

The Methodology Employed by Tajweed Scholars in Describing Arabic Letters An Analytical Study in Light of Modern Phonetic Studies

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Abstract

In this research paper, we aim to examine the texts of Tajweed scholars to explore the scientific efforts and methodological approaches they employed in describing the letters of the Arabic language and elucidating their functional characteristics in the Qur'an. Our objective is to place these views and methodologies within the context of the findings and insights provided by modern linguistics.

Based on this premise, our research relies on a methodological framework built on two primary foundations: the first involves analyzing the texts to uncover the key principles and methodologies used in describing letters as physical phonemes isolated from the structural context of speech performance. The second foundation seeks to extract the most prominent principles of letter description as distinctive opponent units, i.e., phonetic units organized according to the laws of adjacency and their implications in the context of speech.

One of the most important findings of this research paper is that Tajweed scholars had views and insights into establishing phonetic facts that closely align in their depth with the findings of modern phonetic studies. Additionally, they made significant contributions that could enhance contemporary Arabic phonetic research.

Keywords: Tajweed Scholars, Arabic Letters, Phonetics, Modern Linguistics, Modern phonetic studies.

Introduction:

The phonetic performance of the Qur'an has been a subject of great concern for scholars throughout the Islamic world, ensuring that this sacred book remains as fresh and authentic as it was revealed, free from any errors or distortions. Scholars of Qira'at (Qur'anic readings) and Tajweed (Qur'anic recitation rules) have borne the greatest responsibility in safeguarding the proper articulation of Allah's words.

Scholars of Qira'at focused on preserving the chains of narration and the sources of the phonetic performances, while Tajweed scholars undertook the task of uncovering the phonetic rules governing these performances. Their aim was to establish a set of phonetic systems that serve as a scientific reference for every certified Qur'anic reciter.

From this standpoint, Tajweed scholars adopted scientific methodologies and approaches in describing Arabic letters, whether as isolated individual units or in their compositional and contextual adjacency. These methodologies are largely consistent with the foundational principles and phonetic concepts recognized in modern phonetic studies.

A significant overlap exists, and a convergence that sometimes reaches near-complete similarity between the two. Many of the methodological tools employed by Tajweed scholars to determine the articulation points and phonetic attributes of Arabic letters remain widely acknowledged for their accuracy and efficacy. They continue to serve as essential tools in laboratory practices for researchers in modern phonetic studies, particularly in their physiological dimensions. The reliance of Tajweed scholars on direct self-observation in describing the articulation points and characteristics of letters brought a unique distinction and brilliance to their phonetic studies. This approach endowed their work with a significant degree of scientific rigor, which is evident today in modern phonetic studies. Because the images, patterns, and numerical data produced by modern phonetic laboratory instruments remain closely tied to the direct self-observation of the individual conducting the experiment when it comes to interpreting and determining the articulation points and characteristics of letters.

Similarly, when examining the precise definitions adopted by Tajweed scholars in describing letters, we find that all their descriptions are based on the organic movements of the speech apparatus used to articulate each letter. For instance, their definition of unvoiced letters is grounded in two physical reasons: the flow of breath and the weak reliance on the articulation point. Examples of physiological descriptions provided by Tajweed scholars are abundant and encompass every aspect of the speech apparatus, such as describing the movement of the tongue and its role in distinguishing the characteristics of velarization (Iṭbāq) from openness (Infītāḥ) and elevation (Istilā') from lowering (Istifāl). All these descriptions used by Tajweed scholars to define the essence of a letter in terms of its attributes and articulation points fundamentally align with the phonetic facts established by modern physiological phonetics.

Tajweed scholars succeeded in making remarkable contributions to the study of Arabic letters. Their examination of phonetic phenomena in the Qur'an resulted in a comprehensive framework of concepts, perspectives, and terminology. All of this was built upon a set of methodological principles that served as the foundational tools for their phonetic studies.

Therefore, we wanted the subject of this research to examine the works of scholars of Tajwīd through careful study and investigation, in order to explore the outstanding efforts and valuable contributions they offer to the advancement of Arabic phonetic studies. The research also aims to uncover the unique features and distinctive qualities of these works in terms of their methodological perspectives, technical terminology, research objectives, and areas of interest related to the proper recitation of the Book of Allah.

Research Problem

The research examines the texts of Tajweed scholars to explore their scientific methods in describing Arabic letters and their functions in the Holy Quran, while comparing these approaches with modern linguistic findings. The central question addresses the extent to which Tajweed methodologies intersect with contemporary phonetic and phonological theories, identifying areas of convergence and divergence in concepts and methods.

