

## Spark of Arabic Onomatopoeia in Avicenna

Avicenna ends his treatise on *Arabic phonetics* (in both Arabic versions but with some differences) by a chapter that implies the Arabic alphabets can be heard as a result of activities other than those produced by the specific human speech organs. It means that in a short and condensed treatise after five chapters on the points of articulation of Arabic speech sounds (K. L. SEMAAN 1963), Avicenna as a Persian speaker mentions to this point that production of sounds in external natural environment are analogous to the articulatory Arabic speech-sounds which originate within human being. More precisely, different kind of in-action-materials are fused with specific kind of vitality and life; when they interact with each other, they produce distinctive and sensible sounds, which have distinctive connotations and are analogous to the sound of specific Arabic alphabets.

But the above-mentioned notion is either on margin or is ignored by some scholars such as Istvan Ormos 1985 as the title of his paper denotes or has been interpreted differently by others. Among those who pay attention to it, one scholar puts it without any reasoning and detailed discussion within “impressive phonetics” (KHANLARI 1970; 103); one interprets it as a validation of the role and function of “movement” and its influence on air vibration and wave (K. L. SEMAAN 1963; 15,16); and the other one mentions to “onomatopoeia” as the suitable category for understanding it without any detailed discussion on this chapter (S.I. SARA 2009; 40, 126).

In this paper, through the basic and pertinent concept of “internal senses” in Avicenna I want to concentrate on the last above-mentioned interpretation under the general title of onomatopoeia / المحاكات الصوتية . Thereby, I want to uncover and make explicit the implicit

notions of Avicenna on the nature of human sound / voice and the state of external natural sounds–objects that can be seen / heard in comparison with the voice of Arabic alphabets that have a relation with the human physiology.

According to the etymology of Isidore of Seville (2006; 62) at c. 560–636 onomatopoeia is “a word fashioned to imitate the sound of jumbled noise as the *stridor* (“creaking”) of hinges, the *hinnitus* (“whinnying”) of horses, the *mugitus* (“lowing”) of cows, the *balatus* (“bleating”) of sheep”. Literally, here we can see formation and making (poesis) of a name / word (onoma) through imitation of the sounds of some (living) entities. In other words, in the context of rhetoric in 95 AD, for the makers of this kind of word-creation, external sounds give specific kind of sensations that are suitable with the words which were made (QUINTILIAN 1959; Bk. 8, Chap. 6, p.319).

According to Isidore of Seville and Quintilian who consider onomatopoeia as a linguistic and figure principle respectively, in thinking and speaking about this term we usually put three things together, “*the relationship between the sound of a word and something else*” (emphasis is added. HUGH BREDIN 1996; 555, 557,558,562). According to this account, the first and second components are basic but very contested because the articulated sounds are related to the sounds of something outside, though, such a relationship is not something unthought for its first maker. And it is with reference to the possible kinds of relations that we can classify all kinds of onomatopoeia, too. When we put this conception in relation to what Avicenna is doing about the origin of alphabet sounds, we see his speculation about different possible relations between the sound and vital things which can be solid or gas or liquid (H. WEDGWOOD, Esq. 1845; 109. Though his remark is only in relation to English but the basic point applies to Arabic too). If so, in the last two-page

chapter of his treatise (in both Arabic versions) Avicenna wants to say something important about the relation between sound-objects with voice-organs which will be explored in the following pages.

### **1-Three Kinds of Relations**

In the sixth chapter of the *Arabic Phonetics*, we see that Avicenna explicitly makes a specific relation between articulated sounds of Arabic letters that are produced by specific human organs with different sounds that come out of interactions between natural materials and things. And in this regard, he distinguishes Arabic letters from other kinds that belong to, for example, tone languages like Chinese that he says they should be analyzed differently (SARA, 78). Thus, he distinguishes and put in analogical relations two entities on the one side, the voice of Arabic alphabet produced by specific human organs and sounds of different natural matters which have interactions on the other side. In other words, in human body there are specific organs and mechanism that produce articulatory sounds, and in the natural world actions and reactions of things make different sounds. And according to his consideration and outlook as far as possible and justifiable, these two groups are analogically correspondent. Here are some examples (SARA 2009, see 127-129 for his complete useful analogical tables), Arabic letter ف is analogous with sound from the hissing of trees; ج is analogous with the sound from the falling of water into still water forcefully; and ب is analogous with the sound from the plucking of adhering soft bodies from each other.

