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## Part IV: **Poetics of the Voice**



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# Poetry Audio Recordings and Interdisciplinary Phonetic Study

The *Voices of Spanish Poets* Project: Challenges and Two Case Studies

Is it possible to distinguish and separate poetry from its voice? The history of literature has passed down a tradition of poets who sing, who “intonate” their voices in ways that make them recognizable. In fact, when we talk about authors (whether poets or writers, as well as singers), we often refer to them as “voices,” using a metonymy that ended up identifying them universally. On the one hand, voice, as a physical phenomenon, can be explored acoustically, focusing on its sonic substance, and perceptually, looking at its effects on the audience. On the other hand, literature has been considered a written medium for a long time, often without particular attention to its original vocal and reading dimension. Voice, by contrast, has been more prominently considered in oral poetry – performative and rooted in oral communities – especially since the 1960s (cf. Ong 1967; Zumthor 1983), when scholars began to delve more deeply into the vocality and orality studies, moving beyond the confines of the written page. But yet, if we combine and relate these two axes – voice and text – that have long been kept separate from each other, what benefits might we gain?

The intricate relationship between poetry and voice is delicate and essential: its research has been addressed from various perspectives which, in most cases, have in practice kept these two levels of observation and composition separate. However, in more recent time, besides poetry studies, psycho- and neurolinguistic, phonetic, musicological and anthropological approaches, among others, have approached this liminal terrain of research, combining knowledge to offer new insights (see Ong 1967; Cardilli and Lombardi Vallauri 2021; Tsur and Gafni 2022; Blohm et al. 2022; Colonna 2022). The main goal of this study is to approach poetry voice from an interdisciplinary and phonetic perspective, aimed at observing the relationship between written text and the resulting prosodic text in reading

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aloud. More specifically, in fact, this paper will consider the vocality of written poetry read aloud, mediated by the recording medium and preserved, and will not examine the equally interesting case of oral poetry, which would, however, require a separate study.

Interdisciplinarity is certainly a necessary interpretive key for an area of study such as this one. For this reason, diverse viewpoints and methodologies will be firstly introduced and then combined in this work, enabling a main dialogue between linguistics and literature, also rooted in archival, digital humanities, and music. After a brief theoretical overview, this essay will introduce *Voices of Spanish Poets: Vocal Archive and Experimental Study on Poetry Reading* (VSP), the first research project dedicated to the experimental and interdisciplinary study of Spanish poetic voices, as well as committed to conservation, enhancement and exploration of Spanish poetry recordings through a dynamic digital archive. In fact, the project involves an online platform<sup>1</sup> which enables users to listen to contemporary poets reading their own poems and, in many cases, reading a selection of poems by Federico García Lorca, one of the greatest Spanish poets, and a member of the *Generación del 27* [generation of 1927], whose voice, however, has not been preserved. It also provides phonetic support to guide users through a first history of Spanish poetry reading. This is the result of part of the experimental studies on poetry recordings of the project, which adopt instrumental phonetics and psycholinguistic approaches to examine, on one hand, how Spanish poetry reading is characterized and has evolved over time, and on the other hand, to consider the perception and representation of the text through listening. Combining qualitative, quantitative, and comparative approaches, VSP aims to fill the gap in this research area in the Spanish context, providing new instruments and knowledge at an interdisciplinary level. The foundation of the VSP project was the previous experience of the *Voices of Italian Poets* (VIP) project. Indeed, thanks to previous experience with Italian poetry and language, VSP has been possible. Funded by the European Union, the project is hosted at the University of Granada (UGR) in collaboration with the Department of General Linguistics and Theory of Literature and Comparative Literature, and the Research Centre Mind, Brain and Behaviour (CIMCYC).

Following the introduction of the VSP-project, I will showcase two case studies, namely the voices of two prominent contemporary Spanish poets, Paca Aguirre (Francisca Aguirre Benito) and Ángeles Mora, to explore and describe, through the VIP-VSP analysis model, their main prosodic features as a practical sample of the valuable information which poetic speech can provide. In conclu-

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<sup>1</sup> <https://voicesofspanishpoets.ugr.es/>.

sion, a final discussion will allow the most salient findings, benefits, and perspectives of such an approach to poetic vocality to be highlighted as a contribution and starting point for new transdisciplinary research.

## Voice and Poetry: An Interdisciplinary View

Voice in poetry is a point of departure and a point of arrival. It involves perceiving the world and listening to it, as well as encountering it. A poetic text cannot be considered without taking into account the dimension of oral thought that precedes it as well as all the memory of encounters that it involves and brings to orality. In fact, an author's voice is permeable to what it comes across, which in a certain way influences and changes it. It can be said that an overlap of voices defines an author's voice. Its wideness draws on an *acoustic substratum*, as well as a "*metric substratum of the poetic ear*" (Colonna 2022, 73; trans. VC), providing fertile ground for the present voice to evolve, be influenced, and continuously change. It embraces not only the linguistic input from the environment surrounding the author, but all the wider sound stimuli encountered, with their features that, inevitably, enters into the author's listening and voice, leaving traces. It may include, for example, the voices of people from the linguistic community in which the poet lives, or sounds and voices from radio and video media; the sounds and noises of nature or of the city in which the author is immersed in; the murmurs of an audience awaiting a performance or sitting in semi-religious silence; or even the reverberation of poet's own voice amplified through a microphone. Continuously, the encounter of the present voice with the previous ones and the previous stimuli, generates a recognizable and always renewed voice (cf., among others, Mussapi 2015, 7–8; Skoulding 2020, 1–21). In this light, listening represents a starting point not only for writing but also for molding and generating the original and overlapped voice (cf. Eidsheim 2019, 1–38). In fact, voice reveals itself in its intimacy, processes, and uniqueness when reading aloud, and the listener will never return to reading that author without remembering or unconsciously seeking that voice.

