



## Reduplication of lexical stem and biliteral root in Najdi Arabic

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### Abstract

This study is a descriptive account of reduplication patterns in Najdi Arabic. It focuses on reduplication of lexical stems and biliteral roots in term of semantical functions. The data (reduplication patterns) have been collected from authentic speech samples of Najdi speakers and are examined by the researcher, who is a native speaker of Najdi. Lexical stems (noun, verb, or adjective) can be reduplicated to indicate intensity or emphasis. The reduplication patterns can be identical (two lexical items are repeated), inflected (one item is inflected), or of different parts of speech (e.g., reduplication of a noun and a verb sharing the same consonantal root). Biliteral roots can be reduplicated to generate quadriliteral roots but with different but somehow related semantic properties. A quadriliteral reduplicated root might be used to indicate increase of frequency or a metaphorical meaning, both of which are related to the biliteral root. Lastly, a quadriliteral root can be onomatopoeic, meaning that the reduplication is an imitation of sound.

*Keywords:* reduplication; lexical stem; biliteral; quadriliteral; onomatopoeic

## 1. Introduction

Reduplication can be defined as full or partial repetition of a linguistic item mostly on a morphological or syntactical level. Reduplication is common across languages and serves various grammatical and semantical functions. One of the most recognized grammatical functions of reduplication is denoting plurality, as in Table.1 from Agta language (Raimy, 2000, p.127).

**Table 1.** Grammatical function of reduplication (Agta Language)

Singular	Plural	Gloss
<i>kaldin</i>	<i>kal-kal-din</i>	goat(s)
<i>pusa</i>	<i>pus-pus-a</i>	cat(s)
<i>uffu</i>	<i>uf-uf-fu</i>	thigh(s)
<i>takki</i>	<i>tak-tak-ki</i>	leg(s)

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On the other hand, reduplication is employed to alter the semantic properties of a single linguistic item; or, in other occurrences, create a new lexical item, as we shall see in this study.

In Standard Arabic, reduplication is used to denote intensity or emphasis (Procházka, 1993; Elzarka, 2005). In modern Arabic dialects, relevant patterns of reduplication exist, yet vary across the Arab world. Najdi Arabic, the variety spoken in the central part of Saudi Arabia, exhibits excessive reduplication in everyday speech and Nabati poetry with innovative semantic functions.

The current study describes and examines reduplication patterns in Najdi Arabic in term of semantic properties. Some of the reduplication patterns listed here might be shared with Standard Arabic and/or other modern Arabic dialects. Other patterns, however, are unique to Najdi Arabic. This study is not comparative in nature; rather it focuses on reduplication patterns in Najdi and how they are used in an authentic conversation.

In the remainder of this section, we shall shed some light on the language background and its morphological system.

### 1.1 Language background

Najdi Arabic is the variety spoken in the central parts of the Arabian Peninsula. It has been suggested that Najdi Arabic is the most conservative contemporary spoken variety of Arabic, and this has been attributed to the area being relatively geographically isolated (Ingham, 1994, p.5; Versteegh, 2001, p.193). Among many conservative features that Najdi Arabic shares with other Arabic varieties, such as retention of interdental and dual noun suffix, it retains highly archaic features of Classical Arabic, which include internal passive formation as in *ja-ktib* ‘he write’ > *jiktab* ‘being written’ and indefinite suffix *-in*, also known as *tanwīn*, as in *kitab-in* ‘a book’ (Ingham, 1994; Palva, 2006). There are no clear geographical borders to which Najdi Arabic can be claimed to be spoken; however, Ingham (1994) classify Najd Arabic into:

1. Central Najdi: the dialect of central bedouin tribes.
2. Northern Najdi: the dialect of *Jabal Shammar* and *Shammar* tribe.
3. Mixed Northern-Central: the dialect of *Qasim*
4. Southern: the dialect of *Najraan* and *Qahtan* tribe. (Ingham, 1994, p.5).

in this study, we shall examine Central Najdi Arabic, which is spoken in Riyadh province.

### 1.2 Morphology of Najdi Arabic

Arabic dialects, including Najdi Arabic, are well known for their non-concatenative morphology. In brief, a word in nonconcatenative morphology consists of the following elements (Moore, 1990, p.64):

A) A consonantal root supplying the semantic functions. Such roots are commonly trilateral (consisting of three consonants, as *ktb* ‘to write’), but they can be biliteral (e.g., *mr* ‘to pass by’) or quadrilateral (e.g., *dhrj* ‘to roll’).

B) A vocalic pattern which changes according to aspect (perfective or imperfective), voice (passive or active), and across dialects (e.g., Hijazi *katab* ‘he wrote’ compared to Najdi *kitab*). Some examples of the vocalic patterns are *-i-* as in *yaks-i-r* ‘he is breaking’ and *i-a* as in *k-i-t-a-b* ‘he wrote’.