It is our impression that by this method as a Persian speaker, Avicenna tries to say that there is a kind of “analogy / correspondence” between these two kinds of articulatory and

non-articulatory sounds. Thereby, exploring kinds of possible relations in order to have a deep and differentiated conception of the implicit analogy is needed. For doing such an exploration and typology, Hugh Bredin models and nuances (1996) will be followed.

**A-Direct Resemblance.** The explicit and simple form of onomatopoeia is “direct” resembles between the sound of the word with the sound that is names (BREDIN 1996, 558). For example, Avicenna as a Persian speaker in his short mentioning to the sound س says that it is “from a dry body touching another dry body and moving it on it until the air escapes through narrow opening, and from air flowing through the teeth of a comb” (SARA 2009, 40,76). The last part of the quotation makes a parallel between name of the letter س with the sound of air when it flows through the teeth of a comb (but in regard to the sound of ث the last characteristic sentence is absent in the second version. SARA 2009, 76, 129). Though an Arabic speaker expect such a description in regard to the letter ص but it is not so and according to the first (not second) version, the sound of this letter is “from a dry body falling on an object with an echo or with a strike a body with slight hollowing” (SARA 2009, 128).

Moreover, in the same set we can include letter و that resembles what we do in strong expiration for according to him it is” “from penetration of air with power into a non-resistant body like air, heard when air bursts into air with power” (SARA 2009, 40, 76). And according to the second version, this sound is analogical to the sound ع with this difference that it is produced when air strongly bursts into the water instead of air (SARA 2009, 76).

**B- Associative Resemblance.** Another kind of relation is “associative” and “occurs whenever the sound of a word resembles a sound associated with whatever it is that the word denotes” (BREDIN 1996, 560). Accordingly, we can classify ط ، ت ، د in this category

because there is “association” between the human hands that striking with each other; and the strong/weak striking of fingers with palm which have their own resemblance in the letters of these three Arabic letters respectively. In Avicenna ط resembles the clapping of two cupped hands to create an echo; ت is from striking of the palm of the hand with a finger; and د from a weaker striking of the palm of the hand with a finger” (SARA 2009, 128). We say that the name of letter ط denotes to the special kind of association between two cupped hands of human being; the word of letter ت denotes to a strong striking of finger at the door in comparison with the name of letter د that signifies to a weak striking. At the same time, we should be careful of the contrast between this kind of onomatopoeia with “acoustic association” that have some family resemblances (BREDIN 19996, 561, 563: figure 3). For example, the “rolling of a ball on a wooden board / the rattle of a cloth fixed to a fastener and exposed to a strong wind” (SARA 2009, 42, 78) makes a sound comparable with the sound ج in Arabic pronunciation. We can infer that on the basis of some resemblances that may be imaginative or real, there is specific association between the object with the Arabic speakers through the sound that the name of the specific Arabic letters includes both of them.

Besides, when he considers the production of the sound خ either from robbing a soft body with a solid body (the first version) or from robbing a dried-up body with a solid body lengthwise (in the second version. SARA 2009, 127), we can make an association between the pronunciation of this letter in Arabic with the sound come out of such a robbing. And the sound ل too that denotes to the different dealings such as slapping, falling, and stirring of a matter such as water (SARA 2009, 42, 78).

**C- Exemplary Relation.** In differentiation from the former two types, the foundation of this kind “rests upon the amount and character of the physical work used by a speaker in uttering a word “[letter] (BREDIN 1996, 563). This kind of onomatopoeia can be extremely subtle and fluid, since it exploits and instantiates a lot of indefinite number of associations and qualities (BREDIN 1996, 564, 565).