In this view, voice in poetry has to be considered also in its bodily and sensual essence. It is possible to talk about a *body of poetry* and a *poetry of body*, as theorized by Gasparini in her book *Poesia come corpo-voce* [Poetry as body-voice] (2009). She argues that crucial elements like rhythm give body to poetry, providing it with form and physicality. The nature of rhythm, described in multiple ways, originates from the body of the creator and reflects on that of the listener. In its very essence, the *body of poetry* coincides with and is assimilated into po-

*etry of the body*, meaning poetry that finds its realization in the resonating bodies of both the speaker and the listener.

The body's integral role in poetic performance and voice has been explored by relevant scholars who especially address the issue of orality, such as Paul Zumthor (cf. 1983), Giancarlo Sessa (cf. 2018), and Roland Barthes (cf. 1985), showing how poetry can be considered widely performative in its nature. As Zumthor suggests, oral poetry becomes an embodied experience that fully engages the performer, in an active relationship with the listener (cf. 1983, 128). Moreover, only a "physical relationship through voice" can help recover and understand its original rhythm and cadence (Sessa 2018, 14). Voice, though its physicality and its "grain," reveals also the materiality of the body and takes shape in the relationship between bodies – between "vocal bodies" – rooted in a continuous interplay of presence and absence (Barthes 1985, 260).

The bodily nature of poetic voice also materializes the memories of both performer and listener, shaped through rhythm – an artistic rhythm, distinct from biological or physical rhythms, as well theorized by Kiparsky (cf. 2016). Unlike the latter, which are based on identical repetition, the rhythm in language and art is based on the alternation of different elements, between prominent and non-prominent beats, strong and weak (cf. Kiparsky 2016, 2). This rhythm absorbs and transforms the rhythms encountered before. More particularly, it is possible also to speak about a "rhythmic memory," as defined by Brunella Antomarini (2013, 37), which connects body and rhythm in poetry, as is evident in children (for example when they tend to move to the rhythm while memorizing poems). The converging theories on a rhythmic principle of movement at the origin of poetry and music – often linked to footsteps, as theorized by Aristoxenus of Tarentum, and already mentioned by Plato and Aristotle – are also supported in more recent times by poets engaged in performance, like Artaud (cf. 2004, 961) and Majakovskij (cf. 1973, 130), reinforcing this concept (see also the contemporary poet Claudio Pozzani, cf. Colonna 2016). This rhythmic origin, specifically a rhythm defined as melodic due to the functional role of tone in its scansion (cf. Colonna 2022, 53), reaches its climax in voice and unites prosody and poetry, from their seminal roots.

In poetry read aloud, voice enables the sharing of this rhythmic form through re-interpretation, establishing a relationship with the audience. The external, shared, voice engages in three relational levels: with the written text, achieving acoustic realization; with the performer's body and other resonant spaces; and, finally, with the audience, the ultimate destination and protagonist in its reception, generating a new voice. Concerning this last level, a physical and active dimension of listening emerges as a fundamental aspect of the physicality of the poetic voice. As Alfred Tomatis (cf. 2005) argues, listening involves the whole body (beyond merely cochlear perception), contributing to the development of a

strong relationship and facilitating a deeper, inner understanding and connection with poetry and reality.

All these aspects concerning the physicality of the voice and the effects of listening have been the subject of various scholarly inquiries across multiple disciplines and different approaches, including linguistics, neuroscience, and vocal studies, as in the work of Shewell (cf. 2020) and Tsur and Gafni (cf. 2022). Shewell's study shows how voice deeply engages both the embodied and cognitive dimensions of poetic recitation, highlighting the role of the body in vocal performance and the brain in the processes of poetic creation and reception (cf. 2020, 163).<sup>2</sup> A sensory and cognitive impact on the listener has been proved, revealing the importance of intonation, rhythm, and prosody in conveying the meaning of the poetic text, and confirming the earlier theory by David Jackson (cf. 1986), who emphasized the impact of the spoken voice on the interpretation and emotional resonance of poetry. Also, Tsur and Gafni explore the relevant relationship between sound and reception, highlighting how different prosodic elements (including voice quality) shape the emotional meaning of the poetic text and response in listeners, evoking specific emotions (cf. 2022).

However, the physical presence of the poet's voice must be reconsidered and adapted in light of modern technologies, which not only help preserve this unique physical essence of poetry but also influence, alter and enhance the transmission and reception of the poem. In fact, today, the voice is often amplified, recorded and mediated by technologies: when presented to an audience outside a live context, the previously mentioned physicality of listening, including the bodily dialogue between the speaker and the listener, becomes different, not simultaneous, more unilateral, yet still valuable. Nowadays, voice mediatization, with its potential for expanded diffusion across space and time, can be seen as a pivotal element in the evolution of reading and reception.<sup>3</sup> However, when considering the audience relationship from live and mediated perspectives, physicality involves presence and the possibility of an interactive audience that plays a role in shap-

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<sup>2</sup> More in detail, the scholar draws upon the Triune brain model (cf. McLean 1990) to illustrate how different levels of the brain engage in poetry performance, and focuses on the concept of free-voicing, as a natural approach to spontaneity in linguistic expression as well as in poetry reading for a better communication of the meaning and a wider multisensorial experience for the audience (cf. Shewell 2022, 156–160).

