

The prosody of Seamus Heaney: a phonetic study on some original readings

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ABSTRACT

This paper aims to consider the still unexplored prosody of Seamus Heaney’s poetry reading, through an innovative phonetic approach. Though few experimental works dedicated to poetry reading are available, four main international schools working on this theme have emerged in recent years, revealing the importance and the need for the development of this field of study for understanding the musical core of poetry. This research is based on seven original recordings from three collections, performed by the poet, and will employ the VIP-*Voices of Italian Poets* methodology, aimed at the qualitative and quantitative phonetic study of poetry readings. The relationship between the textual and prosodic axes is crucial in this analysis since it helps highlight the main stylistic features of the poet’s prosody. By considering a selection of acoustic, stylistic, and organization indices, it has been possible to identify the main distinctive common elements which connect different textual typologies and to find divergent features contributing to the variation in the reading style. The study is intended as a point of departure for further studies on the Irish poet’s readings and the way in which other poets read his original poems or their translations in other languages.

Key words: Phonetics, Prosody, Poetry reading, Seamus Heaney, Speech, Voices of Italian Poets

1. Introduction

The phonetic study of poetry readings represents a useful tool to deepen not only the vocality of an author but also to better understand his poetics and his textual complexity, by crossing the physicality of the acoustic datum. This type of research is still rather limited and, although the most widespread works are in the English-speaking world, experimental studies aimed at studying the reading style of Seamus Heaney have not been identified. In this paper, we will combine several levels of observation using acoustic phonetics methodologies, aimed at analyzing the poet’s voice.

The relationship between text and reading is crucial for understanding the musical core of poetry. Though studies of this relationship at the theoretical level have long been available, interest in experimental approaches based on recordings has emerged in recent years. Such approaches have only been applied to a limited selection of languages and samples of study, despite the fact that the first recordings and archives of original poetry audio date back to the 20th century in French and American Phonetics Laboratories (see Mustazza [1]). The successful

synergy between archives and research has been demonstrated by the University of Pennsylvania’s *PennSound*, the German *Rhythmicalizer* group, the French group of *Le patrimoine sonore de la poésie*, and the Italian *Voices of Italian Poets* (VIP). Since the 1970s, four leading investigative schools have conducted prosodic research mainly on poetry reading in their native language, respectively: the English-speaking school (see Byers [2] [3], Barney [4] [5] [6]; Bernstein [7]; Grobe [8]; MacArthur [9] and MacArthur *et al.* [10]); the German tradition, mainly on Germanic languages, of Wagner [11], the *Rhythmicalizer* group (e.g. Meyer-Sickendiek *et al.* [12]) and *Textlang* (e.g. Schauffler *et al.* [13]); the French approaches (Puff [14], Rumsey [15], Martin [16]); and the Italian school, after the tradition by Bertinetto [17], Schirru [18], with the recent VIP-*Voices of Italian Poets* project (Colonna [19] [20]. See also Romano [21]). We mention also the pioneering works by Kruckenberg & Fant [22] and Fant *et al.* [23].

For a review of the main studies carried out on the subject with different methodologies since the 1970s, and for an overview of conservation scenarios since the early 20th century, see Colonna [20]. Thanks to these references, various scholars have been concerned in research describing considerable changes in poetry reading across eras and styles, to detect a

sociocultural impact of diverse poets' readings, and generate vast vocal archives for the study of 20th-century and contemporary poetry. Moreover, the opportunity to analyse in detail the prosody of a poet through a qualitative approach, as conducted in the VIP project, has shown the possibility to consider the specific prosodic style of a poet as a relevant element of his art and a useful instrument for his comprehension.

In this study, we will consider readings by Seamus Heaney, recognised as one of the most appreciated Irish poets, of whom there are many publicly available recordings and audiovisual sources. Heaney was born in 1939 in Mossbwan, near Castledawson (Northern Ireland), and won the Nobel Prize for Literature in 1995. He died in 2013 in Dublin. His important literary trajectory makes him one of the most influential authors of the last century and deserves to be analysed from a phonetic perspective. His public readings, in academic, artistic, and televised contexts, remain well known in most cases. Many of these were also destined to remain in the recording medium and it is from one set of these recordings that we have drawn the ones we will analyse here. Furthermore, this kind of analysis is still more necessary, considered the beginning of his Nobel Prize speech, as evidence of his peculiar and well-known sensitivity to languages' sounds listening as a way of living, traveling, and knowing the world, the same language, and par excellence poetry.

