



Phonological Theories in Kitab Sibawehi

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Abstract

Kitab Sibawayhi is a monumental work in the realm of linguistic thought and a treasury of Arabic linguistic heritage. It bears witness to the author's mastery and rigorous control of its foundational principles, as well as his ability to penetrate its intricate secrets — an achievement difficult to match in either the earlier or later periods. This study is a modest attempt to clarify some of the linguistic theories contained within, focusing on one of the most important aspects of language: the phonetic dimension.

The research begins with an introduction presenting the topic and outlining the plan. It then proceeds to trace the historical trajectory of Arabic phonetics. The first section discusses the sounds of Arabic as presented in Kitab Sibawayhi. The second section addresses the articulation points of sounds in the work, as well as the disagreement between Sibawayhi and his teacher al-Khalil regarding this topic. The final section examines the phonetic properties of the sounds mentioned by Sibawayhi. The study concludes with a closing section that summarises the most important findings.

Keywords: Kitab Sibawayhi; Kitab al-Ayn; linguistic thought; sounds of Arabic; articulation points of sounds; phonetic properties of sounds.

Introduction:

Praise be to God, who taught the Qur'an and created humankind, bestowing upon them eloquence. May blessings and peace be upon His Messenger, who is praised for the perfection of his eloquence and the splendour of his exposition, and upon his family and companions — the eminent leaders whose minds dispelled the darkness.

As for what follows: Language is a profoundly significant human phenomenon that requires reflection and thought, especially the Arabic language. With the advent of Islam, this language was no longer confined to specific Arab tribes, but became the language of a Book revealed to all people. It therefore became necessary to reflect on it, endeavouring to gather its content, expand its scope and establish rules for it, so that it might become a scientific language that reaches the whole world, through which people can live, learn and communicate.

Our forebears fulfilled this task with the utmost devotion, exerting themselves beyond the point of fatigue and weariness. They adopted an integrated scientific methodology and thus achieved their goal: the study of the language advanced at an astonishing rate within a relatively short period, from the time of Abū al-Aswad al-Du'alī to the publication of Kitab Sibawayhi. This bewildered researchers and historians alike,



with some saying: ‘If philosophy was the miracle of the Greeks, then the sciences of Arabic are the miracle of the Arabs.’¹.

This book, meaning *Kitab Sibawayhi*, is a monumental work in the field of linguistic thought and a treasure trove of Arabic knowledge. It bears witness to the author’s mastery and rigorous establishment of its foundations, as well as his penetration of its underlying secrets. In terms of comprehensiveness, thorough grasp and skill of analysis, it is difficult to match in both earlier and later scholarship. The work is characterised by sound analysis, impartial judgement, and accurate conclusions. This has been acknowledged by more than one earlier scholar, as well as by later scholars. Al-Mazini said: ‘Anyone who wishes to write a great grammar book after *Kitab Sibawayhi* should feel ashamed to attempt it.’² He also said: ‘In every age, there is a marvel in *Kitab Sibawayhi*, and for this reason, people named it the Qur’an of grammar.’³ Al-Mubarrad likewise said to anyone who wanted him to read *Kitab Sibawayhi*: ‘Have you crossed the sea?’ — out of reverence and because of the difficulty posed by its wording and meanings⁴.

This research is a modest attempt to clarify some of the linguistic theories contained in this great work, with a focus on one of the most important aspects of language: phonetics, or sound.

This study is organised into an introduction, an entry, three sections (chapters) and a conclusion. In the introduction, we present the topic of our research and its plan. In the entry, we attempt to trace the historical development of phonetics among the Arabs in particular.

Section One discusses the sounds of Arabic in *Kitab Sibawayhi*, their number, principles and branches.

Section Two addresses the articulation points (*makhārij*) of sounds in the work and the disagreement between *Sibawayhi* and his teacher al-Khalīl on this matter.

Section Three is devoted to examining the phonetic qualities (*ṣifāt*) that *Sibawayhi* mentions, such as voiced and voiceless, strong and weak (*fortis/lenis*), and open and affixed (‘rising and falling’, i.e. types of airflow/positioning as described in the tradition).

Finally, in the conclusion, we summarise the most important findings.

We hope that those who read this research will approve of it, and we ask God — Almighty and Most High — to grant us success, inspire us towards truth, and guide us on the path of verification. Indeed, He is the Guardian of that, and He is Capable.

Entry:

Phonetics is an ancient science. Every language is founded on it because it is based on the sounds from which words are formed and arranged into sentences to convey various meanings. As Ibn Jinnī defined it: ‘Sounds are those by which every people express their purposes.’ Likewise, Al-Jahiz stated: ‘Sound is the instrument of utterance. It is the substance upon which segmentation depends, and through which composition comes into being.’ The movements of the tongue will not constitute utterance, balanced speech or scattered speech except through the emergence of sound. Nor will letters become speech except through segmentation and composition.⁵

Since this is the case, proponents of every language have concerned themselves with their sounds since ancient times. This includes what is attributed to the early peoples of Greece and Rome, for example. It is said that the Indians were the most expansive and profound in their phonetic ideas and that they were the first to view phonetic studies as an independent branch of linguistics⁶.

Then, through extensive strides, the Arab Muslims advanced phonetic studies and made a substantial and far-reaching contribution to them. This is acknowledged by fair-minded Western scholars who are free



from prejudice and deviation. One of them, the German Orientalist Burgestrasser, said: ‘The Europeans were not preceded in this science by anyone except two peoples: the Arabs and the Indians.’⁷ Similarly, the English scholar Firth said: ‘Phonetics has grown and flourished in the service of two sacred languages: Sanskrit and Arabic.’⁸

Although phonetics was not known by this specific name among the Arabs until a later stage, it did not disappear from the works of earlier Arab scholars. In fact, it was interwoven with their work to such an extent that hardly any of it is free from discussion of phonetics or devoid of its traces.

The works that contributed to phonetics to some extent can be classified into three groups:

1. Works of Arabic linguistics, including grammar , morphology , rhetoric and prosody .
2. Works on Qur’anic recitation , tajwid (rules of recitation), script and orthography/diacritics and rules of orthography/diacritics.
3. Works of philosophy, medicine and music.

