PSEUDO-REDUPLICATION, REDUPLICATION AND REPETITION: THE CASE OF ARABIC-LEXIFIED PIDGINS AND CREOLES

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Abstract. The paper looks at pseudo-reduplication, reduplication and repetition in pidginized and creolized Arabic. Particular attention is paid to the status of reduplication and to whether the occurrence of reduplication can be traced back to the lexifier and/or the substrate languages. The findings adduce further evidence in support of the claim (Bakker 1995, Mühlhäusler 1997, Bakker 2003, Bakker and Parkvall 2005) that reduplication represents a diagnostic feature which distinguishes creoles and expanded pidgins from jargons and stable pidgins.
Key-words: pseudo-reduplication, reduplication, repetition, creole, pidgin, Arabic.

1. INTRODUCTION

Research on pidgin and creole languages has relatively recently started to address the issue of reduplication in a comparative perspective (e.g. Bakker 2003, Bakker, Parkvall 2005). The present paper builds on Miller's (2003) study of reduplication in three Arabic-lexified pidgins and creoles, and also covers three additional varieties. A comparative perspective is particularly called for since generally, as shown in Avram (2003: 25), "varieties of restructured Arabic figure less prominently in the literature on pidgin and creole languages".

The paper is structured as follows. In sections 2 through 7 I describe the processes of pseudo-reduplication, reduplication and repetition in Nubi, Juba Arabic, Turku, Gulf Pidgin Arabic, Pidgin Madam and Romanian Pidgin Arabic respectively. This is followed in section 8 by a discussion of the status of reduplication in these languages. Section 9 focuses on reduplication in Arabic. Section 10 is a survey of reduplication in the substrate languages. The findings are summarized in section 11.

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2. NUBI

Nubi is a creole spoken in Uganda and Kenya (Owens 1985, Prokosch 1986, Pasch, Thelwall 1987, Owens 1989, 1997, 2001, Wellens 2003, Owens 2006, Khamis, Owens 2007).

Nubi has several pseudo-reduplicated forms[2] in its Arabic-derived vocabulary:

(1) a. *du*'*gagdu*'*gag* 'small' (Pasch, Thelwall 1987: 145, Miller 1993: 161)
b. '*sim*'*sim* 'sesame' (Wellens 2003: 60)
c. *watwat* 'fruit bat' (Pasch, Thelwall 1987: 146)

Whether *du*'*gagdu*'*gag* can be related to a simplex form *du*'*gag* is subject to controversy[3]. *Simsim* occurs in colloquial Sudanese Arabic (Miller 2003: 291). As for *watwat*, cf. Arabic *wat wat* 'bat' (Wehr 1976: 1080). The vocabulary of African origin also includes pseudo-reduplicated forms:

(2) a. *bangbang* 'fool' (Wellens 2003: 213)
b. *godogodo* 'thin' (Pasch, Thelwall 1987: 143, Miller 1993: 161)
c. '*leğa*'*leğa* 'work on a free-lance basis' (Wellens 2003: 214)
d. *ningning* 'complain' (Pasch, Thelwall 1987: 143)
e. '*nyanya* 'tomato' (Pasch, Thelwall 1987: 142)

Bangbang is from Acholi *abaŋbaŋ* (Wellens 2003: 213). Both *godogodo* and *ningning*[4] are listed by Pasch and Thelwall (1987: 143) under the heading "Nubi lexicon of unknown origin". The etymon of '*leğa*'*leğa* is Swahili *rejareja* (Wellens 2003: 214). '*Nyanya* is from Swahili *nyanya* 'tomato' (Pasch, Thelwall 1987: 142).[5]

Consider next reduplication. Miller (2003: 291) writes that "no reduplicated nouns have been recorded in Nubi". In fact, noun reduplication does occur, although it "is not very common" (Wellens 2003: 60). Reduplication of nouns expresses plurality (3a) or variety (3b):

[2] Also called "quasi-reduplicated forms" (Bakker 2003: 40), "phonological reduplicated base form" (Miller 2003: 290), "fixed forms" or "fossilized forms" (Wellens 2003: 226).

[3] Pasch and Thelwall (1987: 145) and Miller (1993: 161) write that *du*'*gag* does not occur in Nubi, but according to Tosco and Owens (1993: 249) it is attested with the meaning 'children'. *Dugag* 'small, esp. for children' is recorded in Turku (Tosco and Owens 1993: 249). Miller (1993: 161) states that *du*'*gag* is also recorded in Juba Arabic. However, the word is not listed in Smith and Ama (1985) and, according to Tosco and Owens (1993: 249), is not attested in Juba Arabic.

[4] Wellens (2003: 213, f.n. 181) suggests a possible etymon. As shown in section 3, example (30c), *ninging* (Smith and Ama 1985: 164) / *nyingnying* (Miller 1993: 161) 'nag' is also recorded in Juba Arabic.

