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## PHONOLOGY IN IBN AL-SARRAJ'S ELECTRONIC BOOK, AND THE MODERN PHONOLOGICAL LESSON

*Eiman Abdelgaber AbdelSamie Allam*

Assistant Professor of Linguistics, Department of Arabic Language & Literature, Faculty of Arts and Sciences, Prince Sattam Bin Abdulaziz University, Saudi Arabia.

dr.emanallam87@yahoo.com

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### **Abstract**

The topic (Vocal qualities among Ibn Al-Sarraj (d. 316 AH) through his book Al-Usul fi Al-nahw A modern phoneme lesson ) , relates to the extent of approval, or the contradiction of what Ibn al-Serraj said in phonemic attributes with what came in the modern phonemic lesson, and the nature of the research required that he discuss two basic axes And, they are: the characteristics of opposing voices, and the characteristics of non-opposing voices, relying in this on the descriptive and critical approach, and the study reached Ibn al-Sarraj as imitating Sibawayh in the phonemic lesson, and not again, and Ibn al-Sarraj differed from his predecessors in terms of grammar in terms of public speaking and whispering; Because he did not know the vocal strings, aswell as in the terms distress and looseness, which changed to (explosive, frictional) in the modern audio lesson, and we also found a difference in describing some of the sounds, namely (the scaffold, the pot, the hamza, the antagonist, the gym, the eyen), where its eyen), where its description changed when updated.

### **I. Introduction**

We cannot deny the value of phonological studies in the linguistic lesson at different levels, which is manifested in the importance of sound; which is the construction column in the language, and the sculptor has interested in sound studies; as an input to the study of the phenomenon of adgham,

Based on the above, I saw that I was studying (Vocal qualities among Ibn alSiraj through his book Al-Usul fi alnahw and the modern phonetic lesson). This is the study of the phonetic qualities mentioned by Ibn al-Siraj, in an attempt to highlight the phonetic material contained in two parts of the book (Al'usul fi alnahw) by Ibn al-Sarraj, And the attitude of the modern Audio lesson from her. Through this research, I tried to address a number of questions, most notably.

What is adjective in language and terminology?

What are the anti-phonetic qualities, and what attitude does a modern phonetic lesson have to them?

And what are the non-anti-phonetic qualities, the attitude of the modern phonetic lesson to them?

I chose this book or this author because no one has dealt with the study before, and because it contains sound material no less than what was mentioned in the *al-Kitab* of Sibawaih, and *al-Muqtabadib* of Mubridi, and other books of Arab scholars that dealt with phonological studies.

This research also refers to the phonemic qualities of Ibn al-Sarraj, and the position of the modern phonemic lesson on it.

He found some previous studies on this topic, namely:

- 1- The phonetic term in Ibn Sina in light of modern phonetics, a message of (asbab huduth al-harf) as a model, master's thesis, by Nasima Kassaimi, Faculty of Arts and Social Sciences, University of Blida, Algeria, 2012.
- 2- The Efforts of Arab Voices, A Critical Descriptive Study of Curricula and Trends, Master Thesis, by Eman Abdel-Jaber Allam, Menoufia University (Egypt), 2014 AD, unpublished.

The research relied on the descriptive critical approach, where the research presented the views of Ibn al-Sarraj on phonological qualities, and the extent of her agreement with Sibawaih's views, then he mentioned the position of the modern phoneme lesson on that, and the research relied on a number of references, the most important of which are the *al-usul fi al-nahw* by Ibn al-Sarraj, the *al-Kitab* by Sibawaih, and the books of the modern audio lesson. One of the difficulties that I had was the difficulty of selecting among the mothers of books; because there is no difference between most of the books that talked about audio studies in the Arabs.

The research reached some results, the most important of which are: Ibn al-Sarraj imitated what was mentioned by Sibawaih in phonological studies. Not knowing Ibn al-Sarraj, like his predecessors, is the rule for loudness and whispering, which is the vibration or non-vibration of the vocal strings; and due to the absence of their anatomical aspect, changing the term intensity and looseness mentioned by Ibn al-Sarraj to explosiveness and friction.