This research focuses on the first group of works, which began with the appearance of the earliest Arabic lexicon, the *Kitab al-Ayn* by al-Khalil ibn Ahmad al-Farhidi (d. 175 AH). This work was constructed on a phonetic basis and prefaced with the first organised phonetic study to survive from the history of Arab linguistic thought. This is not surprising, as al-Khalil was known as the ‘key’ of the sciences, the master of prosody and a man of wide-ranging expertise in music and other subjects connected to the science of sound.

Then came *Kitab* by Sibawayhi, which contains al-Khalil’s knowledge and includes phonetic studies that reach a level of precision and significance beyond measure.

After Sibawayhi, books of Arabic linguistics and grammar continued to appear. They followed his approach and traced his path by allocating a distinct space to phonetic studies, benefiting from his expressions and terminology. At the forefront of these works are: *al-Muqtdhab* of al-Mubarrad (d. 285 AH), *The Principles of Grammar* (d. 316 AH), *al-Jamhara* by Ibn Durayd (d. 321 AH) and also *Treatise on Word Derivation* (his treatise on derivation), the *Concise Guide of Languages*. by al-Azhari (d. 370 AH). Within this same category also fall the various commentaries on *Kitab* of Sibawayhi; among them: the commentary by al-Sirafi (d. 377 AH), the commentary by al-Rummānī (d. 384 AH), the commentary by al-A‘lam al-Shantamari (d. 476 AH), the commentary by Abu Ali al-Farisi (d. 377 AH), and other commentaries on the book.

All of this was followed by al-Zamakhshari’s *al-Mufasssal* (d. 538 AH), which likewise adhered to Sibawayhi’s model. He concluded his work with a chapter on assimilation , beginning with a discussion of Arabic letters, their articulation points and their phonetic qualities. Building on this foundation, Ibn Yaish (d. 643 AH) produced a commentary rich in phonetic studies. Not even al-Raḍī al-Astarābādhī’s learned work in his commentary on Ibn al-Hajib’s *Shafiyya* can rival it in that respect, except perhaps al-Raḍī’s work where phonetics and morphology intermingle.

It is also worth noting that there were works whose titles included ‘sounds’ or something similar, but they have not survived; however, their names are preserved in the sources. These include: *Kitab al-Aswat* by Qatrub (d. 206 AH), a grammarian and student of Sibawayhi; *Al-Aswat* by Al-Akhfash (d. 215 AH); *Al-Aswat* by Yaakoub ibn Al-Sikkit (d. 246 AH); a work by Ibn Abi Al-Dunya (d. 281 AH); and *Al-Sawt Wa-Al-Buhhah* by Yahya ibn Masawaih.



The first scholar to single out phonetic studies in an independent treatise and view them as a science in their own right was Ibn Jinni (d. 392 AH). In his work, *The Secret of the Craft of Inflection*, he set out all the discussions on the science of phonetics in the Arabic language. This secured him a leading position in the field, and he is indeed regarded as a pioneer of phonetic studies.

Moreover, Ibn Jinni's phonetic endeavours extended beyond what is evident in *The Secret of Linguistic Art* to encompass his other works, most notably *The Features/Characteristics*.

Beyond the aforementioned works on the science of Arabic, there were other books containing material suitable for phonetics and related matters. Among these, we may mention the book *al-Jim*, in which Abu Omar al-Shaybani (d. 255 AH) devoted himself to the languages of different tribes. Another example is *al-Jahiz's* (*"Elucidation and Elaboration"*), in which he discussed language and sound, the fabric of the Arabic word, and the alternation/recurrence of letters within it.

Another notable work is *"The Ornamentation/Beautification"*, in which Abu Hatim al-Razi (d. 322 AH) addresses the sonority/prosody of the letters of elongation and compares Arabic and Persian with respect to their respective sounds. Another noteworthy work is *"The Inimitability of the Qur'ān"*, in which al-Baqillani (d. 403 AH) discusses the qualities of letters and their relationship to the opening passages of the suras.

Additionally, *The Secret of Eloquence* includes distinct sections on sounds and letters. In the section on sounds, al-Khafaji (d. 466 AH) discusses their nature and perception. In the section on letters, he addresses their limits, differences, points of articulation and qualities. He then considers the composition and arrangement of letters, their incompatibilities, and their interactions.

Finally, *The Great Exegesis* contains discussions in which Fakhr al-Din al-Razi (d. 606 AH) addresses sounds, their generation, their categories, and their relation to the science of legal/legislative rulings. Similarly, *Eastern Discussions in the Science of Natural Metaphysics* also includes an impressive account of the mechanism of sound production that aligns with much of what modern physics has brought to light.

Section One: The Sounds of Arabic in Kitab Sibawayh

Sibawayh recognised that studying sounds is essential for understanding language, and that knowledge of the sound system is necessary for anyone wishing to study inflection and morphology. Indeed, he may even have considered the sound system to be a subsequent stage, or perhaps he viewed it as part of the study of morphology itself. Accordingly, he began his discussion of assimilation by addressing the Arabic sounds under the heading 'The Chapter on Assimilation'. He described these sounds in terms of their number, points of articulation, manner of pronunciation and phonetic features, considering each sound in isolation from its context. By contrast, he left the description of how a sound behaves within a given context to the study of assimilation itself.

It may be useful to begin by noting that, despite Sibawayh's differentiation between the origins/roots of letters and their branches/extensions (as will be discussed), he and his teacher al-Khalil⁹ did not distinguish terminologically between the terms "letter" and "sound". The term 'sound' did not become established in linguistic-scientific usage until the fourth Hijri century. It appears in the terminology of Ibn Jinni in his book *al-Tasrif al-Muluki*.