Research objectives

1. Analyze Tajweed scholars' texts on Arabic letter description and function.
2. Identify and classify their scientific methods in articulation and phonetic features.
3. Compare these methods with modern phonetic and phonological approaches.
4. Highlight similarities and differences between Tajweed and modern linguistics.
5. Assess Tajweed scholars' contributions to contemporary Arabic phonetic studies.

Significance of the Research:

The importance of this research lies in reviving the scientific heritage of Tajweed scholars as a precise reference for describing the sounds of the Arabic language, and in highlighting their early contributions to phonetics and phonology prior to the emergence of modern linguistics. It bridges the gap between traditional studies and contemporary approaches, contributes to the development of Arabic phonetic methodology, and enriches both Quranic studies and comparative academic research

Research methodology

In formulating this research paper, we relied on a methodology that aims to describe, analyze, and interpret data related to the procedures adopted by Tajweed scholars in describing Arabic letters.

1- The Physiological Principles in the Description of Letters:

Through a thorough analytical reading of the texts of Tajweed scholars, we aim to uncover the most significant principles that underpinned their phonetic studies. Furthermore, we seek to evaluate the extent to which their adherence to these principles reflected their brilliance, scientific rigor, distinctiveness, and exceptional contributions in the field.

Previous studies

Previous studies have addressed the phonetic efforts of Tajweed scholars in light of modern phonetic research through articles and books by several researchers, including Mohamed Qadi, Mohamed El-Jammal, Abdelhamid Zahid, Abdelaziz Ait Baha, and Ghanim Qaddouri Al-Hamad. These studies highlighted the benefits of modern phonetics and presented some comparisons with Tajweed science; however, they were generally broad in scope and lacked a comprehensive methodological approach or in-depth familiarity with modern phonetic concepts. Building on these observations, the present research aims to provide a precise linguistic reading of phonetic concepts in Tajweed scholarship, comparing them with modern approaches, filling gaps left by previous studies, and highlighting the unique features and distinctiveness of this scholarly heritage.

1.1 relying on sound, not on written text.

Modern linguistics, following Ferdinand de Saussure (1972), emphasizes the primacy of speech over writing, considering it essential for scientific study. Saussure criticized traditional linguistics for relying on writing, describing it as a deceptive representation of language. He illustrated this with the French word *oiseau* ("bird"), whose spelling conceals its true pronunciation (*wazo*) (Ferdinand de Saussure, 1972).

When we examine the phonetic studies conducted by the scholars of tajweed, we are struck by their view of the Qur'anic corpus as an oral corpus that was transmitted by recitation before being recorded in a written book to be read. Ibn Furak said: "The Qur'an was revealed in stages because it was sent down to an illiterate Prophet ." (al-Zarkashī, (n.d.)) . This means that the Prophet received the Qur'an from Gabriel (peace be upon him) in the form of spoken, recited speech—not as a written text. Consequently, our scholars preserved it in its phonetic form, whether in its transmission, its teaching, or the study of its phonological system.

Among the statements that reflect this stance is what Ibn al-Jazari mentions regarding what is required of a Qur'an instructor in the science of Qur'anic readings, where he says:

"If someone memorized al-Taysīr, for example, he is not permitted to teach based on what it contains unless he has received it directly, face-to-face, from someone who themselves received it through a connected chain. This is because there are aspects of the Qur'anic readings that can only be mastered through hearing and direct oral transmission." (Ibn al-Jazārī, 1999).

Similarly, Abu al-‘Ala’ al-Hamadhānī al-‘Attār (d. 569 AH) stated, in his explanation of how Qur’anic performance is to be learned: "It is something whose true nature can only be grasped by the elite of the reciters and the prominent scholars. It is of two kinds: one of them cannot be understood except through direct oral transmission and learning from the mouths of those with mastery and expertise. This includes for exp estimate quantities of the long sound [al-madd], and other such subtleties that cannot be confined to writing, and the fine details that can only be acquired from those who are proficient and precise." (al-Hamadhānī, 2005).

The two texts show that mastering Qur’anic pronunciation depends on oral transmission from experts, as many phonetic details cannot be captured in writing. Thus, Tajweed scholars prioritized phonetic aspects in their studies, viewing them as essential to analysis, while giving less importance to script, which developed later to preserve speech. ‘Abd al-Ṣabūr Shāhīn also affirmed the superiority of pronunciation over writing in Qur’anic recitation., saying: “If we turn to the script of the Muṣḥaf in the Qur’an, we will find that the script itself does not always represent the phonetic value. Words such as: al-ṣalāwah (الصَّلَاةُ) [al-Baqarah: 3], al-zakāwah (الزَّكَاةُ) [al-Baqarah: 43]... cannot be recited correctly based solely on the written form. Rather, the correct pronunciation must be received directly from the mouth of a reciter — and this is what scholars have always recommended.” (‘Abd al-Ṣabūr Shāhīn, 1993).