C) A template in which elements (A) and (B) are incorporated. These templates (also referred to as verb forms) have different semantic functions (e.g., causative CVCCVC as in *kattab* ‘caused someone to write’).

D) Affixes which serve various functions such as marking person, number, and gender. The morphophonology of these markers can change according to aspect or verb form. Additionally, some affixes vary across dialects.

## 2. Data collection and Methodology

The data in this study is collected in two stages. In the first one, the researcher, a native speaker of Najdi Arabic, detects the reduplication patterns in the recordings of 25 interviews with Najdi speakers. The reduplication patterns are then juxtaposed and examined by the researcher. In the second stage, the reduplication patterns are listed in the form of phrases/sentences in Najdi Arabic and then distributed as questionnaires to 50 Najdi speakers (different from those interviewed). Participants are asked: (a) whether the reduplication patterns are used in their dialect and (b) what is the meaning of these patterns?

## 3. Results and Discussion

The interviews have been transcribed by the author and two main types of reduplication have been detected: lexical stem reduplication and biliteral roots reduplication. Three sub-types of lexical stem reduplication were found: identical reduplication, inflected reduplication, and different parts of speech reduplication. The occurrences of each type of reduplication are given in Table 2. The second main type of reduplication, biliteral roots reduplication, is however more frequent; and it would be pointless to quantify the frequency because (a) these words have already been attested in the language and (b) the number of occurrences would depend on whether the need for using these words has arisen or not. Therefore, they will be discussed below in term of their structure and how they are formed.

**Table 2.** Occurrences of reduplication in the data by sub-type

Type of reduplication	Sub-type	Frequency
Lexical stem reduplication	identical reduplication	78
	inflected reduplication	113
	different parts of speech reduplication	89

The variation in number of occurrences of each type does not indicate that one type is more frequent than the other. Rather, the numbers in general indicate that these types of reduplication are used in Najdi Arabic.

The second data set in this study is compiled of 50 questionnaires distributed to 50 Najdi speakers, other than those interviewed, and they were asked whether these patterns of reduplication are used and what they mean. The majority of responses agree that the listed patterns of reduplication are used, and there was a consensus on their semantic properties.

#### 4. Reduplication Patterns in Najdi Arabic

In this section we shall list the reduplication patterns in Najdi Arabic with example from authentic speech. There are two reduplication patterns in Najdi Arabic: lexical stem reduplication and biliteral roots reduplication.

##### 4.1 lexical stem reduplication

In Najdi Arabic, there are three sub-categories of this type of reduplication: a) identical reduplication, b) inflected reduplication, and c) different parts of speech reduplication.

##### 4.1.1 Identical reduplication

Identical reduplication of words/phrases is common across languages, in which forms like *big big* in English could be used to indicate that something is *huge*. In Classical Arabic, such holistic reduplication of lexical stem is not used for only intensity or emphasis. Rather, it can be *syndetic reduplication* as in *ʔakθar fa ʔakθar* ‘more and more’ (El Zarka, 2009, p.52). Sometimes the conjunction is dropped as in the Quran verse *saffa saffa* ‘rank upon rank’ (Q. 89:22). This semantic function (i.e., syndetic) is not attested in Najdi Arabic.

In Najd Arabic, almost all lexical categories could be reduplicated to indicate intensity or emphasis.

1- *Ali radʒdʒa:l radʒdʒa:l* (reduplication of noun)

Ali man man

‘Ali is a good man’

2- *Sarah zenəh zenəh* (reduplication of adjective)

Sarah beautiful beautiful

‘Sarah is very beautiful.’

3- *Ahmad ja-kil ja-kil* (reduplication of verb)

Ahmad eats eats

‘Ahmad eats very much’

Note that some NA speakers have a tendency to precede the reduplicated forms with the phrase *la ga:lo:-lik* ‘when they tell you’, as in 4.

4- *Ali la ga:lo:-lik radʒa:l radʒa:l*

Ali when they tell you man man

‘Ali is just like what people describe as a good man’

The identical reduplication in everyday speech, as in the examples above, might indicate lack of lexicon by the speaker. In poetry, however, the function of reduplication is one of two extremes. It can be used as a filler to maintain the rhythm (as in example 5), or to demonstrate the competence of the poet (as in 9 below).

- 5- *ʔa:na ʕala: kajf-ɪ w-na:r-ɪ ʕajjah \* w-əmfi ʕala: darb-ɪ fwajjah fwajjah<sup>2</sup>*  
 I on mood-my and-fire-my lit and-I walk on path-my **slowly slowly**  
 ‘I do whatever I want, and my fire is lit \* and I walk on my path slowly slowly’

#### 4.1.2 Inflected reduplication

Stem or lexical reduplication is not always a repetition of two identical words. Rather, the first or second item can be inflected with a bound morpheme (e.g., personal pronoun). Examples are provided in 6-8.