Thus, in Sibawayh's terminology, the word "letter" denotes what we refer to today as "sound". In the chapter on assimilation, he writes, "This is the chapter on the number of the Arabic letters, their points of articulation, their voiced and voiceless qualities, the states of the voiced and the voiceless, and their



differences”¹⁰, and here, the import of his phrase “Arabic letters” is their sounds. In this way, he indicates that he embedded these phonetic and linguistic materials within the chapter he called Assimilation.

First Subsection: The Primary Sounds of Arabic

Sībawayh held that the origins/roots of the Arabic letters—meaning the primary sounds of Arabic—number twenty-nine. These are the familiar letters of the alphabet: (“al-hamza”, “alif”, “ha”, “‘ayn”, “ghayn”, “kha”, “kaf”, “qaf”, “dad”, “jim”, “shin”, “ya”, “lam”, “ra”, “nun”, “ta”. dal, ta, sad, zay, sin, za, dhal, tha, fa, ba, mim, waw)¹¹.

This view of Sībawayh — that the fundamental sounds of Arabic are twenty-nine — is also held by his teacher al-Khalil¹². It is also the position adopted by the vast majority of linguists, except for a few who have diverged from it.

Second Subsection: The recommended branch sounds of Arabic

Then Sībawayh added six branch sounds to the twenty-nine basic sounds of Arabic, bringing the total to thirty-five letters/sounds. These branch letters are numerous, meaning they occur frequently in speech, so they must be taken into account when reciting the Qur’ān and poetry, and are considered preferable. They are:

30. The light/nasalized nun:¹³

This refers to the sukūn nun, which is non-vocalised and articulated from the nasal passage (the pharyngeal/nasal cavity). Examples include: مِنْكَ, مِنْكَ, and مِنْ رَيْدٍ.

Sībawayh’s book describes it using the term (light)”. However, it may be that the intended wording should be ‘khafiyya’ (hidden/obscured), because the explanation indicates that it occurs in the nasal passage and therefore becomes light/hidden along with the fifteen mouth consonants: ta, tha’, jim, dal, dhal, zay, sin, shin, sad, dhad, ta, za, fa’, qaf and kaf¹⁴.

The light nun is one of the two emphatic nun particles. It has special rulings in pausing/stopping; these rulings distinguish it, because in the pause it becomes like alif, as in: قَفَا قَفْنٌ¹⁵.

31. The ‘between-between’ hamza (al-hamza alladhi bayna bayna):¹⁶

This is a moving (vowel-bearing) hamza that occurs after an alif or after a vowel. It is articulated in between the hamza and the letter from which its vowel originates¹⁷. In pronunciation, it thus becomes a mere chest-flutter that is not accompanied by full closure of the vocal cords.

If the hamza is broken (kasra), then it is made ‘between-between’, meaning it lies between the hamza and yā’, as in the Qur’anic phrase: {أَلَا إِذَا كُنَّا تُرَابًا أَلَمْ نَكُنْ لَافِي خَلْقٍ جَدِيدٍ}.

If the hamza is raised (ḍamma), it is made ‘between-between’, meaning it lies between the hamza and wāw, as in the Qur’anic phrase: {الْأَنْزِلَ عَلَيْهِ الذِّكْرُ مِنْ بَيْنِنَا}.

If it is open (fatha), then it is made ‘between-between’, meaning it lies between the hamza and alif, as in the Qur’anic phrase: {أَلَمْ يَأْتِ الْوَيْلَ مَنفَرُونَ خَيْرٌ أَمْ اللَّهُ الْوَاحِدُ الْقَهَّارُ}.

Sībawayh counts this ‘between-between’ hamza as one letter. However, it might have been more appropriate to count it as three letters, because yā’ is not the same as waw, and alif is not the same as yā’ or waw. Therefore, the ‘between-between’ letter occurring between the hamza and yā’ should differ from the one occurring between the hamza and waw, and similarly for what lies between the hamza and alif¹⁹.

32. The ‘inclined alif’ (al-alf al-mayla) with a strong inclination:²⁰

This refers to an alif that leans towards ya. This is how some readers recite the Qur’anic verse:

{وَالضُّحَىٰ وَاللَّيْلِ إِذَا سَجَىٰ}.



In such a recitation, the final alif in ‘is pronounced like the ya sound in Egyptian ‘سجى’ and ‘الضحى’ colloquial speech for the word ‘بيت’²¹.

Sibawayh called it “the alif of truncation/endering”, which appears in some manuscripts. The reason for this is that tarqīm involves softening the sound and reducing the strength of voicing (reducing loudness and clarity)²².

33. The shin that is like the jim (al-shin alladhi ka-l-jim):²³

An example is how some Arabs pronounce it as: ‘ajdaq’²⁴.

Some modern scholars have claimed that the shin mentioned by Sibawayh is a voiced shin that resembles the sound of jim in Syrian and Lebanese dialects. They further argue that something similar can be heard in the Cairene dialect in words such as: ‘al-ashghal’ and ‘al-ashjar’²⁵.

However, this is questionable. The shin that resembles jīm in Sibawayh’s description is an authentic Arabic eloquent/fuṣḥā sound, which is acceptable and even preferred in Qur’ān recitation and poetry composition. In contrast, the shin that resembles jīm in contemporary Arabic dialects is neither Fusha nor considered acceptable for Qur’anic recitation or poetry composition.

The difference lies in the phonetic motivation: the sound of shin is brought closer to jīm in Classical Arabic when the sound after it is dal, because dal is a voiced, strong (fortis) consonant, and jīm is also voiced and strong, whereas shin is voiceless and lenis (fricative/soft)—so it is the opposite of dal in terms of both voicelessness and lenis quality. Therefore, the shin sound was approximated to the jim sound because jim is close to its articulation point and agrees with dal in strength and voicing²⁶.

This rationale is not present in today’s Arabic dialects, so speakers approximate shin towards jim regardless of whether the following sound is dal.

35- Ṣad, which is similar to zay (i.e. al-ṣad al-zay):²⁷ Some Arabs said that, in the source and derivation forms (الْمَصْنُوع and الْمُنْتَدِر), it is said مَزْدَر, التَّزْدِير → يَزْدُق, and يَصْنُق. It has also been recited as zāy with imalah (ishmam) of the zay to the sad; this is in the reading of hamza. It is reported that Abu Amru has four readings of it, one of which is: {الصِّرَاطُ} between the sād and the zay²⁸.