## II. Qualities that have against in phonology

### A. Vocalization and whisper

Two qualities that we can insert under a circle (qualities resulting from the placement of the two vocal chords)' Because the two vocal chords are the bedrock of distinguishing these sounds, since we can distinguish between the voiceless and whispered voice by placing a hand on Adam's Apple, Ibn al-Siraj has spoken about these two qualities and first mentioned the *Jahr*, and defined as: "every letter satiate the dependence in its position, and prevent the breath to run with him until the dependence expires, the sound is being" (Ibn al-sarraj:410), He paused in a whisper, and said, "the frequency of the letter with the running of the breath" (Ibn al-sarraj:402).

Through our presentation of the terms *Jahr* and whisper when Ibn al-Sarraj, we note that it agrees with what came when Sibawaih in his book (*The al-Kitab*), or is considered a carrier of it (see: Sibawaih, 1983:4/434), Arabic scholars kept repeating the same definition of Sibawaih until the *al-Mubarrad* (d. 286 AH) came when he defined the voices as "letters, if you repeat them, the sound in them will not be" (al-Mubarrad, 1994:1/194), From the above, it can be said that there is no difference between the *al-Mubrid* and *Sepoye*.

First - the (Hamza) sound, as in the modern audio lesson it is the sound of "neither the loud nor the whispered"(Omar,1991:345); This is because when we pronounce this sound, we find a complete closure at the extremity of the throat, which causes the breath to stop, and the sound. So we do not hear the sound of a vibration until we judge that it is a loud voice, "The air is not allowed to pass to the throat except when the opening of the glottis opens, and that sudden release is what results in the hamza."( Bishr,1980:88), One of the hadiths assumed two possibilities to describe the hamza loudly, which is "a possibility of a mistake in describing the sound, or that it was unknown and then changed until it became whispered."( Al-Hamad,1986:240-241), What we suggest is the reason for describing the hamza loudly, because of what is customary to them in defining aloud, since loudness in them satisfies the dependence in the position of the letter, and preventing the soul from running with it until the dependence ceases, the sound takes place, and this is what actually happens in the pronunciation of the hamza sound.

Secondly - the voice of (Al-Ta), which he had anonymous, and is now a whispered voice, as it is "the applied analogue of the Ta." (Al-Saran:155), Some hadith scholars provided some explanations for the ancients 'description of this sound in loudness. One of these explanations is that he" does not know the main reason for the occurrence of the loud and whisper"( Bishr,1980:103), Which is the vibration of the vocal strings or their lack of vibration, including that evolution may have occurred to this sound, so perhaps they were "uttering in the old what resembles the present vocalization of the dād and the present vocalisation of a vocalized voice."( Anees,1950:58), "And I think that the real reason for their placement of the ta'aa in the subjunctive is also their adopted definition of loudness, as I mentioned earlier in the voice of the hamza, from preventing the soul and satisfying dependence in the position of the letter. Third - the sound of (the qaf) was also loud to him, while today it is a "whispered" (Abdel Tawab,1985:78) voice, and one of the hadiths endorsed the ancients 'description of it aloud; And according to the "loudness officer set by the ancients" (Al-Nuaimi,2007:29). It is the lack of flow of the soul and the intensity of dependence in the position, as we have found some explanations by modern scholars for Sibawayh's description of him loudly, including that this sound was similar to the sound of the guin and then developed over time until it became what we hear now (see: omar,1991:343), Or, this sound was similar to a Cairene gym, but deeper than at the far mouth. (Anees,1950:78).

### **B. Intensity and looseness**

Are two characteristics that result from the shape of the sound output, As the control of these two characteristics intercepts the air leaving the lungs, so the complete closure of the airway generates a loud sound, And vice versa (incomplete closure) creates a soft sound, and Ibn al-Sarraj spoke about the distress defining it, so he said: And vice versa (incomplete closure) creates a soft sound, and Ibn al-Sarraj spoke about the distress defining it, so he said:( Ibn alSarraj:402), This definition mentioned by Ibn Al-Sarraj is consistent with the definition of Sebwayh (see: Sibawayh,1983:4/434), And the cooler changed the term sound to the respiration, so he said: "Among them are letters that prevent the respiration , and it is called the severe."(Almubrid,1994:1/194), And this is what the cooler mentioned makes us say that the ancients do not distinguish

between the sound and the respiration. At a certain point or one of the exits, the output is a sound, so the respiration is essential for the presence of a sound, and not the other way around. It is correct, because blocking the breath mentioned by the radiator leads to blocking the sound.