The main goal of this work is to identify and highlight the stylistic features of seven original readings by the author and detect the results of the relationship between text and prosody as well as the norm and variation inside this selected corpus, mainly tested on readings in a Romance language (see §2), and here used on a variety of English. The purpose of our domain was to check the actual applicability of the model of study to other idioms: our hypothesis was to globally find common features to be investigated, requiring special attention to some delicate aspects, such as stress realisation and various perceptive aspects. The data considered for this study belong to the same corpus of readings made by the author in recording studios and represent part of the latest CD of the poet: in fact, we chose to focus on the last voice of the poet and on his studio voice style, rather than public events performances, to have more homogeneous database and analysis criteria. The study enabled us to confirm our hypothesis, finding a useful tool for a research field with interdisciplinary implications for the fields of phonetic as well as literary analysis.

2. Data and Methods

This paper will focus on a qualitative and then a comparative analysis through a phonetic approach to the Irish poet Seamus Heaney's reading style to identify and highlight the main stylistic features of seven original readings and the results of his relationship between text and prosody.

2.1. Data

Firstly, for this study we selected and listened to three anthologies of recordings by the poet [24] [25] [26]: in a second stage, we chose to consider the original readings published by

Rté in collaboration with the Lannan Foundation [26]. Then, we identified a selection of recordings, based on the following criteria: differences among the textual structures in metric terms; the importance of the text and inclusion in different and among the most representative collections of the poet; finally, the inclusion of the text in the Italian translation edited by Marco Sonzogni and published by Meridiani Mondadori [27]. Specifically, the 7 recordings are *Death of a Naturalist*, *Digging*, *Scaffolding*, *Personal Helicon* from the collection *Death of a Naturalist*, *A Shiver* from *District and Circle*, *Requiem for the Croppies*, and *Night Drive* from *Door into the Dark*.

2.2. Methods

This work wants to continue the first study by Romano [21]. The methodology employed is that adopted in the VIP-*Voices of Italian Poets* project for the phonetic study of the readings of Italian poetry [20].

Firstly, we annotated the selected files on PRAAT, adopting the VIP protocol and identifying 4 annotation levels: *Verse* (VS-Verso), concerning the textual axis; *Poetic Utterance* (EN-Enunciato poetico), *Prosodic Curve* (CP-Curva prosodica), *Rhythmic Word* (PR-Parola ritmica), related to the prosodic axis.

By *Poetic Utterance* (EN) we mean an independent linguistic act, which has a terminal boundary and a prosodic signification that can be considered unitary. It can consist of one or more internal sections (See [19]: 163). By *Prosodic Curve* (CP) we mean the interpausal measure of the f_0 curve. Finally, by *Rhythmic word* (PR) we mean the tonal-accentual units emerging from the prosodic *continuum* by their rhythmic cadence, which may include one or more words in a single phonetic reproduction (See [19]: 176-178).

From each annotated recording, multiple selected data were extracted, to develop a qualitative analysis of the poet's interpretations, summarised in the graphical representation of the VIP-Radar (VIP-R) formed in the VIP project and created for each recording. The VIP-R is intended to be a tool for orientation in the author's poetic reading, providing information on a selection of acoustic parameters and other indices specifically identified and developed, taking into account the relationship between reading aloud and the layout of the poem, making this connection between prosodic and textual axes the constant reference of the analysis.

Only a cumulative image of each VIP-Radar (VIP-R-Global) will be provided to allow an overall view. The creation of a Global Radar (VIP-R-Global) allows to overlap and compare the 7 recordings (published in 2009 by Rté/Lannan) and to highlight the points of greatest contact and distance, emerging between different interpretations.