[5] Cf. Juba Arabic *nyanya*, glossed 'food' by Smith and Ama (1985: 165), but 'food for babies' by Miller (1993: 161).

(3) a. *'Sokol 'de gi 'ğa 'kila* ***fi'lel-fi'lel***.[6] (Wellens 2003: 121)
thing DEF PROG come every night night
'The thing comes every night.'
b. *Bes* ***'tabu- 'tabu***. (Wellens 2003: 290)
EMPH problem problem
'Just problems.'

In addition, noun reduplication may also convey the meaning of being about to turn into something different:

(4) *'Moyo 'de* […] *gi- kun* ***dom- dom***. (Wellens 2003: 60)
water DEF PROG be blood blood
'The water […] became blood.'

According to Wellens (2003: 81), "one of the meanings expressed by the reduplication of adjectives is that of superiority of its quality", in other words, an intensifying meaning.

(5) *A'nas 'g(i)- akulu 'diet to* ***ba'rau- ba'rau***. (Wellens 2003: 75)
people PROG eat diet GEN different different
'The people were eating different diets.'

Such examples disconfirm Miller's (1993: 292) claim that "no Nubi reduplicated adjectives are quoted in the literature with an intensive meaning". However, the meanings of the simplex form and of the reduplicated one are often identical. The example below illustrates use of the non-reduplicated forms *ba'rau*[7]:

(6) *A'nas 'na'de ru'tan 'toumon* ***ba'rau***. (Wellens 2003: 186, f.n. 83)
people DEM DIS language POSS 3PL different
'Those people, their languages are different.'

Reduplicated verbal adjectives[8] generally convey an intensifying meaning:

(7) *'Uo 'sulu m'kate 'to al* ***'abis- 'abis***. (Wellens 2003: 79)
3SG take bread POSS3SG REL be dry be dry
'He took his bread which was dry.'

[6] The base *fi'lel* 'night' is etymologically derived from Sudanese Arabic *fī lēl* 'at night' (Tosco, Owens 1993: 248, Wellens 2003: 226), via reanalysis of morphemic boundaries.

[7] Miller (1993: 161) derives the reduplicated form which she transcribes *baará baará* from the base *baará* 'alone'. However, the simplex form also means 'different'; cf. Juba Arabic *barau* 'different, separate', and *barau* 'alone' (Smith and Ama 1985: 125).

[8] Verbal adjectives "refer to non-permanent qualities" and "when used as a predicate […] may take verbal morphology" (Wellens 2003: 79).

However, there appears to be no demonstrable difference between the meaning of the reduplicated form and that of the base:

(8) *Mu'kati 'tai 'fi 'ya'de al* ***'abis***. (Wellens 2003: 164)
bread POSS.1SG COP here REL be dry
'My bread which is right here is dry.'

Moreover, repetition of an adjective "also conveys the idea of intensity" (Wellens 2003: 79), as in the case of a reduplicated adjective:

(9) *La'ta 'ğa* ***'hari, 'hari, 'hari*** *na 'Hasan*. (Wellens 2003: 81)
weather come hot hot hot for Hasan
'The weather became very hot for Hasan.'

Finally, reduplicated verbal adjectives may occasionally have an attenuating meaning (Miller 2003: 292):

(10) *kis'lan* 'lazy' > *kis'lan-kis'lan* 'sort of lazy' (Miller 2003: 292)

Reduplication of both non-numeral and numeral quantifiers is attested. Wellens (2003: 89) states that the non-numeral quantifiers "'*kulu* and '*sia* often occur reduplicated". The following example illustrates reduplication of '*kulu* 'all':

(11) *Nubi* ***'kulu-'kulu*** (Wellens 2003: 89)
Nubi all all
'all the Nubis'

There appears to be no difference in meaning between the reduplicated form ands the simplex one:

(12) *'Ina 'ma gu- 'wonus kala'ma* ***'kulu*** *'fadi*. (Wellens 2003: 202)
1PL NEG PROG discuss matter.PL all openly
'We're not discussing all matters openly.'

Reduplication of '*kulu* when used adverbially may involve a significant semantic shift, indicative of lexicalization:

(13) *Kan ka'las 'uo za'lan 'mena ma'rai ta* ***'kulu-'kulu***. (Wellens 2003: 122)
if COMPL 3SG annoyed with.1PL once GEN all all
'Once he is annoyed with us it is for ever.'

The following example illustrates reduplication of '*sia* 'a little, few':

(14) *ta'buğa* ***'sia-'sia*** (Wellens 2003: 89)
habit few
'few habits'

Reduplication of '*sia* does not seem to modify the meaning of the base:

(15) *Madra'sa* '***sia***. (Wellens 2003: 270)
Quranic school.PL few
'Quranic schools are few.'