<sup>3</sup> Wehmeier and Wolff discuss the need to address the challenges and transformations that digital platforms pose to poetry performance, reflecting on how the digital age brings both new opportunities and limitations in audience interaction and interpretation (cf. 2024). For a diachronic and phonetic overview of mediated poetry voice in Italian context, see Colonna (cf. 2021).

ing the poem's reception, as shown by Julia Novak (cf. 2024),<sup>4</sup> also influenced by the performer's skill (cf. Zumthor 1983). Expanding to an interaction that is also spatial, Skoulding connects verse segmentation with the segmentation of sound in space, where stimuli transform the listener's experience of the poem, shaping the space and being shaped by space (cf. 2016).

In the exploration of live performance, additional elements such as gestures, widely studied by linguistics in various kinds of speech, particularly regarding its impact and connection with prosody in multimodal communication (see, for example, Valbonesi et al. 2002; Lin and Chen 2020; Moneglia 2020) could also be taken into account. This aspect, examined in poetry from its origins, such as in the case of Homeric poetry (cf. Purves 2019), can reveal its multifaceted contributions at various levels (cf. Lempert 2018). As David Nowell Smith suggests, given the interplay of various components that shape voice – including linguistic and rhetorical elements, gestures, and prosodic features – discussing voice requires reconceptualizing it as inherently ecstatic and mediating; it becomes “voice” only when it transcends itself and exists in relation to something beyond itself (cf. 2015, Ch. 5). This theory can also be compared with Simecek's, who highlights the relational dimension and intimacy of contemporary live performance poetry (cf. 2023, Ch. 1).

Considering the intimate relationship between voice and poetry, as well as between poet and listener, described and discussed in various contexts, as those presented in this chapter, experimental works that build on these theoretical approaches and aim to examine these aspects at an instrumental level could represent the next major perspective in this field. Such integration is essential for contemporary studies on poetry and voice. Within this framework, the project *Voices of Spanish Poets: Vocal Archive and Experimental Study on Poetry Reading* (VSP) is one such initiative. It aligns with these theoretical views as a preliminary and necessary axis of comparison, investigating, through an experimental approach, the vocal production and reception in poetry.

The value offered by the authors' original interpretations provides numerous opportunities for study, enabling an in-depth exploration of all the mentioned aspects – and beyond – with significant proximity and instrumental detail. It offers the chance to delve into the depth of the voice and its relationships, while also uncovering the intimacy of poetic thought itself. Furthermore, the ability to preserve recordings, combined with the opportunity to explore them, particularly in-

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<sup>4</sup> Julia Novak explains how the poet's physical presence plays a key role, merging the author's voice with the performer's body. The bodily presence impacts how the poem's narrator (a fictional persona) relates to the real life performer (Novak 2024, Ch. 1).



volving interdisciplinary approaches, provides a solid foundation for a growing research area. This serves as the starting point for the VSP project, which integrates disciplines such as phonetics, literature, cognitive sciences, and digital humanities. Through these approaches, it examines the physical substance of the *body-voice*, aiming both to preserve it as part of cultural heritage and to investigate its multifaceted role in poetry and communication.

## The *Voices of Spanish Poets* Project: Aims and Contributions

The instrumental study of the voice of poetry has developed over time in different modes and approaches, which are being refined in recent years thanks to advancements not only in recording techniques but also in interdisciplinary research methodologies.<sup>5</sup> Today the possibility of integrating diverse approaches in the study of poetic vocality as well as its preservation and valorization on one hand allows us to continue a previous tradition and, on the other hand, to exploit it in a new approach, wider and able to investigate materials and perspectives still not sufficiently investigated. Recordings serve as the primary sources in this field, just as they do in musicology and performance studies.

For this reason, since 2023, the *Voices of Spanish Poets* (VSP) project, founded on the previous experience of the Italian *Voices of Italian Poets* project and aimed at going beyond it, has been dedicated to the preservation, enhancement, and experimental study of the voices of Spanish poets. VSP addresses this goal with four key objectives: to create a dynamic digital platform for studying and listening to readings of Spanish poetry; to conduct an experimental phonetic study on the VSP archive; to approach poetry reading from experimental psycholinguistic, cognitive, and psychophysiological perspectives, considering text perception and representation through listening; and to integrate these research approaches to-

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5 Theoretical studies of voice in poetry have spread widely in the last century – parallel to the development and growth of vocal archives. However, the experimental research of the acoustic materials of poetry has only become established more recently, despite its seminal origins dating back to the early twentieth century, when the preservation and phonetic exploration of the poetic voice marked the starting point of this line of inquiry (cf. Mustazza 2019). The promising interdisciplinary nature of this theme, bridging linguistics and literary studies, was recognized by linguists such as Roman Jakobson (cf. 1966) and Iván Fónagy (cf. 1983). From a literary perspective, Charles Bernstein marked a new role for poetic recordings in literary and sound studies (cf. 1999). Since its origins, the close link between vocal archiving and research is a defining feature of this tradition.

gether in the platform. In the research area of phonetics, various projects in Europe have developed that either collaborated with vocal archives or incorporated the creation of such archives into their mission. Among these, I mention the *Voices of Italian Poets* (VIP) project at the University of Turin (Laboratory of Experimental Phonetics “Arturo Genre”) and the University of Genoa, which in 2017 initiated the creation of the first online digital archive of recordings of Italian poets and conducted the first phonetic study of these materials (cf. Lo Iacono et al. 2024). This project has developed a model for qualitatively describing poetic voice, starting with Romance languages, which continues to this day. The research within this project not only led to the creation of the establishment of the first entirely online digital archive dedicated to the voices of Italian poets, allowing for multiple interpretations of selected twentieth-century poems, but also provided an initial qualitative methodology applied to many languages, revealing new elements that characterize poetry recordings in all their musical dimension. The main findings of VIP highlighted an evolution in the Italian poets reading styles over time, as well as a rich stylistic variety, challenging the notion of a monotonous style often observed and theorized in other areas and approaches (cf. Colonna 2022). Moreover, comparative studies of different readings of the same texts, interpreted by contemporary poets – especially focusing on the figure of enjambment – showed the interpretive potential of poetic texts during readings, revealing both consistent variety and common strategies (cf. Colonna and Romano 2019, 2022).

