PHONETIC ASSIMILATION IN ARABIC LANGUAGE

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Abstract
This study of the Arabic language deals with phonetic assimilation. It's definition is based in Classical Arabic studies, and modern researches. It explains the phenomenon through discussing examples of some scholars. It also talks about diphthong modulation and the places where it is mentioned in assimilation. It briefly talks about the contradiction that accompanies this phenomenon in phonetics.

The approach of the study is based on describing, analyzing, quoting, replying, and comparing scholars’ opinions according to the available resources and references that studied this phenomenon. In classical studies it focuses on the recitation of the Quran and the different methods of readings of the Quran and recently it is studied within the science of phonetics.

Keywords: Arabic Language, Phonetic Assimilation, Classical Arabic Studies, Analyzing

Arapçada Fonetik Asimilasyon

Öz

Çalışmanın yaklaşımı, bu olguyu inceleyen mevcut kaynaklara ve referanslara göre akademisyenlerin görüşlerini tanılamak, analiz etmek, analitik olmak, cevaplamak ve karşılaştırmak üzerine kuruluştur. Klasik çalışmalararda, Kur’anın ezberden okunması ve Kur’an okumalarının farklı yöntemleri üzerinde durulmakta ve bu, son zamanlarda fonetik bilimi içerisinde incelenmektedir.

Anahtar Kelimeler: Arapça, Fonetik Asimilasyon, Klasik Arapça Çalışmaları, Analiz

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المماثلة الصوتيّة في اللغة العربيّة

الملخص:
تناولت هذه الدراسة ظاهرة المماثلة في العربية، مفهومها، وجذورها في الدراسات القديمة، وتوجيه الظاهرة وعلّة الاستخدام، ثم دراستها حديثًا عند العلماء، وما كان من أنواعها بالشرح والتمثيل في ضوء نظر العلماء الذين تصدّوا لدراساتها. وتحدثت الدراسة عن الإدغام والإمالة، وما كان من ذكرهما في المماثلة. ثم تعرض شيء يسير على الحديث عن المماثلة الصوتيّة في الدراسات القديمة.

ويقوم المنهج – هنا - على الوصف والتحليل والأخذ والرد والمقابلة بين آراء العلماء استناداً إلى ما أمكن الحصول عليه من المصادر والمراجع التي تعرضت لدراسة الظاهرة.

الكلمات المفتاحية: اللغة العربية، المماثلة الصوتيّة، الدراسات القديمة، التحليل.

1. Definition
Assimilation in language (IbnManthour) as the word: adjustment.
It is said: هَذَا مِثْلُ هُوَ مَثْلٌ … Ibn Berri says assimilation cannot be true except in the case of agreement. For example if we say: “He is like him in every way,” that means “he” can replace “him.” However, if we say: “He is like him in this,” that means “he” equals “him” in one aspect but may not in others … المَثَلِ والمِثلِ:
is likeالمَثَلِ، and the plural is أمثال. Al-Jawhari said that: the المَثَلِ of a thing is its character.

But as a concept, many people defined it. Ibraheem Anise was the clearest, since he defined as the phonetic harmony between the phonemes of a language in different percentages in affecting each other" (Anise, 1995, p 179-183.)

Ahmad Mokhtar Omar also presented two definitions of assimilation: the first one is "that it is the phonetic changes that occur to meet the neighboring phoneme – not adjacent – for another phonemes". (Omar, 1981, p 324). The other one is "the transforming of the contradicting phonemes to agree and be similar to each other partially or totally".

According to Moris Gramon :"it is a phonetic change that happens
when certain letter's exit is changed to another in order to get the phonetic harmony"(Al-Samira'i, 1993, p 68).

So, it is the phone's change partially or totally to make phonetic harmony with the neighboring phone not adjacent as Ibrahim Anise said. Here introduce the paper, and put a nomenclature if necessary, in a box with the same font size as the rest of the paper. The paragraphs continue from here and are only separated by headings, subheadings, images and formulae. The section headings are arranged by numbers, bold and 10 pt. Here follows further instructions for authors.