One of the most significant indications of Tajwīd scholars’ reliance on pronunciation rather than writing is their use—when describing letters—of subjective observation based on the principle of phonetic intuition, and on the senses of hearing and sight. Subjective observation was, in fact, the only path available to Tajwīd scholars for acquiring knowledge in this type of transmitted sciences (ulūm naqliyyah), given that it is based on Since an audio blog Waqfiyyah "relies on reception, transmission, and narration—not on script, drawing or calligraphy" (al-Qādī ‘Abd al-Fattāḥ ‘Abd al-Ghanī, n.d). This is because it received exceptional care and a high degree of precision in both the chain of transmission (isnād) and the text of the narration (matn), surpassing in this regard the linguistic corpus preserved by the scholars of Arabi.

1.2 Starting from the Physical Description of Letters:

Modern phonetics studies the physical properties of speech sounds, focusing on how articulation organs produce them. The point of articulation is key to defining each letter’s identity, as variations in articulation create distinct sounds. Early scholars similarly based their definitions of letters on observing the organic movements involved in pronunciation. Makki described the whispered (**mahmūs**) letters as follows:

"The meaning of a whispered letter is that it is a letter through which breath flows during its articulation due to its weakness and the weak reliance on its articulation point at the time of pronunciation. Thus, it is weaker than the voiced (**majhūr**) letter" (Makki ibn Abi Talib, 1996,).

From this description, it is understood that the point of articulation for whispered (**mahmūs**) letters does not completely close during pronunciation, allowing a certain amount of breath to pass through.

Consequently, the reliance on the articulation point is weak during the production of these letters. The same descriptive approach is applied to voiced letters, as Maki says: "The meaning of a voiced letter is that it is a strong letter that prevents the breath from flowing when it is pronounced due to its strength and its strong dependence on its point of articulation in the place where it is produced." (Makki ibn Abi Talib, 1996,). Al-Mar'ashi explained the concept of strong reliance on the articulation point by saying: "The meaning of the reliance of the sound on the articulation point is the narrowing of the articulation point and the compression of the sound within it. The meaning of strong reliance on it is the intensity of its narrowing. They may mention to reliance on the letter, but what they mean is reliance on its articulation point." (Al-Mar'ashi, 2008)

This physiological analysis shows the deep understanding of Tajweed scholars—and earlier Arabic linguists—in accurately identifying phonetic facts and the inherent features of Arabic sounds through their study of articulation modes.

Let us once again examine this text by Al-Mar'ashi, in which he states: "Each letter matches its point of articulation, meaning it corresponds precisely to the extent of its articulation point, neither exceeding it nor falling short of it, except for the letters of madd,... which Hence they accept an extension in elongation until the sound ceases." (Al-Mar'ashi, 2008)

Al-Mar'ashī viewed each letter as a tangible entity shaped by its articulation point, which defines its identity. He noted that madd letters extend beyond these points into the oral cavity—hence their name *hurūf al-jawf*. Modern phonetic research confirms this view: the shape of the mouth cavity, formed by tongue and lip movement, determines each letter's sound, while vocal cord vibrations remain similar. Consequently, modern studies classify Arabic consonants by their points and manners of articulation. (Al-Ghamdi, 2001).

Modern phonetic research goes beyond the physiological analysis of sound production to include the auditory or physical stage, which studies how sounds are received after articulation. Ferdinand de Saussure was among the first to adopt this dual approach, viewing the phoneme as both a physiological articulation and a physically audible phenomenon. (Ferdinand de Saussure, 1972).

In some texts by Tajweed scholars, there are references to the material description of letters in this sense, particularly from a dual perspective distinguishing between what is physiological (organic) and what is auditory. Al-Mar'ashi states: "The articulation point is the place where the letter emerges and is distinguished from others." (Al-Mar'ashi, 2008). Similarly, Abu Al-'Ala remarked: "Thus, the sound differs according to the articulation points and their characteristics." (Al-Qurtubi, 2000)

With some reflection on these two statements, it becomes evident that they contain a clear reference to the principles of the material description of letters within a dual framework, distinguishing between organic articulation and auditory perception. In Al-Mar'ashi's phrase, "the place where the letter emerges", there is a reference to the organic aspect, while "and is distinguished from others" points to the auditory aspect, as the distinction between letters is only perceived after hearing them.

As for Al-'Attar's text, the phrase "the difference in sound" suggests the auditory effect imprinted in the listener's mind, while "the difference in articulation points and characteristics" refers to the phonetic event that occurs as part of the physiological movement of the speech apparatus.

