifically, on the right edge of the two cola, hence, line-medially and line-finally (Nespor–Vogel 1986). The same has been claimed by Piera (1981) regarding Spanish Renaissance meter. Fabb (1997), when discussing the Italian meter, has observed that, while the weak-strong alternation is realized at the right
edges of the two cola, other positions of the line do not need to be specified nor to be necessarily divided into feet. Therefore, colon-internal metrical positions can be considered to only have a counting purpose.

Despite the general agreement regarding Romance meter not having requirements about following an iambic rhythm, it has been largely observed, as mentioned in the previous section, that some of the traditions do present some kind of tendency towards that rhythm (Nespor–Vogel 1986; Piera 1981; Gasparov 1987). However, this tendency does not resembles the strictly iambic meter, which resulted from the adaptation of Renaissance verse into Germanic poetry. The result of Romance implementations was not very uniform and the possibilities of deviating from an iambic alternation were generally quite broad. Whether some of Romance Renaissance verse could be considered a quite free instantiation of iambic meter is still an open question; intuitively, in those cases, some kind of iambic rhythm can be perceived. The present study investigates the concrete aspects of this apparent tendency by means of calculating the distance among and of the samples from full iambicity, in order to determine its factors. In addition, the claimed Portuguese and Catalan syllabicity constitutes an interesting case since both languages presented a pre-Renaissance poetic form, which resembled what would then become the Renaissance meter. An exploration of the adaptation of the pre-existing forms, first of all, tests the before-mentioned claims and shows how the two traditions diverge from the others and their position within a typological picture.

4 Samples and methodology

4.1 Samples

20 samples have been considered in the present study, consisting of 130 lines each (an exception was made for one of the Neapolitan samples—namely, Velardiniello—where the whole 192-line poem was included). The samples are both from major languages, such as Italian, Spanish, French, Portuguese and Catalan and from less investigated varieties, namely Occitan, Neapolitan, Venetian and Sicilian.

All languages are represented by two authors. In some cases, one earlier poet has been selected, or even one from the previous poetic tradition, and one from the full Renaissance period. This choice was made in order to observe metrical changes due to the spread of the Renaissance poetic trend; in particular, this is of significant relevance for the cases of Catalan and Portuguese where an autochthonous pre-Renaissance poetic tradition was already quite similar to the Renaissance form. The comparison permits us to determine which characteristics were preserved and how the existing verse was instead adapted to the new meter. Obviously, for Occitan, both authors are predecessors of Renaissance poetry. The samples in Neapolitan, Venetian and Sicilian are from a later period, when the Renaissance meter was incorporated into vernacular poetic traditions. For both Neapolitan and Italian one extra sample has been selected. The extra samples were written by the same Neapolitan author,
Niccolò Capasso, in the two languages. They were included in the study in order to compare the metrical differences of the same poetic form when written by the same poet in two different languages. This could provide insight into the metrical requirements of the two traditions and to the conscious stylistic choices of the poet in one and the other language.

The following is a brief summary of the samples considered; in the appendix, a table containing a more detailed list of the samples with relevant information is given.

In chronological order, the first samples are the Occitan ones, which are from the two troubadours, Bernart de Ventadorn (1135–1194) and Raimon Gaucelm de Bezers (fl. ca. 1262–1275). Giacomo da Lentini (ca. 1210–1260) has been included, as a representative of Scuola Siciliana and the later Sicilian vernacular poet, Antonio Veneziano (1543–1593), represents the subsequent Sicilian tradition. One hundred thirty lines from Canzoniere by Petrarca (1304–1374), represent the canon of the Renaissance meter and, together with the verses written by the Petrarchist Luigi Tansillo (1510–1568), constitute the Italian sample. As for Catalan, predecessor of the Renaissance, Ausiàs March (1400–1459), and the later poet, Pere Torroella (1420–1492), have been analysed. Verses from Garcilaso de la Vega (1501–1536) and Francisco de la Torre (ca. 1483–1507) constitute the Spanish sample. As for Portuguese, one pre-Renaissance author, namely, Diniz I de Portugal (1261–1325), and a Renaissance one, namely, Luís de Camões (ca. 1524–1580), were selected. Two French poets writing in decasyllable were included, namely, Joachim du Bellay (1522–1560) and Jacques Peletier du Mans (1517–1582). The two Venetian authors are Giovanni Battista Maganza (1513–1586) and Andrea Calmo (1510–1571), both vernacular poets who integrated the Renaissance meter in dialectal poetic tradition. Analogously, Velardiniello (XVI century) and Giulio Cesare Cortese (1570–1640) used the endecasillabo form in their Neapolitan poetry. In conclusion, as already mentioned before, two samples from the poetry by Niccolò Capasso (1671–1744) were included, one written in Italian and one written in Neapolitan.

