

Phonetics & Phonology in English and Arabic: As a Matter of Generality and Particularity

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Abstract

The present study aims at showing the similarity and difference between the phonetics and phonology in English and Arabic languages concerning sciences of sounds itself, their background information, their branches and their benefits (use and usage). Phonetics is concerned with describing speech. Phoneticians are interested in the different sounds that occur in languages. They are concerned with pathological speech and trying to help people speak a particular form of English. They need to find out what people are doing when they are talking and how the sounds of speech can be described. Phonology is a branch of linguistics which studies the sound systems of languages. Out of the very wide range of sounds the human vocal apparatus can produce, and which are studied by phonetics, only a relatively small numbers are used distinctively in any one language. The sounds are organized into a system of contrasts, which are analyzed in terms of phonemes, distinctive features or other such phonological unit.

Keywords: Phonetics, Phonology, Segment, General, Particular, Sound, Abstract, Concrete, Speech.

Introduction

Background Information and Survey

Phonetics is the study of the sounds of spoken language in the context of linguistic studies generally. It is the study of speech sound. To describe speech sounds to know what an individual sound is, and how each sound differs from all others (O ' Connor, 1973: 9 & Fromkin et al, 2011: 265-266). It is the study of the human make, transmit, and receive speech sounds.

Phonology is the study of speech sounds of a given language and their functions within the sound system of that language. In contemporary usage the term covers not only the field of phonemics but also the study of sound changes in the history of a given language, i.e . Diachronic phonology.

Classical phonology was concerned with analysis of the continuum of speech into distinctive segments, whereas the aim of generative phonology is to establish a series of universal rules for relating the output of the syntactic component of a generative grammar to its phonetic realization (Hartmann & Stork, 1972: 170 and Ladefoged, 2006: 33).

Phonetics is the study all possible sounds that the human vocal apparatus can make. It studies only those contrasts in sounds (the phonemes)which make differences of meaning within language by contrast with phonology which studies of the sound systems of languages , and of the general properties displayed by these systems (Crystal, 2003: 363-365).

Arab studies developed in the second century sophisticated and wide when he addressed those studies audio description and analysis of the topics and motivated language of the Great Quran service and the feeling that language learning and mastery is not without studying their sounds so good study to master its performance properly and protect them from the melody and distortion after the mixing of Arabs and other people of the speakers who have non-Arabic vocal studies. Khalil bin Ahmed Faraaheedi study Arabic voices who

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understand the importance of phonetic and phonology as well as the audio system where he was in his book "Eye" in which Khalil displays the study that is a prelude votes that are needed for the study of language(Abbas,2006: 24, Tr: AL-Kubaisy).

It is said that Khalil bin Ahmed Faraaheedi is considered the pioneer of Arabic linguistic sounds, where he used the term letter to refer to sound to do the voice, and was followed by his disciple Sibawayh where he studied the importance of sound and knew that language cannot be understood grammar and morphology of true understanding only after studying their voices because the phenomena of grammar based on the study of sounds (Abbas, 2006: 24, Tr: Al-Kubaisy).

The modernists of the scientists of sounds that they are interested in the issue and matter of the sound and letter and make differences between them and they use each term in its place where says Dr. Tammam Hassan the difference between the sound and letter is the difference between the work and consideration or between a vocabulary and section which is located in it therefore, the sound process accented intervention in experiments senses especially senses of hearing and seeing or sight to play the device of articulation movement and ear hear it and the view of the eye some moves machine articulation while his performance as for the letter is the little of a group of sounds collected ratios certain that is the idea of mental not process muscle if the sound of occur by the speaker the letter occur by the researcher(Alhamd, 2004:9-10&Al-zwai,ND: 2-3, Tr: Al-Kubaisy).

