The Broken Plural in Arabic

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Abstract

This paper aims to examine types and patterns of the broken plural in Arabic and the impact of phonological rules and ascending and descending diphthongs on the formation of the broken plural in Arabic. It also highlights particular phonological processes such as assimilation, dissimilation, and ascending and descending diphthongs so that it appears that these diphthongs have been phonetically changed by virtue of sound elision, sometimes accomplished by compensation (sound replacement) and sometimes without compensation; on the other hand, the diphthong may remain unchanged since it maintains the clarity and easiness of the linguistic form. Based on what I have so far studied in Arabic grammar, ancient Arabic grammarians explained these patterns alongside the linguistic changes that occur whilst contemporary Arabic scholars used creative and innovative ways to explain them more precisely and accurately. It could be argued that phonetic transcription has played a key role in that. Therefore, this paper is an academic endeavor to study the linguistic aspects of the broken plural in Arabic, with a particular focus on their syntax, phonetics and phonology.

Keywords: grammar, semivowels, diphthongs, vowels, consonants, assimilation, ascending and descending diphthongs

1. Introduction

Pluralization is a syntactic issue and, as indicated by syntacticians, it has three types. The term suggests that a singular noun is pluralized as indicated by the presence of a plural-forming suffix (For more details see Alfakhi, 1984).

The sound plural is one of the two major plural forms in Arabic syntax. According to Arabic grammarians, it is every plural form that indicates no less than three and its singular form is part of its meaning (see Sagaal, 1996: 83), or it is any noun indicating more than two by changing its singular form (Alhamlawi: 98).

There are two types of pluralisation in the Arabic language depend on rules such as the feminine pluralisatio and the masculine pluralistion, but this type of pluralisation broke because it is not relied on the previous two rules. In this case, I found that it is important to show it obviously.

- The word "book" in the broken plural form becomes "books".
- The word "man" in the broken plural form becomes "men".
- The word "wall" in the broken plural form becomes "walls".
- The word "house" in the broken plural form becomes "houses".
- The word "girl" in the broken plural form becomes "girls".

Collecting the broken plural must be done correctly to avoid linguistic errors. Students and researchers of the Arabic language can study the collection of the broken plural in Arabic grammar and apply it in writing and speaking Arabic correctly and accurately."

The broken plural morphological system in the Arabic language is one of the most important syntactic structures reflecting a change of the consonant and vowel pattern inside words in the singular form. In addition, it is not a plural form that wholly relies on the preceding noun such as the sound plural, but It depends on both changing the diacritical marks and stabilizing the consonants, which unquestionably indicates the flexibility of the Arabic language and its enrichment in generating different linguistic forms. The changes applied on its singular form may be either estimated, explicitly displayed in its surface form, only redundant, only deficient, or take other different forms.

The broken plural is so general that it includes humans (i.e. both males and females) and inanimate objects; it takes twenty-seven forms, four of which are associated with fewness and the rest of which are related to abundance (Alhamlawi: 99)

The estimated change is exemplified by the following:

فَلَكُ)pl) <falakun sin(فَأَلَكُ

أسn usdun)si n(>أُسْدُ)pl >asadun

It is an example of the plural while the singular is exemplified as follows:

قُفْلٌ pl<Kuflun)sin(أَقْفَالٌ aKfalun

هُجنpl<hugunun sin) هِجانً

kutubun كِتَابٌ)pl < kitaabun)sin كِتَابٌ

An example of the explicit change in form-only includes:

أُستَدٌ sin >asadun أُسْدَدُ

In adding up an only inflectional ending, as shown in the addition of -an:

sin <sinwan مِنْوٌ sin sinwan

The removal of a suffix is also possible as in the following example:

sin tuhmatun أَخْمَةُ tuhmun pl

The use of infixation and the addition of an inflectional ending are also available as in the following example:

رَجُلٌ pl <ragulun)sin (رِجَالٌ rigaalun

The employment of infixation and the removal of some part of the lexical morpheme in the singular is displayed in the following instance:

kutubun كِتَابُ ()pl<kitaabun sin

The above three morphological processes (i.e. infixation, consonantal removal and addition of an inflectional ending can occur as altogether as in the following case (Alhamlawi; Sagaal,1996):

غُلَامٌ pl <gulaamun sin غُلَامٌ gilmaanun

It should be noted that morphological changes may be only related to infixing lexical morphemes:

أَسَدَّ pl < sin >asadun أُسُدَّ

However, there are predicates in the singular form that appear in plural form:

لهواتٌ lahaatun > lahawaatun ، وألياتٌ alyatun أليةٌ alyatun، والكَرَاسِيُع alkaraasi <u دالكَرَاسِيُع alyatun أليادُ alwirku واللوراك awraaku والأوراك baadilatun

Many uncountable nouns indicate the plural meaning, but they are not singularized as in the following words:

النّحل: al)kawmu)، والقوم: al)kawmu)، والغرم)، والخيل:al)
)، والنّساء: vikaabu) >u)، والنّساء: a group of many people) (>al)tanuhu)، والنّكاب: (>a). (>a). (>a). (a group of many people) (>al)tanuhu)، والنّكاب: (>a). (>a

There are predicates that can be both singularized and dualized but not pluralized:

بَشَرٌ baŠarani (dual form)، بَشَرَانِ (baŠarun

There are also predicates whose singular and plural form are the same(see Sagaal, 1996, 83;Sayouti, 1988):

fulku)al(>)،والطَّاغوت:) السَّفينة (</sukaa <aa)،والطَّاغوت:) السَّفينة (</suka الفَلك two /) (>two الشُّقارى: with thorns)، والشُّقارى: ukaaraŠ) al)(>red plant)، والشُّقارى: duflaa)al، (> bitter plant)، والشُّقارى: iuxaaxi)، والشُّقارى: iuxaaxi)، والشُّقارى: iuxaaxi)، والشُّقارى: hulaawaa) (> bitter plant)، والشُّقارى: bitter plant)، والشُّقارى: iuxaaxi)، والشُّقارى: bitter plant)، والشُّقارى: bitter plant)، والشُّقارى: bitter plant)، والشُّقارى: iuxaaxi)، والشُّقارى: bitter plant)، والشُّقار)، والمُ

The broken plural with its patterns is associated with both human and nonhuman objects and entities, whether they are male or female. It has 27 morphological patterns: four of which are related to fewness and the remainder of which are associated with abundance. It should be noted that there are many patterns of the broken plural, often not systematized as many of which are aural (see Alkananah, 1997; Sagaal, 1996, 84; Alhamlawi, 83).

Arabic grammarians maintain that the first class consisting of a limited number of patterns ranges from 3-10 whilst the other category ranges from 11 to a finite number of patterns (Alhamlawi, 99).

2. Research Significance and Goals

What marks the broken plural is that it has multiple patterns mentioned by grammarians. This will lead us to highlight what commonly and infrequently used ones are. As we said earlier, there are many patterns that we can define in Arabic. The first major category indicates 'abundance' and the other one 'fewness' so that the significance of this study arises from these points.

Jamaa Qilla (Plural Indicating a small number of something)

This class consists of four main constructions:

أَ**فْعُل** 2.1 ?af<**ulu**

It is applied in the following cases. Every noun has a similar construction to فعنل as in the following case:

كَلْبٌ: >أَكْلُب

akLub<kalbun

ودَلُو > أَدْلِ،

It should be originally adluwun >• so the linguistic system of the Arabic language removes the double diacritical mark wu without any compensation and becomes adlun >. The Arab grammarians mention that /w/ is replaced by /y/ so it becomes adlin. The glottal stop /?/ may be added to this construction, but this case is optional in the sense that it either added or deleted (Alkananah,1997, 195):