1-3 Utilizing Subjective Sensory Observation

What distinguishes Tajweed scholars in their phonetic studies is their reliance on sensory observations in perceiving the nuances of Arabic letters, as well as in discovering and interpreting phonetic characteristics (Rajaa Waheed Dwideri, 2000,). Their observations were accompanied by deliberate,

organized, and precise attention to the phonetic phenomenon, aimed at acquiring knowledge, this is because scientific observation is considered a fundamental tool in scientific research for collecting and analyzing information. It serves as a means for the mind to comprehend scientific truths. The sensory observation of Tajweed scholars is prominently evident in the method used to determine the articulation point of a letter and discern its characteristics. This method was pioneered by Al-Khalil, who is credited as its inventor. Through this approach, the identity of the letter is detected by "opening the mouth with the sound of 'alif,' then articulating the letter, such as "أَبْ", "أَثْ" (Al-Farahidi, 2003), Al-Mahdawi described this method by saying: "If you wish to know the exact articulation point, whether from the mouth or elsewhere, pronounce the letter in a sukoon state and try of the pronunciation it by Hamzat Al-Wasl, as in 'in,' 'im,' and the articulation point will become clear to you. Similarly, this applies to all letters." (Al-Mahdawi, 1995). This method is based on two key principles:

First: Pronouncing the letter as a consonant, because al-haraka anxieting of the phoneme in determining the point of articulation, and and deviates it from its place (al-Badi', 2006). Ibn Jinni (d. 396 AH) said: "These incomplete sounds are called movements because they disturb the letter they are associated with and draw it towards the letters that are parts of it." (Ibn Jinni, 1993), likewise, in this way, the qualities of the letter that is free from composition are tested. A recent study has demonstrated the effect of phonetic contexts on the time of frequency, conducted on fricative sounds. The results showed that the highest degree of frequency time for any fricative sound is its frequency time when it is isolated. This applies to all fricative sounds in Arabic without exception. Additionally, when a fricative sound is isolated, it possesses high energy, and its energy is greater than that of any contextual situation (Sharif Istitiyya, 2014). This supports and reinforces the method that our scholars used in determining the articulation point.

Second: Introducing the hamzat al-wasl, because a consonant cannot be started with, as it is difficult for the tongue: "The difficulty of the tongue's voluntary movement in this and the inability to articulate it suffice as evidence for it." Then you pronounce it, saying: "إِ, إِفْ, إِجْ", and likewise with all other letters." (Ibn Jinni, 1993)

With this genius in creating inherent methods and exploiting the sense of observation, our scholars studied the Arabic phonetic phenomenon, earning praise from all fair-minded Contemporary scholars of phonetics. Among them is Ibrahim Anis, who states: "The ancient scholars of Arabic had research on linguistic sounds that Contemporary scholars acknowledged as significant for their time... Due to the proximity of these scholars to the era of the Arab Renaissance and their connection to the eloquent Arabs, they were sensitive and meticulous observers, describing the Arabic sound in a way that astonished and impressed the Orientalists." (Anis Ibrahim, 1997).

1.4 Relying on the principle of opposition:

The Great Dictionary of Linguistics defines the concept of Opposition as the discriminative relationship that exists between two units of the same level (phoneme, morpheme) so that one of them can be replaced by the other at some point in the discourse, and thus, Opposition is different from Contraste, as the first is based on a compensatory and substitutive relationship, while the second is based on a compositional relationship (al, 2007). Indeed, Saussure was the first to recognize the principle of contrast and its role in the functioning of human language (Ferdinand de Saussure, 1972). In modern phonetic analysis, correspondence is a key procedural tool used to identify the phonetic qualities** that define the types and ranks of letters, and to determine their distinctive functional

features in phonology. Although opposition is an abstract analytical process, it is grounded in the physiological description of letters. Thus, defining oppositions and functional distinctions depends on prior physical and physiological analysis, which determines the nature, scope, and number of such correspondences.

Tajweed scholars - along with other Arabic scholars - have looked at all the oppositions they could find in the Arabic phonetic system. They found that the oppositions is bilateral if the letter has only one akin in the same exit, as is the case between the two ghona letters (ن , م), and non-bilateral if the letter has more than one akin in the same exit, as is the case in the triangular opposition between the letters of alveolar "An-Nataa" (ط, د, ت), or the quadruple opposition between the letters of Al-Itbaq (الصاد، والطاء، والضاد، والظاء) or other different correspondences according to the number of letters in the same exit or in the same adjective. The correspondence of letters at the same point of articulation is between homogeneous letters, aiming to identify what distinguishes them despite belonging to the same point of articulation, As for the correspondence based on a single characteristic, it occurs between letters from different articulation points, such as the correspondence among the letters of **Qalqalah** or an emphatic letter.