34 – The affective thickening (tafkhim) in the language of the people of al-hijaz:²⁹ This is the opposite of imala. Imala inclines the vowel towards the ya’, whereas tafkhīm inclines it towards the wāw³⁰. It is pronounced by slightly rounding the lips and widening the mouth to allow movement of the lower jaw, while raising the back of the tongue slightly to create a resonant chamber suitable for producing the phonetic value known as tafkhīm in the language of the people of al-Hijaz. Moreover, it is more pronounced than tafkhīm among other tribes in this respect. Indeed, some of the thickened alifs among the Hījāzī are found in words such as ‘ṣalata’ and ‘zakata’. When these alifs appeared alongside non-apical/non-ṣad-like (non-mutbaq) sounds, the compilers feared that the Qur’an might be written with the ālif thickened. Therefore, they wrote it in the form of a waw so that the reciter would know that this alif was thickened³¹.

The Third Section: The unsatisfactory ‘branch’ sounds of Arabic

Then Sibawayh added eight additional letters to the Arabic alphabet. These letters are not considered satisfactory in the language of those whose Arabic is considered acceptable, nor are they acceptable in the recitation of the Qur’an or poetry. Some modern scholars state: ‘Sibawayh did not specify whether these eight letters are confined to words borrowed from foreign languages (and not original Arabic words), or if they also occur in original Arabic words. He also did not mention whether these sounds were a form of



corrupt utterance that afflicted the tongues of the Arabs as a result of their mingling with non-Arabs, or whether they were found only on the tongues of non-Arabs.³²

It seems that Sibawayh's statement: 'They amount to forty-two letters, with sounds that are neither satisfactory nor numerous in the language of those whose Arabic is approved, nor acceptable in the recitation of the Qur'an or poetry'³³, indicates that these eight letters are not found in borrowed words, nor are they restricted to them, and they are not present in original Arabic words either. This is because what the Arabs adapt using their own speech becomes acceptable within their language by that very adaptation. Moreover, the Qur'an and the poetry of the Arabs contain an innumerable quantity of borrowed material, such as *استبراق*, *ديجاج*, and *جاموس*, to name a few.

If these sounds are not present in original or borrowed Arabic words, it is clear that they belong to the *lahn* that afflicted the Arabs' speech. This conclusion is supported by what Abu Said al-Sirafi says in his commentary on the *Kitab*: 'I think that those Arabs who spoke with these disparaged letters mixed with non-Arabs and took them from their language.'³⁴

The eight unsatisfactory sounds are:

36 - The kaf that lies between *jīm* and kaf:³⁵ Sibawayh did not provide an example of this letter. However, in his commentary on Sibawayh's *Kitāb*, al-Sirāfi reports that Abū Bakr Ibn Durayd said it is a Yemenite dialect: they say *kamal* for *jammal* (a camel). He says, 'It is common among ordinary people in Baghdad; some of them say "kamal" and "rakul" instead of "jammal" and "rajul". Among those who are knowledgeable, however, it is considered defective and disparaged.'³⁶

37 – The *jīm* that is like kaf: There is no example of this sound in Sibawayh's speech³⁷. Al-Sirafi explains it as follows: 'The *jīm* that is like the kaf is likewise the same.'³⁸ This means like the kaf that lies between *jīm* and kaf. He further states that both are one and the same, except that one originates from *jīm* and the other from kaf, and they transform it into the consonant between the two³⁹.

Some modern scholars have stated that this *jīm* is exactly the same as the *Jim* al-Qahiriya⁴⁰

38. The *jīm* that is similar to the shin: Sibawayh⁴¹ did not provide any examples of this. Al-Sirafi mentioned that this occurs more frequently when the *jīm* is *sakin* (unvocalised) and followed by *dal* or *ta* — for example, in the words *الْأَجْدَرُ* and *اجْتَمَعُوا*, where they say *اشْتَمَعُوا* and *الْأَشْدَرُ*, bringing the *jīm* closer to *shīn*. This is because both sounds are produced from one outlet. Moreover, *shīn* is smoother, softer and more spread in articulation. If the *jīm* occurs alongside consonants close to it, especially when it is *sākin*, it is difficult to articulate due to the harshness/strength of the *jīm*. The natural tendency in pronunciation inclines towards the easier sound⁴².

Some modern scholars have added that this shin is common among farmers in rural Egypt, both north and south. An example is their pronunciation of the eloquent word *اجْتَرَّ*: "اشْتَرَّ"⁴³.

Sibawayh differentiated between the shin that resembles *jīm* and the *jīm* that resembles shin. He listed the shin-that-is-like-*jīm* among the thirty-five letters, which he considered part of what is abundant/satisfactory for his purposes. He listed the *jīm*-that-is-like-shin among the forty-two letters, which he considered unsatisfactory⁴⁴.

39- The difference between them is that with the *shīn*-that-is-like-*jīm* — as in *al-ashdaq* — the *shīn* is brought close to the *jīm* because of the *dāl*, due to the compatibility between *jīm* and *dāl* in terms of strength/harshness (*shiddah*) and voicing (*jahr*), and because of the dislike of combining shin with *dal* (since there is clear differentiation between them). However, when *jīm* occurs before *dal*, as in *الْأَجْدَرُ*, or



before ṭa as in اجْتَمَعُوا, there is less ‘mutual repulsion’ and distance between jīm and dal, and between jīm and ṭā’, than there is between shīn and dāl. For this reason, the shin-that-is-like-jim is considered good, while the jim-that-is-like-shin is deemed weak.

The weak dhad: Al-Sirafi explained and clarified the nature of its weakness by saying that it is ‘from the speech of a people whose basic letters do not include dhad’. If they need to use it in Arabic, they find it difficult; sometimes they produce it as dha. This is because they articulate it from the tip of the tongue and the edges of the teeth, but they cannot produce it from the outlet of dhad. Instead, it comes out between ṣad and dha.⁴⁵

He also mentioned that he saw the following in the book of Mubarrad: ‘weak dhad.’