أدْوُر > أَدْوَر

>ad>ur<>adwur

When the semivowel /w/ is dropped off from the double diacritical mark, the syllable (ur) is constructed, which is not acceptable because it starts with a vowel so the glottal stop is added as a way out of violating the grammatical rules of the Arabic language; it occurs in words starting in /w/. Anyway, Arab grammarians in the past explained it as an irregularity (see Alaini 217; Ibin Maki, 227; Sibaywih, 1966, 351/4). The poet said :

لكلّ دَهْرٍ قد لبِسْتُ أَثوباً حتّى اكتسى الرّأسُ قناعاً أَشْهَبا

And he also said:

Other cases include many quadrilateral root nouns (particularly grammatically female nouns) (see Alhamlawi,84; Sagaal,1996) :

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ذراع: >adru أذرع> diraa>
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ويمينٌ: aymunu <yaminun> ، وكذلك عِناق: inaakun > أعنَقُ: a<nukun

This type of broken plural has to do with every plural noun not related to < afaal:

تَوْبِّ tawbun> أَتْوَابٌ ataawbun>

سَيْفٌ sayfun> أَسْيَافٌ sayfun>

حمْلٌ himlun> أَحْمَالٌ ahmaalun<

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مَلْبٌ sulbun> أَصْلابٌ aslaabun>
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For example, *himlun* is pluralized in the following Quranic verse (At-Talaq (The Divorce) Chapter, verse 4):

وأولات الأحمال أجلهن أن يضعن حملهن

From the perspective of contemporary Arab grammarians, what happens here is exemplified by many instances (e.g. yawmun<aryyaamun >originally aywaamun >). The difference here is that the two speech sounds are simply the two semivowels /w/ and /y/, so the former is dissimilated into the latter:

<أيّامٌ ayyaamun< أَيْوَامٌ >ayyaamun<

This is because the noun originally starts with /y/ followed by /w/ but if its root stem starts with a speech consonant, there will be no change at all, as in the following instances (see Sibaywih,1966, 586/3 & 588/3)

أبْوَاب: bwabuaaأَنْيَابٌ: nyaabuna

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أسْوَاطٌ: aswaatun>

أَفْعِلَةٌ: 2.3 >a<ilatun

It is commonly used with masculine quadrilateral nouns whose speech consonant before the last is marked with a vowel length, as displayed in the examples down below (Alhamlawi, 100):

أَخْوِنَةٌ: ahwinatun<، وأُسْوِرَةُ: aswiratun<، وأُحْوِرَةٌ: aswiratun<

It is noted that there emerges a double mark /wi/ (see Alkananah, 1997: 195).

فِعْلَة fi <latun

It is said that this category is associated with plural nouns, but not a category of pluralizing singular nouns(Alhamlawi, 101):

Šihatun > Šyhu, tiyaratun > tawrun

What distinguishes the above patterns of 'fewness' broken plurals is that three of which starts with the glottal stop and it seems that they are indicative of fewness.

Jamaa Kathra (Plural indicating a large number of something)

Morphologists have defined many patterns and categories collected by Abed Al-Sabour Shaheen (see page 133), examples of which include:

فُعْلٌ 3.1 uf< lun

It is inflected for both masculine and feminine nouns: أَفْعَلَاء ala<af> and المَعْلَاء fa<alaa respectively. Some contemporary grammarians mention that this pattern is a standard plural, as in the words *أعور، وأحول* meaning 'eye-crossed' and 'one-eyed' respectively (Abedalaal, 1977: 44).