1.1. Assimilation for the Antecedents

Arabic language is not new to assimilation, that phenomenon which accompanies most languages. Arabic language scholars have studied it and written about it for centuries. For example, Al-Khalil Bin Ahmad (170 a.h) discusses the diphthong in his lexicon Al-Ain'Al-Samira'i, 1993, p 249).

Sibawaih (180 a.h.) followed him in talking about the diphthong in "Al-Kitab" in many detailed references and independent chapters. He clarifies his position when he writes: "this is the chapter of the diphthong of two letters that you put your tongue in one position to pronounce both of them"(Sibawaih, p 437).

He said also: "this is the diphthong chapter of the near letters that are pronounced from the same exit" the diphthong has been studied many times (Assamera'I, 1993, p 250).

By Al-Farra' (207 a.h.), Al-Akhfash Al-Awsat (215 a.h.), Ibn Assarraj (216 a.h.), Ibn Qutaiba (276 a.h.) and Al-Mubarred (285 a.h.).

On the other hand, Ibn Jenni (392 a.h.), by using the concepts of the bigger diphthong and the smaller diphthong he meant the assimilation phenomenon as the modern researchers understood later. Since he talked about it: "it is proved that the common diphthong is to approximate a phone to the other, and it is in two aspects: the first one is when the letters of the diphthong meet so one of them becomes a part of the other. And this is the bigger diphthong, but the smaller diphthong is to approximate the phoneme but without merging it, and it has different aspects" (Ibn Jenni, p 139-141). It is clear that the issue is stable for him as the modern scholars understood, and many people followed him in studying this phenomenon.
The Phenomenon Directing

Sebawaih talked about this phenomenon as easiness and facilitating in utterance, when he said: "It was easier for their tongues" (Sibawaih, 4, p 417). Ibrahim Anise and Prageshtracer refers this phenomenon in Arabic language to the leaning to facilitate and shorten the utterance and to decrease the muscular effort (AbdAttawwab, 1994, p 33-34). On the other hand, Tamam Hassan considered it as one of the contextual phenomena that solves a problem of the lingual system problems, and that helps to avoid the mistakes (Hassa, 1979, p 262-263), but Malmbrj considers it as a human laziness.

In the light of what is mentioned (Malmbrj, 1984,p181) it is clear that the scholars have agreed to consider this phenomenon as a type of facilitating and shortening, this phenomenon is clarified in another interpretation – not only in Arabic language- but in all languages in general, that is presented by the French phonetics scholar Morise-Gramon (Malmbrj, 1984, p181). While composing the rules of the different phonetic phenomena, and what we care about here is the rule "the victory is for the stronger" in which the stronger phoneme affects the weaker one so the assimilation happens.

This is the cause of this phenomenon, but the evaluation of scholars for it in general, they differ in their opinions. Malmbrj thought that assimilation has bad effects that language attempts to resist through another ways like contradicting and distinguishing, (Malmbrj, 1994, p 181) he also thought that: "turning to assimilation is a negative power in languages' life"; since it is a tendency to decrease the differences between phonemes. He thought that if we paved the way for this tendency it will make the differences zero (Malmbrj, 1984, p 148).

This scholar replied for himself while talking about the contradicting and the turning of the language to insist on the characters of the phonemes and distinguish them.Tamam Hassan disagrees with Malmbrj. It is clear that he sees the assimilation as a positive power in languages because it solves lingual system problems (Hassan, 1979, p 262—263).