Based on the intended methodological purpose in phonetic study, correspondence can be conducted within a phonetic research framework that does not go beyond the physical and physiological description of sounds. Its sole aim is to describe and classify the letters of a given language. This is particularly relevant to explaining how this approach is applied by **Tajweed** scholars in this research paper.

When examining how Tajweed scholars describe the Itbāq (adhesion) and Isti'ālā (elevation) letters, it becomes clear that they employ the principle of correspondence. This comparison is based on the degree of tongue elevation toward the roof of the mouth: in Itbāq letters, the tongue fully adheres to the palate, while in Isti'ālā letters, it rises without complete contact. This demonstrates their analytical reliance on articulatory correspondence to distinguish phonetic features, **Al-Dani** stated: "However, they are of two types: some letters cause the tongue to rise and adhere, and these are the four **Itbaq** letters, while others cause the tongue to rise without adhering, and these are three: **Ghain** (غ), **Kha** (خ), and **Qaf** (ق)." (Al-Dani Abu Amr, 1980).

One of the most significant findings of modern linguistic studies is the inclusion of linguistic phenomena within **contrastive groups** to uncover their system and understand their operational mechanisms. In fact, this principle is at the core of **structural linguistics**, which has applied it in the study of languages since its emergence as a foundational concept introduced by its pioneer, **Ferdinand de Saussure** (Ferdinand de Saussure, 1972). Over time, this concept matured, evolved, and became well-established in linguistic dictionaries (al, 2007).

1.5 Discrimination principle non-functional between the phonemes:

While non-Tajweed scholars study letter distinction mainly to explain its linguistic functions, Tajweed scholars aim not only to clarify these functions but also to preserve the intrinsic qualities of each letter to ensure precise and correct pronunciation. They recognized that each letter has stable features in isolation but may undergo changes when adjacent to other letters. To address this, they identified improving qualities (ṣifāt muḥassinah)—such as qalqalah, ṣafir, ghunnah, inhirāf, takrīr, istitālāh, and tafashshī—which refine pronunciation. These contrast with the distinguishing qualities (ṣifāt mumayyizah), including voicing and whispering, strength and softness, itbāq and infitāḥ, and isti'ālā and istifāl. (Ghanem Qaddouri, 2007).

2. Principles of Phonological Description in the Characterization of Arabic Letters:

We mean by them the principles from which the scholars of Tajweed proceeded in their study of the functional characteristics and distinctive descriptions that Arabic letters can possess, and which form the basis of their phonological system. The reliance of Tajweed scholars on these principles comes in the context of their interest in two methodological considerations:

The first consideration: Looks at letters in their abstract, ideal forms, as isolated phonetic entities, and as contrastive distinctive units that underpin the formation of the phonological system of Arabic letters in general.

The second consideration: Examines letters within their structural relationships and the resulting characteristics and laws in speech performance. This is because studying a letter in isolation from compositional contexts and the laws of adjacency differs from studying it within these contexts.

2.1 Distinguishing between letters and their variations (between phonemes and allophones):

Tajweed scholars, and before them Arabic scholars, distinguished very precisely between the linguistic sounds used in speech as abstract units that can achieve their function at the level of the signifier, and the various realizations of those abstract units. They had a distinct terminological choice in this regard; they used the term “root letters” to refer to the abstract units (i.e. phonemes), and they used the term “branch letters” to refer to the various realizations of a single letter.

Sibawayh said in the book: “The root of the Arabic letters is twenty-nine letters...and thirty-five letters are branch letters, and their root is from the twenty-nine, and they are many and are taken into account and are considered good in reading the Qur’an and poetry” (Sibawayh, 1982), then he mentions, adding the rest of the phonetic performances or as he called them the letters that are not good, where he says: “And forty-two letters are letters that are not good and are not many in the language of someone whose Arabic is acceptable, and they are not good in reading the Qur’an or in poetry.” (Sibawayh, 1982).

The scholars of Tajweed followed the scholars of Arabic in determining the roots of the letters. Among their advice in this regard is the statement of Al-Hamadhani: “Know that these twenty-nine letters may be followed by fourteen letters that branch off from them, so that they become forty-three letters in total” (Abu al-'Ala' al-Hasan bin Ahmad al-Hamadhani al-'Attar wa Majdi Fathi al-Sayyid, 2005). The scholars of Arabic and the scholars of Tajweed have made written symbols for the root letters that distinguish them and indicate them and their abstract formal entity. As for the branch letters, they do not have special written symbols, but are known orally. Makki said after mentioning the root letters: “All the letters mentioned have a form in writing by which the letter is known by an agreed-upon term. That form does not change, except for the hamza” (Makki ibn Abi Talib, 1996.), while Al-Hamadhani says about the branch letters: “The reality of these branch letters cannot be known except by the lips” (Abu al-'Ala' al-Hasan bin Ahmad al-Hamadhani al-'Attar wa Majdi Fathi al-Sayyid, 2005).