We present the two main categories included in the VIP-R: indices related to the prosodic structure and indices related to the reading style. More in detail, the structure indices are the following:

- *verse-curve* (versi-curva) VS(CP), prosodic curves (CP) coinciding with the line of the verse on the page (VS);
- *hemi-verse curves* (curve emiverso) CP(VS), prosodic curves (CP) encompassing a portion of the verso (VS);

- *interverse curves* (curve interverso) CP(VS)CP, prosodic curves (CP) that, when placed between two verses (VS), include a portion of both;
- *bi-/polyverse curve* (curve bi-poliverso) VS(CP)VS, prosodic curves (CP) that include two or more verses (VS) in their entirety.

The stylistic indices are the following:

- *Pitchspan*: melodic extension calculated in semitones;
- *Rel_meanpitch*: average relative frequency f_0 measured in Hertz);
- *Rel_meanI*: average relative loudness measured in dB;
- *Voice Setting Changes*: tonal or register jumps, related to the total number of CPs;
- *Speech Rate*, given by the ratio of total phonetic syllables perceived to the total CP duration of each reading;
- *Accelerator*: perception of acceleration in the Speech Rate, detected at the perceptual level;
- *Rallentato*: perception of slowing down in the Speech Rate;
- *Plenus*: ratio of total CP duration and pauses;
- *Focus*: focused intonations;
- */Da/*: declarative intonation, including assertive and poetic declarative, this last one with a terminal boundary not totally descending but a final medium-low level;
- *Interrupt*: fragmentary pronunciation in CPs and/or in the use of pauses;
- *Appoggiato*: a perceptible stressing modality for marking the internal PRs in the CPs. Expression from the musical language;
- *Articolato*: stressing modality based on scanning of ENs in CPs and through pauses. Expression from the musical language;
- *Synonymia & palilogia intonation*: the presence of rhetorical elements in the intonation of CPs through figures of repetition on the same tone – *palilogia* (“palillogy”) – or on different tones – *synonymia* (“synonymy”), with the possibility of *variation*. Expression from the Baroque musical lexicon;
- *Enjambment*: prosodic reproduction of the enjambment by a pause;
- *Plan*: planning of prosodic poetic discourse, given by the ratio of total EN and VS.

The VIP-R-Global, including all these presented indices, will allow the interpretations to be compared by all these aspects.

Furthermore, another graph typology from the VIP system will be used, namely the VIP-CP-Histogram. We will present in respect of some of these aspects, considered in a global view: the mean durations of the CPs and Ps, and their standard deviation (CP-P-Histogram); the mean Speech Rate and the mean number of syllables for CP, together with the relative standard deviation (CP-Histogram).

3. Procedure: Phonetic analysis of Heaney’s readings

The VIP-R-Global enables the overlapping and comparison of the 7 VIP-Rs of each recording, combining a detailed and comparative view. Through this visual representation, it is possible to detect the salient features of each reading and to highlight the points of greatest contact and distance between the different interpretations.

This research brought to light significant convergences: the homogeneity of the corpus at a collection and perception level found confirmation also at a phonetic level, revealing a cohesive reading style. However, some particularly divergent traits have been detected, distinguishing further reading styles: these features are related to the textual structures and emerge across the foreseeable inner variation of each reader and poem. The Fig. 1, including the VIP-R-Global, enables us to overall consider and compare the selected readings, to detect the most convergent, as well as divergent, points at a global level.

At the structural level, the reading style reveals a preference for a short breath, which tends to fragment the verse unit into smaller units at the prosodic level, in *hemi-verse* curves CP(VS), which represent an average of 70% of the type of CP used. They make it possible to highlight internal boundaries (e.g. v. 10 *Death of a Naturalist*: “In the shade of the banks. / Here, / every spring /”), as well as a specific phrasing (e.g. v. 31 *Digging*: “I’ll dig/ with it”) and several larger portions of verse (e.g. v. 4 *Requiem for the Croppies*: “Then retreat through hedges / where cavalry must be thrown.”). In this way, on these minor units, the attention falls.

Among the other prosodic units employed, we can find, combined with these prevalent units, the *verse-curves* (less than 20% on average) and *interverse curves* (less than 10% on average), while *bi-* and *polyverse curves* are absent. In general, *verse-curves* are found mainly, but not only, at sentence endings, while *interverse curves* often join fragmented phrases, favouring punctuation (and not the rhetoric structure). However, despite these percentages corresponding to prevalent choices confirmed by almost all the readings, there is also the case in which the percentages of *verse-curve* and *interverse curves* are equal (e.g. in *Requiem for the Croppies*).