They say in “اضْرُدْ لَهْ”tha closer to ‘dhad’.⁴⁶

40. The sad that is like sin: Although Sībawayh did not provide an example of this sound⁴⁷, it is easy to imagine what is meant by it. This is because sad and sin share the same place of articulation and articulatory attributes in all respects except for tafkhim (thickening) and tarqiq (thinning). Thus, ṣād is a thickened sound, whereas sin is a thinned sound. This is the only difference between them.

Therefore, if one sound is likened to the other, the only possible meaning is that the quality in which they differ — thickening vs thinning — must be changed. So, for example, if ṣād resembles sin, the tafkhim of ṣād is replaced by the tarqiq of sin⁴⁸.

Ibn Osfur provided an example of this with the letter ṣād, saying: ‘Like **صَائِر** in **سَائِر** — it has been brought closer to it — because ṣād and sīn come from the same articulation.’

This ṣād is similar to what we hear today when women speak, especially those who imitate non-Arabs⁴⁹.

41. The ta that is like the ṭa: Sībawayh did not provide an example of this either⁵⁰. However, what was said about the ṣād that is like the sīn can also be stated here. The clearest characteristics that distinguish the sound of ṭa from that of ta are tafkhim (thickening) and tarqiq (thinning). Therefore, if ta’ resembles ṭa’, it means that it has lost its thickening. Ibn ‘Uṣfūr provided an example of this sound, stating: ‘Like ṭال’, intending ‘طال’. ‘This is often heard from foreign people from the East because ta is absent from their native language. When they need to pronounce it, their articulation of it becomes weaker.’ We hear something like this ṭā’ from women in our time.⁵¹

42. The zā’ that is like thā’: We have not seen an example of it in Sībawayh’s book⁵³. However, considering the difference between the sounds of za and tha’, it is clear that they differ in two respects: first, voicing versus voicelessness (i.e. jahr versus hamis), and second, tafkhim versus tarqiq. Therefore, if the sound of zā’ resembles that of tha’, it must have lost one of these qualities, either voicing or thickening, or both⁵⁴. Ibn ‘osfur provided an example of this sound: the word “ظَالِي”, which becomes “تَالِي” in form⁵⁵.

43 – The ba’ that is like the fa’: Al-Sirafī stated that this fa’ (and the corresponding ba) is ‘common in the speech of Persians and other non-Arabs. It occurs in two forms: one in which bā’ is predominant over fa’, and another in which fa’ is predominant over bā’⁵⁶.

Ibn osfur provided examples in the words: ‘برطيل’ and ‘بلح’. It seems that he intended to show that the first word becomes ‘فلاح’, with the pronunciation of the ba more prevalent than the fa, and the second word becomes ‘فرطيل’, with the pronunciation of the fa’ more prevalent than the bā’.

Some modern scholars concluded from Sībawayh’s discussion of this sound that the ba’ being referred to is what they call ba’ al-farisiya (the Persian ba’). It is a voiceless ba’, similar to the sound of ‘P’ in foreign



languages⁵⁷. They also claimed that the Arabs used to ‘Arabicise’ this bā’ by replacing it with fa’, resulting in words such as بَرَزْدَه becoming فَرَزْدَق and بِالْوَزَه becoming فَالْوَدَج⁵⁸

However, the idea that ‘the Arabs arabicised this ba’ is not convincing. The discussion here is about an Arabic ba’ that some non-Arabs pronounce similarly to fa’. In that case, the first pronunciation does not require arabicisation because it is already Arabic. Likewise, the last pronunciation does not require arabicisation because Arabic pronunciation suffices. In any case, our interpretation of this sound prioritises what was reported by al-Sirafi and Ibn osfur earlier.

The sounds in these unnatural branches are not limited to the examples mentioned by Sibawayh. Rather, any sound that arises and is not used by eloquent speakers of Standard Arabic is regarded as unacceptable.

This is supported by al-Sirāfi’s statement: ‘It occurs on the basis of the measure of what Sībawayh counted among the letters — more than forty-two letters — because he mentioned the shin that is like zay in a section close to the end of the book after detailing the forty-two letters... We have also seen someone who speaks with qaf between qaf and kaf, producing a form like the kaf that lies between jim and kaf, and the jim that is like kaf.’⁵⁹

The Second Chapter: Articulation Points of Sounds

First Section: The Number of Articulation Points of Sounds in Sibawayh’s Book

Sibawayh identified the sixteen articulation points from which Arabic sounds emerge. He said: ‘For the throat, there are three:

1. The farthest point of articulation in the throat: the hamza, the hā’, and the alif.
2. The second is from the middle of the throat and includes the ‘ayn and the ḥā’.
3. The ghayn and khā’ come from the part of the throat nearest the mouth.
4. From the farthest part of the tongue and the upper palate above it comes the qāf.
5. From slightly below the qāf and adjacent to it on the upper palate comes the kāf.
6. From the middle of the tongue, between it and the middle of the upper palate, come the jīm, the shīn and the yā’.
7. From between the beginning of the edge of the tongue and the molars that follow it: the ḍād.
8. From the edge of the tongue, from its lowest point to the tip, between the tongue and the upper palate and the area above the incisors, canines, fourth tooth and second incisor, comes the lām⁶⁰.
9. From the edge of the tongue, from its lowest point to the tip, between it and the upper palate and the two incisors: the nūn.
10. From the place of nūn, except that it enters slightly into the back of the tongue due to its deviation towards lām, comes rā’.
11. Between the tip of the tongue and the roots of the incisors are: ṭā’, dāl and ṭā’.
12. From between the tip of the tongue and the area above the incisors come zay, sin and ṣad.
13. From between the tip of the tongue and the ends of the incisors come: zā’, dhā’, and thā’.
14. From the inside of the lower lip and the tips of the upper incisors comes fā’.
15. Between the two lips are bā’, mīm and waw.
16. From the nasal passage comes the ‘light’ nun⁶¹.