As for these two qualities in the modern phonological lesson, we can say that the name of these two characteristics has changed in the modern phonological lesson, so that the term intensity has changed to "explosive"(AlTanoukhi,1993:1/166), and looseness to "friction"(Anees,1950:27), Although the terminology was not standardized between the ancients and the moderns, the concept of the term did not change, as the intensity in the modern phonological lesson means: "The airway leaving the lungs is completely confined in one place, then he is released suddenly." (Yacoub, Baraka,1987:59), It did not differ in its definition of severity from the modernist's definition of explosion, as the confinement of air is the same as what the coolant said, holding the breath, which by its very nature requires that the sound does not come out.

Then Ibn al-Sarraj identified the sounds that fall under each adjective, stating that the severe eight voices are "al-hamza, al-qaf, al-kaf, al-jim, al-ta'a, ta, dal, and ba"(Ibn al-Sarraj:402), Al-Rakhwa has thirteen sounds, and they are: "AlHaa, H, Al-Ghin, Khaa, Al-Shein, Al-Sad, Al-Dhad, Al-Zai, Al-Sein, Al-Dha, your Al-Thaa, Al-Dhal, and Al-Fa"" (Ibn al-Sarraj:402).

Through the foregoing, it can be said that the ancients have a precise definition of the terms intensity and looseness, which in turn agree with the definition of the terms (explosive and frictional) among modern scholars, and there is no difference between the modern phonemic lesson and Ibn al-Sarraj except in three voices, namely: jim, dhad, and eyen.

First - the sound of the gym, which Ibn al-Sarraj described as intensity, and this description contradicts our description of it now, so our sound is a sound that combines intensity and looseness, that is, it is a double sound (Abdel Tawab:68), It was also said "low intensity"(Omar,1991:335); This is because this sound is a compound sound of two sounds (daal + gym), as it combines the intensity of the daal and the looseness of the gym. That is why we described it as duality, The hadith scholars put two possibilities for Sibawayh's description of this sound with intensity, the first of which is: This may be due to his influence with the first part of the phoneme, which is (the intensity of the aldal), It is the one that is represented by the entrapment of the air at the beginning of its pronouncement, and in that it is consistent with the explosive sounds, And the second of them: that the gym may have been pronounced in the old days by what resembles the Cairo-based gym [g] in the colloquial language, and this gym is severe (explosive)(see: Abdul Tawab,1990:25-26).

Secondly - the sound of (dhad), so we find an objection from the hadiths to making it a soft sound; This is because this phoneme is now the "applied analogue of the aldaal, Or the loudest sound altaa"(malbaraj,1984), As for the modern position on describing the ancients, it has a personal relationship, which is: There may be a mistake in their description of this sound (Bishr,1980:105), Or, they "were talking about a contradiction other than that which we know and are practicing today."(Bishr,1980:105), Thus, the sound of the dad, as we now speak it, is a loud voice, because when it is pronounced, the air is trapped as a result of the total adhesion of the head of the tongue or the tip of the tongue to the flesh of the gums from the inside, then an explosion occurs to hear the sound, and therefore it is a strong (explosive) sound.

Third - the sound of (the eayn), the modern phonological lesson refused to place it within the middle sounds, that is, those that combine intensity and looseness. This is because it is a soft sound, The hadiths justified the reason for their refusal to place this sound among the middle voices: That the average sounds share characteristics that are not found in the sound of the eayn, which is: the freedom of air to pass through the nasal or oral passage, without blocking its path or obstructing its course by narrowing at some point, (Hassan,1990:102), While the phonemic coefficient proved that when the eye speaks, the throat narrows, and therefore it is one of the soft sounds,(Bishr,1980:132), Dr. Ibrahim Anees explained the reason for the ancients' description of this sound as mediating, which is "the weakness of the rustle of what is heard to her when compared to alghyn, and its weakness brings her closer to the mem, nun and lam, and makes it among the sounds that are closer to the nature of soft sounds." (Anees,1950:81).

### **C. Applied and extensible**

Characteristics resulting from placing the back of the tongue with the plate, and the plate is the laurel or the center of the hard palate, Ibn al-Sarraj knew the importance of differentiating between the two adjectives occlusal and openness, then he defined (occlusion) as: "If you put your tongue in their places, your tongue will be closed in their positions to what is adjacent to the upper part of the tongue, you will raise it to the palate." (Ibn al-Sarraj:404), Through this definition, we can say that occlusal, as defined by it, is the applicability of the tongue to the upper palate, and this is not correct, since when we pronounce one of the applied sounds, such as a bass, for example, we find that the tip of the tongue is applied and the tip of the tongue and the concavity of the middle, it is not a complete application.