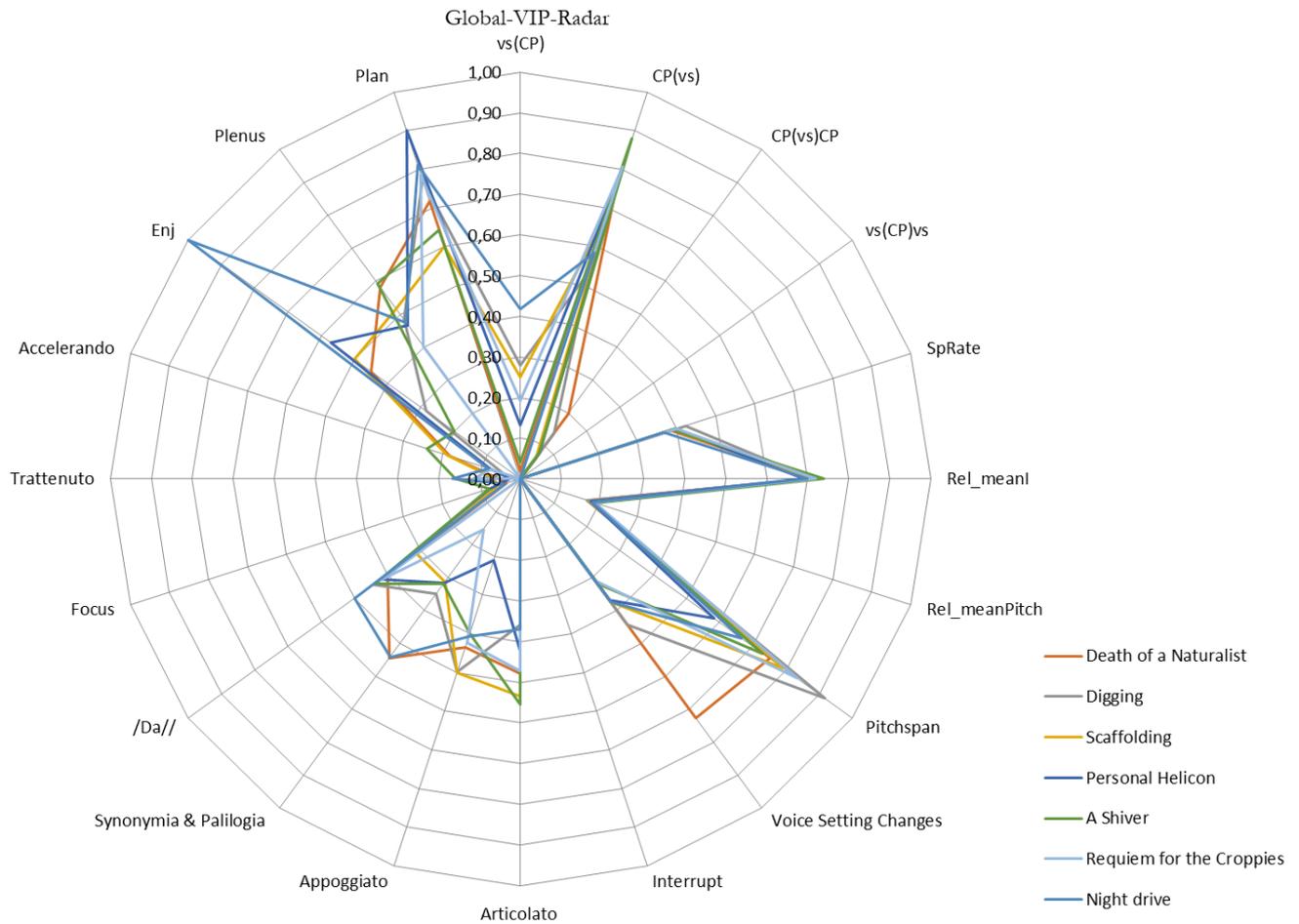


Figure 1: *Global-VIP-Radar*.