What Sibawayh held — that there are sixteen articulation points, a view also held by the majority — should be understood only as an approximation. This is based on treating closely similar sounds as if they shared the same articulation point and counting them together. The correct analysis is that each letter has



its own distinct articulation point, which differs from that of every other letter. Otherwise, they would be identical⁶².

Second Section: Differences between what is in Sibawayhi's book and what is in Al-'Ayn.

First: Differences Regarding the Number of Articulation Points of the Letters

Their disagreement concerns the articulation points of the inner/middle (hollow) or airway letters, known as the letters of elongation and softness — namely: alif, the non-voweled waw preceded by a dammah, and the non-voweled yā' preceded by a kasrah.

Al-'Ayn states that these letters have an independent articulation point, meaning the total number of articulation points is seventeen. Al-'Ayn states that in Arabic there are twenty-nine letters, twenty-five of which are 'sound' letters with articulatory spaces and paths (madārij). Four letters are hollow: the waw, the ya', the soft alif and the hamza. They are called 'hollow' because they emerge from a hollow space; they do not occur within any articulatory path of the tongue, throat or epiglottis. Rather, they are suspended in the air, so they have no 'space' to be attributed to except the hollow.⁶³

As mentioned above, Sibawayh holds that there are sixteen articulation points for the letters, excluding the articulation points for the hollow letters, locating the alif at the farthest part of the throat, the madd wāw at the articulation point of the moving wāw between the lips, and the madd ya' at the articulation point of the moving yā' at the middle of the tongue⁶⁴.

Secondly, there are differences in the ordering of the articulation points of the letters.

In al-'Ayn, the order is as follows: three articulation points in the throat, and the letters are 'ayn, ha', kha', ghayn and ha'. Then an articulation point at the farthest part of the tongue and what lies above it of the upper palate: Qaf, which is the fourth articulation point. Then slightly below it: kaf, the fifth articulation point. Then, from the middle of the tongue and the upper palate, come the letters jim and shin, which are the sixth articulation point. jim and shin — this is the sixth articulation point. Then, from one edge of the tongue and the area opposite the molars: ḍād, which is the seventh articulation point.

Al-'Ayn's summary of the ordering of the basic original letters of Arabic, according to their articulation points, is as follows:

'ayn, ha', ha', kha', ghayn – qaf, kaf – jim, shin, ḍād – ṣād, sin, zay – ṭa', dal, ta' – za', tha', dhal – ra', lam, nun – fa', ba', mim – waw, alif, ya', hamza'.

However, what is found in Sibawayh's book regarding the ordering of the articulation points of the letters differs from al-'Ayn in more than one respect⁶⁵.

The first difference is that Sibawayh begins with the first articulation point of the throat, from its farthest end. Its letters are: the hamza, ha', and alif. He then moves on to the second articulation point in the middle of the throat, whose letters are: ayn and ha. This is contrary to al-'Ayn, which starts with the letters: ayn, hā', and hā'⁶⁶.

A second difference is that Sibawayh holds that the articulation points of the tongue-tip/edge-of-tongue letters come after the articulation point of ḍād and before the articulation point of the natri letters (sibilants/alveolars). He orders them according to their articulation points as follows: lam, nun, ra'. This differs from al-'Ayn, which places the articulation points of the base/primary letters after the articulation point of ḍād, then the natri letters, then the dentals/insorcors, and only then the dhilqi letters, in the following order: ra', then lām, then nūn.



The third difference is that Sibawayh adopts the view that the ordering of the three articulation points of the tip of the tongue comes after the articulation points of the dhilqi letters, and he orders them according to their articulation points as follows: The articulation point of the natri letters, then the articulation point of the asliya or safiri letters, then the articulation point of the dentals/insorcors. This is contrary to al-‘Ayn, which places them after the articulation point of ḍad and arranges them in a different order to that in Sibawayh’s book⁶⁷.

Third: differences between them in the ordering of certain letters of the articulation points or their addition.

The differences between Sibawayh’s book and al-‘Ayn are not confined to disagreements about the number of articulation points or the ordering of those points. It also extends to disagreements about the ordering of the letters belonging to certain articulation points or the addition of some letters. The details are as follows:

Firstly, he differs from al-‘Ayn regarding the ordering of the letters of the lower-than-middle throat, i.e. those located just before the mouth. Thus, whereas in al-Ayn their ordering is given as: kha’ and ghayn, Sibawayh states that their order is: ghayn and khā’.

Secondly, he differs from it regarding the letters of the middle of the tongue and the middle of the upper palate. Thus, whereas al-‘Ayn states that these letters are: jim and shin, Sibawayh states that they are: Jim, Shin, and Ya’ — and these are known as the shajāri (tree/’shajari’) letters.

Thirdly, he differs from it in his ordering of the letters whose articulation points lie between the tip of the tongue and the area above the lower incisors. These letters are known as the aṣliyya or ṣafiri (sibilant/whistling) letters. Thus, whereas al-‘Ayn gives their order as: ṣād, sīn, zāy, the book states their order as: zāy, sīn, ṣād.

Fourthly, he differs from it regarding the letters that emerge from between the two lips. Thus, whereas al-‘Ayn lists them as: bā’ and mīm, the Book lists them as: bā’, mīm and wāw⁶⁸.

As previously explained, we presented the ordering of the basic original Arabic letters according to their articulation points, as given in al-‘Ayn, as well as their ordering according to Sibawayh’s Book, also according to the articulation points.

Therefore, the correct view regarding the ordering of the articulation points and their letters is that given in Sibawayh’s Book, which is supported by the majority of Qur’anic readers and grammarians. After arranging the letters according to what is found in Sibawayh’s Book, Ibn Jinnī says:

‘This is the ordering of the letters according to their dialectical “course” (nature), and their rising from lower to higher articulation points. It is correct.’ The ordering in al-‘Ayn contains disorder, confusion and contradicts what we presented above, namely the ordering set forth by Sibawayh and adopted by his followers. That ordering is the correct one, as careful reflection shows.⁶⁹”

The Third Chapter: The Qualities (Characteristics) of Sounds in Sibawayh’s Book

As we have seen, Sibawayh divided sounds into sixteen categories. Each category shares a specific articulation point. For example, ba’, mim and waw occur at the same articulation point, as do ṣa’, dhal and tha’, and hamza and hā’.