With referring to Avicenna description of the sound ح that comes either from exiting of the air from any narrowing that is flattened and moist; or passing of hand on a soft rough body with a flat gesture (second version, SARA 2009, 76); or a narrower and wider exit than it (the first version, SARA 2009, 40), we can consider it as a sound that instantiates different qualities such as fastness, move from narrowness to wideness and the like.

Besides, the sound ض can be included in this category for it has association with different things and comes out either from bursting of big bubbles from moistures (SARA 2009, 40) ; or bursting of big bubbles from sticky liquids, or tearing up of paper, or a slap where the air flows at its center .... (SARA 2009, 76). Moreover, we can consider the following sounds in this category too: غ (from individual boiling of moistures in large parts/at the flowing of moistures from average narrow pitches and from dense, delicate and soft body in the wind); ك (from the falling of big, solid body on another flat body like it/from striking a solid body with a solid body and from tearing up of dry objects); and ز that exemplifies association of being thin, pliable, and small in contrast to ذ that initiated qualities of being thick, tight, and big (SARA 2009, 128,129).

At the same time, it should be noted that there are some sounds of material objects that cannot be placed in one the three kinds of relations, these are the sounds ق (from ripping of bodies and pulling them away suddenly); ج (from the falling of water into still water

forcefully); ش (from the hissing of moistures and from the penetration of moistures into gaps of dry objects); ف (from the hissing of the trees);and ب (from the plucking of adhering soft bodies from each other).

## 2- Analogy between Sound of Objects with Voice of Letters

Our previous discussion about the different possible things-sounds leads to explore and examine the analogous characteristics between the sound of things with the Arabic letters. In other words, when Avicenna listens to the sounds that are produced by the specific interactions of things with each other he is led and remembered of the sound of this or that letter of Arabic. It means that there should be something comparable and analogical between the sounds of pertinent human organs and natural objects. Accordingly, in order to acquire a general picture of Avicenna perspective, we classify the available sounds of objects in order to see why he thinks that they are comparable with the analogous voice of Arabic letters. In this relation, in our exploration we consider each set under specific focal term and then explore different relations of it with objects and the sound that comes out of their interactions. Of course, as we will see Avicenna makes such relations on a combination of nature, convention and arbitrariness.

**A - Air.** Here Avicenna consider the emission of air from different exits that are analogous with some sound of Arabic letters. For example, we can speak either of the emission of the air from narrow / wide exits is analogous with ح ، ع ; or the movement of air among teeth of the comb or trees is comparable with س ، ث ، ف

**B - Water.** Here he refers to the forceful falling of water into still water and stirring of water by any solid object in parallel to the Arabic sounds

ج، ل.

**C - Solid.** Here we see more detail and diversity in regard to the solid bodies that can be dry/wet; soft/rough; and big/small that their actions/reactions with each other produces different sounds. For example, removing of soft bodies adhered from each other produces a sound analogous to ب ; touching of a dry body with another dry body with a piece of pliable material interposing between them or when a piece of leather or paper oscillates at the blowing of air resembles to ض ; when from a larger, thicker and tighter oscillating dry body than [ض] touches another dry body with a piece of pliable material interposing between them that it shakes the scape or when the closure is done with a slackened oscillating body comes out a sound like ذ ; robbing a soft body with a solid body or from robbing a dried up body with a solid body lengthwise there is a sound like خ ; ripping of bodies and pulling them away suddenly produces something like the sound of ق ; and falling of a big, solid body on another flat body like it or from striking a solid body with a solid body (or from tearing up of dry objects) comes a sound like ك .

**D - Moisture.** This title may sound awkward but in the production of natural sounds it has a specific outstanding role. Accordingly, from individual boiling of moistures in large parts or at the flowing of moistures from average narrow pitches and from dense, delicate and soft body in the wind there is a sound analogous to غ ; from the hissing of moistures and from the penetration of moistures into gaps of dry objects comes out a sound like ش ; and bursting of big bubbles from moistures produces a sound similar to ظ .

**E - Hand and fingers.** In relation to the voices of three Arabic letters ط ، ت ، د ، he considers the sounds of two cupped hands, strong and weak striking of fingers to the palm of hand respectively. (though in some other sounds hand has function too).



