Assimilation in Classical Arabic⁽¹⁾

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1. Introduction

Some sound changes occur as a result of the listener's misapprehension of the speech signal (see Ohala, 1985:453; 1990: 266 and 1992:322), and one of the most important types of sound change is assimilation which means the replacement of one sound by another under the influence of a neighbouring sound near to it in a word or sentence (Jones, 1976: 217f). So in rapid as well as normal speech, sounds tend to assimilate to their neighbouring sounds in order to maintain a continuous flow of speech.

Assimilation is a universal phenomenon in the sense that all human beings have a tendency to economy. Anderson (1974: 11f), among other linguists, views assimilation as a universal phenomenon and asserts that "assimilation of one sound to a neighbouring sound... may be a language universal of change in as much as all languages undergo assimilatory processes". This does not mean that all languages have the same patterns of assimilation. In other words, what is easier for a speaker of one language may be difficult for a speaker of another language.

The language variety under investigation is Classical Arabic which is defined here as the variety of Arabic spoken in Quraish and which is the language of Qur'ān (Al- Hamad, 1995: 15).

2. Data Collection and Method of Analysis.

 $^(^1)$ This is a reproduction of chapter 2 in Younis (2001) supervised by Rahim .

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The data needed for this study have been taken from the Glorious Qur'ān. Intensive listening to the Glorious Qur'ān as recited by Abdul-Basit and As-Sudaysi has been conducted. Each reading has been listened to twice. Auditory judgements were made and the results were transcribed - doubtful patterns were reproduced for other specialists to listen to. Moreover, some patterns have been taken from recitation books such as As-Safāqisi (1934) and IbnMujāhid (1980).

3. Definition of Assimilation.

Though there are many definitions of assimilation, they seem to be alike. In fact, they are not different in meaning as much as in wording as manifested in the definitions below.

Windsor-Lewis (1969:34f), for instance, views assimilation as:"a sound at the (beginning or) end of one word... converted to some other phoneme owing to the influence of an adjacent word". Jones (1976:217f) defines assimilation as "the process of replacing a sound by another sound under the influence of a third sound which is near to it in the word or sentence". A third definition is given by Ellis and Hardcastle (1999:2425) and it views assimilation as "the variation in the phonetic description of a speech unit as it becomes more like an adjacent speech unit".

In addition to the above definitions there are other definitions (e.g. Lehmann, 1966: 159; Lamberts, 1972: 84; Thomas, 1975: 182; West, 1975: 73 and Nolan, 1992: 262) which will not be accounted for in order to avoid repetition for they are almost the same as those already given.

The word "assimilation" itself comes from Latin "assimilāre" which has undergone assimilation. It is composed of the Latin prefix ad-, the root simil- and the verb suffix- are. The /d/ in ad- is changed to /s/ under the influence of the following/s/(see Robertson, 1954: 80; Vallins, 1954: 51; Schlauch, 1973:107 and Poole, 1999:126).

Arab linguists, on the other hand, have their own contribution in this respect. They began their studies of assimilation in the early times of Islamic civilization. The most remarkable figures in this connection were Sibawaihi and Ibn Jinni who were pioneers in studying assimilation. They did not call this linguistic phenomenon "Al-Mumāthala" as it is nowadays called (see Rahim, 1986: 90 and Az-Zaydi, 1987: 230), but they called it "Al-Mudhāra'a" or At-Taqrib" (see Sibawaihi, 1975, vol. 4: 477; Ibn Jinni, n.d., vol.2: 139f and 1954, vol. 1:57). In addition to these old attempts, there are some recent studies, such as As-Sāmarrāie's (1966:112), Abdut-Tawwāb's (1967:37), Al-Muttalibi's (1984:178) and Al-Juwari's (1997: 5), All the definitions proposed by these scholars agree that assimilation is a process by which different neighbouring sounds tend to assimilate to each other.

From the previous definitions by Arab and non-Arab linguists, one can find a close similarity between them. They all concentracte on the fact that assimilation is a process of replacing one sound by another in order to make it similar, more similar, or identical to the neighbouring sound.

4. Types of Assimilation.

Assimilation can be classified into several types. These types depend on the direction, distance, and degree of influence. It can also be classified according to whether it is obligatory or optional However, there are six types of assimilation.

a. On the Basis of Direction of Influence.

Some linguists such as Roach (1988:105), Newman (1996: 5-5 f) and Bolozky (1997:291f) have classified assimilation according to the direction of influence. According to this criterion, assimilation can be regressive, progressive, or reciprocal (i.e. coalescent). By regressive assimilation is meant the influence of a sound on another which immediately precedes it and changes it into another sound, e.g. the word "question" is pronounced /kwestson/ without assimilation and canbe pronounced /kwestson/ with assimilation and "sit down" is pronounced as /sIddaUn/;

﴿ قُلُ تَرَبَّصُوا ﴾

/qultarabbasu:/→ /quttarabbasu:/ "Say (O Muhammad صلى الله عليه to them): Wait".

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 $(At-T\bar{u}r: 31)^{(2)}$

On the other hand, progressive assimilation shows the influence of a sound on another which immediately follows it and changes it into another sound, as in "happen" which can be pronounced /hæpm/ and "has the post come?" which is pronounced /hæzðəPəUstk Λ m/ but may be pronounced /hæzzəPəUstk Λ m/

Reciprocal assimilation seems to be neutral because the two sounds are combined together to produce a third sound that seems neither similar to the first nor to the second, e.g. "don't you" is pronounced /daUntJU/.

Regressive assimilation is known as "anticipatory" (see Abercrombie, 1974: 134 and Ohala and Kawasaki, 1984: 117) and reciprocal assimilation is also known as "coalescent assimilation" (see Crystal, 1994: 28 and Yu Cho, 1999: 30), while Wells (1991: 47) calls it "Yod Coalescence".