On the one hand, phonetic and interdisciplinary studies of the poetic voice have not yet been conducted on Spanish material (exceptions are Colonna 2022 and the literary approach by Mistrorigo 2018): the VSP project aims to fill this gap, providing the first experimental interdisciplinary study on Spanish poetry reading, involving Digital Humanities tools and exploring the musical dimension of recordings of Spanish poets from the twentieth and twenty-first centuries. On the other hand, archival work in the Spanish-speaking world has a strong and established tradition. Among the first archives that laid the historical foundations for Spanish archiving are the Archive of Hispanic Literature on Tape (AHLT) at the Library of Congress in Washington and *Voz Viva de México*; among the more recent ones is the Fonoteca de Poesía. However, an archive for experimental study and teaching purposes was lacking. In this contribution, I will specifically focus on the objective of phonetic analysis, following a brief introduction to the archive involved.

At present, the VSP archive includes nearly 900 entries, of which 439 feature contemporary poets reading a selection of Lorca’s poems, and 411 consist of original readings by living Spanish poets. The remaining entries are twentieth-century recordings preserved in other archives, which are referenced as they have been

analyzed to provide a historical, evolutionary trajectory of poetry reading. The archive is not only a database of readings but also the first platform that offers listening support for poetry listening, through the descriptive phonetic guidance provided alongside the recordings, enabling a more conscious listening experience of poetry. Multiple criteria for consulting are combined into the archive: it not only allows recordings to be grouped according to their evolution over time and metadata search criteria like performer, work, and subgroups (such as Lorca's poems or Voices of Granada, in collaboration with the Federico García Lorca Center and Granada City of Literature UNESCO), but it also enables filtering readings by stylistic parameters that have proven significant in poetic reading. The goal of the VSP archive is to provide an innovative digital resource that distinguishes readings as musical interpretations.

Behind the phonetic information provided by the archive lies the phonetic study of selected data. This has been made possible through the application and updating of the VIP study model, adapted within the VSP framework. This methodology is primarily based on an experimental phonetic approach that combines Digital Humanities tools and musicological theories, applying them to poetry reading. More specifically, one of the core tools of this framework is a radar chart (cf. Colonna and Romano 2023), which allows for a qualitative description of poetic voice, irrespective of language, resulting from annotation, data extraction, and interpretation of poetry recordings. It includes 20 parameters identified or created specifically for the description of poetry reading aloud and concerning prosodic organization of the text, acoustic parameters and prosodic style. This includes, for example, indices related to the type of segmentation of the melodic curve in comparison with the text (four kinds), as well as acoustic parameters (a total of five) such as speech rate, mean frequency, and pitch span. Particularly, the organizational parameters include four types: verse-curve, hemi-verse curve, inter-verse curve, and bi-/poli-verse curve, which describe the total correspondence between the length of the melodic unit (inter-pausal unit) and the verse, or its reorganization into smaller or larger units. They detect the contrast between prosodic and textual fragmentation. Additionally, there are indices that capture typical aspects of poetry reading style, including rhetorical features of intonation, the prosodic realization of textual rhetoric, the relationship between speech and silence, specific intonation patterns, types of stress parameters, and the detection of interrupted style through silence (a total of eleven indices).<sup>6</sup>

The VSP framework sits at the intersection of multiple disciplines, such as phonetics, literature, and music, with terminology drawn from all three fields.

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6 Further indices have been considered in the VIP and VSP projects, besides the radar tool.

Central to its development is the relationship between written and oral texts, the dynamics between these two axes, and the primary prosodic features that define this style. The benefits of this interdisciplinary study include the ability to examine different levels of analysis in such material: this approach makes it possible to measure various aspects of poetry recordings, compare readings to distinguish key traits, and identify commonalities, as well as to organize readings by shared characteristics. Furthermore, this enables scholars to outline stylistic clusters and trace shifts in reading practices over time, thus sketching a historical trajectory of reading styles. This type of study, incorporating additional methodological tools, also provides comparative insights, such as examining multiple readings by contemporary authors interpreting the same texts, which can reveal distinct and common patterns (cf. Colonna and Román Montes de Oca 2024). A simplified version of the VIP-VSP-radar chart is provided for use in the VSP archive to aid in understanding the musical features of poetry reading. Certainly, in this phonetic research, the combination of quantitative and comparative descriptions offers a further and broader overview of poetry reading.

In what follows, I will present a concrete example of interdisciplinary phonetic analysis by qualitatively comparing two readings of different texts by their authors, specifically two well-known contemporary Spanish women poets from different generations. The study highlights the types of research questions that can be investigated by using the archives, which offer valuable insights for teaching literature, linguistics, and the performing arts from new perspectives.

## Two Case Studies: Francisca Aguirre and Ángeles Mora

The poets presented in this article are Francisca Aguirre (Paca Aguirre; Alicante 1930 – Madrid 2019) and Ángeles Mora (Rute, Córdoba 1952). They come from different regions of Spain, corresponding to the Madrilenian and Andalusian dialectal areas respectively. Furthermore, both write in Spanish and belong to different generations. For each author, I considered only one recording for study to provide an initial overview and comparison. The main metadata for both recordings is presented in Tab. 1.

Following multilevel manual annotation in the phonetic software PRAAT<sup>7</sup> (designed by Paul Boersma and David Weenink) and data extraction using a custom

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<sup>7</sup> [www.praat.org](http://www.praat.org).

Tab. 1: Audio Recordings Metadata.