The relationship between the Arab sound linguistic knowledge and eulim alttajwid, however, aware of eulim alttajwid in terms of science concerned with studying the exists sounds and characteristics and the consequent provisions when installed in spoken words appeared in the limits of the fourth century A.H was Khalil bin Ahmed Faraahwwdi of the first Arab scientists who cursed study of language sounds in motion his book "Eye" because it seemed to sound "a' or 3). Followed by Sibawayh as it was inspired by the Khalil's ideas and drafted a very comprehensive and accuracy was precise in his analysis and subdivisions of recipes votes and exists as well as acoustic phenomena studied by conscious study are profound realization for reasons of these phenomena and their dimensions and audio came after them reap the son of the leading scientists who put sound linguistic theory when Arabs and after them Ibn Duraid explained slurring tilt and other morphological, sounds and vocal issues(Fadhl, 2011: 1-2& Abdul Hakeem, 2015: 2, Tr: Al-Kubaisy).

Problem of the study

Phonetics is the study of speech processes, including the anatomy, neurology and pathology of speech, the articulation, classification and perception of speech sounds (Hartmann & Stork, 1972: 171).

Phonology is the study of how speech sounds form patterns. These patterns may be as simple as the fact that the velar nasal cannot begin a syllable in English or as complex as why "g" is silent in sign but is pronounced in the related word signature. To see that this is a pattern and not a one – time exception (Fromkin et al, 2011: 266).

The study of Arabic linguistic sounds and their functions are not only determining the curricula used by scientists of sounds in the study of common and used audio units in the languages of the whole world, which theoretically eighty nearly the number and severity voice while units voices used in languages of world not exceeding forty unit of sounds which are not used by Arabic language and speaking out only half a voice call and thirty units Arab voices. Acoustic two branches of science study of language sounds and physiology votes not only concerned with the linguistic expression without considering the substance which is analysed on the rules and the lexicon that is they do not care side compositional grammar and semantic aspects.

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The study of Arabic linguistic sounds is the study of human language sounds but is not interested in studying other non-linguistic sounds as "yawning", "snoring", normal chewing and breathing. Acoustic study does not mean only in spoken language because it is a branch of linguistics and neglect sound and other forms of communication study organization such as language written and symbols of the deaf and dumb signs sailors agreed and traffic signs and movements of the face, hands and body because the acoustic branch of the study of linguistics who knows the language it sounds expressed by all the people for honor as the son of reaping and interpreted(Noor Al-Deen,1992 : 23, Tr: Al-Kubaisy).

Aims of the study

The study aims at:

1. Illustrating the definition of phonetics and phonology in English and Arabic languages.
2. Conducting survey for both sciences as portrayed in both languages.
3. Investigating the differences and similarities of both sciences in English and Arabic.
4. Carrying out a contrastive study based on the results of the analysis with the aim of getting phonetic and phonological aspects.

Hypothesis

The study hypothesises that:

1. Phonetics and phonology are sciences two express on speech sound in English and Arabic languages.
2. There are differences and similarities between two sciences in both languages.
3. Contrastive study are used to show differences and similarities of phonetics and phonology in both languages.

Procedures

In carrying out this study, the procedures to be followed are:

1. Presenting the theoretical background that concerns this work.
2. Showing the contrastive points concerning both sciences in both languages.
3. Discussing the conclusions arrived at.

Limits of the study

The study is limited to one express the contrastive study, namely that of phonetics and phonology in English and Arabic languages.

Value of the study

It is hoped that this study will give insights for the study of the linguistics in English and Arabic. It is hoped that this study will be beneficial to all those who are interested in phonetics, phonology, and contrastive study. The study might be useful for the researchers and readers in the domain of speech sound and corpus phonetics and phonology. English foreign language (EFL) learners might find this study useful as it gives insights into the pattern of thinking in this spot in speech sounds and contrastive study.

Questions of the study

1. Are there any differences and similarities between phonetics and phonology in English and Arabic languages?
2. What did this contrastive study reflect?

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3. What is the benefit of showing the contrastive study of phonetics and phonology in English and Arabic languages?