Arab linguists such as Anis(1952: 70), Abdut-Tawwāb(1967: 37) and Ar-Rādhi (1988:33) have a similar classification of assimilation according to the direction of influence; they talk about "Raj'i" (i.e regressive) and "Taqaddumi" (i.e progressive). Al-Hamad (1986: 393) and Abu Janāh (1988: 54), on the other hand, call them "Al-Mudbir" and "Al-Muqbil", respectively.

b. On the Basis of Distance Between Sounds.

Assimilation can be classified according to the distance that separates the two sounds (see Bolinger, 1975:391; Crystal, 1994:28 and Murry, 1997:320). The first type here is called contact (or contiguous) assimilation, which means there is no distance between the two sounds, i.e. there is no other sound between the two sounds concerned, e.g. "width" is pronounced /wId θ / or /wIt θ / and "ten bikes" is pronounced /ten balks/ or /tembalks/;

﴿ وَلَآ أَنَاْعَابِدُ مُنَاعَبِدُ أَمْ

/ma:\footnote{\text{sabadtum}} → /ma:\footnote{\text{sabattum}} / "And I shall not worship that which you are worshipping". (Al-Kāfirūn: 4)

⁽²) The translation of the Qur'ānic verses is taken from Khān and AI-Hilāli (1996).

Assimilation may also involve two distant sounds. In other words, one sound can affect another which is not necessarily near to it. This process is called "distance" or "non-contiguous" assimilation, and it. sometimes happens with consonant sounds, e.g. "discussing shortly" /diskAsIn /J:tlI/ which may be pronounced /dIskAJInJ:tlI/. This kind of assimilation largely affects vowels; it can be either progressive which is called "vowel harmony" or regressive which is called "Umlaut" (see Lass, 1988: 171f).

Arab scholars also make a distinction between contact and distance assimilation (Anis, 1975: 209 and Al-Muttalibi, 1978; 92);

/?alsira:t/ \rightarrow /?al sira:t/ \rightarrow /?as sira:t/ "Guid us to the Straight.Way" (Al- Fātiha: 6)

here /s/ is changed into /s/ under the influence of /t/.

c. On the Basis of Degree of Influence.

Many linguists (e.g. Ewin, 1963: 35; Byrd, 1992: 2 and Hardcastle, 1994: 50) classify assimilation according to the degree of influence. Here assimilation can be either complete or partial. Complete (or total) assimilation is defined as a process in which one sound becomes identical to the second, e.g. "ten mice" /tenmals/may be pronounced /temmals/. Partial assimilation, on the other hand, can be defined as a case of one sound becoming more like the other in one or more but not all respects, e.g. "ten boys" can be pronounced /tem b)Iz /.

Classifying assimilation on the basis of degree of influence into "partial" and "complete" is made by Arab linguists like Uthmān (1974: 10lf), Al-Waltd (1975: 73f!), Al-Hamad (1988: 102f) and Al-Mashhādani (1997: llf). However, these linguists all deal with complete (i.e. total) rather than partial assimilation, because it is extensively utilized in the reading of the Glorious Qur'ān. In Arabic total assimilation is called Al-Idgham. Recitation scientists such as Sayf (1987: 21) and As-Sāmarrāie (1996: 12) define Al-Idghām as the process of pronouncing two sounds as one geminate sound. There are three sub-types of Al-Idghām, which are: Al-Mutamāthilān, Ai-Mutajānisān and Al-Mutaqāribān.

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d. On the Basis of Whether the Change is Obligatory or Optional.

On the basis of whether the change is obligatory. Or optional linguists (e.g. Ward, 1968: 186 and Holst and Nolan, 1995: 330) classifying assimilation into historical and contextual. Historical assimilation is defined as the change which has taken place in the course of time due to the development of language, as in "words" which is pronounced /w3:dz/ instead of */w3:ds/, i.e. only /w3:dz/ is acceptable nowadays. But when a word occurs in a sentence or in the formation of compounds, and the pronunciation of this word differs from the pronunciation when it is said in isolation, this process is called contextual (or juxtapositional) assimilation(Jones, 1976: 218). example of "horse For in the shoe"/h):s[u://h):][u:/and"government"/gΛvənmənt/ /gAvəmmənt/ bothpronunciations are accepted as normal English forms

e. According to the Type of Sounds Concerned.

In assimilation, the influence of one phoneme on another may be one of four types; a consonant-consonant influence as in the case of pronouncing "open" as /əUpn/ or /əUpm/; a vowel-vowel influence, i.e. "vowel harmony", as in the case of the old plural of the word "man" was */manIz/ where /a/ is changed to/e/under the influence of /I/, resulting in /men/; a consonant-vowel influence as in the case of "children" which is pronounced /tJUldrən/ instead of /tllidrən/ due to the influence of [1] on the preceding vowel /I/; and a vowel- consonant influence as in the case of the rounded and non-rounded /k/ before rounded /u:/ and non-rounded /i:/ in the English words "cool" [ku:ł] and "key" [ki:], respectively (see Sanderson, 1966: 15; Moscati and others, 1969: 56 and Jones, 1976: 224).

f. On the Basis of Features Affected.

Assimilation can be classified according to the consonantal features affected as follows (Gimson, 1976: 291ff, Roach, 1988: 105 fand 2001; Ch.7):

- 1. **Place**: the placeof articulation of a given sound is altered to agree withsome sound in its environment,e.g. "right place" /raltpleIs/→ /ralppleIs/.
- 2. **Voicing**: examples can be found where voicedconsonants becomevoiceless and voiceless ones become voiced, under the influence of an eighbouring segment as in "hats to" /hæztu:/ \rightarrow /hæstu:/ and "sitdown" / sItdaUn/ \rightarrow / sIddaUn/, respectively.
- 3. **Manner**: The manner of articulation of a given sound is altered to agree with the manner of another sound in its environment, e.g. "good night" which may be pronounced /gUnnaIt/, Arab linguists add a fourth feature which they call "Tafxim".