Data	Poet1: Francisca Aguirre	Poet2: Ángeles Mora
<b>Recording Poem Title</b>	“Qué difícil” (“How difficult”), <i>Ítaca</i> , Ediciones Cultura Hispánica, 1973	“Dime” (“Tell me”), <i>La canción del olvido</i> , Diputación Provincial, 1982
<b>Recording Date</b>	2010s	13/11/2023
<b>Source</b>	Fonoteca de Poesía (Poetry Phonotheque) <sup>8</sup>	VSP <sup>9</sup>
<b>Audio Duration</b>	1:28	00:37
<b>Poetry Length and Structure</b>	24 vv., 4 stanzas	13 vv., 5 stanzas

script based on the study model used in the project and developed in collaboration with Domingo Román Montes de Oca, I conducted a qualitative analysis of the two recordings. This analysis focused on the organization of the prosodic text in relation to the written text and provided significant descriptions of the main acoustic features.

Before describing and comparing both recordings, I will introduce the corresponding poems by the two authors at a structural and metrical level, as this is necessary to frame the relationship between the two levels. In terms of its poetic content, Francisca Aguirre’s poem “Qué difícil” (2016) explores the inevitability of hatred, which, like the thin and inseparable layers of an onion, clings to the heart, causing suffering and tears, with no possibility of separation, while fate seems destined to destroy and bring pain. In turn, Ángeles Mora’s poem “Dime” (2023) deals with the theme of abandonment, which fills the soul with rain to the point of making a house a house of water, of tears.

The two texts differ not only in the number of stanzas and overall length (greater in Aguirre’s work) but also in the length of the verses, all within a free verse composition which, however, makes repeated use of verses with the same metrical type. Both poets use internal punctuation. Furthermore, Aguirre’s lines are noticeably longer, ranging between 9 and 16 syllables and preferring units of 11 syllables, with frequent use of enjambments. In contrast, Mora combines shorter and longer lines, particularly involving verses of 7 syllables and two of 11 syllables.

<sup>8</sup> <https://www.youtube.com/watch?v=RyN3H3N46Wo>.

<sup>9</sup> <https://voicesofspanishpoets.ugr.es/grabacion/angeles-mora-dime-1982-angeles-mora-13-11-2023/>.

Listening to these readings, we find two mature female voices, who speak in a calm manner that is not declamatory, as we often encounter in previous generations, generally included into the “first radio-television” group (cf. Colonna et al. 2024, 7), but rather closer to the spontaneous speech. Their timbres reveal vocal maturity, and the close reading to the microphone results in an overall medium-low average intensity. Focusing on their behavior at a phonetic level, we are presented with two different performance styles in poetry reading. I will first introduce the organizational strategies of the text at the prosodic level, and then I will consider further phonetic (acoustic and stylistic) parameters, describing the main features of these readings.

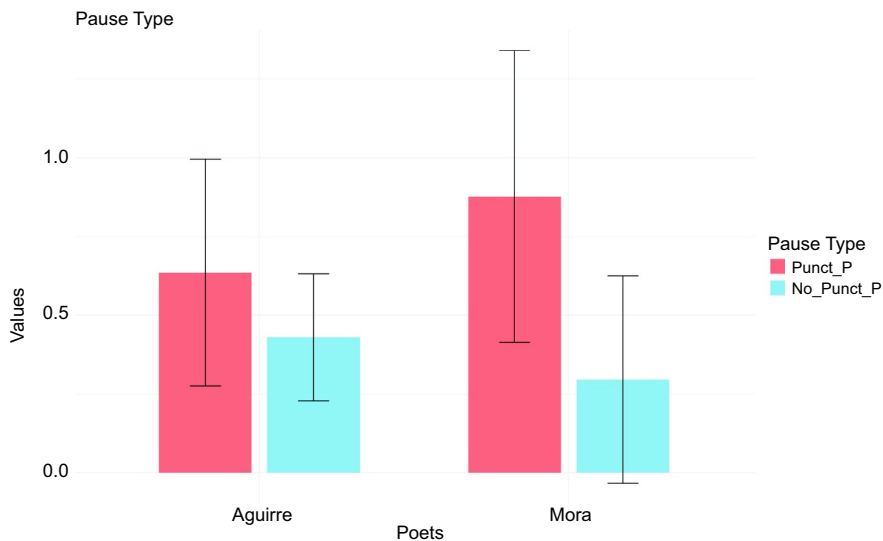
In terms of prosodic organization, a preliminary note is necessary: every oral reading of a poetic text involves its reconfiguration in terms of division and distribution into internal prosodic units. Previous studies show that alignment between line and prosodic contour is not always the most frequent or preferred approach (cf., e.g., Colonna 2022). Poetic reading generally consists of multiple units that form part of a prosodic architecture, only partially corresponding to the layout of the written text. The poetic line is often restructured metrically in oral reading through several approaches, prominently including the reshuffling of the text into prosodic units. These may encompass segments of a line, combine parts of one line and the following line, or include entire verses or multiple lines. Key components of this architecture are *prosodic curves*, which are melodic units framed by pauses. These melodic units include lines or portions of them. For example, in Ángeles Mora’s reading of the verse “Y alguien ha dicho adiós” [And someone said goodbye], she divides it into two separate units – “Y alguien” and “ha dicho adiós” – while the following line is delivered as a single prosodic curve, “al aire.” I refer to the latter as a *verse-curve*, faithful to the verse, and to the former as two *hemi-verse curves*, defining units that encompass only portions of the line.