Key Concepts

This section sheds light on the following important concepts:

Phonetics

Phonetics is the science which studies the characteristics of human sound-making especially those sounds used in speech, and provides methods for their description, classification and transcription (Crystal, 2003: 363). It is pure science and need not to be studied in relation to a particular language but it has many practical applications e.g. in phonetic transcription, language teaching, speech therapy. Some phoneticians consider phonetics to be outside the central core of linguistics proper, but most would include it under the heading 'linguistic sciences'. The linguistic aspects of phonetics i.e., the study of the sound systems of particular language, is part of phonology (Hartmann & Stork, 1972: 175).

In Arabic language, Phonetics is a branch of language that looking at language pronunciation of the language sounds and moving and apprehensive and phonetics itself has many branches of science such as sounds purely a science that examines the sounds to see their properties accents and physic meaning that it is not interested in the evolution of historically or the job or recognizing voices. Experimental sounds aware of the experimental method used in the study of language sounds is also used electronic instruments to detect features such as an oscilloscope and a stencil drawing spectra which determines the type of sound and the strength and tone of these sounds(Agbar, 2014: 15, Tr: Al-Kubaisy).

The descriptive science of sounds which studies linguistic sounds as it used in a specific period of time without any fact-historical development which describes sounds as linguistic pronounce actually not as it should pronounce. Phonology and historical knowledge of looking at what the language sound in terms of finding the changes in them over time stages spaced. Science of standard sounds is considered as a science which describes specific sounds of language which should also pronounce the correct image And comparative phonology is a science which studies the faces of the similarities and differences between the sounds of different languages and phonology science career studying the sounds in terms of its function, psycholinguistic sounds science which studies the impact of psychological factors in the perception of the listener linguistic sounds(Al-Kholi, 1982:112-116 & Omar,1997:20, Tr: Al-Kubaisy).

The Arabic linguistic sounds is the science which studies the sounds of words and classifies and analyses of non-reference to the historical development and it is referring to how the production, transmission and receiving. The physiology sounds refers to the study of the history of sounds and study the changes and transformations that occur in the language sounds a result of evolution (Noor Al-Deen, 1992: 25 & Agbar, 2014: 15, Tr: Al-Kubaisy).

Phonology

Phonology is the science which studies the way the native speakers organize and store the knowledge of the sounds of their own language that enables them to use it appropriately on all occasions. It is the study of linguistic systems, specifically the way in which sound represents differences of meaning in a language. In English, native speakers know that the words pin and bin mean something different and that the difference resides in the two different initial sounds (Lodge, 2009: 12).

In Arabic language, Phonology is a science that studies the linguistic sounds in term of its function and meaning as it teaches phonemes, distribution and allophones (Al-Kholi, 1982:

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115& Hussain, 2014: 186, Tr: Al-Kubaisy). Phonology which looks at the sounds in terms of their functions in the language and in terms of subjecting acoustic material complexity (Agbar, 2014: 30, Tr: Al-Kubaisy).

Generality and Particularity

The aim of phonetics is the general study of the characteristics of speech sounds and the main interest will be in articulatory phonetics, which is the study of how speech sounds are made or articulated. Other areas of study are acoustic phonetics, which deals with the physical properties of speech as sound waves in the air, and auditory phonetics, which deals with the perception, via the ear, of speech sounds (Yule, 2006: 30).

The aim of phonology is to demonstrate the patterns of distinctive sound found in a language, and to make as general statements as possible about the nature of sound systems in the languages of the world (Crystal, 2003: 35-36).

Phonetics and Phonology are indissolubly linked but whereas you can study phonetics without ever really going to phonology. Phonology is closely dependent on phonetics for the data on which it relies to obtain its arguments. Phonetics inputs to phonology. Phonology streamlines all the detailed phonetic data about the pronunciation of a language, grouping variants into phonemes (more abstract units that cause a change of meaning) (Ashby, 2011: 50).

Phonetics deals with the knowledge of human speech sound in general , while Phonology deals with the knowledge of the sound system of our language in a particular (Ashby, 2011: 54).