For the purpose of the present study, assimilation is viewed as a process of consonantal phonemic change in which two adjacent consonants influence each other due to contextual factors.

5. Assimilation vs. Coarticulation.

Assimilation and coarticulation are closely related, partly because the main reason for them is economy of effort and partly because both of them deal with sound changes. They are very similar phenomena and this similarity is emphasized by Wells (1991:46) who defines assimilation as one type of coarticulation, while Fowler and Saltzman (1993:173) emphasize this connection when they define coarticulation as "an influence- largely assimilative- of one phonetic segment on another".

The term coarticulation is phonetic rather than phonological. Finch (2000; 43),- among others, states that some linguists "restrict the term assimilation to occurrences which are phonological rather than simply phonetic". Furthermore, Fromkin and Rodman (1988: 99) state that "assimilation rules in languages reflect what phoneticians often call coarticulation".

The concept of coarticulation itself has been around since the 1930's, but there is no consensus on what it is. It is generally defined as an overlapping of articulatory gestures (Ladefoged, 1993; 55).

Roach (2001: Ch.7) gives three characteristics of coarticulation. Firstly, coarticulation describes how the brain controls the muscles which move the articulators rather than the

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pronunciation in a particular language. Secondly, studies on assimilation concentrate on the pronunciation of a particular language, while studies on coarticulation concentrate on the effects which are found in all languages because they are due to mechanical and biological limits on what the articulators can do in a given amount of time. The third characteristic is that coarticulatory effects often extend further than just from one sound to its neighbour.

6. Similitude vs. Assimilation.

Few linguists define similitude and distinguish it from assimilation; it is mainly associated with Jones (1976; 217) who defines it as "the use of a certain subsidiary member of one of [two phonemes] which has a greater resemblance to a neighbouring sound than the principal member has".

The main difference between similitude and assimilation is that the former exhibits an allophonic change determined by the environment, i.e. similitude is obligatory, while assimilation exhibits a phonemic change which may be obligatory or optional. The other difference between them is that similitude is noticed neither by thie speaker nor by the listener,

7. Assimilation Patterns in Classical Arabic.

Assimilation patterns in Classical Arabic are basically of two types: complete and partial. In dealing with each type, the direction of influence and the consonantal features affected will be determined.

7.1 Complete Assimilation.

The following patterns of assimilation are complete, i.e. one sound becomes identical to its neighbour. It occurs in one or more of the following consonantal features: voicing, place of articulation, manner of articulation and tafxim; and any combination of these four features may be affected in any pattern. It is to be noted that complete assimilation is always regressive, Changes in voicing may be of the voiced \rightarrow voicless type as in.

﴿ وَمَهَّدتُ لَهُ مَتَّهِيدًا ﴾

1. /wamahhadtu/ → /wamahhattu/ " And made life smooth and comfortable for him".

(Al-Muddaththir: 14) Or of the voiceless \rightarrow voiced type as in

2. /?ud3i:bat da?watukuma:/ → /?ud3i:bad da?watukuma:/ "the invocation of you both is accepted" (Yūnus: 39)

Change in place of articulation may be of the $\eth \to z, \, s, \, d, \, t, \, s, \, ds$ type as in:

﴿ وَإِذْ زَاغَتِ ٱلْأَبْصُدُ ﴾

3. /wa ?iðza: γ at/ \rightarrow /wa ?izza: γ at/ "and when the eyes grew wild" (Al-Ahzāb: 10)

﴿ إِذْ سَمِعْتُمُوهُ ﴾

4. /?iðsami ${}^{\circ}$ tumu:h/ \rightarrow /?is sami ${}^{\circ}$ tumu:h/ "when you heard it" (Al-N \bar{u} r: 16)

﴿ وَلَوْلَا إِذْدَخَلْتَ ﴾

5. /?iðdaxalta/ → /?id daxalta/ "when you entered" (Al-Kahf: 39)

6. /?axaðtu/ → /?axattu/ "Then I took hold of those who disbelieved" (Fātir: 26)

7. /wa ?iðsarafna:/ \rightarrow /wa ?is sarafna/ "and when we sent" (Al-Ahqāf: 29) and

﴿ إِذْ جَاءَ تَهُمُ ٱلرُّسُلُ ﴾

8. /?iðd3a:?athum/ → /?id3d3a:?athum/ "when the messengers came to them" (Fussilat: 14)

They may be of the $\theta \rightarrow t$ type as in:

9. /walabiθta/ → /walabitta/ "and you did well many years of your life with us" (Ash-Shu'ara': 18)

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Another type is the $t \rightarrow \theta$, δ , d3 type as in:

﴿ كُذَّبَتُ ثُنُودُوعَادً ﴾

10. /kaððabatθamu:d/ → /kaððabaθamu:d/ "Thamūd and 'Ād people denied" (Al- Hāqqa:4)

﴿ وَأَنْعَكُمُ حُرِّمَتَ ظُهُورُهَا ﴾

11. /ħuirimatðuhu;ruha:/ →/ħunimaððuhu:ruha:/ "thereare cattle forbidden to be used for burden (or any other work),"

﴿ فَإِذَا وَجَمَتَ جُنُوبُهَا ﴾

12. /wadsabatdsunu:buha:/→/wadsabadsdsunu:buha:/ "Then, whenthey are down on their sides" (Al-Hajj:36)

A fourth type is the $d \rightarrow \delta$, θ , δ , ds, \int type as in:

﴿ وَلَقَدْ ذَرَأَنَا لِجَهَنَّمَ كَثِيرًا مِّنَ ٱلْجِينَ وَأَلَّإِنسِ ﴾

13. /walaqadðara?na:/ → /walaqaððara?na:/"And surely, We have created many of the jinn and mankind for Hell" (Al-A'raf: 179)