In analyzing the two readings, I observed that both authors generally adhere to the verse’s measure or its internal units, producing prosodic units that correspond either to the entire verse line (*verse-curve*) or to a portion of it (*hemi-verse curve*). Particularly, Aguirre employs the latter kind of structure most frequently. In Mora’s case, whose poem is also characterized by shorter lines, she also combines three consecutive lines within a single breath at one point, creating what can be described as a *poly-verse curve*. These organizational styles indicate that both readings employ, a *metrical* approach, reflecting an adherence to the unity of the verse – however, this happens to varying extents. While Mora shows a clear preference for this approach, Aguirre’s reading style is dominated by a structure that can globally be classified as *syntagmatic-syntactic* (cf. Colonna 2022, 33). This means her readings closely follow the syntax, punctuation, and minor

syntactic units (syntagms), while also reflecting a metrical awareness of the verse's unity. These approaches highlight a key difference between the two styles, illustrating distinct features of prosodic organization. Notably, prosodic structures often blend multiple types of prosodic curves, with one type typically emerging as dominant. Quantifying the pronounced prosodic syllables and their organization into prosodic curves of different or corresponding meters from the poem is important for continuing the comparison between oral and written text. In Aguirre's readings, the segmentation of long lines through pauses is the most frequent strategy: her curves predominantly encompass 4, 7 or 9 syllables, while her overall prosodic range spans curves from 1 to 12 syllables. This means that only some of Aguirre's long lines are retained in her reading; they are mostly reproduced as divided into internal prosodic curves, separated by pauses that reorganize the text. With Mora, the most frequent prosodic length is 3 syllables, followed by 4-syllable units and, on the other hand, significantly larger units: she often renders lines of 10–12 syllables as uninterrupted *verse-curves*.

The use of pauses, which in both cases structures the reading, generally follows the logical-syntactic flow and punctuation, while also serving to highlight specific syntagmatic units or the end of a verse. However, the types and uses of pauses also differ between the two authors and depends on the specific textual context. Thus, the use of silence is purposeful and functional in highlighting the meanings of the prosodic curves. More specifically, I identify different types of pauses based on the presence or absence of textual punctuation at the end of the preceding unit. Both authors employ longer pauses when punctuation marks are present, while their average pause duration tends to be shorter when the interruption occurs between logically connected units without punctuation (although variation is markedly higher in Mora's case). This confirms that silence management in reading not only differs between authors (with Mora displaying a more pronounced contrast between pause types) but also shows considerable variation within a single author, evidencing different functions (as illustrated in Fig. 1).

Furthermore, pauses can serve multiple functions and have multiple effects (cf. Barbosa 2023), and their duration relative to the total speech time (i.e., the recited portion without pauses) offers a broader perspective on a reading style. Specifically, the ratio of melodic to pausal duration, that is, the ratio between the total duration of speech, excluding pauses, and the pauses themselves – measured by the index known as *Plenus* (cf. Colonna 2022, 36) – falls within the complex medium range for both authors, though it is higher for Aguirre, indicating a greater presence of speech relative to pause duration, despite a somewhat fragmented style (as partially illustrated in Fig. 1). It can be said that this type of speech appears denser, with a limited presence and extent of pauses.



**Fig. 1:** Histogram of the pause type.

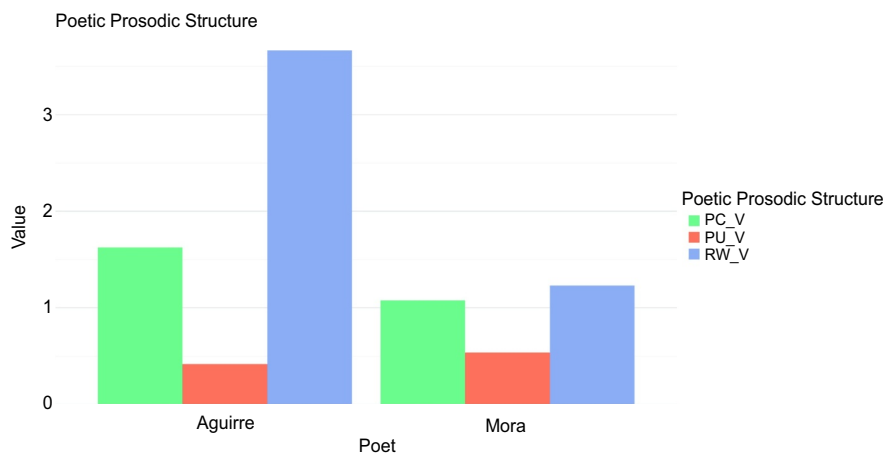
Duration of pauses (in seconds) in contexts without punctuation (No\_Punct\_P); Duration of pauses (in seconds) preceded by punctuation (Punct\_P)

At the level of prosodic curve as the main element of line reorganization, two additional levels can be added – one major and one minor (cf. Colonna 2022, 45) – to consider the prosodic organization architecture from different perspectives. The major units of logical-prosodic sense, which I call *poetic utterances*, usually encompass multiple prosodic curves but can also correspond to only one: it is perceived as an independent linguistic act with a terminal boundary and a unified prosodic signification. It is usually found followed by pauses and ends in correspondence of a full stop in the written text.<sup>10</sup> The minor units are *rhythmic words*, marking the rhythmic scansion of the prosodic curves. These are tonal-accentual units, identified at a perceptual level, where the rhythmic cadence occurs, segmenting the prosodic continuum. These units may encompass one or more orthographical words, phonetically realized as a single accented unit.

<sup>10</sup> An example can be found in Aguirre in the second utterance, which includes lines 2–3: “Se adhieren entre sí con una fina telilla que las unifica y conjunta de manera tenaz.” Alternatively, the fourth utterance corresponds to the entire second stanza, including lines 6–9: “Así el odio se pega de manera indeleble a ciertos corazones y resulta imposible retirar esa membrana pegajosa del órgano que la genera y hace de ella un vínculo con los enamorados de la muerte.”