### 3- Internal Senses

In order to figure out how Avicenna has reached to the above understanding of onomatopoeia in regard to the most of Arabic letters, I want to explore his short description of the senses mostly internal senses / *sensus interiores* (or *interni*) / حواس باطنه ( Wolfson 1935, 69 ft.1) through reading Chapter 6, Book 2 of *Kitab -al-Najat* (translated by F. RAHMAN 1952)

It can be said that Avicenna reflections on onomatopoeia of Arabic letters have passed a process from external sense of hearing to the internal senses in which the representation / *مصوره* / *خيال*; imagination/ *مفكره* / *متخيله*; and estimation/ *وهميه* ( WOLFSON 1935, 100 ft42) play distinctive, epistemological, and qualitative (KEMAL 1991, 101) roles and functions. On the one hand, it is a reality that Avicenna is very versed and learned in Arabic language and through his ears has heard and become familiarized with the sound of Arabic letters. Then common sense /*sensus communis* / *الحس المشترك* receives forms of theses sounds that are transmitted and preserved by the representation faculty. But sounds are not merely forms because they have concepts and meanings/ *معنان* that will be received and preserved by the estimation and memory / *حافظه* (ذاكره) faculties respectively (PORTELLI 1979, 41 for his useful hierarchic diagram). Then rational imagination comes into play and makes analysis / synthesis among these vast diverse possible forms and meanings. Though, here the function of Avicenna imagination is not very wide and free and he should follow the pertinent habitual norms that are pertinent to the sounds of the Arabic alphabet.

On the other hand, during his life Avicenna hear the sounds that are produced by the actions/reactions of different kinds of material objects that are in interplay with each other. Here he receives the forms of these sounds and preserves them in their pertinent faculties that are similar to faculties that functioned in relation to the sounds of the Arabic letters – in both cases we can think of Greek word Στοιχεῖα, Stoicheia/ Elements/ Letters. At the same time, these forms of material sounds have specific meanings for him as hearer that are received by his estimation faculty and retained by memory faculty. Then, his rational imagination relates these sounds and meanings with one another. Though, in comparison with Arabic voices here Avicenna’s sensitive / rational imagination can function more freely and without constraint.

Accordingly, there are two sets of sounds that one of them pertains to the Arabic letters and the other to material objects that Avicenna has “heard” by his ears as a healthy normal human being. With making this distinction that in the former case, he hears what has produced through and by his internal bodily organs; but in the latter case, he sees and hears what is produced by the interactions of natural material objects. It is from this stage on that the issue of Arabic onomatopoeia represents itself, because the specific sounds of each set have its own “forms / صورت / meanings/ معنا” that are perceived by common sense and estimation faculties respectively. Though with regard to the topic of this paper the mechanism and workings of these faculties in the second set is the issue. For it is granted and every human being with healthy bodily organs agree that actions / reactions of materials against each other make different sounds but the main issue is the forms / meanings of these object sounds that make them comparable with the Arabic sounds that are produced with the specific pertinent human organs.

With regard to this issue, I want to say that with referring to Avicenna discussion about internal senses /faculties in *al-Nejat*, representation / estimative faculties and conjoining them by the active power of compositive [rational / analogical] imagination (BLACK 2000, 59) can guide us to see how Avicenna thought about Arabic onomatopoeia. Initially, Avicenna thinks that each individual sound of material objects which in short terms he mentions to their specific actions/reactions has two interrelated “form/ meaning” aspects. Besides, he considers sound not in subjective but in “material” terms and if so, it is commonly vibration or motion of the air or wave motion (SEMAAN 1963, 15,16) in all cases and moisture (SARA 2009, 40 ft. 80) in some cases. By this way of thinking, he can speak about the image of the sound that is produced for example, “from the plucking of adhering soft bodies from each other”. At the same time, each particular sound has specific meanings and concepts that his estimative faculty conceives them. Because according to his definition, estimation “perceives the non-sensible intentions [intentio] that exist in the individual objects” (RAHMAN 1952, 31). It means that each specific actions/reactions of material objects leads him to specific concept that is absent in the motion of the other objects. And we should add that such a meaning is arbitrary and the other people can neither any concept nor have such a concept at all. As a result, we can say that from the perspective of the hearer who is Avicenna there is a specific justifiable link between the intended material object and its meaning that is abstract and immaterial but at the same time is material-dependent (for succinct discussion see, BLACK 2000, 60). But our account is not completed, for there are specific forms and meanings without shaping any construction, therefore, we need another faculty that realize such a function. For him, the active faculty that is associative [reasonable / analogical] imagination does such a job by