﴿ وَمَن يُرِينُوَابَ الدُّنْيَانُوْ تِهِ مِنْهَا ﴾

14. /juridθawa:ba/ → /juriθθawa:ba/ "And whoever desires a reward in (this) world, We shall give him of it" (Al- 'Imrān: 145)

﴿ فَقَدْ ظَلَمَ نَفْسَهُ ﴾

15. /faqadðalama/→/faqaððalama/"then indeed he has wronged himself." (At-Talāq;l)

﴿ فَقَدْ جَانَةً أَشْرَاطُهَا ﴾

16. /faqadd3a:?a / →/faqad3d3a:?a / " have already come" (Muhammad: 18)

﴿ اللهُ عَلَيْهُ الْمُثَا ﴾

17. /qad ∫aγafaha: / →/qa∫ ∫aγafaha: /"indeed she loves him violently" (Yūsuf: 30)

Another type is the $l\rightarrow \delta$, θ , δ type as in:

﴿ وَمَن يَفْعَلُ ذَلِكَ يَلْقَ أَثَامًا ﴾

18./jaffal ða:lika/→/jaffaðða:lika/ "and whoever does this shall receive the punishment"(Al-FurgSn: 68)

﴿ هَلْ ثُونِكِ ٱلْكُفَّارُ مَاكَانُواْ يَفْعَلُونَ ﴾

19./halθuwwiba/ \rightarrow /haθθuwwiba/ "Are not the disbelievers paid (fully) for what they used to do?"(Al- Mutaffifin: 36)

﴿ بَلْظَنَنتُمْ ﴾

20. /balðanantum/ →/baððanantum/" Nay, but you thought" (Al –Fath: 12)

A sixth type is the $n \rightarrow m$, w, j type as in

﴿ بِحِجَارَةِ مِن سِجِيلٍ ﴾

21. /biħid3a:ratin min/ →/biħid3a:ratim min/" with stones of Sijjil" (Al - Fil: 4)

﴿ تَبَّتْ يَدَآ أَبِي لَهَبٍ وَتَبَّ ﴾

22./lahabinwatab/ → /lahabiwwatab/ "Perish the two hands of Abu Laliab (an uncle of the Prophet) and perish he"

(Al-Masad; 1) and

﴿ لِمَن يَرَىٰ ﴾

23. /limanjara:/→ /limajjara:/ "for (every) one who sees" (An-Nāzi'āt:36)

Another type is the $b \rightarrow f$ type as in:

﴿ وَإِن تَعْجَبُ فَعَجَبٌ قَوَلُهُمْ ﴾

24. /ta 1 d $_{3}$ ab fa 1 ad $_{3}$ abun/ \rightarrow /ta 1 d $_{3}$ affa 1 ad $_{3}$ abun/ "And if you (O Muhammad (صلى الله عليه وسلم) wonder...., then wondrous is their saying.." (Ar- Ra'd: 5)

The last type of complete, place changes is the $q \rightarrow k$ type as in

﴿ أَلَرْنَغَلُقَكُمُ ﴾

25. /naxluqkum/ →/naxlukkum/ "Did We not create you" (Al- Mursalāt: 20)

Change in manner of articulation may be of the $t \to s, z, \theta, s, \delta$ type as in:

﴿ فَكَانَتُ سَرَابًا ﴾

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26. /faka:natsara:ba:/ → /faka:nassara:ba:/ "and they (i.e. mountains) will be as if they were a mirage"(An- Nate': 20)

27./xabatzidna:hum/ → /xabazzidna:hm/ "whenever it abates, We shall increase for them the fierceness of the Fire"

(Al- Isrā':97)

28./raħubatθumma/ → /raħubaθθumma/ "and the earth, vast as it is, was straitened for you, then you turned back in flight."

(At-Tauba: 25)

﴿ لَمُكِّرَمَتُ صَوَيِعِ ﴾

29. /lahuddimatsawa:mi^९/ → /lahuddimassawa:mi^९/ "monasteries,... have been pulled down" (Al-Hajj:40)

30. /ka:natða:lima/ → /ka:naðða:lima/ " How many a town (community), that were wrong - doers, have We destroyed," (Al-Anbiyā': 11)

They may be of the $d \rightarrow z$, s, δ , θ , \int ,s, δ , type as in:

31. /walaqadzajjanna:/→ /walaqazzajjanna:/ "And indeed We have adorned" (Al-Mulk: 5)

32./qadsami n na:/ \rightarrow /qassami n na:/"they say: we have heard" (Al-Anfal:31)

﴿ كَهِيعَضَ ١٠ ﴿ يُؤُرُحُمْتِ رَبِّكَ عَبْدَهُ مُزَكَرِيًّا ﴾

33. /sa:dðikru/ → /sa:ððikru/ "Kāf- Hā - Yā⁄Ain-Sād [These letters are one of the miracles of the Qur'ān, and none but Allah (Alone) knows their meanings],(This is) a mention of the mercy of your Lord to His slave Zakariyya (Zachariah) " (Maryam: 1-2)

34. /jurid θ awa:ba/ \rightarrow /juri θ 0awa:ba/ "And whoever desires a reward in (this) world, We shall give him of it" (Al- Imrān: 145)

﴿ قَدْشَغَفَهَا حُبًّا ﴾

35. /qadJayafaha:/ \rightarrow /qaJ Jayafaha: / "indeed she loves him violently" (Yūsuf; 30)

﴿ لَقَدْصَدَقَ اللَّهُ ﴾

36. /laqadsadaqa/ → /laqassadaqa / "Indeed Allah shall-fulfil the true" (Al-Fath: 27) and

﴿ قَالَ لَقَدَّ ظَلَمَكَ بِسُوَّالِ نَعْمَنِكَ إِلَى نِعَاجِهِ عَ ﴾

37./laqadðalamaka/ → /laqaððalamaka/ " Said: he has wronged you in demanding your ewe in addition to his ewes" (Sād: 24)