- 6- *ʔawaddi-k l-mat<sup>ʕ</sup>ʕəm ʕala ke:f ke:f-ik*  
 I-take-you to- a restaurant on mood mood-your  
 ‘I will take you to a restaurant that will suit your taste’

- 7- *taju:ta sajja:ra:t-hum sajja:ra:t*  
 Toyota cars-their cars  
 ‘Toyota cars are really good’

- 8- *ja<sup>3</sup>-ra:s-ɪ ra:s-a:h<sup>4</sup>*  
 O-head-my head  
 ‘O my head (indicating pain in the head)’

- 9- (A) *wadʒd-i ʕala illi daraksu:n-ih daraksu:n*  
 wish-I for the-which steering wheel-its steering wheel  
 ‘I wish for the car which its steering wheel is a steering wheel’

- (B) *w-miki:nt-ih taht kabu:t-ih miki:nah*  
 and-engine-its under the hood engine  
 ‘and the engine under the hood is an engine’

Translation of the poem: “I wish to have a car with a good steering wheel and a good engine”<sup>5</sup>

#### 4.1.3 Reduplication of different parts of speech

Reduplication of stems or lexical items in NA can occur with two words of different parts of speech. This type of reduplication has been attested in Classical Arabic as in *nama nawman ʕami:qan* ‘he had a deep sleep’ (El Zarqa, 2009). As explained in Maas (2005), this type of reduplication targets the consonantal root, which is then inserted in the syntactically and semantically appropriate template. For instance, a consonantal root, e.g., *lʕb* ‘play’, is repeated once in a verb template and once in a noun template (see example 10). The repeated lexical items can be adjacent or separated.

<sup>2</sup> By the Najdi poet Ibn Rhamah.

<sup>3</sup> *Ja-* is used as a particle for vocative of lamentation in Standard Arabic.

<sup>4</sup> *-a:h* is a phonesthetic element for vocative of lamentation.

<sup>5</sup> By the Najdi poet Ibn Jadlaan.

10- *W-Allah laʕab fi-kum lʕb*  
 And-Allah played-he on-you playing  
 ‘I swear to Allah, he beat you so hard in the game’

11- *dʒare:t dʒarɪ muhub tʕabiʕɪ*  
 I-ran running not ordinary  
 ‘I ran extraordinarily.’

#### 4.2 Biliteral root reduplication

Bi-consonantal reduplication is not only common in Arabic language and dialects, but it is attested in Semitic languages as well (Unseth, 2002). This type of reduplication refers to the process in which a biliteral root is reduplicated to a quadriliteral. As pointed out by El Zarka (2005) “it is assumed that in Arabic, and in Semitic in general, bare consonants can be doubled to achieve some change in meaning”. The process by which this reduplication is made is to copy the consonants of the biliteral verb in order to make a new quadriliteral verb (C<sup>1</sup>C<sup>2</sup>C<sup>1</sup>C<sup>2</sup>). The verb *ʃg/ʃg* ‘to tear repeatedly’, from *ʃg* ‘to tear’, is used differently in various contexts, as opposed to the original biliteral form. It is crucial to assert that the reduplicated verbs are not lexical reduplication of the biliteral verbs; rather, they are treated as independent quadriliteral verbs (but biliteral-derived). This can be inferred from the morphological behavior of these quadriliteral (reduplicated biliteral) roots. The past tense verb template of biliteral roots when inflected with 3<sup>rd</sup> person singular masculine suffix (-Ø) is C<sup>1</sup>vC<sup>2</sup>C<sup>2</sup> (e.g., *naʕtʕ* ‘jumped’); while the corresponding quadriliteral verb template is C<sup>1</sup>vC<sup>2</sup>C<sup>1</sup>vC<sup>2</sup> (e.g., *naʕʕnaʕ* ‘jumped repeatedly’).

Biliteral root reduplication in Najdi Arabic serves several semantical functions: increase of frequency, metaphorical meaning, and onomatopoeic meaning. The first and latter are attested in other Arabic dialects while the second, to the best of my knowledge, is exclusive to Najdi Arabic.

##### 4.2.1 Increase of frequency

As is the case in other Arabic varieties (e.g., El Zarka, 2005; Abu-Mansour, 2015) the meaning of reduplicated roots usually denotes an increase of the frequency in the action of the original (biliteral) verb. For example, the biliteral verb *t-firr* ‘you spin’ and the reduplicated quadriliteral *t-farfir* (you spin repeatedly) cannot be used interchangeably in examples 12 and 13. More examples of these forms are provided in Table.3.