This means that each group of sounds shares a single articulation point. However, this requires another basis by which each sound in the group can be distinguished from others that share the same articulation



point. The importance of the qualities (ṣifāt) of sounds becomes clear here: they provide an auditory basis for distinguishing between sounds that share the same place of articulation.

Sibawayh mentioned these qualities and gave them names that reflect their nature. Among these are:

The first requirement: Voiced and Voiceless Sounds

Sibawayh says: ‘As for voiced consonants, they are letters in which closure is firmly held at their point of articulation, preventing the breath from flowing alongside them until the closure is released and the sound passes.’ This is the condition of voiced consonants in the throat and mouth. However, for nūn and mīm, closure may also occur in the nasal passages, resulting in a nasal resonance (ghunna). The evidence for this is that if you hold your nose and then pronounce them, you will notice that the nasal resonance is reduced.

As for voiceless consonants, they are letters in which the closure at their place of articulation is weakened until breath flows with them. You can tell when you repeat the letter while breathing. If you attempted to do the same with voiced consonants, you would not be able to.⁷⁰

Accordingly, voicing and voicelessness are two opposing properties of sound, dependent on the state of the breath during articulation, not after it — specifically, on the degree of strength or weakness of pressure. When the pressure is strong, it prevents the breath from flowing, and the result is a sound characterised by strength and clarity. This is what Sibawayh calls ‘voiced’. When the pressure is weak, the breath flows, and the result is a weak, subtle, faint sound. Sibawayh calls this voiceless

Sibawayh states that there are nineteen voiced sounds. They are: hamza, alif, ‘ayn, ghayn, qaf, jim, ya’, dad, lam, nun, ra’, ṭa’, dal, zay, ṣa’, dhal, ba’, mim and waw⁷¹.

All the other sounds are voiceless: ha, ḥa, kha, kaf, shin, sin, ta, ṣad, tha and fa⁷².

The second requirement: Fortis (strong) and lenis (soft) sounds

(a) Fortis and lenis

Sibawayh says: “Among the letters are the fortis sounds. These are the letters that prevent sound from flowing through them. These are hamza, qaf, kaf, jim, ṭa’, ta’, dal and ba’. This is because if you say: alhaj (or similar) and lengthen your vowel sound, the sound will not run through.

The lenis sounds are also among them. These are ha’, ḥa’, ghayn, kha’, shin, ṣad, dad, zayn, sin, za’, tha’, dhal and fa’. This is because when you say: ‘aṭs’ and ‘inqaḍ’ and similar words, you can let the sound flow through them if you wish.⁷³”

Accordingly, a fortis sound is the opposite of a lenis sound in Sibawayh’s view. The difference between them becomes clear when stopping at the end of a word: the fortis sound is confined and does not flow when stopped, whereas the lenis sound continues to flow and is not confined when stopped.

Take this into consideration in your own speech: when you say “iq” (or “iq/ik”), you will notice that the sound with qaf is confined, but when you say “ish”, you will notice that the sound with shin flows.

(b) Sounds between fortis and lenis

Sibawayh says: ‘As for the ‘ayn, it lies between the lenis and the fortis sounds. It reaches the stage of being repeated or oscillated (*tardid*) because it is similar to ḥa’.’”

Among these is the lateral/oblique sound. It is a fortis sound, but the sound flows through it because the tongue moves with it. Unlike the fortis letters, such as lam, the sound does not encounter an interruption. You can extend the sound if you wish, but it is not like the lenis sounds because the tip of the tongue does



not move away from its place of articulation and the sound does not leave the place of lam — rather, it comes out from the two sides of the narrow part of the tongue, as it were, from a sliver of that region.

“There is also a fortis letter for which the sound flows. This is because the sound is a nasal resonance originating from the nasal passages, so you produce it from your nose. The tongue remains bound to the place of the letter because, if you hold your nose, the sound will not flow. This applies to nun. The same applies to mim.’

“Among them is also the mukarrar (the repeated sound): it is a fortis letter in which the sound flows because it is repeated and inclines towards lam, so the tongue withdraws slightly and moves away from the sound, as with lenis sounds. However, if it were not repeated, the sound would not flow.”

‘Among them also is the “soft/semivowel”: it is waw and ya’, because their articulation is broad enough to accommodate the air/space of the sound more than the articulation of the other letters.’ As you say: way and the like. If you wish, you can let the sound flow and extend it.’

‘The hawi (the strongly open one) is also among them. It is a letter whose place allows the air/space of the sound to open more than the places of ya’ and waw. This is because you can bring your lips together in waw, and you raise your tongue before the palate in ya’. This is alif.’

These three letters are the least concealed and most subtle in terms of articulation because their exit is so spacious: alif, ya’, waw — in that order⁷⁴.

Sibawayh places these eight sounds — ‘ayn, lam, nun, mim, ra’, waw, ya’ and alif — between the fortis and lenis categories. Notably, we can divide them into two groups: one group lies between fortis and lenis, with neither quality predominating; and a second group is dominated by fortis yet has an inherent characteristic that makes it resemble lenis.

1) The first group consists of one letter only, ‘ayn, which lies between fortis and lenis, without either quality prevailing. It is a sound that, when paused on, ‘slips’ towards ḥa; therefore, it does not have the confinement characteristic of fortis sounds nor the flowing characteristic of lenis sounds.

2) What is dominated by fortis but has an inherent quality similar to lenis?

The remaining seven letters:

- The oblique/lateral — the sound of lām.

In essence, it is a fortis sound because the tip of the tongue does not move away from its place during articulation, which would naturally oppose and confine the sound. However, the quality of inclination/obliqueness in lām enables the sound to flow.