Another type is the b → f, m type as in:

﴿ ٱذْهَبْ فَمَن تَبِعَكَ مِنْهُمْ ﴾

38./?iðhabfaman/→/?iðhaffaman/ " Go, and whosoever of them follows you" (Al- Isrā': 63) and

﴿ أَرْكَب مَّعَنَا وَلَا تَكُن مَّعَ ٱلْكَنفِرِينَ ﴾

39./?irkab ma^qana:/→/?irkam ma^qana:/ "Embark with us and be not with the disbelievers" (Hūd: 42)

A fourth type is the $\eth \rightarrow d$, t, d3 type as in:

﴿ إِذْ دَخَلُواْ عَلَيْهِ فَقَالُواْ سَلَامًا ﴾

40. /?iðdaxalu:/ → /?id daxalu:/ "When they entered into him and said: Salaman, (peace be upon you)" (Al-Hijr: 52)

﴿ إِذْ تَسْتَغِيثُونَ رَبَّكُمْ ﴾

41. /?iðtastaγi:θu;na/ → /?it tastaγi:θu:na/"(Remember) when you sought help of your Lord " (Al-Anfāl: 9)

﴿ بَعَدَ إِذْ جَاءَكُمُ ﴾

42. /?iad3a:?akum/ → /?id3d3a:?akum/ "after it had come to you" (Saba': 32)

Another type is the $\theta \rightarrow t$ type as in:

﴿ أُورِثُتُمُوهَا ﴾

43. /?u:ri θ tumu:ha:/ \rightarrow /?u:rittuniu:ha:/"you have inherited"

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(Al- A'raf: 43)

The $l \rightarrow d$, t, t, z, s, δ , θ , s, δ , n, r is another type as in:

﴿ وَتَقَبُّلُ دُعَامً ﴾

44. /wataqabbal du[§]a:?i/ → /wataqabbaddufa:[§]i/"And accept my invocation" (Ibrāhim:40)

﴿ كَلَّا بَلْ تُكَذِّبُونَ بِٱلدِّينِ ﴾

45. /baltukaððibu:n/→ /bat tukaððibu:n/" Nay: But you deny Ad-Din

(i e. the Day of Recompense)" (Al-nfitār: 9)

﴿ بَلْ طَبِعَ اللَّهُ ﴾

46. /baltaba[§]a/ → /bat taba[§]a/ " Allah has set" (An-Nisā':155)

﴿ بَلْ زُيِّنَ لِلَّذِينَ كَفَرُواْ مَكْرُهُمْ ﴾

47. /balzujjina/ → /bazzuijina/" Nay: To those who disbelieved, their plotting is made fairseeming" (Ar-Ra'd:33)

﴿ فَقُلْ سَكُمُ عَلَيْكُمْ ﴾

48./faqulsala:mun/ →/faqussala:mun/ "say: Salāmun 'Alaikum (peace be on you)" (Al-An'ām: 54)

﴿ وَمَن يَفْعَلُ ذَالِكَ ﴾

49. /jafal ða:lika/→ /jafaðða:lika/ " And whosoever does that" (Al- Munāfiqūn: 9)

﴿ هَلْ ثُونِ الْكُفَّارُ مَاكَانُواْ يَفْعَلُونَ ﴾

50. /halθuwwiba/→ /haθθuwwiba/ "Are not the disbelievers paid (fully) for what they used to do?"

(Al-Mutaffifin;36)

﴿ يَغِعَلُ صَدَدُهُ مَنْ يَقًا ﴾

51. /jad3⁹al sadrahu/ → /jad3⁹as sadrahu/"He makes his breast closed" (Al-An'ām:125)

﴿ بَلْظَنَنْتُمْ ﴾

52. /balðanantum/— ^ /baððanantum/" Nay, but you thouglit" (Al - fath: 12)

﴿ مَلْ نَعْنُ مُعْرُومُونَ ﴾

53. /balnaħnu/ → /ban naħnu/" Nay: Indeed we are deprived of (the fruits)" (Al-Qalam:27)

﴿ بَلَرَّفَعَهُ ٱللَّهُ ﴾

54. /balrafa?ahu/ → /bar rafa?ahu/. "But Allah raised him" (An-Nisā': 158)

A sixth type is the $r \rightarrow l$ type as in

﴿ رَبَّنَا ٱغْفِرُ لَنَا ﴾

55. /?iγfirlana:/ → /?iγfillana:/ "say: our Lord, forgive us" (Al- Hashr: 10)

The last type of complete, manner changes is the $n \rightarrow l$, w, j, r type as in:

﴿ وَلَمْ يَكُن لَهُ حَفُوا أَحَدُ ﴾

56. /jakunlahu/→/jakullahu/"And there is none co- equal or comparable unto Him" (Al-Ikhlās:4)

﴿ فِيهَا دِفْءٌ وَمَنْكِفِعُ ﴾

57. /dif?unwamana:fi^९/→ /dif?uwwamana:fi^९/ "in them there is warmth (warm clothing), and numerous benefits"(An- Nahl: 5)

﴿ أَن يَشَاءَ اللَّهُ ﴾

58. /?anja $\int a:?a/ \rightarrow /?ajj\int a/a;?a/$ "that Allāh wills" (At- Takwir: 29)

﴿ فَهُوَ فِي عِيشَةِ رَّاضِيَةِ ﴾

59. /\fi:∫atin ra:dija/→/\fi:∫atir ra:dija "He will live a pleasant life (in paradise)" (Al- Qāri'a; 7)

Changes in "tafxim" may be of the $\eth \rightarrow \eth$, s type as in

﴿ وَلَن يَنفَعَكُمُ ٱلْيُوْمَ إِذظَلَمْتُمْ ﴾

60. /?iððalamtum/ → /?iððalamtum/ "it will profit you not this Day (O you who turn away from Allāh's remembrance and His worship) as you did wrong"