When constructing lexical items in line with this pattern, there form some double vowels disregarded by the Arabic language, which leads to changing the construction of this plural (Sibaywih,1966: 591/3). This is exemplified by the words words ساق that are originally (موز) and (سوق) (durun and sukun). As noted, there are two falling double speech sounds so that the semivowel /w/ is elided and replaced by lengthening the vowel /u/:

duwrun<durun < durun

suwkun< < sukun sukun

It falls within the pattern (أَفَوْلُ) that was used as a plural of أنيض such as أبيض meaning 'white'; it should be noted that the situation is here more complicated than expected in the sense that there are more steps in analyzing such a structure as it is the source of the word (بيض buyd) (Alkananah, 1997:189).; in addition, there occurs a process that connects the vowel /u/ and the independent semivowel through deleting the semivowel /y/ replaced by lengthening the diacritical mark *alkasra*:

bidun<bidun < biydun < buydun

sud<sud<suwd

(fu <ulun) فُعُل3.2

This pattern relates to every word within the lexical category of غفر (و عنبُر). It is also associated with every quadrilateral noun whose one before the last speech sound is sound-lengthened in final position whether it is in the masculine or feminine case: قُذل، حمار، حمر، كراع، كُرُع، عمود ،عُمُد

تَعُول The contemporary grammarians also mention that this pattern is used in the plural nouns within the category of علول such as مفعول except for the words meaning صبور such as منعول , the case of which is not pluralized as in the case of quadrilateral nouns with a sound منعول (Abedalaal, 1977).

There are no changes happening to this pattern despite the emergence of rising diphthongs in it such as (ينير وغير) guyur). This was explained by ancient grammarians in that the semivowel is strengthened in case of following a different vowel. (Ibin Jinni, 1993, 587 /2; Sibaywih, 1966 (359/4). When it is reduced through deleting the second /u/ these two patterns are treated as (يَبْض).

فُعَل:fu<al: فُعَل

تَفَعَّل، فَعَل، فَع Alfara claims that this pattern (فُعَل) is a plural noun but not plural (Sagaal, 1996). Other related فُعُل، فَعُول، فَعِل، فِعَال patterns are words in line with أنثى غرفة as in the case of صغرى and the case of أفعل، فعل، والمحمد (...).

فِعِل 3.4 fi<il

Other related patterns include فِعْلَهُ (e.g. جِجَة, عِسَرة, جِجَة) which can also be فِعْلَة) respectively (Alhamlawi). This pattern relates to perfect nouns (Sagaal, 1996: 87), examples of which include مجمع and قَعَم that were originally قَوَم and جَوَلُ respectively; the semivowel /w/ necessarily dissimilates into /y/ because the preceding speech sound has *alkisrah* and it is also dissimilated in the plural case (see Ibin Jinni, 1993; Almidani, 1981; Ibin Asfour, 1986)

The explanation presented by contemporary grammarians is based on what has been established by ancient grammarians; originally, the words are (hiwal) and (kiwam) so there emerges the rising diphthong /wa/, an independent phonetic feature, so the Arabic language disregarded this feature through a phonological process called assimilation in that the semivowel /w/ became like the preceding vowel /i/ and the semivowel turned into the semivowel /y/ (see Sibaywih,1966: 361):

hiwal and kiyam

Hiyal< hiwal

kiyam<kiwam

fu<alatun فُعَلَةً 3.5

.قاضٍ وقُضاة، ورامٍ ورُماة وغازٍ وغُزاة. as in the case: قاعل Other related patterns include

(fa <a latun) فَعَلَةً 3.6

This pattern is designed to pluralize singular human nouns in the masculine case as in the pluralization of ساحر , كاتب , and عناغة into مناغة, مستخرة كَتَبَة , when constructing a plural noun from (بائع) un>i
baa through applying this pattern, originally مناغة (atun
baya), the double speech sound is replaced by the semivowel /y/ so the occurrence of two consecutive short vowels results in a long vowel in baa<atun (Alhamlawi: 86):

ba<atun <baa<atun<baya<atun

On the other hand, it may be argued that the semivowel /y/ is elided because of its intervening between two consecutive similar vowels (Abdouh; Sagaal, 1996: 90).