For the sake of exemplification, two extra samples are considered in one occasion, in order to highlight the difference between them, being instantiations of iambic meter, and those samples, which only tend to iambic rhythm. They are constituted by one sample of 130 lines from the sonnets of William Shakespeare (1564–1616) and 130 lines written by the Dutch poet, Joost van den Vondel (1587–1679).

4.2 Methodology

The Italian and Spanish samples were taken from annotated corpora, namely, the Archivio Metrico Italiano (AMI)\(^2\) and the Corpus of Spanish Golden-Age Sonnets,\(^3\) respectively. The other samples were annotated manually by the author of this paper.

\(^2\) http://www.maldura.unipd.it/ami/php/index.php
\(^3\) https://github.com/bncolorado/CorpusSonetosSigloDeOro
The manual annotations were verified and corrected by phonologists of the languages under investigation and/or experts of the relative metrical forms.4

The metrical annotation was either made or converted into a sequence of 0 and 1, the former indicating unstressed syllables and the latter stressed ones. The stressed positions were assigned by considering the phonology of the languages and disregarding an eventual iambic alternation. The reason for this decision was that the present study aims to look at how the different verses can deviate from an iambic template. The 01 sequences of every sample were processed in order to calculate the percentage of deviation from a perfect iambic pattern for each position. Caesura or mid-line break were not marked in the samples, however, tendencies regarding their positions in the line can be elaborated by looking at the percentage of stressed syllables either on the fourth or sixth position.

The comparison of the different deviation percentages allowed us to see the differences among the different authors and to define a general trend among the various traditions, for example, regarding which metrical positions are less constrained. The total variance of all deviations was also calculated. In addition, the deviation values were also used to calculate the distance of each sample from a perfectly iambic template and the distance among samples. This led to the visualisation, via a dendrogram, of groupings of samples based on their metrical characteristics.

5 Results

The attested deviations from a perfect iambic pattern in each position in every sample were plotted. In FIG. 1 to FIG. 9, the deviation of the various samples, grouped according to language, can be observed. The straight line in all figures represents an ideal perfect iambic line, hence, with 0% deviation in every position. FIG. 1 contains the samples from the French authors, Du Bellay and Peletier, while FIG. 2 and FIG. 3 show the Occitan, Guacelm and Ventadorn, and the Sicilian Da Lentini and Veneziano, respectively. In FIG. 4, the Italian sample is represented, hence, Petrarca, Tansillo and the poetry written in Italian by Capasso. FIG. 5 contains the Venetian samples by Maganza and Calmo, while FIG. 6 the Neapolitan one by Capasso, Cortese and Velardiniello. The last three figures are the Catalan group (March and Torroella), the Spanish group (Garcilaso and De La Torre) and the Portuguese one (Diniz I de Portugal and Camões), respectively. As can be observed in FIG. 1–FIG. 9, no sample appears to strongly follow an iambic pattern and each sample can vary greatly from the other.

By comparing the different figures, it can be claimed that the metrical positions in the different samples do not present the same rate of deviation. Nevertheless, samples within one language group appear to follow similar tendencies, with an exception of...