(Az-Zukhruf: 39) and

﴿ وَإِذْصَرَفْنَا ﴾

61. /wa ?iðsarafna:/ → /wa ?is sarafna:/ "And when we sent"

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(Al- Ahqāf: 29)

They may be of the $t \rightarrow t$, s, δ type as in:

﴿ فَنَامَنَتَ ظُلَافِكُ أُمِّنَ بَنِي إِسْرُوبِلَ ﴾

62. /fa?a:manat ta:?ifatun/ → /fa?a:manat ta:?ifatun/ "Then a group of the Children of Israel believed" (As-Saff:J4)

﴿ حَصِرَتُ صُدُورُهُمْ ﴾

63. /ħasiratsudu:ruhum/ → /ħasirassudu;ruhum/"their breasts restraining" (An-Nisā': 90) and

﴿ إِلَّا مَا حَمَلَتُ ظُهُورُهُمَا ﴾

64. /ħamalatðuhu:ruhuma:/ → /ħamalaððuhu:ruhuma:/ "except what adheres to their backs". (Al-An'ām;146)

Another type is the $d \rightarrow d$, s, \eth type as in

﴿ فَقَدْضَلَّ سَوَآءَ ٱلسَّكِيلِ ﴾

65. /faqaddalla/ → /faqaddalla/ "then indeed he hasgone (far) astray from the Straight Path" (Al- Mumtahina: 1)

﴿ قَدْصَدَقْتَ ٱلرُّونَا ﴾

66. /qadsaddaqta/ \rightarrow /qassaddaqta/"You have fulfilled the dream" (As-Sāffāt; 105) and

﴿ فَقَدْ ظَلَمَ نَفْسَهُ ﴾

67. /faqadðalama/ → /faqaððalama/"then indeed he has wronged himself." (At-Talāq:1).

A fourth type is the $l \rightarrow t$, s, \eth type as in

﴿ بَلَ طَبِعَ اللَّهُ ﴾

68. /baltaba?a/ → /bat taba?a/"Allāh has set" (An-Nisā': 155)

﴿ قُلْصَدَقَ اللَّهُ ﴾

69. /qulsadaqa/ → /qussadaqa/ "Allāh has spoken the truth" (Āl-'Imrān: 95)

﴿ بَلْظَنَنتُمْ ﴾

70. /balðanantum/ → /baððanantum/" Nay, but you thought" (Al - Fath: 12)

7. 2 Partial Assimilation.

Partial assimilation occurs in place of articulation, and it is of the regressive type only, which is $n \rightarrow m$ as in:

﴿ وَأَمَّا مَنْ يَخِلُ وَٱسْتَغْنَىٰ ﴾

71. /man baxila/ \rightarrow /mam baxila/"But he who is greedy miser" (Al-Layl: 8)

8. Findings.

The assimilation patterns presented in this study may be summarized as follows:

- (1) In terms of voicing, both voiced → voiceless and voiceless →voiced assimilations exist in Classical Arabic.
- (2) In terms of place of articulation, the following assimilation types have been established: inter dental →dental, dental→inter dental,dental →bilabial, dental→ palatal, inter dental→palatal,bilabial →labio-dental and uvular →velar is obvious from thesetypes that the dental and inter dental areas are the most important places where assimilation patterns occur.
- (3) Changes in terms of manner of articulation are as follows:

 plosive →fricative, plosive → nasal, fricative →
 plosive,fricative → affricate, lateral → plosive, lateral →
 fricative,lateral → nasal, lateral → trill, trill → lateral,
 nasal→lateral, nasal → semi-vowel and nasal → trill. It is
 obvious fromthese types that the plosive, fricative and
 lateral are the most important manners which assimilation
 patterns occur in.
- (4) In terms of tafxim, only non-mufaxxam → muffaxxam changes exit in Classical Arabic,
- (5) In terms of direction of influence, only regressive assimilation is found in Classical Arabic,
- (6) In terms of degree of influence, both complete and partial assimilations exit in Classical Arabic, but most cases of assimilation are of the complete type,

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(7) Although both contextual and historical assimilations exist in Classical Arabic, the latter type is almost always heard from Our'ān reciters.

References

- Abdut- Tawwab, R. (1967). LahnuL-'āmmatiwatTatawwiirul- Lughawiyy(Deviation in PublicSpeech andLinguisticDevelopment), Cairo: Darul-Ma'ārif,
- Abercrombie, D. (1974). *Elements of General Phonetics*. Edinburgh: Edinburgh University Press.
- Abu Janah, S. (1988). *Adh-DhawāhirulfilOirā'āti'AhlilHijāz*.(The Lingusitic Phenomena in the Reading of Al-Hijaz)

Basra: Basra University Press.

- Al-Hamad, G.Q. (1986). AddirāsātusSawtiyyatu 'Inda 'Ulamā' it-Tajwid. (Phonetic Studies of Recitation Scientists). Baghdad: Al-Khulud Publishing House.
- (1995)."Takawwunul 'ArabiyyatilFushā" (The Formation of the Classical Arabic). In Journal of the Jordan Academyof Arabic.XIX: 11-71, Jordan.
- Al-Juwari, Z.R. (1997). Assimilation in Mosuli Arabic and StandardEnglish: a Contrastive Study. (Unpublished M. A.Thesis), University of Mosul, Mosul.
- Al-Mashhadāni, M.M. (1997). *At-Tajwidul-Muyassar*(FacilitatedRecitation). Mosul: Dārul -Kutubi Lit-Tibā'ati wan-Nashr.
- Al-Muttalibi, G.F. (1978). LahjatuTamimwa 'Athāruhāfil'ArabiyyatilMuwahhada(Tamim Dialect and its Influence on TheUnified Arabic). Baghdad:DaralHuriyya.
- -----(1984). Fil-'AswātilLughawiyya,
 Dirāsatunfi'Aswātil-Maddil- 'Arabiyya(On Linguistic Sounds: a
 Study ofArabic Vowels). Baghdad: Ministry of Culture
 andInformation Issues.
- Al-Walid, FT. (1975). *Oowā'idut-Tilāwatiwa 'Ilmut-Tajwid*(The Rules ofRecitation). Baghdad :DarurRisāla.