conjoins and synthetizes this specific sound with that specific meaning in reasonable and analogical ways. It means that the mentioned faculty on the basis of reasonability and analogy makes distinctions and links within the sound of materials objects and at the same time between them with the sound of the Arabic letters. At the same time, it should be noted that the mentioned compositive nature of imagination shows the essential role and function of the subject in making different compositions, imbedded interpretations and the lacunae between reality and image too (KEMAL 1991, 143,144).

### **Conclusion**

We began this paper with a conception of onomatopoeia that is distinct from what Plato did in *Cratylus* (CHEN 1982, 86). That is, it seems that for Avicenna, onomatopoeia returns to the making of sounds by actions/reactions of material objects that are analogous with the sounds of twenty-two (and not all) Arabic letters that are produced by the pertinent specific organs of a living human being.

Therefore, in short content and form Avicenna introduces different kinds of relations between specific things-sounds that in their own terms are comparable with the Arabic letters-voices. Although this rarely explored notion of Avicenna in the chapter sixth of his treatise is open to different interpretations, but I want to suggest that what he did is an emphasis on the importance of “sound” in itself and at the same time the relation of “sound to sound” that can be classified into different kinds. Besides, the relations that we consider and make between sounds are mostly “conventional”. But these are points that are beyond this paper.

## **Bibliography**

- 1-PARVIZ NATIL KANLARI (1969), **Makharij al-ḥuruf**, Tehran: Intisharat-i Bunyaad-i Farhang-i Iran.
- 2-SALIM KEMAL (1991) **The Poetics of Alfarabi and Avicenna**, Brill 1991.
- 3- MARCUS FABIVS QUINTILIAN (1959), **The Institutio Oratoria**, H. E. Butler (trans.), Harvard University Press. (vol.3)
- 4- STEPHEN A. BARNEY et al. (2006), **The Etymologies of Isidore of Seville**, Cambridge University Press.
- 5- K. I. SEMAAN (1963), **Arabic phonetics; Ibn Sīnā's Risālah on the points of articulation of the speech-sounds**, Lahore, Sh. Muhammad Ashraf.
- 6- S. I. SARA (2009), **Ibn Sina: A Treatise on Arabic Phonetics**, LINCOM publishers.
- 7- F. RAHMAN (1952), **Avicenna's Psychology**, Oxford University Press.
- 8-JOHN PETER POETELLI (1979), **The Concept of Imagination in Aristotle and Avicenna**, McGill University.
- 9- HUGH BREDIN, Onomatopoeia as a Figure and a Linguistic Principle, **New Literary History**, 27, 1996. 10- ISTVAN ORMOS, Observations on Avicenna's Treatise on Phonetics, **Acta Orientalia Academiae Hung.** Tomus 39 (1), 1985.
- 11- DEBORAH L. BLACK, Imagination and Estimation: Arabic Paradigms and Western Transformations, **Topoi** 19, 2000.
- 12- H. WEDGWOOD, Esq. On Onomatopoeia, **Philosophical Society**, Vol.2, No.34, 1845.
- 13- HARRY AUSTRYN WOLFSON, The Internal Senses in Latin, Arabic, and Hebrew Philosophic Texts, **The Harvard Theological Review**, Vol. 28, No. 2, 1935.

14- LUDWIG C.H. CHEN, Onomatopoeia in the Cratylus, *Apeiron: A Journal for Ancient Philosophy and Science*, Vol. 16, No. 2, 1982.