The *Speech Rate* appears on the whole constant between the different readings and of a medium-low type, with an average of 3.9 syll./s. The relative frequency f_0 is also homogeneous (with an average of 108 Hz), while the *Pitchspan* presents a greater variability among the different recordings: with a high average of melodic extension, we find the highest level in *Digging* and the lowest in *Personal Helicon*. In fact, Heaney's voice seems to concentrate on marking out minor inner units, by a rhythmical articulation. An interplay of vocal colours developing over a wide range reflects changes in tone and register, as noted by the *Voice Setting Changes* index. In this respect, the various readings show different approaches: the highest level of tonal and register variation is found in *Digging*, while the reading of *A shiver* is more homogeneous.

These interpretations are characterised also by a special harmony, based on a continuity of prosodic performance, without the tendency to break the *continuum* with insertions of silence and strategic uses of pauses. In terms of stress and accents, we can find a medium distribution between *Appoggiato* and *Articolato*, thus making the rhythmic balance between a marking dictated by the PR and a phrasing given by the pauses between CP. A subtle prevalence of the former, *Appoggiato*, can be noted, which is also audibly perceptible from the concrete relief of the PR. In fact, a characteristic of Heaney's reading is also his recognizable rhythmical cadence, which we will deepen in other study contexts.

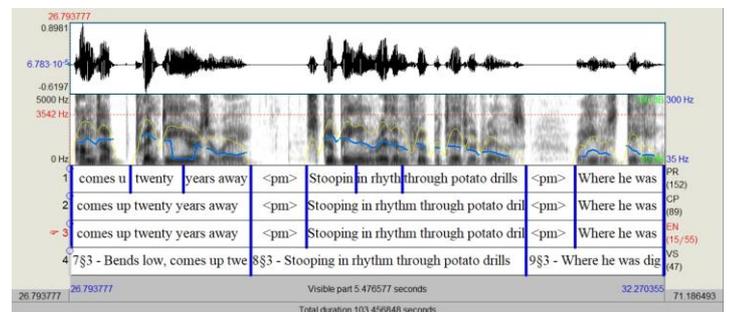


Figure 2: *Screenshot of PRAAT for a reading passage from Digging*.

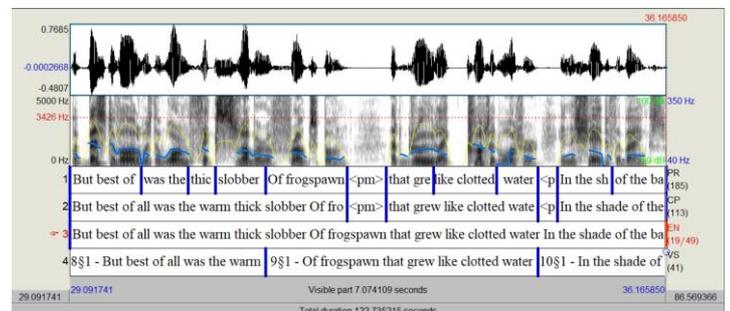


Figure 3: *Screenshot of PRAAT for a reading passage from Death of a Naturalist*.

Concerning intonation, Heaney uses a well-defined intonational rhetoric: a weighted use of *synonymias* and *palilogias* as intonation formulas are an alternating strategy of an “intonation enchantment”. Moreover, the intonation of assertive and poetic declarations /Da// is widely used (with an average percentage of 42%) and becomes the stylistic mark of this voice. Figure 2 below, related to the reading of *Digging*, shows some assertive falling intonations, whereas Figure 3, taken from *Death of a Naturalist*, presents the characteristic poetic declaration, together with the assertive one. Both the images are taken from the PRAAT and show also, from the ground up, the 4 labelling levels introduced above.