Then he knew openness as well, so he said: "Do not apply any of them to your tongue and raise it to the upper palate." (Ibn al-Sarraj:403. Then the number of votes applied, so he said they are four: "" al-ssad, al-dad, al-taa, alza."( Ibn alSarraj:404), As for the position of the modern phonemic lesson in what the ancients said about this characteristic, it can be said that there is no significant difference between Ibn al-Sarraj, and the modern phonological lesson in defining occlusal, as well as in the number of applied sounds(AlTanoukhi:1/72) As the only difference here between the ancients and the modernists is the shape of the tongue during the pronouncement of these sounds, some hadith scholars have determined the shape of the tongue during the pronunciation of these applied sounds, which is that the tongue is concave, that is, the upper and the tip of it rises and the middle is sagging.

## **III. THESE QUALITIES DO NOT HAVE AGAINST AND ARE DIVIDED INTO TWO TYPES, NAMELY**

### **A. Qualities belonging to one voice: it has been mentioned: deviation, refined, amateur**

**1. Deviation:** Ibn al-Siraj spoke about this trait and singled it out for one voice, which is (Al-Lam), Then he said: "The deviant, and he is carrying a strong voice in it, for a deviation: the tongue is with the sound, and he did not object to the sound. He said: "The deviant and it is a severe letter in which the voice is because the tongue deviates with the sound, He said: "The deviant and it is a severe letter

in which the voice is because the tongue deviates with the sound, and he didn't object to the sound, like the hard letters, and he's the (allam). And if I want to prolong the sound, not like a mollusk, because the tip of the tongue does not move away from its position, and the sound does not come out from the position of the letter (Allam) But from my point of view the tongue is tapering above that. " (Ibn al-Sarraj:403), We find that this phrase that Ibn al-Sarraj mentioned in defining the characteristic of deviation was not different from what Sibawayh said, or it is the same as Sibawayh's statement (Sibawayh,1983:4/435), And we can say that the ancients agreed to make the lam a deviant voice, and some of them added to it the voice of Ra, as it was mentioned in the publication, that the sound of deviation " allam walrra' "(Ibn Al-Jazari:204), Recent phonological studies have supported their description of the lam's voice as such( see: Ramadan),And some of them replaced the word deviation with " lateral"(Bishr,1980:129).

This is because during the pronunciation of this sound the tongue is connected to the gum and thus it is transferred between the air and its passage from the middle of the mouth, so the air leaks out from the sides of the tongue. Perhaps the reason for this is that in the production of these two sounds, the front air intake is closed, and the sides of the tongue are opened for air leakage, but the most distinctive characteristic of the (ra) sound is repetition.

**2. Repeated:** Ibn al-Sarraj mentioned this adjective and made it devoted to one sound, which is the raa, He said: "It is a strong letter in which the sound is repeated, and it deviates to the lam, so the sound becomes dulled, even if the sound is not repeated in it, which is the (ra)."( Ibn al-Sarraj:403) , Through our review of Ibn al-Sarraj's phrase in the hadith about the characteristic of repetition, we can say that it is a repetition of what came from Sibawayh (Sibawayh, 1983), Or, "the tongue's knocking on the palate is repeated when pronouncing the sound"( Al-Damen,2007:179) , as when we pronounce this sound, we find the tongue rises to touch the palate and hits it several times, and thus we can say that the term has become common among Arabic scholars and modern phoneme without any addition.

**3. The hobbyist:** which he made for the sound of the alif, so he said: "Including the hobbyist, which is a letter that widens to the air of the sound, its output is greater than the breadth of the exit of the yaa and the waw, because you may include your lips in the waw and raise in the yaa your tongue before the palate which is the alif, and these three hid the letters to widen their outlet, hide them and widen them Exit the al'alif, then the alya and then the waw "(Ibn alSarraj:404), We find that what Ibn al-Sarraj said about this characteristic is considered support for Siboy's words about it. But when modern phonologists spoke about this characteristic, they made it to the alpha and the voices, and the evidence for this is the saying of one of them:"The letters in which the openness is greater is the one in which the voting system opens with a normal openness. The soul runs, and these letters are called abyssal letters ... towards alha"(Cantino,1966:24-25), And he also said: "The hobbyist means he who has air and is called al'alif " (Cantino,1966:38), And the reason for adding alha to the sound of al'alf thousand in this adjective: For the breadth of their outlet; As there is no interception or narrowing that occurs when the two sounds are pronounced.

