International Journal f Early Childhood Special Education (INT-JECSE)
DOI:10.48047/intjecse/v17i4.7 ISSN: 1308-5581 Vol 17, Issue 04 2025

Sound and Letter in Arabic Linguistic Thought: From Classical Heritage to Modern Linguistics

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Received: 26.11.2024 , Accepted: 20.04.2025 , Published: 28.04.2025

Abstract :

This article examines the conceptual relationship between sound and letter in Arabic linguistic thought from classical tradition to modern linguistics. In the classical Arabic heritage, scholars such as Al-Khalil ibn Ahmad, Sibawayh, Ibn Jinni, and Ibn Sina approached language primarily as an oral and auditory phenomenon, where the distinction between sound and letter often remained fluid and context-dependent, reflecting an early yet insightful phonetic awareness grounded in articulation and perception. Modern linguistics, by contrast, provides a more systematic and scientifically oriented framework, defining sound as a physiological and acoustic process produced through the speech mechanism, while the letter is associated with its written and symbolic representation. This evolution reflects a shift from intuitive descriptive approaches to more formalized and experimental models of linguistic analysis. The study ultimately highlights both continuity and transformation between the two traditions, and raises the question of whether this distinction represents a genuine conceptual development or a methodological and terminological shift describing the same phonetic reality.

Keywords: sound, letter, Arabic linguistics, phonetics, modern linguistics.

Introduction:

Phonetic phenomena lie at the core of linguistic inquiry, as they represent the material basis of language in its production and perception. One of the most debated issues in both Arabic linguistic tradition and modern linguistics is the relationship between sound and letter, a problem that reflects deeper differences in how language is conceptually and methodologically approached.

In the Arabic linguistic heritage, scholars such as Al-Khalil ibn Ahmad, Sibawayh, Ibn Jinni, and Ibn Sina treated language as a primarily spoken reality, where the distinction between sound and letter often remained fluid and context-dependent. Modern linguistics, however, introduces a more systematic distinction, defining sound as a physical-acoustic event and letter as its written representation.

This study therefore raises the following question: to what extent does the distinction between “sound” and “letter” represent a genuine conceptual evolution between classical Arabic linguistic thought and modern linguistics, and to what extent is it merely a terminological and methodological shift describing the same phonetic reality?

1. The Linguistic Formation of the Concepts of Sound and Letter:

1-1 The Concept in Traditional Arabic Linguistic Thought:

Arabic linguistic heritage demonstrates a remarkable early awareness of phonetic structure. Unlike later grammatical traditions that focused heavily on syntax and morphology, early Arabic scholarship placed sound at the center of linguistic inquiry. This was not incidental but foundational, as sound was seen as the primary material of language.

From the earliest stages of Arabic linguistics, beginning with Abu al-Aswad al-Du'ali, and later systematized by al-Khalil ibn Ahmad and Sibawayh, sound was treated as a scientifically observable phenomenon. These scholars did not view language as an abstract system of written symbols but as a living oral practice rooted in articulation and hearing.

This orientation is reflected in early classifications of sound:

"Sound, as an auditory phenomenon, is divided into several types: first, natural and artificial; from these emerges the physiological type, which itself is divided into animal and human; then human sound is further divided into linguistic and non-linguistic."[1]

This classification is highly significant, as it reveals an early attempt to construct a hierarchical model of sound, distinguishing between natural acoustic events and linguistically meaningful sound.

In this framework, early scholars often used the term letter (ḥarf) not in its modern orthographic sense, but as a reference to articulated sound units. This reflects a conceptual overlap between phonetics and orthography in early Arabic thought.

For example:

"Considering rā', lām, and nūn as having a special articulation and calling them 'letters of fluency' because they emerge from the tip of the tongue, specifically its edge."[2]

This clearly shows that what is called "letter" is actually defined through articulatory phonetics, not writing.

Thus, in early Arabic linguistics, the “letter” is essentially a spoken entity, not a written one, and is understood through its physical production rather than its graphic representation.

1-2 The Distinction between Sound and Letter in Early Scholarship:

Although early scholars used both terms, their usage was not always strictly differentiated. Instead, meaning depended heavily on context. Sound was sometimes treated as a general category, while “letter” referred to specific articulated units.

As grammarians developed their analysis, sound became more explicitly connected to phonetic processes such as voicing, whispering, and articulation dynamics:

“This term—sound—was not unfamiliar to Sibawayh and those who came after him among grammarians, as they used it to describe the phonetic system of Arabic when explaining the properties of sounds and defining the purpose of assimilation, which is the ‘bringing of one sound closer to another.’”[3]

This definition reflects an early phonological awareness, especially in describing assimilation as a process of phonetic convergence.