- Anderson, J.M. (1974). *Structural Aspects of Language Change*. (2nded)London: Longman Group Limited.
- Anis, I. (1952). *FilLahjātil 'Arabyya*(On Arabic Dialects). Cairo:Anglo-Egyption Library.
- ---- (1975).'Al-Asatul'Lughawiyya' (Linguistic Sounds). (4thed),Cairo: Anglo-Egyptian Library.
- -AT- Ra\$ii, F.H. (1988).
- Al- 'Idghamfil-'Arabiyya(Complete Assimilation in Arabic). (Unpublished Ph. D. Thesis), University of Baghdad: Baghdad.
- As- Safāqisi, A. (1934). *Ghaythun-Nafifil-Qirā'ātis-Sab'*. (The GreatBenefit in the Seven Readings). Egypt : Al-IstiqāmaPress.
- As- Sāmarrā'ie, I. (1966). At-Tatawwurul- Lughawwyyut-Tarikhiyy(Historical Linguistic Development). The Arab League: Arabic Studies and Researchers Institute.
- 'Ibdālufi'AbniyatilFi'li: MinDurusiLughatit-Tanzal" (Complete Assimilation andMetathesis in the. Structure of the Verb. From Lessons ofthe Language of the Glorious Qur'ān). la Journal of TheJordan Academy of Arabic. 50:11-28, Jordan.
- Az-Zaydi, G.Y. (1987). *Fiqhul-Lughtil-'Arabiyya*(Philology of Arabic).Mosul: Dārul-kutub.
- Bolinger, D. (1975). *Aspects of Language*.(2ndedJ New York : HarcourtErase Jovanovich, Inc.
- Bolozky, S. (1997). Hebrew Phonology. In *Phonologies of Asia and Africa*. A.S. Kaye; ed.: 287-311.U.S.A: Eisenbrauns.
- Byrd, D. (1992). "Perception of Assimilation in Consonant Clusters: aGestural Model". *InPhonetica*. K.Kohler, Kiel (ed.); 1-24, Switzerland: S. Karger AG, Basel.
- Crystal, D. (1994). A Dictionary of Linguistics and' Phonetics. (3rded)/Oxford: Blackwell.
- Ellis, L. and Hardcastle, WJ. (1999) "An Instrumental Study of Alveolar toVelar Assimilation in Careful and Fast Speech. "In*Proceedings of the International Congress of*

Prof.Dr.Abbas Jawdat Rahim& UmayyaIdreesYounis PhoneticSciences.2425-2428, Edinburgh; Edinburgh UniversityPress.

- Ewin, W.M. (1963). A Short Reference Grammar of Iraqi Arabic. Washington, D.C; Georgetown University Press.
- Finch, G. (2000). *Linguistic Terms and Concepts*. U.S.A.: St. Martin's Press, Inc.
- Fowler, C.A. and Saltzman, E. (1993). "Coordination and Coarticulation in Speech Production." *In Language and Speech*. 36, 171-195.
- Fromkin, V. and Rodman, R. (1988). *An Introduction to Language*. (4thed), U.S.A: Holt, Rinehart and Winston, Inc.
- Gimson, A.C. (1976). An Introduction to the Pronunciation of English.(2nded) London: Edward Arnold.
- Hardcastle, (1994). "Assimilations of Alveolar Stops and Nasals in Connected Speech." In *Studies in General and EnglishPhonetics in Honour of 'Professor J.D. O'Connor*, 49-67,J.W. Lewis (ed), Edinburgh: Edinburgh UniversityPress.
- Holt, T. and Nolan, F. (1995). "The Influence of Syntactic Structure on [s]to [f] Assimilation." In *Papers in LaboratoryPhonology*. 315-333, B. Connell and A. Arvantini (eds).
- Ibn Jinni, A.U. (1954). SirruSinā'atilrab (The Secret of DeclensionInflection). 1, Egypt: Al-Istiqama Press.
- -----(n.d.). Al- khasā'is. (The Characteristics) (2nded),Bayrut:Dārul-Hudā.
- IbnMujahid (1980). *KitabusSab'ati fiOirā'āt*. (The Book of the SevenReadings). (2nded), Cairo: DārulMa'ārif.
- Jones, D. (1976). An Outline of English Phonetics. (9thed) Cambridge:Cambridge University Press.
- Khan, M.M. and Al-Hilāli, M.T. (1996). *Interpretation of the Meanings of the Noble Our'an in the English Language*. Dārussalām: Kingdom of Saudi Arabia.
- Ladefoged, P. (1993). *A Course in Phonetics*. (3rded),U.S.A.: Harcourt Brace and Company.