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4 In this respect, I would like to thank Dr. Francesc Torres-Tamarit, Prof. Dominique Billy, Dr. Romain Benini, Prof. Ângela Correia and Prof. Isabel Almeida for double-checking my annotations of Catalan, Occitan, French and Portuguese, respectively.
the Portuguese group represented in FIG. 9, where the two samples seem to follow two very different patterns. In particular, the verse by Diniz I de Portugal, that is, the pre-Renaissance Portuguese poetry, seems to be an outlier compared to all other samples, not strongly resembling other traditions. Some aspects, which are shared by all samples can be delineated, but the pre-Renaissance Portuguese lines, do not necessarily present them. First of all, almost no deviation is recorded for the tenth position, which means that all samples present a strong (or rather obligatory) requirement of having a stressed syllable on the tenth position; however, in the case of Diniz, the deviation rate is higher (the 4.6% against the mean of 0.1% for the other samples), mainly due to the fact that not all lines are composed by exactly ten syllables (they can sometimes be of nine or eleven syllables). No caesura or mid-line break was marked nor considered in the present study, however, the tendency of having a stressed syllable either on the fourth or the sixth position in all samples presumes the presence of some form of a mid-line pause. The French, the Occitan and Catalan samples, as can be observed in FIG. 1, FIG. 2 and FIG. 8, strongly show mid-line prominent positions on the fourth syllable (in 94.4% of lines, versus 47.81% of occurrences of stressed syllables on the sixth position). The pause after the fourth position in Catalan is sometimes reinforced by a stress on the fifth position (in 22.65% of lines), which strengthens the division between the two cola. The two Portuguese samples diverge from each other from this perspective: while Camões presents an evident tendency (in 92.4% of the lines) of having a mid-line prominent position on the sixth syllable, Diniz does not present a strong tendency towards a line-medial prominent position, but it shows a light preference for having a stressed fourth syllable (50% of the lines), rather than the sixth (38.5% of the lines). The other traditions present prominence on both the fourth and sixth position, but the tendency seems to favor prominence on the sixth (see, again, FIG. 1–FIG. 9), with an exception for the Sicilian samples, which seem to slightly favor a fourth prominent position (76.1% versus 69.6%). In general,
there is a tendency in all samples to reduce the percentage of deviation gradually line-medially and from the ninth position onwards.

FIG. 10 shows the computed average variance of all deviation patterns together. As can be observed, the deviation rate increases and decreases at different points of the plot, which represent the various positions of the line.

The position which, on average, allows more deviations is position eight, followed by positions six and two. The high rate of variance on the second and sixth position can be explained by considering that verse tends to be more varying line-initially and, more in general, at the beginning of a chunk. The rate of variance on the eighth position is, instead, surprising. Any prediction, in fact, would expect deviation to gradually decrease towards the end of the line, following the Strict End Hypothesis (Kiparsky 1968; Hayes 1983; Prince 1989), according to which line regularity increases line-finally. As for the ninth and tenth position, a stronger iambicity, hence, lower deviation is indeed extensively attested across all samples. This point will be further discussed in the discussion section in 6.

It could be observed that the samples of syllabic meters could affect the calculation of the variance, hence, influencing the results in a misleading way. However, if we do exclude them, that is, if we exclude the French, Occitan, Catalan and Portuguese samples, the resulting variance (see FIG. 11 in the next page) is not significantly different from the one shown in FIG. 10. In fact, if FIG. 10 and FIG. 11 are compared, despite some differences in values of deviation, they both present a quite high value on position eight; the difference being rather on the relation between position six and eight, than on eight being high.

Finally, the three-group distinction is only partially confirmed by the test, as can be observed in the dendrogram in FIG. 12. The branch named “iambic” indicates a perfect iambic line, hence, 0% of deviation in every metrical position. The dendrogram shows a clear distinction between syllabic samples and the ones somehow closer to iambic rhythmical alternation. Diniz, the Portuguese pre-Renaissance sample, is the furthest branch from the iamb. French (Peletier and Du Bellay) is placed in a sub-branch of the syllabic group, closely related to the Catalan (March and Torroella) and Occitan (Ventadorn and Guacelm) sub-branch; the other samples are grouped in a number of subgroups under a separate branch. The two Portuguese samples are far apart, Diniz, the pre-Renaissance one, being an isolated branch in the syllabic side, while Camões is placed in a branch close to the samples with a tendency towards iambic rhythm, close to the Venetian and Neapolitan/Spanish sub-branches.