However, relating to the intonational aspect, we can also say that the descending declaratives with a terminal contour, that is not totally descending but rather with a low and limited rising, is comparable to the style of the “Urban Northern British” (UNB): see Jarman & Cruttenden [28]; Local *et al.* [29]; McElholm [30]; Mayo [31]; Mayo *et al.* [32]; Lowry [33], [34]; Grabe [35]; Grabe *et al.* [36]; Sullivan [37]; Nance *et al.* [38]. In this specific speech, several scholars have identified declarative contours of this type as typical of this area. Many studies have been conducted on this aspect, which also concerns Northern Irish (Grabe *et al.* [36] and the identification of rising prenuclear pitch accents within the autosegmental framework, Rodgers [39]): in line also with Kirkham *et al.* [40], these intonations would correspond to the intention of completion and finality. We can, indeed, assume this diatopic feature in Heaney’s reading, merging with the characteristic intonation of poetic declaration, detected and defined in Italian poetry reading (see Colonna [20]), in which the curve globally tends to remain on a mid-level¹.

The *focus* intonation is reduced to a minimum as a rule, as well as the perceived speed fluctuations: the *Trattenuto* and the *Accelerando* features are limited within a typical Speech Rate of the poet that returns in his different readings with a perceivable homogeneity.

On the other hand, the behaviour in front of enjambments is heterogeneous: there are many behaviours that alternate the use of pauses in the separation of *rejet* and *contre-rejet* (prevalent in *Night Drive*) to a single realisation without pause, enhancing syntactic unity rather than rhetorical *apparatus* (as in the case of *A shiver*). The text with the highest pausal realisations of *enjambment* (*Night Drive*) also presents the highest rate of *verse-curves*: we suppose that the structure of the text in quatrains contributes to the prosodic segmentation chosen by the poet. On the contrary, a poem such as *Scaffolding*, reproduces prosodically the couplets of the text mainly following the syntax but dividing the prosodic structure into both *metrical* (mainly following the verse) and *syntactic* criteria (mainly following the punctuation and the syntax). At the same time, *Personal Helicon*, in quatrains, takes up the alternation in the modes of enjambment reproduction, despite the scant use of *verse-curves*, which are very limited. Finally, also in texts with a more narrative structure, the “paused” enjambment is very limited.

Considering the relationship between speech and silence, the level of *Plenus* shows that the behaviours among the 7 poems are homogeneous, with a general mid-level: the amount of speech over pausal presence is balanced and pauses are mainly medium in a range extending from short to long pauses.

Finally, the ratio between poetic utterances and verse, measured by the *Plan* index, which is generally high, shows a global correspondence between the VS and the EN, in a tension of the utterance unit that tends to follow the measure of the verse. This occurs particularly in the reading of *Personal Helicon* and then in *Night Drive*: both texts, in quatrains, present the highest number of correspondences between utterance and verse (the lowest closeness is instead in *Scaffolding*). This would confirm a correspondence between textual and prosodic axis in a general re-organisation and planning that follows the starting pattern and is conditioned by it, combining the influence in different indices.

As shown, the VIP-R-Global, as a comparative description, enables us to find the main common features of a poet’s reading style but also to measure the variety, which, in different sizes, marks each corpus of readings. Resuming these analyses and putting them into perspective, we can say that every poet could have a personal VIP-R-Global of her/his readings and we could find more diversity or homogeneity, depending on each reading/writing style, as well as the considered diachronic window. In the case of Heaney, a recognizable and coherent “mixed” approach emerged at a structural prosodic level, whereas in other cases we could find less mixed combinations as well as the use of a very different measure like the biverse curve. Consequently, we could find more uniform features in enjambments, as well as in the stress indices (Appoggiato/Articolato). Concerning the stylistic level, in other performances we could find interrupted styles, in place of more “connected” readings. On the contrary, we could usually find convergent values of *RealmeanI*, *RealmeanPitch*, and *Speech Rate* (this one with the higher possibility of variation) among different readings of the same author, even though approaches to intonation could appear more varied.

We will present two *CP-Histograms*, presenting a comparison between the total duration of CPs and Ps in the readings, as well as between *CP-Speech Rate* and the number of syllables per CP.

Taking into consideration the management of CPs and Ps (figure 4), we can notice an overall homogeneity of the features, although with an internal variation. The highest average length of CPs emerges in *Scaffolding*, where also the standard deviation is maximum, combining small and longer units, and also with *Personal Helicon*, in which the lowest levels of average length and internal variability are reached, again creating a gap between these two readings.