- Lamberts, JJ. (1972). A Short Introduction to English Usage. U.S.A: The Book Press., Inc.
- Lass, R. (1988). *Phonology: An Introduction to Basic Concept.* Cambridge: Cambridge University Press.
- Lemann, W.P. (1966). *Historical Linguistics: an Introduction*. U.S.A. Holt, Rinehart and Winston, Inc.
- Moscati, S. Spitaler, A., Ullendorff, E., and Soden, W.V. (1969). An Introduction to the Comparative Grammar of the Semitic Languages: Phonology and Morphology. (2nd ed) Germany: Otto Harrassowitz, Wiesbaden.
- Murry, R.W. (1997). "Historical Linguistics: The Study of Language Change". Ch.8 in O'Grady, W. Dobrovolsky, M. and Katamba, F. (eds). *Contemporary Linguistics:anIntroduction*. (3rded), 313-371, Longman: Addison Wesley Longman Limited,
- Newman, J. (1996). Coursebook: 20 Units on Feature Geometry. Massey University.
- Nolan, F. (1992). "The Descriptive Role of Segments: Evidence from Assimilations." In *Papers in Laboratroy Phonology*, 2: 261-280. GJ Docherty and D.R. Ladd (eds.).
- Ohala, JJ. (1985). "Linguistic and Automatic Processing of Speech". In *New System and Architectures for Automatic Speech Recognition and Synthesis*. R. De Mori and C.Y. Suen (eds.), 447-475. New York: Springer- Verlag Berlin Heidelberg.
- ------(1990) " The Phonetics and Phonology of Aspects of Assimilation". In *Papers in Laboratory Phonology 1: Between the Grammar and Physics of Speech*. J. Kingston and M.E. Beckman (eds.), 258-275, Cambridge: Cambridge University Press.
- ----- (1992) " What's Cognitive, what's not, in Sound Change. "In Diachronywithnn Synchrony: Language History and Cognition. G. Keller-maim and M.D. Morrissey (eds.), 309-355. Frankfurt M: Peter Lang Verlag.
- Ohala, JJ. and Kawasaki, H. (1984). "Prosodic Phonology and Phonetics". *In Phonology Yearbook*. 1, 113-127.

Prof.Dr.Abbas Jawdat Rahim& UmavvaIdreesYounis

- Poole, S. C. (1999). *An Introduction io Linguistics*. HongKong: Macmillan Press Ltd.
- Rahim, AJ.(1980). The Phonology of Spoken Iraqi Arabic from the Functional Point of View. (Unpublished Ph. D. Thesis), University of Leeds, U.K.
- Rahim, A.J., Husein, H.A., and Abbas, A.J. (1986). Al-MumāthalatufilLughataynil'Arabiyyatiwalngiliziyya: DirāsatunTaqābuliyya (Assimilation in Arabic and English: aContrastive *StudyAdabur-Rafidayn*. 16: 89-103.
- Roach, P.J. (1988). English Phonetics and Phonology: a Practical Course. Cambridge: Cambridge University Press.
- (2001). Phonetics: Oxford Introductions to LanguageStudy. Oxford: Oxford University Press.
- Robertson, S. (1954). *The Development of Modem. English.* (2nded.)U.S.A.: Prentice-Hall, Inc.
- Sanderson, P. (1966). *English Consonant Clusters*. Scotland: PergamonPress Ltd.
- Sayf, S.S. (1987). *Al-'iqdulMufidufl 'Ilmit-Tajwd*. (The InvaluableNecklace in The Recitation Science). Jordan :Al-Maktabatul Islāmiyya.
- Schlauch, M. (1973). Language and The Study of Languages Today. London: Oxford University Press.
- Sibawaihi (1975). *Al- Kitab*. (The book). 4, Bayriit: 'Alamul-Kutub.
- Thomas, C.A. (1975). "Phonetic Change: Assimilation" Ch.7 in W.L.Anderson and N.C. Stageberg, (eds.) *IntroductoryReadings on Language*(4 thed), 181-188. U.S.A: Holt,Rinehart and Winston, Inc.
- Uthmā, H.S. (1974). *Haqqut-Tilāwa*. (The Precise Recitation).
- Vallins, G.H. (1954). Spelling. London: Andre Deutsch Limited.
- Ward, I.C. (1968). *The Phonetics of English*. (4thed), Cambridge :Hefferand Sons Ltd.
- Wells, J.C. (1991). Longman Pronunciation Dictionary. London: Longman.

- West, F. (1975). *The Way of language: An Introduction*. U.S.A.: HarcourtBrace Jovanovish, Inc.
- Windsor- Lewis, J. (1969). A Guide to English Pronunciation. Oslo: Universitetsforlaget.
- Younis, U. I. (2001). Assimilation in Classical Arabic and standardEnglish: A contrastive study. (Unpulished M. A.Thesis). University of Mosul, Mosul.

Yu Cho, Y. (1999). Parameters of Consonantal Assimilation. Newcastle: Lincom Europa.

الماثلة في اللغة العربية الفصحى أ.د.عباس جودت رحيم و أُميَّة أدريس يونس المستخلص

تعدّ المماثلة ظاهرة صوتية لها دور مهم في تطوير حقل اللغات العالمية، ويعود السبب الرئيس وراء هذا التغيير هو ميل المتكلم إلى تسهيل المنطق أو الاقتصاد في الجهد أو الاثنين معاً، أي أنّه عند أداء الأصوات اللغوية هناك ميل لدى المتكلمين نحو إعطاء أقصى قدر من المعلومات بأقل جهد ممكن.

وهدف الدراسة التوصل إلى أنماط المماثلة في اللغة العربية الفصحى وتقسم هذه الأنماط استناداً إلى العوامل الآتية:

١. درجة التأثير.

٢. اتجاه التغيير والصفات المتأثرة (أي الجهر ومخارج الأصوات ونوعها بالإضافة إلى التفخيم)، إذ للتفخيم دور كبير في النظام الصوتي للغة العربية. (أنظر: رحيم ١٩٨٠: ١٨٧ وما يليها) إذ أنّه يميز بين الكلمات ذات المعنى المختلف. ويقدم البحث المماثلة السياقية لا المماثلة التاريخية . وتبين النتائج أن العربية الفصحى تستعمل المماثلة التامة أكثر من المماثلة الجزئية، وفيها حالات من المماثلة التراجعية، وتكاد تخلو من حالات المماثلة التقدمية. ومن الاستنتاجات الأخرى أن العربية الفصحى تخلو من أيّة حالات للماثلة الاندماجية.