For this study, taking into account these three levels of organization, I coined an index for a general description of prosodic structure in relation to textual structure, called *poetic prosodic structure*. This index allows us to observe the relationship between prosodic units and an author's textual verse. In this case, comparing poetic utterances, prosodic curves, and rhythmic words with verses highlights a strong divergence between the two readings. This indicates that the strategies of the two poets depend not only on the different structures of their poetic texts, as previously discussed, but also on their personal stylistic prosodic choices, which diverge markedly. As shown in the graph in Fig. 2, the two authors strongly differ in the rhythmic scansion of their reading, as indicated by the level of rhythmic words. Aguirre accentuates her prosodic curves (overall longer but not homogeneously) with a higher number of internal rhythmic words characterizing her reading style as *appoggiato*, to borrow a term from music (cf. Colonna 2022, 63). In other words, her reading emphasizes the internal stress units of prosodic melodies.<sup>11</sup> Furthermore, Aguirre's approach, as previously noted, tends to fragment her verses into



**Fig. 2:** Histogram of the Poetic Prosodic Structure.

Ratios between Prosodic Curve and Verse (PC\_V); Prosodic Utterance and Verse (PU\_V); Rhythmic Words and Verse (RW\_V)<sup>12</sup>

<sup>11</sup> Similarly, in musical agogics, we can find a “stressed” note (Scholes and Ward 1964, 27), or the synonymous *appoggiando*, defined as “a style of playing in which succeeding notes are closely connected and stressed” (Latham 2011, n.p.) or a “drawing out, lengthening, leaning upon” style (Stainer and Barrett 1876, 33). In the same way, melodic units in poetry can be considered “appoggiate” when perceived as stressed, lengthened, and leaning toward the following element.

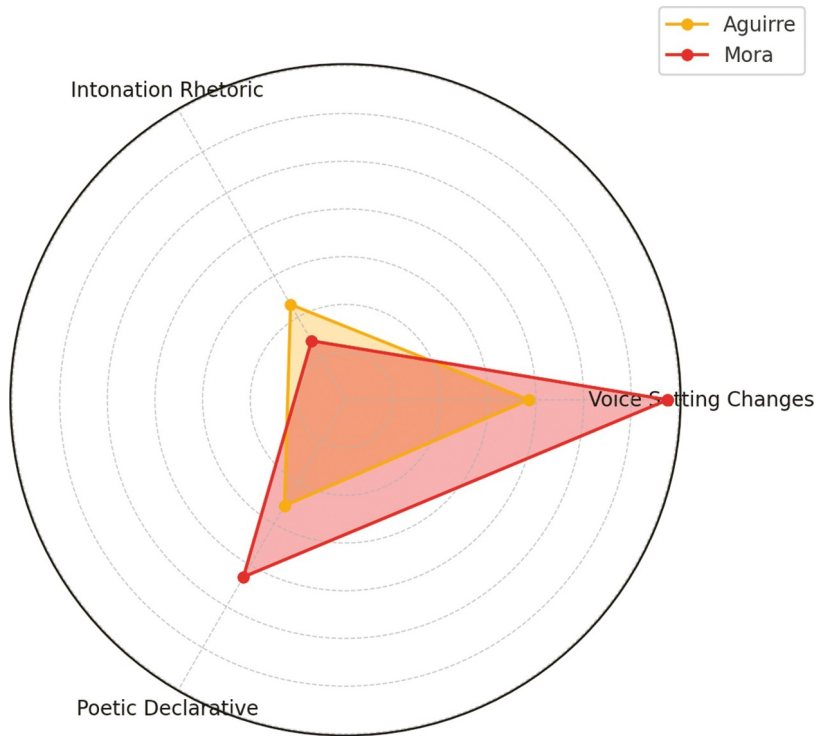
<sup>12</sup> These indices are calculated as ratios, respectively between the total number of Prosodic Curves and Verses, Prosodic Utterances and Verses, Rhythmical Words and Verse.

hemi-verse curves, resulting in a reading that is more segmented overall than the written text.

Regarding the major structure of prosodic organization, namely the poetic utterance, I found that the reading styles of both poets generally exhibit the same ratio of poetic utterances per verse, suggesting a stable relationship between these features regardless of the number of verses.

Much more can be said about poetic reading from a qualitative perspective and comparing two distinct readings. Key indices include average pitch, mean intensity, pitch span, voice setting changes and speech rate, as mentioned before, as well as specific intonations patterns, often frequent in poetry reading, like the *poetic declarative intonation* – an assertive intonation, which does not fall as sharply as in everyday speech, but remains suspended on an open ending (acoustically, ending on a mid-level pitch) – and rhetorical repetitions of melodic contours. Here, I will focus on these parameters.

Both authors employ a similar speech rate, averaging around five syllables per second, a medium value compared to the authors of the “second radio-television” phase in the phonetic history of Spanish poetry reading, as discussed by Colonna et al. (2024, 17) and in the VSP online vocal archive (Colonna 2024). This corresponds to a more recent approach to reading, as seen, for example, in the recordings by Luis Cernuda, Carmen Conde, and Pedro Salinas. Aguirre and Mora also share similar average pitch (mean relative frequency in Hz, which indicates the average pitch height of the entire reading, comparable to the pitch of a musical note prevailing in the reading) and intensity levels (mean value, measured in decibels, corresponding to the level of sound energy or the strength with which the voice is emitted throughout the entire reading) with Aguirre’s values being slightly higher. On the other hand, regarding melody, both readings display internal variety: each voice covers a wide pitch span, with Ángeles Mora reaching nearly two octaves and Paca Aguirre an octave and a half. However, the degree of tonal and register variation (Voice Setting Changes; cf. Colonna, 2022, 63) differs between the two. Mora frequently shifts levels, avoiding any monotony, while Aguirre introduces fewer internal changes, achieving a more homogeneous yet still varied style. Although this study does not address the effects of reading reception and perception, other research has explored how different uses of prosody influences processing. Studies such as those by Raithel et al. (cf. 2004), Sander et al. (cf. 2005, 848–858), Truckenbrodt (cf. 2012), Nakamura et al. (cf. 2020), as well as Bolinger (cf. 1989), show how a different intonational approach generates different processing effects. We could say that in the case of poetry readings with frequent tonal changes, according to psycholinguistic studies conducted so far, we can also expect the perception and reception of the poem to be more engaged compared to a more tonally homogeneous stimulus. Several studies in fact con-