**B. Adjectives that belong to a group of sounds: they are adjectives that do not have an opposite, but they distinguish more than one sound.**

**1. Al-Ghunnah:** Ibn al-Sarraj spoke about this adjective, and made it the sound of the noun and the mim, so he said: "There is a strong letter with the sound, because that sound is a Ghunnah in the nose. Meme " (Ibn al-Sarraj:403), And this what he said is the same as Seawayh's words about this characteristic (see: Seawayh's.1983:4/435), And the modern phonological lesson supported what the ancients mentioned about this trait in terms of specializing the adjective with the noun and mim sounds, and that it is a sound coming out of the gills (see: Ramadan:71) , And some hadiths replaced the term al-Ghinah with the term "nasal"( Bishr,1980:130), where the tongue meets the gums, thus preventing the passage of air completely, so the airflow turns a path and turns into and out of the nose.

**2. The soft:** Ibn al-Sarraj spoke this attribute and singled it out for the sounds of the waw and the yaa, other than the two medias, less than the alif, and he said: "The waw and the yaa, because their outlet accommodates the air of sound greater than the breadth of others." (Ibn al-Sarraj:403), Sibawayh said, "Including the soft ones, they are the waw and the yaa." (see: Seawayh.1983:4/425), And he, in his definition of this trait, does not differ with what was mentioned in the modern phoneme lesson. Where the modern scholars defined this characteristic as "the rush of air when the sound is pronounced from the lungs, passing through the throat, the throat and the mouth, in a passage in which there are no barriers that obstruct it, so its course narrows."(Anees,1950:26), The current description is therefore no different from what the ancients mentioned because when we pronounce the two sounds we find some widening in the airway, and the difference between the two qualities (soft and amateur), that some narrowing occurs when pronouncing soft sounds, unlike amateur, there is no addition when pronouncing the sound.

From the previous, Ibn al-Sarraj can say that there are three characteristics that are against: (loud and whisper, intensity and looseness, and clenching and openness), as he mentioned a non-repetitive page (repetitive, deviant, melancholy, soft, and amateur), and these two tables illustrate that.

#### IV. CONCLUSION

- Ibn al-Siraj came imitating what sibweh said in the qualities of voices, and not again.
- Ibn al-Siraj neglected some of the qualities mentioned by sibweh.
- Ibn al-Siraj differed as predecessors of the sculptor in the officer of clarity and whisper with the modern vocal lesson, as the officer have the intensity of dependence in the position of sound and self-prevention, and in the modern

vocal lesson was the officer of clarity and whisper is a vibration or not vibration of the vocal chords; perhaps because of them.

- due to the difference of the officer of the Jahr and whisper between the Ancients and the speakers led to the difference of the ancients with the speakers in their description of three voices in Jahr, they (Qaf, Taa and Hamza), and they are in the modern phonetic lesson of the voices whispered.
- We find a change in the terms (intensity and looseness) in the past to the terms (explosive and frictional) recently, so we find that intensity = explosiveness, and looseness = friction.
- We find an objection from the modern lesson to Ibn al-Sarraj's description of the "dhad" sound as loosening, as we have now heard it from sounds or explosiveness.
- The sound of the (gym), described by Ibn al-Sarraj as intensity, and this description contradicts our description of it now, so our sound is a sound that combines intensity and looseness.
- The sound of (the eleayn) rejected the modern phoneme lesson in the midst of a search that combines intensity and looseness; This is because it is a soft sound.
- The phoneme lesson agreed with Ibn Al-Sarraj about what he said about occlusion and openness, but the hadiths alerted the tongue to concavity in the middle of it when speaking these sounds.
- The phonemic lesson with Ibn Al-Sarraj did not differ in what was mentioned about the qualities that do not have an opposite, whether the qualities that belong to a specific sound (repetition, deviation, and amateurism), or the qualities that belong to a group of sounds (Richness and softness).

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