So, assimilation is one of the lingual phenomena through which language attempts to achieve harmony, agreement, and complement in its structure. We don't agree with Malmbrj in considering it as a negative power. If it were so the Arabic scholars would not have attempted to defend their language against this negative power that threatens it, by changing grammar and changing fixed rules. But this phenomenon is not like this; it is a natural phenomenon in languages and it
doesn’t contradict what would be known later as the "Safawieh phenomenon". (Al-Masdi, p 5)

Modern scholars generally agree on sorting assimilation into several types depending on the effect direction:

- **The forward assimilation:**
  
  This is assimilation in which the effect is directed to the front, so the earlier phoneme affects the later one. Such as:

<table>
<thead>
<tr>
<th>The Forward Assimilation</th>
<th>Its Origin</th>
<th>The Word</th>
</tr>
</thead>
<tbody>
<tr>
<td>ادَّعى (اذْدَعى)</td>
<td>ادتعى</td>
<td>اذى</td>
</tr>
<tr>
<td>ازداد</td>
<td>ازداد</td>
<td>ازى</td>
</tr>
<tr>
<td>اصتبر</td>
<td>اصتبر</td>
<td>اصى</td>
</tr>
</tbody>
</table>

In these examples the second phoneme changes to achieve the harmony with the first phoneme, the "ta" changed into "dal" in (اذْعى) to fit the first "dal" in the voicing character, and the "ta" changed into "dal" to fit the "zai" in the voicing character.

- **The backward assimilation:**

  In this type of assimilation the effect moves in reverse, so the latter phoneme affects the earlier one. Such as:
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<table>
<thead>
<tr>
<th>The backward assimilation:</th>
<th>Its origin</th>
<th>The word</th>
</tr>
</thead>
<tbody>
<tr>
<td>و (–وَقَفَّيِنَّ) تُ(+وَقَفَّيِنَّ) / تُ(+وَقَفَّيِنَّ)</td>
<td>اوتعداد</td>
<td>اتّعد</td>
</tr>
<tr>
<td>و (–وَقَفَّيِنَّ) تُ(+وَقَفَّيِنَّ) / تُ(+وَقَفَّيِنَّ)</td>
<td>اوتززن</td>
<td>اتززن</td>
</tr>
</tbody>
</table>

In these examples the former letter (و) is affected with the later letter (ت) and changed to fit it and to achieve the phonetic harmony.

But Ibrahim Anise has defined the forward and backward assimilation in a different way, since he considered the second phoneme effect on the former phoneme a forward assimilation, and the effect of the first phoneme in the second one as backward assimilation (Anise, 1995, p 181) But, Prageshtraser calls the forward assimilation a coming similarity, and the backward assimilation a going similarity. (Abd Attawwab,1994, p 29)

Some scholars, also, categorize assimilation depending on the quantity: partial assimilation and a total assimilation. However, they agree on the name only, since their definitions differ. Ibrahim Anise doesn't frankly call assimilation as either partial and total, but he says that phonemes differ in the degree of effect. (Anise, 1995, p 181) The effect may not be anything more than changing the sound from a character to another — and perhaps he means partial assimilation. But the highest degree of effect is when the phoneme fades into the other. For him it is diphthong, and he wants to make the diphthong and total assimilation equivalent.

On the other hand, Ahmad Mokhtar Omar has pointed to the using of the former concepts (partial and total). According to him the partial assimilation is when a sound doesn't meet the other, for example: when pronouncing (انبعث), the "noon" affects the "ba" so the result is (noon+ba') → (meem+ba') that the "noon" became like the "ba" partially, and became "meem", and it didn't totally assimilate it to become (ba').

He considers it to be total assimilation when the phonemes match, which he calls diphthong and modulation. (Omar, 1981, p 325).
Mohammad Ali Al-Khuli thinks that the total assimilation is: "when a phoneme assimilates another totally and completely, for example: when the (lam) becomes (ra') in (الرُّطَان). And the partial assimilation for him: "when a phoneme partially assimilates another". For example: pronouncing the (س) as (ص) for being affected with the (مسطرة) (Al-Khuli, p 220).

It is clear that scholars disagree in defining the partial and total assimilation, and it may be because in most cases the partial assimilation is total.