The French branch, the pre-Renaissance Portuguese and the Catalan-Occitan one have no relation to the iambic branch. The other samples are also not very close to iamb but they are somehow connected, namely their branches have the same origin point. As for the subgroups of the bigger branch, it can be observed that both Giacomo da Lentini (from Scuola Siciliana, hence one of the predecessors of Petrarca) and Antonio Veneziano, a Sicilian poet writing in Sicilian, are grouped together. This shows that there is a continuum between Scuola Siciliana and the later stages of
FIG. 10: Average variance of all deviation patterns

FIG. 11: Average variance of deviation patterns of non-syllabic samples

FIG. 12: Dendrogram of all Romance samples
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Sicilian poetry. The branch directly connected contains the Portuguese Camões. Next to the Sicilian group, under the same branch, a three-author group can be noticed, composed of the two Neapolitan poets Velardiniello and Cortese and the Spanish Garcilaso. It is not surprising to find a Spanish poet and, in particular, Garcilaso grouped together with Neapolitan authors, since he discovered the new way of versification during a trip to Naples and, in fact, his poetry was deeply influenced by his stay there (Samonà 1998). The other branch consists of other two sub-branches divided in two smaller subgroups. In the leftmost subgroup, the work written in Italian by the Neapolitan poet Niccolò Capasso is alone in one branch. In these lines the author comically imitates Petrarchist poetry. The expectation would be to find it closer to Petrarca, since Capasso purposely exasperates Petrarchan metrics; however, it is not extremely far. The Italian poetry by Capasso is quite close to the sub-branch consisting of the two Venetian poets, Maganza and Calmo. The last branch shows two subgroups: one consisting of Petrarca and the Southern Italian Petrarchist, Luigi Tansillo; the other presenting the second Spanish author, Francisco De La Torre, together with the poetry by Capasso written in Neapolitan. This last subgroup is not very surprising, since the cultural contact between Naples and Spain was quite strong during that period, nevertheless, this grouping was not expected. In conclusion, it is interesting to highlight how relatively far the two samples by Niccolò Capasso are, since they are at the two extremes of the sample group presenting a tendency towards iambic rhythm. This shows substantial metrical differences between the two samples and one particularly notable aspect: despite the fact that in his Italian poetry, Capasso, tries to exaggerate the verse of Petrarca, it is actually his verse in Neapolitan, which gets closer to the Petrarchist way of versification (and, in addition, quite far from the previous Neapolitan poetic traditions). Finally, the perfect iamb was placed alone in one branch, far from any sample; its isolation ends when two samples from Shakespeare and the Dutch poet, Vondel, both big representatives of Renaissance iambic poetry, are added (see FIG. 13 in the next page). Based on the rate of deviation from iambic alternation of the two samples, they both are placed in the same branch of the perfect iambic meter; the Dutch sample is particular close to the ideal iamb. The present example gives extra support to the claim of Romance traditions not being iambic, proving their distance not only from an ideally perfectly iambic line but also from the two Germanic iambic meters, namely the English and the Dutch one.

6 Discussion

Before discussing the results and their relation to the questions proposed in the introduction, an observation can be made: the fact that all samples are quite strict in presenting a prominent position somewhere in the middle of the line (either on the fourth or the sixth position) and even more strict line-finally (with a mean, among samples, of 97.5% of cases), clearly shows the relevance of the colon-level in the metrical template. This confirms that these forms are not constrained on the position(foot)-level, but rather, in the colon domain (Nespor–Vogel 1986; Hanson 1997;
Fabb 1997; Versace 2014) and that metrical positions only have a counting purpose. These forms can be considered, then, colon-based, since they are constrained within a higher domain than the foot.

Regarding the validity of the rhythmical grouping, this is not fully confirmed. In fact, recalling the dendrogram in FIG. 12, French, representing the purely syllabic group, is placed in a separate branch from the other traditions and not connected to the perfect iambic branch but not far from Catalan, Occitan and the pre-Renaissance Portuguese author. While the fact that Catalan and Occitan are together in a separate branch, far from and not connected to the perfect iamb, confirms the literature claim regarding their syllabism, the results from the Portuguese samples, instead, are unexpected. One, the pre-Renaissance sample, is in the syllabic branch, and the other, Camões, is placed in the group of samples showing some tendency towards iambic rhythmical patterns. Therefore, while the former confirms literature claims, the latter strongly diverges from them. More data is definitely needed in order to elaborate a stronger claim about these results, since they are based on two very limited samples. A corpus study of Portuguese pre-Renaissance and Renaissance poetry would be needed, in order to verify this observation.