fa<alaa فَعْلَى 3.7

The meaning of this pattern indicates 'death', 'pain', or 'dispersal': فتيل وقتلى، وجريح وجرحى، وأسير وأسرى: The related categories include فقيل (fa <i lun) (e.g. فيك (e.g. فيك (e.g. فيك (e.g. فيك (e.g. فيك (e.g. فيك), and (e.g. فيك), and (e.g. فيك (e.g.)), and (e.g. (e.g.))

fi<a latun فِعَلَةٌ 3.8

If /w/ is part of the singular noun and pluralized based on this pattern, /w/ becomes an essential component of the plural in spite of the appearance of a rising speech sound /wa/:

كِوَزَة kiwazah

عِوَزَة iwazah>

زِوَجَة ziwagah

However, there may occur some change by virtue of the above rising double speech sound as mentioned by Sibawiyeh . More specifically, what happens is a similar phonological process wherein /w/ becomes like the adjacent /i/, turning into /y/ for convenience (Sibawiyeh, 1966):

tiyarah<Tiwarah

فُعَّل al 3.9 fu<<al

It is applied through the use of /w/ within the pattern of fu<<al without making any changes so it is said that suwwam is a plural noun of the singular saa?im, which can be justified by the emergence of two diphthongs /uw/,falling, and /wa/, rising. It is also mentioned that there is another variation /suyyam/ due to dissimilation, but another phonological process, assimilation, occurs in the sense that /u/ and /y/ become like each other by turning /u/ into /i/ (Almidani, 1981: 36; Ibin Asfour, 1986; 543).

fu<<al>aal فُعَّال 3.10

This pattern is accomplished through doubling semivowels without making any obligatory changes, as in the following two cases:

زوّار zuwwaar

صُوّام suwwaam

fi<aal فِعَال 1.11

This pattern does not tend to disregard the ascending rising diphthong /ya/ despite its appearance in plural nouns such as /kiyaan/. If nouns include /w/ assimilation may be applied in that the semivowel /w/ adjacent to /i/ turns into /y/. The phonological process is displayed in the following example (see Almidani, 1981; Ibin Asfour, 1986; Sibawiyeh, 1966):

ثِوَاب pl < sin ثِيَاب

tiyaab<Tawaab

In the above example, the semivowel /w/ that became like /i/ turned into /y/.

fu<uul فُعُول 3.12

When constructing plural nouns ending with semivowels and /aa/ according to the current pattern, there occur some important changes; this is exemplified by the pluralization of عصا according to غضول , the origin of which is عصرو whose /l/ turns into /w/ so it becomes عصوي wherein /w/ and /y/ become adjacent to each other, turning /w/ into /y/ (see Almidani, 198: 34, 35).

The same is true of $ig_{\ell}(wuus)$ wherein an ascending diphthong /wu/ starts to be constructed. In such an example, either it keeps unchanged or the semivowel /w/ is replaced by the glottal stop /?/ as in /ku>us/ (Alaini: 225; Sibawiyeh, 1966: 3/591, 4/362). There are some cases that do not necessitates the elision of falling or rising diphthongs:

شُيُو خ suyuh

خُيُوط huyut

عُيُون uyun>

بُيُوتbuyut

These examples contain /y/ in their origins(Sibawiyeh, 1966: 589/3).

fa<aali فَعَالِي 3.13

Examples of this pattern include متحاري originally متحاري sahaari. In this example, the double semivowel /yy/ was deleted and replaced by lengthening /i/ in sahaari in the case of definiteness or through closing the syllable by using *Tanween* in the case of indefiniteness in sahaari.