12- *wɪf ra:ɪk t-firr bɪ-ssajja:rah ʕala ɪl-ħa:arah?*  
 What your-opinion **you-spin** with-car around the neighborhood.  
 ‘How about you take the car for a spin around the neighborhood?’

13- *le:ʃ ga:ʔɪd t-farfir bɪ-ssajja:rah fɪ ħa:arat-na!*  
 Why keep **you-circling** with-car in neighbourhood-our  
 ‘Why do you keep driving around (circling) our neighborhood!’

**Table 3.** Examples of reduplicated biliteral roots: increase of frequency

Original Form (biliteral)	Gloss	Reduplicated Form (quadriliteral)	Gloss
<i>laff</i>	folded	<i>laflaf</i>	kept folding
<i>ħakk</i>	scratched	<i>ħakhak</i>	kept scratching
<i>famm</i>	sniffed	<i>famfam</i>	kept sniffing
<i>dzarr</i>	pulled	<i>dzardzar</i>	kept pulling
<i>tʿagg</i>	knocked	<i>tʿagtʿag</i>	knocked repeatedly

#### 4.2.2 Metaphorical meaning

One of the phenomena the researcher noticed is that some reduplicated quadriliteral forms have developed a metaphorical meaning related to that of the biliteral root. Note that some reduplicate forms have both increased-frequency meaning and metaphorical one (e.g., the last three forms in Table 2 and the first three in Table 4). It is not clear whether the metaphorical meaning have evolved from the biliteral roots or the quadriliteral ones. On the other hand, other forms have only metaphorical meaning.

**Table 4.** Examples of reduplicated biliteral roots: metaphorical meaning

Original Form (biliteral)	Gloss	Reduplicated Form (quadriliteral)	Gloss
<i>famm</i>	sniffed	<i>famfam</i>	sought gossip
<i>dzarr</i>	pulled	<i>dzardzar</i>	deceived
<i>tʿagg</i>	knocked	<i>tʿagtʿag</i>	teased
<i>fasʿsʿ</i>	Split open	<i>fasʿfasʿ</i>	examined carefully
<i>mass</i>	Tightened	<i>mit-masmis</i>	Well-groomed
<i>muχ</i>	Brain	<i>maχmaχ</i>	gave a lot of thought

#### 4.2.3 Onomatopoeic meaning

Unlike English, Najdi Arabic, as well as many Arabic dialects, are like Japanese language in the use of onomatopoeic word. These languages tend to coin these words by imitating the sounds of what such words denote (e.g., Najdi Arabic *karkir* and Japanese *gera gera* for ‘to guffaw’). In Najdi variety, these verbs are not reduplicated form of words that already exist. In other words, the form for a normal laugh is not *\*kar*. Thus, such verbs are not regarded as reduplication of biliteral roots, but rather they are constructed by imitating the sound first and secondly reduplicating consonantal roots. The root *gargar* ‘to blabber’, for example, is formed by imitating the sound of blabbering *gr*, and then reduplicating the form to be *grgr*. The vowels of the vocalic melody, however, do not have a role in the process of this type of reduplication and are used similarly as in other quadriliteral verbs. In Table 5, there are more examples of onomatopoeic quadriliteral verbs. It must be noted these forms vary across Arabic dialects, and some of them are exclusive to Najdi Arabic.

**Table 5.** Examples of quadriliteral onomatopoeic words

Onomatopoeic quadriliteral verbs	Gloss
<i>تامتام</i>	dumfounded

<i>wafwaf</i>	whispered
<i>karwar</i>	gargled
<i>tʻartʻaʻ</i>	exploded
<i>gargaʻ</i>	rattled
<i>gargaf</i>	rattled

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It can be noted in Table 5 above that some verbs are not symmetrical as the reduplication occurred to first and third consonant. A reasonable justification for such phenomenon is that it is an attempt to imitate the target sounds as accurate as possible.

In Najdi Arabic, onomatopoeic reduplicative forms occur in nouns as well. For example, the word *tʻagtʻag* and *tʻiktʻik* for ‘snap button’ and ‘Velcro’ respectively are coined via the process onomatopoeia.

## 5. Conclusion

Modern Arabic dialects share most reduplication patterns, but their semantic and/or syntactic use may differ from one dialect to another. Najdi Arabic exhibits reduplication of lexical stems and biliteral roots. Lexical stems (nouns, verbs, adjectives) are reduplicated in three patterns. The reduplication of the stem can be identical, inflected, or of different parts of speech. As for reduplication of biliteral roots, the semantic properties can be increase of frequency, metaphorical, or onomatopoeic.

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