**Fig. 3:** Synthetic melodic VIP-VSP-Radar.

verge in the theory of higher levels of intelligibility and attention with internally varied reading.

Furthermore, both readings globally exhibit a melodic dynamism in intonation, avoiding frequent rhetoric repetition of specific patterns. Instead, each reading remains varied, even though Ángeles Mora often adopts more poetic declarative intonations. Fig. 3, a reduction and simplification of the VIP-VSP-Radar, visually supports this analysis, connecting the indicators of tone and intonation features (Voice Setting Changes, Intonation Rhetoric, Poetic Declarative).

In light of the initial studies on the history of poetry reading (cf. Colonna 2024; Colonna et al. 2024), these two readings can be seen as an example of a possible natural continuation of the evolution in of the contemporary Spanish poets' reading styles, even though the sample size is limited for defining a long-term

trend.<sup>13</sup> For example, the more spontaneous approach to reading replacing a more emphasized earlier declamation is characteristic of the evolutionary trajectory observed so far. Furthermore, several features align Aguirre's and Mora's readings with a broader shift that appears to be emerging over time. For instance, their *Plenus* levels are lower compared to recordings of the first radio-television phase in the history of Spanish poetry reading by Colonna 2024 (e.g. by Dámaso Alonso, Vicente Aleixandre, or Rafael Alberti). They are more similar to recent reading styles, indicating that the pausal duration in contemporary Spanish poetry readings has been continuously increasing. Additionally, the increased speech rate aligns with the historical trend observed in poetic speech and other spoken forms, such as radio and television, for both Italian and Spanish. Furthermore, based on a prior study that compared the readings of same texts by speakers of different genders and showed significant differences in tonal range (cf. Colonna and Montes de Oca 2024), the pitch and tone features found in Aguirre's and Mora's readings also seem to suggest a tendency towards a broad tonal and pitch range in women's voices. This could provide valuable insights into gender differences in poetry reading, which may reflect broader gender differences in spontaneous and other forms of speech; further investigation will be needed in this regard.

## Conclusion

In this work, I have presented a general phonetic description of the readings of two Spanish poets, considering three levels of analysis: the prosodic organization of the written text (with a focus on the use of pauses), the use of specific phonetic parameters, and the characteristics of certain stylistic indices typical of poetic speech.

Aguirre's and Mora's voices are a sign of their time, offering a "sound photograph" of contemporary poetry and the historical-cultural moment in a country. They carry not only the history of poetry and sound but also the unique qualities of their individual voices. The data reveal key prosodic features that help us appreciate the distinctiveness of each reading, showing how these voices are similar in some ways and diverge in others. This study demonstrated that poets' voices constitute a distinct form of "sound art," with specific description criteria, con-

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<sup>13</sup> The VSP project aims to explore the contemporaneity of poetry reading in greater depth and on a larger scale through its archive, as the next step in its research, in order to continue the history of Spanish poetry reading in our present time.

tributing to the same composition and serving as phonetically analyzable musical material. An intersection of this knowledge makes it possible to see the complexity of these materials as a whole and to see their recent correlations.

Poetry is voice, and voice is memory. Conserving and exploring the recorded voices of the poets through suitable technologies allows connecting intimately with the body-voice of poetry and accessing that memory, while also revealing the main prosodic features of the reading. This opportunity offers valuable insights not only into poetry reading behaviors as a linguistic form of speech and a performative art but also into the understanding of the authors, the texts and the surrounding cultural contexts.

Furthermore, this approach not only provides valuable insights for linguistic, literary/metrical, and sound studies – fostering an interdisciplinary understanding – but also allows us to consider the three-dimensionality of the word, which encompasses text, orality, and time. This is made possible through mediation of digital sources and technologies.

This chapter offers a preliminary overview aimed at highlighting the potential of poetry recordings. Further comparisons of the results between different contemporary authors and larger analyzed corpora for each poet, involving both qualitative and quantitative analyses, will help identify possible trends and variations in readings by the same author and within the cultural panorama. These comparisons will also propose groupings already identified in Colonna (2024) and explore additional potential clusters (e.g., gender). Such analyses are essential for tracking the contemporary state of poetry reading and providing a comprehensive picture of a poet's reading style. This study serves as an initial introduction to contemporary Spanish poetry reading styles, establishing a foundation for further investigations into the evolution of poetry reading today.

Studies focused on categorizing poetic voices and identifying prosodic styles, with the aim of creating a phonetic history of poetic reading, can bridge literary criticism, linguistic analysis and archive conservation, offering valuable tools for understanding poetry and exploring this unique form of speech. Moreover, by delineating and defining a global cultural framework, this approach contributes to various fields, including anthropology, sociology, and sound studies. By leveraging the heritage of mediated voices as an integral and essential element of literary, linguistic, and sound studies, this approach not only opens new avenues for the exploration, listening, and transmission of poetry but also ensures the preservation of contemporary poetry's sound memory.

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