Furthermore, early scholars distinguished between different types of sound production:

“to refer to whispered sounds produced from the mouth, as opposed to voiced chest sounds. They also used it to define the plosive sound as that which prevents airflow, while the fricative is that in which airflow continues.”[4]

Such distinctions show a sophisticated understanding of airflow, articulation, and acoustic perception, even without modern instrumentation.

Ibn Jinni represents a major advancement in phonetic thinking. He introduces the idea that sounds vary according to articulation points and contextual realization:

The timbres of letters differ according to differences in their articulation points. Do you not see that you begin sound from the deepest point and then extend it to whichever articulation point you wish, and you find it has a certain timbre? If you move away from it, returning or passing beyond it and then stopping, you perceive a different echo than the first. "This applies to /k/. If you stop with it, then return to /q/, you hear something different, and if you move to /j/, you hear something different from both."[5]

This passage suggests an early understanding of what modern linguistics would call allophonic variation and contextual phonetic realization.

Similarly, Ibn Sina develops a more theoretical model grounded in natural philosophy and acoustics:

"A letter is a quality of sound that is incidental to it and distinguishes it from another sound similar in loudness or softness, in terms of perceptual differentiation."[6]

He further elaborates a proto-acoustic theory:

"A vibrating body.

A medium through which vibrations travel.

A receiver of these vibrations."[7]

This tripartite model anticipates later acoustic theories of sound transmission.

Al-Jahiz, meanwhile, introduces a functional-linguistic perspective, emphasizing the communicative role of sound:

“It is the instrument of expression, the substance through which articulation occurs.”[8], and through which composition is formed. Movements of the tongue are not speech, poetry, or prose unless sound appears, and letters are not speech except through articulation and composition.”[9]

Thus, for Al-Jahiz," sound is the material foundation of language, while “letter” represents structured linguistic realization.”[10]

2. The Transformation of the Concepts in Modern Linguistics:

2-1 The Concept of Sound in Modern Linguistics:

Modern linguistics redefines sound through interdisciplinary frameworks combining neuroscience, physiology, and acoustics. "Unlike traditional approaches, sound is now studied as a measurable physical and cognitive process". [11]

As Samir Sharif Stetie explains:

“When the nervous system issues commands to produce a specific sound, that sound is transmitted as electrical impulses carried by specialized nerves to the speech organs, which then assume the appropriate positions accordingly.”[12]

This model highlights the neurological control of speech production and the coordination between brain, nerves, and articulatory organs.

Tammam Hassan further defines sound as a dynamic process:

“Sound, in the view of phoneticians, is a kinetic process with an auditory effect produced by a speaker in everyday linguistic activity.”[13]

This definition emphasizes that sound is not static but continuously produced within communicative interaction.

Modern phonetics therefore conceptualizes sound as a multi-layered phenomenon involving:

physiological production

acoustic transmission

auditory perception

2-2 The Terminological Status of Sound and Letter in Modern Linguistics:

In modern linguistic theory, the distinction between sound and letter becomes more systematic, although some overlap persists in scholarly usage.

Ahmed Mukhtar Omar sometimes maintains partial equivalence between the two concepts:

“What distinguishes the letter (sound) from the letter (sound) is a set of factors, including the difference in the point of control over airflow and the difference in vibration patterns…”[14]

However, this reflects transitional terminology rather than theoretical confusion.

In contrast, Kamal Bishr provides a more structured phonetic model. He defines sound as:

"Linguistic sound is an auditory effect produced voluntarily and intentionally by the so-called speech organs. This effect appears as modulated vibrations corresponding to movements of the mouth and its organs."[15]

This definition integrates three essential dimensions of sound:

articulatory (speech organs)

acoustic (vibrations)

auditory (perception)

Kamal Bishr also consistently distinguishes between sound as a phonetic reality and letter as a graphic system:

"One reason for their interest in letters is the existence of independent symbols for them…"[16]

This reflects the modern linguistic separation between phonetics (speech sounds) and orthography (written symbols).

Conclusion:

This study has sought to clarify the conceptual relationship between sound and letter across Arabic linguistic heritage and modern linguistic theory. It has shown that, in the classical tradition, linguistic inquiry was fundamentally grounded in oral and perceptual experience, which led to a flexible and context-sensitive use of both terms, often without a strict terminological boundary. Modern linguistics, in contrast, reconfigures this relationship within a more rigorous scientific framework, distinguishing sound as a physiological-acoustic phenomenon and letter as a written and symbolic representation.

Nevertheless, despite this apparent shift in analytical precision, both traditions converge on a shared linguistic reality: language as a dynamic process rooted in human speech. The difference, therefore, lies less in the object of study than in the epistemological and methodological lenses through which it is approached. This invites a reconsideration of whether the observed distinction reflects an actual conceptual rupture or rather a refined rearticulation of the same phonetic phenomenon within evolving scholarly paradigms.

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