Finally, the other traditions, which display to a certain extent an iambic alternation in their lines, are not on the same branch of the iamb but their branches start from the same node. This shows that there is some connection, or, tendency towards an iambic rhythm, but the actual iambic alternation is still quite distant. Regarding the microvariations within groups, these, apart from Portuguese, smoothly recreates language groups and stronger cultural contacts (for example, Spanish poets being together with Neapolitan ones). The addition of the two iambic samples from Shakespeare and the Dutch poet, Vondel, which end up being in the iambic branch, gives extra evidence for the difference between actual iambic verse and verse, which simply shows a tendency towards that rhythm.

This leads to the second issue, namely, which elements define the iambic tendency and distinguish it from iambic meter. Apart from the higher rate of possible deviations
from an iambic pattern, another element can be identified. This aspect is shared by all Romance samples, despite rhythmical groups, and is significant in the iambic versus non-iambic distinction. It concerns the eighth position and its percentage of deviation. As shown in FIG. 10 and mentioned in the previous section, the eighth position appears to allow on average quite a broad range of deviation (the mean being the 49.3% of deviation, versus the 4.1% and 0.33% of deviation on the ninth and tenth position, respectively). The general tendency is to gradually lower deviation from the second position to the fifth; deviation raises again on the sixth position, lowers on the seventh, then, goes strongly up on the eighth position, just to drastically drop on the ninth and tenth. Of course, some differences between the Catalan-Occitan pattern, the French one, the Portuguese pre-Renaissance one and the other traditions are observed. For example, in the Catalan-Occitan data the eighth position is extremely deviating, even more than the second one. However, no difference is encountered regarding the high rate of deviation on the eighth position and the following abrupt lowering of deviation on the ninth and tenth position. As briefly mentioned before, this seems to contradict the Strict End Hypothesis restriction (Kiparsky 1968; Hayes 1983; Prince 1989) (SEH, henceforth), according to which, strictness would gradually increase towards the end of the line. The recent corpus study by deCastro-Arrazola (2018a: 85, 2018b) has given extra evidence for SEH predictions. In this study, corpora from English, Dutch, Sanskrit, Estonian and Tashlhiyt Berber have been analysed in order to test SEH and the predictions were confirmed. The data of the present paper, despite being typologically much more limited, do not seem to show a gradual increase of rhythmical strictness towards the end of the line in terms of increase of iambic rhythm, especially if we look at the regularity drop on the eighth position. A way to interpret this aspect is to consider what was observed by deCastro-Arrazola (2018a), namely that SEH relates to the kind of constrained features and that it can be localized into specific positions and be gradual or categorical. It can be concluded that no Romance meters, included those, which show a tendency towards iambic rhythm, are actually iambic. The necessity of following an iambic template would lead, like in other cases, to a gradual increase of iambicity. What is overly regular, instead, in these poetic forms, is the prominence requirement on the right edge of the two cola. In other words, iambicity does not increase towards the end of the line because iambic rhythm is not a strong metrical requirement of these poetic forms. No strict requirement of iambic rhythm means no necessity of gradually increasing towards the end of the line. The iambic tendency, then, would naturally come from the phonology of the language fitting the template. To explain, all samples, which show some sort of iambic tendency, are written in trochaic languages. Consequently, it would be expected that the head of the prosodical foot would surface somewhere in the line and the intention of elaborating something not recalling natural language but rather sounding refined would lead to a stronger tendency of having an iambic-like rather than a trochaic rhythm. This can also easily account for French being purely syllabic and not displaying any strong colon internal rhythmical pattern, since the language itself lacks stress patterns on a word level. Unresolved remains the case of Catalan, a trochaic language with strong word stress, which does not show any iambic tendency. On the one hand, it could be observed that vowel reduction affect-
ing the language might inhibit an iambic alternation, since, for example, some mono-
 syllables cannot bear stress. On the other hand, vowel reduction does not seem to pre-
 vent the Renaissance Portuguese sample to present some iambic tendency. It is worth 
 mentioning, though, that two traditions, namely the Catalan and Portuguese one, 
 despite both presenting a pre-Renaissance decasyllable and being written in lan-
guages with pervasive vowel reduction, do present a significant metrical difference: 
 while in the Portuguese Renaissance sample the iambic rhythm is fed by an extensive 
 use of synalepha (the same happens in Neapolitan, another variety presenting vowel 
 reduction); in Catalan, instead, hiatus is the strategy used to deal with adjacent vow-
els. This surely leads to more unstressed vowels sequences. A purely phonological 
 account might not exhaustively explain the Catalan case and cultural aspects eventu-
 ally need to be taken into account. Both Catalan and Portuguese poetry already had 
some kind of ten-syllable meter, which was built on the syllabic template of the 
 Occitan source. The two traditions went on different paths when the Renaissance 
 form spread and the pre-existing form was adapted. Stronger changes seem to have 
 characterised the development of Portuguese meter; while in Catalan the syllabic 
 template was preserved with only slight changes. The fact that the Catalan pre-
 Renaissance tradition was quite similar to the new trend and quite strong from a cul-
tural perspective inhibited innovation and the original template was preserved. The 
 Portuguese form, instead, presented still numerous differences from the Renaissance 
 form. The drive towards preservation, which was in Catalan somehow much stronger 
 than in Portuguese, prevented any iambic tendency to develop. The role of the cul-
tural background becomes clearer when considering an opposite case: in Spanish 
 poetry, Renaissance represented a strong break with the previous tradition (Samonà 
 1998); this gave an extra push to innovation and led the preceding poetic forms to be 
 substituted by the new type of verse. This break did not occur in Catalan poetry; 
 hence, the syllabic form could be preserved.