Phonetics studies material voice in terms of being events pronunciations while phonology studies jobs of sounds and values in specific language and the status of bases and specify qualities and types of the sounds in terms of roles in the construction of human language(Bushr, 2000: 9, Tr: Al-Kubaisy). Phonetics and phonology emerge and frequent used together in the study of sounds which show that the first term means the study of sounds in any language was her part physical exchange and private study the sounds of speech and that the second terms is concerned with special sounds of specific language and specialist sounds of language (Bushr, 2000: 10, Tr: Al-Kubaisy).

The Arab scientists of sound research the differences between the phonetics and phonology to study the historical sound. There are many differences but they are working together in the field of one is studying sounds of language and they work complementary with each other and cannot be chapter in between a chapter fully and that the difference between them that there was a difference in that phonetics step paving to go to phonology votes the former combines raw material and second is subject to this article complexity to emerge rules and laws the complete of this article (Bushr, 2000: 10, Tr: Al-Kubaisy). General phonetics is the studying the linguistic sounds generally without the linking the language of a particular. Phonology sounds a science studies voices specific language in particular (Al-Kholi, 1982: 114, Tr: Al-Kubaisy).

Phonetician is a person who engaged in the study of phonetics. Phonologist is a linguist who specializing in the study of phonology (Hartmann & Stork, 1972: 176). The scientist of phonetics is the person who has the knowledge of the relevant sounds and study them (Al-Kholi, 1982: 119, Tr: Al-Kubaisy). The scientist of phonology is the linguist who is specialist in studying phonology (Al-Kholi, 1982: 112, Tr: Al-Kubaisy).

In phonetic transcription, we use square brackets { } to enclose sounds such as {pin} , whereas in phonemic transcription we use slanted lines / / to enclose phonemes such as / pin / (Lodge, 2009: 67).

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Al-Kholi(1982:6, Tr: Al-Kubaisy) uses slanted lines / / to refer to phoneme and uses square brackets [] to refer to allophone. Sound mark is written code indicates the phonemes, segment and supersegment which is written sign to put the character in an written speech and is symbolized by /n/ or /t/ or /b/(Al-Kholi, 1982:118, Tr: Al-Kubaisy). Sound writing refers to writing through which the minute characteristics found allophones called also detailed writing or minutes writing or tight writing and the use of these international phonetic alphabet writing which is different from alphonimal writing as the sound writing used symbols are more numerous and complex than alphonimal writing(Al-Kholi, 1982:137, Tr: Al-Kubaisy).

The sound writing writes in square brackets [] while that the alphonimal writing writes in slanted lines / / and alphonimal writing used idiotic symbol especially in describing which has been used some symbols alphabet and the sound of international while writing sound used alphabet international only. In writing sound appears allophone and it shows signs of its some secondary features such as a whisper, speak out, elongating, authoring, warming and recycling but in alphonimah writing suffice in code allophone just so sound writing is more accurate is that writing alphonimah is easier(Al-Kholi, 1982: 137, Tr: Al-Kubaisy).

It is concerned with the range and function of sounds in specific languages, and with the rules which can be written to show the types of phonetic relationships that relate and contrast words and other linguistic units. Thus, it is seen in one of two main ways (a) as a level of linguistic organization, contrasted with levels of phonetics , grammar and semantics in the first instance, (b)as a component of a generative grammar (the phonological component), contrasted with various other components e.g . Syntactic, semantic in early generative grammar, covert in the minimalist programme (Crystal, 2003: 365 & Akmajian et al, 2001: 109).

Phonetics is concerned with human noises by which the message is actualized or given audible shape such as the nature of those noises, their combinations, and their functions in relation to the message (O' Connor, 1973: 22). Thus, phonetics is a science that studies a whole scientific subject to study a speech (Roach, 2001: 8).