Tajweed scholars demonstrated a clear awareness of the distinction between root and branch letters, treating them differently. They recognized that some phonetic variations, such as tarqīq (lightening) and tafkheem (emphasis) in the letters Ra(ر) and Lam(ل), are merely articulatory variants of a single phoneme. In contrast, they distinguished these from changes affecting original letters that alter a word’s semantic function, as occurs when one phoneme is substituted for another within the same context (Dabba, 2001). Al-Dani, in the context of illustrating the changes that affect the original letters, says: “Similarly, it is necessary to differentiate in pronunciation between Ṣād(ص) and Sīn(س)

in cases where their pronunciation coincides but their meanings differ, as previously mentioned. This is exemplified in verses such as: ﴿وَكَمْ قَصَمْنَا مِنْ قَرْيَةٍ﴾ [Quran 21:11], and ﴿إِنَّا قَسَمْنَا لَبُيُوتِهِمْ مَعِيشَتَهُمْ﴾ [Quran 43:32]. (Al-Dani Abu Amr, 1980). Here, the Ṣād is a phoneme in the word 'qasamnā' (قَصَمْنَا) (We shattered), while the Sīn in the word 'qasamnā' (قَسَمْنَا) (We apportioned) is a different phoneme altogether.

Tajweed scholars base their analysis of branch letters on the premise that these letters emerge from the original letters due to factors such as proximity, dialect, or other influences. Al-Mar'ashi states: "The reason for the ramify of these letters is that they are generated from the blending of two original letters" (Al-Mar'ashi, 2008). These derivative letters differ from the original letters in that they are secondary and generated, lacking independent identity or a fixed articulation point in speakers' perception. They also cannot substitute for other letters in a way that changes meaning, which is why they are not distinctly represented in writing.

2.2 Differentiate between traits distinctifs and Improvement traits

represents traits distinctifs (distinctive features) in modern phonetic research "as the smallest phonetic components with distinctive value, or concurrent distinctive units that can analyze the phoneme. The phoneme, therefore, can be defined as a bundle of distinctive features. From this perspective, the feature represents the fundamental unit in phonology—not the phoneme itself" (al, 2007).

In this sense, the distinctive feature becomes the phonetic attribute whose presence alone determines the identity of a particular phoneme. That is, it is the sole differentiator between two or more phonemes. Phonemes—or letters—may share a number of features, but they must differ in at least one. This differing phonetic feature is what gives a phoneme its unique, model identity. Without this distinguishing trait, the phoneme would not exist. It is this feature that gives the sound a communicative function, by playing a role in differentiating meanings.

Distinctive features represent variation in function; this means that a sound, through its distinctive feature, performs a function within the phonological system—namely, the function of meaning. For example, the feature of emphaticness (pharyngealization) has a distinctive function inherent to emphatic (velarized or pharyngealized) sounds. Changing a plain sound to its emphatic counterpart alters the meaning. For instance, in Arabic, the words sa'ida (سَعِدَ, meaning "he was happy") and ṣa'ida (صَعِدَ, meaning "he ascended") demonstrate a phonemic contrast resulting from the emphatic realization of the sound /s/. This contrast leads directly to a change in meaning (Ghalib, 2016).

Perhaps one of the strongest indicators of the linguistic mechanism at work within the functional study of linguistic sound is the association of a sound's distinctive description with meaning, as affirmed and practiced in phonological studies. Scholars of Tajweed (the science of Quranic recitation) have managed to grasp this precise level of functional phonetic analysis. The author of al-Ri'āyah illustrates the impact of distinctive features on meaning by stating: "If it were not for the differences in the attributes, articulation points, rules, and natural characteristics of letters—as created by Allah, Glorified be His name—speech would not be understood, nor would the meaning of discourse be known. Sounds would simply stretch forth, undifferentiated and incomprehensible, emerging from a single articulation point and bearing a single feature, like the sounds of animals" (Makki ibn Abi Talib, 1996,).

The phonological analysis of letters always returns in its distinction between phonemes to what corresponds to it in distinction in meaning. Based on this concept, the scholars of Tajweed considered their description of letters; every characteristic that appeared as a result of the proximity of letters in