There are other types of assimilation, as well. Ahmad Mokhtar Omar has mentioned one of them: the assimilation in the place of pronunciation. He gives the example of:

(امبعث امبري و-و انبثث انبرى)

in which the (noon) becomes (meem) under the effect of (ba') (Omar, 1981, p 326).

Ibrahim Anise also mentions it under another title when he talks about (the transforming of the sound's place of pronunciation), also Al-Khuli mentioned it, saying: "the assimilation in the place of pronunciation" (Anise, 1995, p 186-187).

Moreover, Ahmad Mokhtar Omar talks about the assimilation of the way of pronunciation, and he gave the example in pronouncing the (س) in (سراط) so that it becomes (صراط). (Omar, 1981, p 327).

However, Ibrahim Anise doesn't see this as assimilation. He considers the process in the context of the historical improvement of phonemes, and doesn't consider it assimilation. (Anise, 1995, p 208-21). Since the word is mentioned in the lexicons in both pronunciations, and the original pronunciation it cannot be determined that each phoneme in some words is pronounced differently in different environments, and may be there aren't an original and branch. Al-Khuli points that this type is partial that he called it the assimilation of rotation and it is: "not rotated phoneme changes to assimilate another rotated one". the neighboring assimilation, which occurs between the neighboring phonemes without any interval (Al-Khuli, p 220-221).

Ahmad Mokhtar Omar discusses two other types of assimilation: the first: when assimilation causes an extreme change, in which a sound transfers from one phoneme to another (such as (انبعث), when...
the sound of (noon) changes to another phoneme which is (meem); and the second: in which the assimilation causes a light small change which doesn't affect the distinguished features— in which the change doesn't transfer the sound from one phoneme to another (Omar, 1981, p327.)

Abd Al-Jaleel while studying new scholars who take up this study, also discusses another type of assimilation: the binary. Abd Al-Jaleel considers it a third type after the forward and backward assimilation, but he doesn’t mention details (Abd Al-jaleel, 1998, p 285). Perhaps what he means by it is the case when the assimilation is both forward and backward at the same time. Prageshtrasr mentions the mutual diphthong and it may be the same as the binary. He offers the word (ستّ) as an example: it is originally (سدس), since the assimilation occurs in changing two phonemes. Before that (AbdAttawwab, 1994, p 32), Ibn Jenni mentioned this, writing: "as saying (ست) which is (سدس), they approximated the (seen) to the (dal) after replacing it with the (ta'), so it became (سیدت), this is approximating not diphthong, then they replaced the (dal) with the (ta') because it is close to it, here that is diphthong. So they said (ست), so the first change is to approximate, and the second one is to make a diphthong". (Ibn Jenni, p 143).

Through this it is clear that this type of assimilation means that there are two types of phonetic approximation in the same word. However, this type doesn't present many cases, and can be categorized under other types. Moreover, there is direct assimilation which seems to be another name of neighboring assimilation, and indirect assimilation which equals the distance assimilation (Al-khuli, page 219-220).

According to the scholars who study this phenomenon, there are many types.

Diphthong

Diphthong and assimilation were mentioned together, since diphthong is considered to be one of the types of this phenomenon. It has occupied it in a clear approach.
Diphthong in language "entering", conceptually: to bring two letters: featureless then featured, from one place of utterance without departing them, in which the tongue rises and produces them at once, and this is a wide section that it touches all letters except the and it occurs for the assimilated and approximated, in one word and in two.

Diphthong is to pronounce two letters from one exit, and this exit union is clear in Sibawaih who suggests: "this is the chapter of the diphthong of two letters that you put your tongue in one position to pronounce both of them"; so Sibawaih means exit union when he writes: "one position".

So, diphthong is to make two phonemes one. Ibrahim Anise, discusses this when he writes: "diphthong in its two types is that when the first phoneme fades in the second, so both phonemes are pronounced one phoneme as the second one" (Anise,1995, p 188).