The sound is a natural phenomenon are aware of their impact before they realise it proved Arabs audio scientists experiments that every voice requires a body vibrates that those jerks might not realise eye in some cases also proved that shakes the sound source moves in the center of gaseous or liquid or solid until it reaches the human ear and the air in the middle, during which the transmitted tremors in most cases through transmitted the tremors from the sound source in the form of waves until it reaches the ear(Anis, ND:5, Tr: Al-Kubaisy).

Segments of Phonetics and Phonology

Phone

A term used in phonetics to refer to the smallest perceptible discrete segment of sound in a stream of speech is phone (Crystal, 2003: 361).

The Phone is a single sound which can be recorded by sensitive machines in the factory or laboratory or image of phoneme which do not entail change in the sense (Kamal Al-Deen, 1999: 63, Tr: Al-Kubaisy).

Phoneme

A term used in phonology to refer to the smallest unit in the sound system of a language is phoneme (Crystal, 2003: 361).

The term phoneme is launched at the origin of its use on the sound sense of absolute and the passage of time and the evolution of the Arab sound thought palace used to refer to the sound appointed in terms of value and function in the specific language and some Arabs sound scientists refer to as acoustic unity as b, t, th, etc. No matter what happens each of

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accented changes in context (Bushr, 2000: 19, Tr: Al-Kubaisy). Phoneme is a different image to the one sound and these different acoustic images expressed in writing one written or graphic and one code a so-called letter name (Kamal Al-Deen, 1999: 63, Tr: Al-Kubaisy).

Phoneme is a family of similar sounds which are in complementary distribution or a free change and similarities may be physically or in place of pronunciation or spokesman. The distribution is complementary only it solves voice replaces one else of the sounds of the same family in the same context and consists of one unit of sound, for example, "th"(Al-Kholi, 1982: 126, Tr: Al-Kubaisy). Phoneme is the smallest unit in the language that you can accidentally exchanges that characterize the word of another word (Agbar, 2014: 34, Tr: Al-Kubaisy).

Branches of Phonetics

Three branches of the subject are generally recognized:

1. Articulatory phonetics is the study of the way speech sound are made by the vocal organs.
2. Acoustic phonetics studies the physical properties of speech sound, as transmitted between mouth and ear.
3. Auditory phonetics studies the perceptual response to speech sounds, as mediated by ear, auditory nerve and brain (Crystal, 2003: 36 and 44).

Science of Arabic articulatory sounds is a science which taught the production of linguistic sounds and manner and place of their articulation called also articulatory phonetics. The physical science of sounds is a science which studies the sounds of speech in terms of their properties physical during the transition from a speaker to listener is looking at a frequency sound capacity frequency and nature of the wave sound science of sound, degree to tone, and type of any rhythm or bell the phenomenon of packets sound and classification of sounds on the basis of physical. The linguistic sounds is divided into the musical sounds of regular vibrations and noises of irregular vibrations this is true partition approximation of the voiceless and voiced sounds. Learned sounds audio is science of looking at your hearing and in the process of audio the same way of their reception of linguistic sounds and their production and perception (Al-Kholi, 1982:113, Tr: Al-Kubaisy).

Science of sounds is a science which studies the sound and its production. Phonetics is divided according to its material articulation to acoustic phonetics which is a science that cares study the characteristics of the material or physical of speech sounds during the transition from speaker to listener. The experimental phonetics is the science which cares for studying the sounds by using of equipment and machinery and the most important devices used in the study of the linguistic sound Sebkrograph through this device can researcher filter the type of sound and strength and tone which pronunciation of them. Kemograph through this device can determine the difference physiological between the vowels, plosive, fricative sounds in terms of stream air associated with whole. Microscope of throat is used in the monitoring of the movement of the tendons sound. The articulatory phonetics is a science that regards to select exits of sounds statement of traits sounds that make up the sound (Kamal Al-Deen, 1999: 262-263, Tr: Al-Kubaisy).

Branches of Phonology

Phonologically, two branches of study are usually recognized: segmental and suprasegmental.