7 Conclusion

The present paper illustrated the variation within the implementations of Renaissance 
 meter in Romance languages. The rhythmical groups, which can be elaborated by 
 considering the literature regarding the various poetic forms, were tested and their 
 validity was partly confirmed, except for the Portuguese samples. In this respect, a 
 corpus analysis of Portuguese pre-Renaissance and Renaissance meter would be 
 needed in order to verify the somehow controversial findings. The calculation of the 
 deviation from a strictly iambic alternation of each metrical position in each sample 
 has shown how all Romance meters do not present constraints on the foot level, 
 hence, are neither foot-based nor fully iambic. The tendency towards iambic rhythm 
 appears to be related to the presence of word stress in some of the traditions and to 
 the fact that all languages considered are trochaic languages. A peculiar case is the 
 one of Catalan and Portuguese. In the former, the cultural and identity aspect related 
 to having a pre-existing decasyllabic meter quite similar to the Renaissance one 
 hindered the development of some rhythm recalling iambic alternation; the latter,
instead, seems to have strongly adapted the meter to the new template. The comparison with the two Germanic samples shows how distant the Romance traditions are from an iambic meter and highlights the Germanic versus Romance distinction in terms of poetic instantiations. The model proposed here could be further used to develop quantitative data exploration and visualisation.

**Primary sources**


Camões, Luís de (1843). *Rimas*. In *Obras completas de Luís de Camões*. José Victorino Barreto Feio and José Gomes Monteiro (Ed.).


Velardiniello. *Storia de ciet’anne arreto*. Salvatore Argenziano (Ed.)


**References**


## Appendix

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**TAB. 1: List of samples**

5 Archivio Metrico Italiano http://www.maldura.unipd.it/ami/php/index.php
6 https://github.com/bncolorado/CorpusSonetosSigloDeOro
7 Annotated with the help of Dr. Romain Benini
8 Annotated with the help of Dr. Romain Benini
9 Annotated with the help of Prof. Ângela Correia
10 Annotated with the help of Prof. Isabel Almeida
11 Annotated with the help of Dr. Francesc Torres-Tamarit
12 Annotated with the help of Dr. Francesc Torres-Tamarit
13 Annotated with the help of Prof. Dominique Billy
14 Annotated with the help of Prof. Dominique Billy