He considers diphthong a backward effect. Ahmad Mokhtar Omar thinks that it is common in Arabic that diphthong has a backward effect, (Omar,1981, p 333) but in some cases it can be forward, as well. Malmberj agrees with Omar on this point (Malmbrej, 1984, p 146-147).

Diphthong shows some assimilation, so it might also be classified in a similar fashion: forward assimilation, and backward assimilation. For example: the diphthong of (alba') in (almeem) in God's saying:

َّ يابُنَي اركبْ معنا ولاتَكُن مع الكافرين .

And the diphthong of (altta') in (altha') in God's verse:

أَلا بَعداً لم َدينَ كما بَعُدت ثمود ..

Modulation
Modulation is a concept that indicates the tendency of the (fatha) towards the (kasra). Scholars define it as "approximating the (fatha) even if it was long or short towards the (kasra) even if it was long or short". (Assamera'I,1993, p 377) It belongs to BnoTameem, Asad, Qais, and the local people of Najd, but the people of Al-Hijaz modulate a little as well. (Al-hmlawi, 2001, p 187).

Prageshtraser, contends that the Quran readers gave modulation its sanction through the Holy Quran, but grammarians didn't succeed
in controlling its cases, even though they contradict Quran readers in a lot of details. (Abd Attawwab, 1994, p 59-61)

Prageshtraser categorizes modulation into two types: the first is the variation in pronouncing the long (fatha) because of the similarity of the neighboring letters. This type is widespread. The other type is modulating what does not need to be modulated.

Modulation is a change in the sound of (fatha) due to the similarity of the neighboring sounds. It aims to achieve a kind of phonetic harmony, and this is what Khaled Al-Azhari (905 a.h.) saw when he explained modulation. He clarifies the cause by saying: it was to "fit sounds and to be from the same type". (Assamerra'I, 1993, p 380)

So modulation is a kind of assimilation, too. According to Salah Aldeen Hosny, modulation is not an independent phoneme in Arabic. But it is an allophone for the long fatha. So it is not transferring from one phoneme to another (maslouh, 1980.)

On the other hand, Sa'd Maslouh disagrees, noting variation in Arabic dialects. Modulation according to him is a phoneme in daily Arabic language. And when Arabs studied common Arabic, modulation was an allophone. If we depend on Salah Al-Deen Hosny, that means it is a partial assimilation, but if we follow Maslouh's approach that means it is a total assimilation. However, because the mutual Arabic is the subject of study then modulation is a partial assimilation because it is not moving from one phoneme to another.

It is worth mentioning that modulation is a phenomenon in the readings of Quran. Some readers didn't modulate like Al-Makki, and some modulated a little bit like Qaloun, and some intensively modulated like Korsh. But, Hafs modulated in one word only that is "مجريها" in sourat Houd. (Al-Hakbi, p 36).

Contradiction

Scholars accompany study of assimilation with another phenomenon: contradiction. Ibrahim Anise defines it as follows: "that a word may contain two totally similar phonemes, so one of them is replaced with another phoneme to achieve the contradiction between the two similar phonemes" (Anise, 1995, p 211). For Malmbrejijit is a phonetic change that aims to insist on the contradiction between two distance phonemes" (Malmbrej, 1984, p 148-149.)
It is a general phenomenon in languages. It is exist in Arabic, French, English, Dutch, and other languages. Ancient Arabs talked about the dislike of contradictions to follow each other, Tamam Hassan considers it as one of the temporary phenomena that resulted from the problem-solving of the lingual system. And some scholars categorize it as forward, backward, neighboring, and distance. (Hassan, 1979 p 262-265).

**Conclusion**

In the light of what is mentioned, it is clear that assimilation is a universal lingual phenomenon in many languages.

This research is an attempt to present an overall vision –in the light of existing scholarly literature- for assimilation. And the research has concluded with the result that assimilation is a phonetic phenomenon which naturally occurs in the language history, because a human turns -in general- towards easiness, and because an Arabic person tends to be balanced in his language which went out from bare human boarders that it allowed him to hold the heavenly message.
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