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Segmental phonology analyses speech into discrete segment, such as phonemes (Crystal, 2003: 362). The science of segment sounds is a science which studies the consonant and vowels only (Al-Kholi, 1982: 115, Tr: Al-Kubaisy). The Arab scientists of sounds study this term under this address a number of issues such as the interaction of sounds with each other, which occur when it meets sounds with each other in a language, they interact with each other in the other and influenced at the same time to other, either in one word, or in the context of wholesale resulting sound changes solved in the voiced and voiceless consonants and vowels.

It also happens in the clip of consonant and vowel sounds, where the Arab studies of modern sounds proved that the border between the vowels and consonants may not be quite clear during the speech when one is of vowels and approaching the front of the tongue gradually towards the hard palate becomes the friction caused by the passage of air is heard and so one moves from the sound of consonant to the vowels sounds of frictional as in "ya' ي" (appeal) (Noor Al-Deen, 1992: 190, Tr: Al-Kubaisy). Segmental phonology is deterministic which analyses speech into distinct pieces called phonemes, an example of this in the Arabic language is consonants and movements (Agbar, 2014: 30, Tr: Al-Kubaisy).

Suprasegmental or non- segmental phonology analyses those features which extend over more than one segment, such as intonation (Crystal, 2003: 362). Suprasegmental phonetics is a science which studies suprasegmental features only as embroidery sounds or above the synthetic as tones, interval or pitch, melodies (Al-Kholi, 1982: 115& Hussein, 2014: 186, Tr: Al-Kubaisy). Suprasegmental phonology is sound phenomena which predicates for properties of speak which determine types and how performance it as such as stress, intonation and pitch (Agbar, 2014: 30, Tr: Al-Kubaisy).

Scientists of Arabic sounds pointed to the term of units of suprasegmental or intonational units which differ from consonants and vowels and section that they do not exist in the written texts but they considered as functional units may change high of frequency of consonants and vowels or duration change high section the word or phrase or sentence as change of frequency or duration in operations of melody, intonation, pitch, transition and others (Noor Al-Deen, 1992: 190, Tr: Al-Kubaisy).

Abstract and Concrete Aspects

Phonetics is concerned with actual, physical or concrete articulation of speech sounds, whereas phonology is concerned with abstract or mental aspect of the sounds in language. Considered from this point of view, we can see that phonology is concerned with the abstract set of sounds in a language that allows us to distinguish meaning, while phonetics is concerned with actual physical sounds that allows us say and hear (Yule, 2006: 30). The concrete phonetic characteristics (articulatory, acoustic, and auditory) of the sounds used in language (Gimson, 1980: 3 & Lyons, 1968: 101 and 112).

The science of Arabic linguistic sounds study physical sound material as well as studying this science human voices and analyses are being experimented upon and explain it without a special look at what belong to these voices of languages or to the impact of those sounds in the practice of language or to function sounds and its role in changing the meaning of the word and this is a universal fact that his body reveal to us every day about the humanitarian sounds were unknown. Science of functions of sounds (i.e., phonology) is a science that studies the human sounds in speech synthesis and its role in the morphological and syntactic and semantic studies in a particular language as a study of sounds in Arabic language and its role in the Arab compositions in exchange for the Arabic language and its implications (Noor Al-Deen, 1992: 24, Tr: Al-Kubaisy).

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Conclusion

This study concludes that:

1. The accessible and comprehensive survey of phonetics and phonology is an ideal introduction to the contrastive study about them in both languages.
2. According to English and Arabic scientists phonetics is general study of speech sound.
3. Concerning English and Arabic sound scientists, phonology is the study of speech system in particular.
4. Phonetics studies the concrete and actual aspects of sounds.
5. Phonology studies the abstract aspects of sounds in both languages.
6. Phonology is closely dependent on phonetics for the data on which it relies to obtain its arguments. Phonetics inputs to phonology. Phonology streamlines all the detailed phonetic data about the pronunciation of a language, grouping variants into phonemes in both languages.
7. Phone is considered as a smallest segment in phonetics while, phoneme is considered as a smallest segment in phonology in both languages.