There are many categories, most of which are aural and very difficult to restrict, but what happens to them by virtue of ascending and falling diphthongs is not different from the current patterns. Examples of such patterns include مفاعل، وفعاويل، ومفاعيل، وفواعل، وغير هاز

3.14 أَفْعِلاء af<ilaa>

Instances of this pattern include أحييتاء and أنبياء (Sibawiyeh, 1966: 4/392, 393, 397). As far as these examples are concerned, there are no changes at all in spite of the emergence of two ascending diphthongs /ya/ and /yi/:

>ahiyaa>

>anbiyaa>

However, the nucleus of the latter diphthong /i/ is deleted so they are assimilated:

> a <iyyaa< >afu <yiyaa>

There should be a vowel addition of /i/ to elide <yy Sibawiyeh, 1966: 454/4).

fawaa<il فَوَاعِل 3.15

Examples of this pattern include different plural nouns (e.g. عوائل, خوائل). Originally, these nouns are:

خَوَاوِن hawaawin

حَوَاوِكَ hawaawik

عَوَاوِد awaawir>

There emerges an ascending diphthong /wi/ in these examples so the language removed it through the elision of the

semivowel/w/ followed by replacing the vowel in the initial position by the glottal stop /?/.

< awaa > ir<hawaa >ik<hawaa> in

fa<aawil فَعَاوِل 3.16

Sibwayeh (1966: 370/4) mentions that the pattern fa <aawil is glottalized because of the occurrence of two consecutive semivowels /w/. Examples of which include قوافِل > قُوافِل > قُوافِل > مُوافِل > مُوافِق > مُوافَق > مُوافَق > مُوافَق > مُوافِق > مُوافِق > مُوافَق > مُوا

f<ilaha أَفْعِلَهُ 3.17

Examples of this pattern include : وأخورة: hwinah أخونة: iynah< a>. There occur no changes due to the emergence of falling and rising diphthongs.

faa<il>< أفاعل 3.18</

There are no changes that happen to the few examples related to this pattern such as أواخر (Ibin Jinni, 1993: 2/579).

3. Conclusions

The study investigated the categories of the broken plural in Arabic and the effect of phonological rules and ascending and descending diphthongs on its construction in the Arabic language, concentrating on a number of phonological processes such as assimilation, dissimilation, and ascending and descending diphthongs. The findings indicate that these diphthongs went under phonetic changes (e.g. sound elision and sound replacement).

It is recommended that there should be studies in the field of linguistics to highlight similarities and differences existing between Standard Arabic and Colloquial Arabic (e.g. Colloquial Jordanian Arabic, Syrian Arabic, and Egyptian Arabic. This may include the types and patterns of plural in each language variety. To the best of my knowledge, most studies have focused on either Standard Arabic or Colloquial Arabic (e.g. Abd-El-Jawad, 1986; Al-Kharabsheh, 2008; ALomoush, 2016; Al-Tamimi, Abu-Abbas, & Tarawnah, 2010; Al-Wer, 2002).

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Symbol	Phonetic Description
?</td <td>Voiceless glottal stop</td>	Voiceless glottal stop
b	Voiced bilabial stop
t	Voiceless dental stop
t	Voiced dental fricative
g	Voiced palatal fricative
h	Voiceless pharyngeal fricative
h	Voiceless uvular fricative
h	Voiceless laryngeal fricative
d	Voiced dental stop
d	Voiced dental fricative
r	Alveolar flap
Z	Voiced dental fricative
S	Voiceless dental fricative
S	Voiceless palato-alveolar fricative
S	Voiceless dento-alveolar fricative
d	Voiced velarized alveolar stop
Z	Voiced velarized interdental fricative
>	
g	Voiced velar fricative
f	Voiced labio-dental fricative
k	Voiceless uvular stop
k	Voiceless velar stop
1	Alveopalatal liquid
m	Bilabial nasal stop
n	Alveolar nasal stop
W	Labio-velar glide
y	Glide
a	Short low central unrounded vowel
a	Long low central unrounded vowel
u	Short high back rounded vowel
u	Long high back rounded vowel
0	Short mid-back rounded vowel
0	Long mid-back rounded vowel
i/e	Short high front unrounded vowel
i/e	Long high front unrounded vowel
<	Turn into
Sin	Singular
PL	plural

Appendix: Speech sounds in Arabic and other symbols with their phonetic description (Adapted from Alomoush, 2016)

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