its syntactic axis, if it did not cause a change in meaning, is not considered in their view a characteristic that constitutes the identity of the letter such that it makes it an independent entity, but rather it is a phonetic performance of the performances of that letter, or allophone as it is called in modern phonetic studies. The scholars of Tajweed have pointed out this issue with complete clarity; Al-Naysaburi is reported to have pointed out that the difference between the thin lam and the thick lam is merely a difference in variety and nothing more. Therefore, he believes that scholars did not “consider the thick lam . a letter and the thin lam another letter, just as they considered the dal a letter and the ta’ a letter.” (Al-Naysaburi, 1995) This is in contrast to the difference between two original letters, such as the dhal and the dha’. This is because they have the ability to exchange positions, changing the meaning. This is what made the scholars of tajweed warn the reader against confusing the pronunciation of any two words that are similar in pronunciation but differ in meaning. This is mentioned by Makki in his statement: “If the letter Dā’ (ظ) occurs in a word that resembles another word with the letter dhāl (ذ) in a different meaning, then the letter Dā must be made clear so that it does not change to another meaning. This is like the statement of God Almighty: ﴿وَمَا كَانَ عَطَاءُ رَبِّكَ﴾ (وما كان عطاء ربك) {And never has the gift of your Lord been restricted.} [Al-Isra’: 20], meaning never withheld. So it is with the letter dhāl (ذ), so it is made clear so that the wording is not confused with His statement: ﴿إِنَّ عَذَابَ رَبِّكَ كَانَ مَحْذُورًا﴾ {Indeed, the punishment of your Lord is ever to be feared} [Al-Isra’: 57]. This is with the letter dhāl (ذ) from caution.” (Makki ibn Abi Talib, 1996,).

These texts clearly indicate that the scholars of Tajwīd were well aware—just as modern linguists are—that what matters “in a word is not the sound itself, but the phonetic distinctions that help differentiate it from all other words, for it is these distinctions that carry meaning” (Ferdinand de Saussure, 1972).

However, the scholars of Tajwīd did not limit themselves to identifying and explaining the distinctive features (ṣifāt tamyīziyya); they also gave attention to another category of features known as aesthetic or enhancing features (ṣifāt taḥsīniyya or muḥassina). In fact, the term aesthetic features is a technical designation that emerged specifically within the discipline of Tajwīd, and particularly among its later scholars.

The discussion of aesthetic features (ṣifāt taḥsīniyya) among Tajwīd scholars appears to be closely linked to their efforts in addressing the phenomenon of hidden error (laḥn khafī). This is a type of error that scholars of recitation caution Quran readers to avoid during recitation. Al-Qurṭubī, in explaining the consequences of clear and hidden errors, says:

“Clear error (laḥn jaliy) is a flaw that affects the words in a way that distorts the meaning and established usage, while hidden error (laḥn khafī) affects the words in a way that undermines the conventional beauty and eloquence.” (Al-Qurtubi, 2000)

In this statement, al-Qurṭubī links hidden error to the goal of aesthetic enhancement. This implies that observing aesthetic features is primarily aimed at avoiding hidden error—which does not affect meaning but rather the recitational elegance. From this perspective, aesthetic features serve a different role from distinctive features, as their function is not to differentiate meaning but to preserve the beauty and fluency of recitation.

Ghānim Qaddūrī speaks about the remarkable effort of Tajwīd scholars in their attention to the concepts of distinctive and aesthetic features, stating:

“The theory of dividing the characteristics of letters into distinctive and aesthetic features is perhaps the most outstanding contribution made by early scholars of Arabic phonetics in the classification of

letter attributes. This theory is based on a deep understanding of the nature of sounds, their features, and the relationships between them.” (Ghanem Qaddouri, 2007).

2.3 The exploitation of the connotation of Functional Opposition Between Sounds

Functional opposition is the relationship between two linguistic sounds (phonemes) that differ in at least one phonetic feature, and this difference results in a distinction in the meaning of a word in the language, and opposition is not considered functional unless it possesses a **positive** (i.e., meaning-distinguishing) feature. Accordingly, it can be said that there are two types: a positive opposition, whose positivity lies in its functional role, and a negative opposition, which has no functional role. An example of the former, in phonological analysis, is the positive opposition between the sounds /m م/ and /b ب/, since they belong to the same articulation point — the labial sounds. In contrast, the negative opposition is exemplified by the difference between /s س/ and /k ك/, which has no functional significance, as the two sounds originate from widely separate points of articulation (Dabba, 2001).

In truth, these issues related to the utilization of functional opposition in phonological studies were not absent from the awareness of scholars of Tajwīd (Qur’anic phonetics); rather, they were clearly present and well understood. They widely observed this opposition in the features of letters within the phonological system of the Arabic language and deeply grasped its role in distinguishing between sounds. For instance, al-Makkī explained the impossibility of combining the letters [ح]’ and [هـ]’ in one word, saying: “It is not possible for both original [ح]’ and [هـ]’ to occur side by side in a word due to their closeness in articulation and the similarity of their features. Makki said in his explanation of the impossibility of two original letters, Ha’ and Ha’, coming together in a word: “Because it is not possible for two original letters, [ح]’ and [هـ]’, to come together in a word” (Makki ibn Abi Talib, 1996,) that are adjacent to each other due to their proximity to each other in the place of articulation, and the agreement of their specifications, so they do not differ except in the voiced and the whispered, “and if it were not for that, it would have been in one pronunciation” (Makki ibn Abi Talib, 1996,), this is a clear indication of the distinctive feature that differentiates each letter from those that resemble or correspond to it, and it is this feature that gives each sound its unique identity, distinguishing it from all other sounds.