References

- Akmajian , Adrian & Richard A. Demers & Ann K. Farmer & Robert M. Harnish. (2001). *Linguistics (An Introduction to Language and Communication)*. 5th ed. England: Massachusetts Institute of Technology.
- Ashby , P. (2011). *Understanding Phonetics* . UK: Hodder Education .
- Crystal, David . (2003). *A Dictionary of Linguistics &Phonetics* . 5th ed . Cambridge : Blackwell publishing LTD.
- (2003). *An Encyclopedia of The English Language* . 2nd ed. Cambridge University Press .
- Fromkin, Victoria & Robert Rodman & Nina Hyams. (2007) . *An Introduction to Language* . 8th ed . USA : Library of congress .
- Gimson , A . C . (1980) . *An Introduction to the Pronunciation of English* . 3rd ed . USA : Edward Arnold Ltd .
- Hartmann , R & Stork , F . (1972) . *Dictionary of Language and Linguistics* . England: Science Publishers LTD .
- Ladefoged , P. (2006) . *A Course in Phonetics* . 5th ed . USA : Thomson Wadsworth .
- Lodge , K.(2009) . *A Critical Introduction to Phonetics* . USA .
- Lyons , John . (1968) . *Introduction to Theoretical Linguistics* . UK : Cambridge University Press .
- O 'Connor , J. D . (1973) . *Phonetics* . Penguin Book Ltd .
- (2001) . *Phonetics* . Oxford : Oxford University Press .
- Roach , Peter . (2009) . *English Phonetics and Phonology (A Practical Course)* . 4th ed . UK : Cambridge University Press .
- Yule , George . (2006) . *The Study of Language* . 3rd ed . UK: Cambridge University Press .

المصادر العربية

- أغبر, بسام صباح. (2014). *الغونيم وتجلياته في القرآن الكريم برواية حفص عن عاصم, سورة البقرة نموذجا*. رسالة ماجستير. فلسطين: جامعة النجاح الوطنية.
- أنيس, إبراهيم. (بدون تاريخ). *الأصوات اللغوية*. مصر: مطبعة نهضة مصر.
- الحمد, غانم قدوري. (2004). *المدخل إلى علم أصوات العربية*.الأردن: دار عمار للنشر والتوزيع.

PHONETICS & PHONOLOGY IN ENGLISH AND ARABIC: AS A MATTER OF

- حسين, فاطمة ولد. (2014). *الفنون التطوري وثره في تحديد الدلالات اللغوية*. جامعة الجزائر 2 بوزرية: مجلة الاشر . العدد 20. المجلد 1.
- الخولي, محمد علي. (1982). *معجم الاصوات*. ط 1. الرياض: جامعة الرياض.
- بشر, كمال. (2000). *علم الاصوات*. القاهرة: دار غريب للطباعة والنشر والتوزيع.
- الزوبي, احمد محمد سالم. *الخليل بن أحمد رائد علم الاصوات*. مجلة كلية الاداب العدد التاسع.
- عباس, تحسين فاضل.(2006). *مخارج الاصوات وصفاتها بين القدماء والمحدثين*. المكتبة الادبية المختصة.
- عبد الحكيم, والي دادة. (2015). *أوصافات الدرس الصوتي عند العرب*. الجزائر: كلية الاداب واللغات.
- عمر, أحمد مختار. (1997). *دراسة الصوت اللغوي*. القاهرة: عالم الكتب .
- كمال الدين, حازم علي. (1999). *دراسة في علم الاصوات*. القاهرة: مكتبة الاداب.
- نور الدين, عصام (1992). *علم الاصوات اللغوية*. بيروت: دار الفكر اللبناني .
- الفاضلي, فرح. (2011). *نشأة الدرس الصوتي عند العرب*. الجزائر.