The histogram also shows a more heterogeneous behaviour in pauses management: the average pausal duration mainly corresponds to the duration of medium and long pauses, with non-negligible internal variations. We find the highest mean value in *Requiem for the Crown*, where the level corresponds to a long pause, and the lowest in *A shiver*, equal to a medium pause, with a lower internal variation.

¹ We also compare it with the Norwegian rising declarative intonations and the Swedish final rising declarative intonations (see Gärding [41] and Bruce [42]).

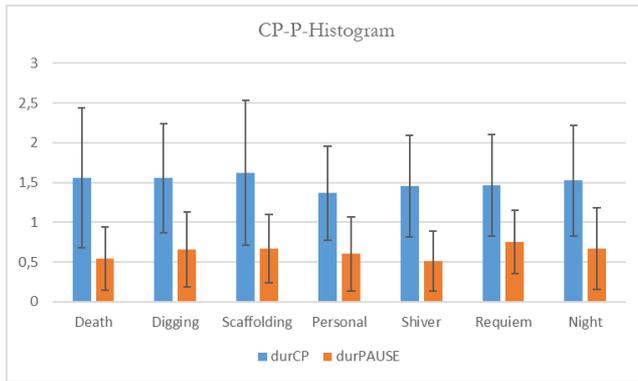


Figure 4: CP-P-Histogram of readings by Seamus Heaney.

The second histogram (Figure 5) concerns the Speech Rate of the CPs (CP-SpeechRate) and their average number of syllables (syll./CP): the first index shows a general uniformity, while the second indicates the extension of the number of the syllables per CP. The variation that can be noted in the CP-SpeechRate is minimal and ranges from a minimum of 3.6 syll./s (in *Night Drive*) to a maximum of 4.3 syll./s (in *Digging*). On the contrary, as far as the level of syll./CP is concerned, a greater heterogeneity can be noted: with an average of 6 syll./CP, the gap between the maximum and minimum syll./CP ranges from 6.6 syll./CP, reached with *Digging*, to 5.4 syll./CP, reached with *Personal Helicon*.

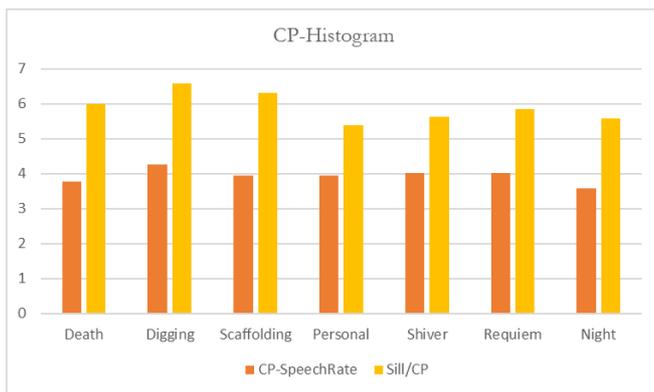


Figure 5: CP-Histogram of readings by Seamus Heaney.

4. Conclusion

This paper is related to research work that has shed light on the specific prosodic/reading style of Seamus Heaney. Among the various interpretations, common and distinctive features have been identified, associated with different textual types, which define the “Heanyan” poetic voice.

However, the prosodic variation found outside of these common points allowed us to draw a picture of substantial prosodic richness. Our results not only confirm the interest of this field of research and of the poet’s reading style but also validate the effectiveness of our VIP model applied to English poetry: its analytical strategy operating on multiple levels of description (from the structural to the acoustic and stylistic) provides results consistent with the expected characteristics.

Heaney’s prosody is characterised by a complex simplicity, not reducible to a comprehensive and invariant description. Its readings require in-depth analysis to account for their prosodic variability.

In any case, our contribution represents only a starting point for further qualitative and quantitative studies on the reading of Heaney’s and other English-speaking poets, based on the well established VIP-Radar tool. More extensive research work, on a larger corpus of recordings and with more detailed analysis, could reveal further interesting information about Heaney’s reading and poetry compared to that of his contemporary models.

In this way, the phonetic evidence may be an aid, through specific supporting tools, for more traditional studies of the poetic text and for further development of linguistic research, seeking to cross-cultural and linguistic differences. The multidimensionality of poetry, between the page and the physical voice, reveals itself as a musical form that can be described as a framework of complex and diverse uniformity.

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