- The nasal sounds of nun and mim. In essence, they are fortis because the tongue remains bound to the place of the letter during articulation, which prevents the sound from flowing. Yet the inherent quality of nasal resonance — a sound that issues from the nose — makes them similar to lenis sounds.

- The repeated — the sound of ra’. In essence, it is a fortis due to the sound’s confinement at the moment of articulation. However, the quality of repetition enables the sound to flow, making it resemble the lenis.

- The soft/semivowels — waw and ya’.

- The “hawi” (the most open/aspirated) — alif.

These three sounds are the most subtle and least concealed because their place of articulation is so expansive. Moreover, each of them has its own sound in a position other than its place of articulation in the mouth. Thus, they resemble the lenis sounds in that a flowing sound occurs when stopping on them. At the same time, they resemble the fortis sounds in that they adhere to their places of articulation. However,



their sound is not like that of the lenis letters because the characteristic sound of the lenis letters is precisely the flowing sound that occurs from their places of articulation.

The third requirement: Emphatic and non-emphatic sounds

Sibawayh says: ‘Among them are the emphatic and non-emphatic letters. The emphatic letters are ṣad, ḍad, ṭa’ and ẓa’. The non-emphatic ones are all the other letters. This is because you do not raise your tongue into the emphatic position for any of them: you raise it to the upper palate instead.’

These four letters become ‘emphatic’ when you place your tongue in their respective places of articulation: the tongue adheres to those places and extends up towards the upper palate. When you place your tongue in this way, the sound is confined between the tongue and the palate until the letters are articulated.

As for dal and zay and similar letters, the sound is only confined when the tongue is placed in their specific places of articulation. Therefore, these four letters have two places of articulation on the tongue. This is clarified by the fact that the sound is confined to these places.

If there were no emphatic quality, then ‘ṭa’ would become ‘dal’, ‘ṣad’ would become ‘sin’, and ‘ẓa’ would become ‘dhal’. Also, ‘ḍad’ would be absent from speech because nothing in the vicinity of its articulation would exist except it.⁷⁵

Accordingly, emphasis according to Sibawayh is raising the tongue to the upper palate, and the opposite is moving the tongue away from the upper palate (i.e. not raising it towards it). The sounds of emphasis are four: ṣad, ḍad, ṭa’ and ẓa’. Everything else is non-emphatic.

The sounds of emphasis confine the sound during articulation to two places: (1) the place where the letter is articulated, and (2) the space between the tongue and the upper palate. Without emphasis, these letters would merge with the sounds that come from their own articulation points, becoming indistinguishable and merging into one letter. Ṭa’ would be the same as dāl, ṣad would be the same as sin, and ẓa’ would be the same as dhal. However, ḍad would not become anything else because there is no other sound in its articulation region.

Conclusion:

Sibawayh recognised that studying sounds was essential for understanding language, and that knowledge of the sound system was necessary for anyone wishing to study morphology. For this reason, he prepared for his study of assimilation by studying Arabic sounds under the same heading. “The Chapter of Assimilation”.

Through careful observation, acute hearing and despite the difficulties typically encountered by students, he was able to provide a precise description of Arabic sounds, despite the fact that the tools available to him were not comparable to those used by modern researchers in “sound enumeration” and classification. He described each sound in terms of its articulation point, pronunciation method, and accompanying qualities. In doing so, he considered each sound in isolation, apart from its occurrence in speech, and left its role in the transition from one sound to another to the study of assimilation itself.

Consistent with the view of his teachers and companions, he also held that the basic letters of Arabic amount to twenty-nine. He added six branches, whose roots are derived from those twenty-nine. They are common in practice and accepted in the recitation of the Qur’an and poetry. Finally, he added eight additional letters that are neither encouraged nor abundant in the language of those whose Arabic is considered acceptable. These letters are not encouraged in Qur’anic recitation or poetry.



Moreover, he transformed many of the secondary sounds — the ‘branches’, as he called them — into qualities that arise within the primary/root sound. These secondary sounds differ from one another, as well as from the primary sound, with respect to place of articulation, method of pronunciation and qualities.

Yet despite his distinction between the roots of letters and their branches, he did not distinguish between the technical terms ‘letter’ and ‘sound’.

He also listed the articulatory places from which Arabic sounds emerge, identifying sixteen places, with each group sharing a particular place of articulation. This means that every set of sounds that shares one articulation place requires an additional basis to distinguish each sound within that place. This basis is auditory, namely the qualities of the sounds. Sibawayh mentioned these qualities and gave them names that corresponded to their characteristics.

There are also several differences between what Sībawayh mentions in his book and what appears in *Kitab al-‘Ayn*. For example, *Kitab al-‘Ayn* states that there are seventeen places of letter articulation, including a place for the internal/visceral letters, whereas Sībawayh states that there are sixteen, omitting the place of the jawf letters and distributing them among their articulation places. There are also differences regarding the ordering of the articulation places and the ordering of the sounds among certain places.

In conclusion, the sound theories contained in Sībawayh’s book are evidence of his and his teachers’ precision and expertise, the depth of their knowledge of language in general and phonetics in particular, and their exactness in portraying linguistic reality and establishing its foundations. Their treatment of this subject was remarkable, coming as it did from individuals who were ahead of their time. Thus, none of their successors—scholars and researchers—had any choice but to follow their lead and accept what they said. They did not add a single letter; rather, they benefited from their work and explicitly stated that they were following their school. Some people may think what we have mentioned is exaggerated, but it is true for anyone who understands it.

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- ⁶⁷- Ahmad ibn Muhammad ibn Ahmad al-Qurashi, The Disagreement between Sibawayh and al-Khalil Concerning Phonetics and Structure, p. 23.
- ⁶⁸- The same reference.
- ⁶⁹- Ibn Jinni, The Secret of the Art of Grammatical Inflection, 1:45.
- ⁷⁰- Sibawayh, The Book, 4/434.
- ⁷¹- The same reference.
- ⁷²- The same reference.
- ⁷³- The same reference, 4/435.
- ⁷⁴- The same reference, 4/436.
- ⁷⁵- The same reference.