The scholars of Tajweed have pointed out this functional opposition that exists between the letters. When they sought to identify what distinguishes a particular letter, they would compare it with letters that share the same point of articulation but differ in certain features. For example, ‘Abd al-Wahhāb al-Qurtubī said in his description of some letters: ‘The relationship between ṣād, sīn, and zāy is like that between tā’, dāl, and tā’, and also like that between zā’, dhāl, and thā’; for ṣād is distinguished from sīn by the feature of velarization (iṭbāq), and without it, ṣād would be a sīn; likewise, sīn is distinguished from zāy by the feature of voicelessness (hams), and without it, it would be a zāy” (Al-Qurtubi, 2000). Thus, the features of velarization and voicelessness here are distinctive features that differentiate the letter from those that resemble or oppose it.

The scholars of Tajweed had a conscious awareness of the phenomenon of opposition between letters and its role in distinguishing between their features. Al-Makkī commented on this matter, saying: “The letter sīn is closely related to ṣād, as they share the same point of articulation, whistling (ṣafīr), voicelessness (hams), and frictional (rakhāwa). Were it not for the velarization (iṭbāq) and Lowness (Istifāl) present in ṣād—and absent in sīn—ṣād would be a sīn. Likewise, were it not for the lowering

(tasafful) and openness (infītāh) present in sīn—and absent in šād—sīn would be a šād.” (Makki ibn Abi Talib, 1996,)

The texts of Tajweed scholars abound with this kind of analysis, in which they distinguish between letters that share the same point of articulation and between words that are phonetically similar but differ in meaning. Such instances are numerous and encompass most of the Qur’anic examples they cite in their works. This clearly reflects their awareness of the importance of opposition in identifying the distinctive features of letters. Even in their classification of phonetic features and their arrangement into binary pairs, their use of the principle of opposition is evident: they placed voiced sounds in contrast with voiceless ones, velarized sounds in contrast with non-velarized ones, and emphatic sounds in contrast with softened ones. In some cases, the contrast is ternary, as with the features of plosiveness, fricativeness, and the intermediate (between the two).

What is striking in the texts of the scholars of tajweed is the extent to which they employed the principle of self contrast between letters by utilizing the sense of hearing, which falls under the principle of self-observation. In fact, they have texts in which they explicitly discuss the function of hearing in the opposition between letters and distinguishing. Al-Makki says: “The letters may come from the same articulation point, but their characteristics differ, and thus what is perceived by the ear from each letter differs.” (Makki ibn Abi Talib, 1996,).

It is no wonder that scholars of tajweed focused on utilizing the sense of hearing to trace the contrasts between letters, since their studies were fundamentally based “on oral transmission, narration, and reception—not on writing, drawing, or inscription.” In fact, hearing is considered an effective tool for describing and distinguishing sounds even among modern linguists. For this reason, definitions of linguistic sound often include reference to its auditory nature. Kamal Bishr states: “The linguistic sound is an auditory phenomenon that is produced voluntarily and deliberately by those organs conventionally referred to as the speech organs.” (Bishr, 2000).

The reason behind the importance given to hearing in the study of linguistic sound likely lies in the fact that it is a living tool capable of receiving the actual human sound produced by the human vocal apparatus. The live human voice is more evident in its value than hearing it from recordings. Direct observation of live sounds gives the researcher’s ear the opportunity to hear, and the eye the opportunity to see, as the researcher observes the speaker’s lip movements, tongue, and lower jaw — unlike audio recordings, which offer only the chance to hear. In this context, we may say that the reliance of tajweed scholars on hearing in their study of the sounds of language and in tracing their features was, in fact, the secret behind their excellence — both in the principles and concepts they developed and in the conclusions they reached.

Conclusion

The scholars of **Tajwīd** developed a precise and scientific understanding of Arabic sounds, accurately identifying the **points and manners of articulation** through **self-observation**—a finding later confirmed by modern phonetics. Their study of Qur’anic phonetic phenomena was grounded in **systematic principles**, treating the Qur’an as an **oral corpus** and relying on **empirical analysis** and rich **terminology**. They also recognized the **functional distinctions** among letters and applied analytical concepts akin to **modern linguistic theories**. By doing so, they transformed Qur’anic recitation from a transmitted oral practice into a **structured science** characterized by **rigorous phonetic description** and **methodological precision**.

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