With respect to numerals, Wellens (2003: 80) only writes that the reduplicated form '*wai*-'*wai* also functions as an adjective meaning 'same':

(16) *Fa'raš 'de 'bes gu- we'ri ba'kan* '***wai-'wai*** *de*. (Wellens 2003: 80)
horse DEF EMPH PROG show place one one DEF
'The horse is showing the same place.'

However, the Nubi texts in Wellens (2003) include several instances of the reduplicated numeral '*wai*-'*wai* expressing distributiveness:

(17) *A'nas 'ferteku* '***wai-'wai***. (Wellens 2003: 292)
people split up one one
'The people split up one by one.'

Reduplication of verbs (Musa Wellens 1994: 113, Wellens 2003: 139-141) is by far the most frequently occurring type. According to Wellens (2003: 140), "reduplicated verbs express a sense of plurality […] or diffuseness". As shown below, reduplication of verbs expresses in fact a larger range of meanings. Most examples illustrate intensification:

(18) *'Uo gi- 'asma Kala'maya […] gi-* '***kore-'kore*** *'zaidi*. (Wellens 2003: 309)
3SG PROG hear Goat PROG cry cry very
'He heard Goat crying very much.'

This example shows that reduplication may be superfluous since the adverb of degree '*zaidi* is itself an intensifier. The habitual meaning is also documented:

(19) *A'nas 'bes* '***kutu-'kutu*** *'nouo 'asma-'asma je'de*. (Wellens 2003: 283)
people EMPH put put to.3SG name name EMPH
People just give her names.'

The closely related iterative meaning is also expresses by verb reduplication:

(20) *'Ino* ***lo'go-lo'go*** *'fogo 'šida*. (Wellens 2003: 136)
1PL find find on problem
'We found problems.'

Reduplication of verbs also conveys distributiveness:

(21) '*Dukur gi- 'ja* ***'isab(u)-isa'bu*** *ya'la 'de*. (Wellens 2003: 140)
then PROG come count count.PASS children DEF
'Then the children will be counted [one by one].'

The past tense form of the copula, which also functions as an anterior marker, can undergo reduplication, which does not, however, express any additional meaning:

(22) '*Motoka 'dol'de* ***'kan-'kan*** *gi- na'di DMC*. (Wellens 2003: 140)
car DEM PROX.PL ANT ANT PROG call.PASS DMC
'These cars had been called DMC.'

Finally, two verbs alternate with their reduplicated counterparts, without a change of meaning:

(23) a. *ğa ~ ğa-ğa* 'come' (Wellens 2003: 118)
b. *'soo ~ 'soo-'soo* 'do' (Miller 2003: 294)

Reduplication of adverbs is also attested, with an intensifying meaning:

(24) a. ***bi'ses- bi'ses*** *'sa al 'uo lo'go 'tabu […]*(Wellens 2003: 288)
slowly slowly hour REL 3SG meet trouble
'slowly, slowly, the moment that he gets into trouble […]'
b. *Ba'na 'de 'ataku* ***'sei- 'sei***. (Wellens 2003: 106)
girl.pl def laugh really really
'The girls really laughed.'

However, the meaning of a reduplicated adverb does not necessarily differ from that of its corresponding base:

(25) ***'Sei*** *'ita 'rakab 'nouo […] 'čai?* (Wellens 2003: 189)
really 2SG cook for.3SG tea
'Did you really make tea for fom?'

In addition, as with adjectives, the meaning of reduplicated adverbs appears to be identical to that expressed by repetition:

(26) *Ya 'Gidda 'ja* ***bi'ses, bi'ses, bi'ses***. (Wellens 2003: 310)
thus chicken come slowly, slowly, slowly
'Thus Chicken came slowly, slowly.'

One adverb, *sawa* ‘together’ turns via (optional) reduplication into the adjective *sawa-sawa* ‘same’ (Wellens 2003: 79-80).

There is some evidence pointing to the occurrence of reduplicated function words, a fact which has gone unnoticed by previous researchers. Wellens (2003: 161) writes that “often, the emphasizing element *'de* is attached to the adverb, e.g. *'ase'de* ‘now’, sometimes even in reduplicated forms, e.g. *'ase'de 'de*”. Wellens (2003: 174) includes *'de* among the markers of what she calls “weak contrastive focus”. Wellens (2003: 177) further states that “*'de*, which is homophonous to the definite article and the proximal demonstrative, may act as an emphasizer adding some extra stress to adverbs and demonstratives” and that “it follows the word it modifies as in *'sei 'sei 'de* ‘very’, *'ase'de 'de* ‘now’, *'we'de 'de* DEM PROX”. However, as mentioned by Wellens (2003: 70) herself, “*'de* has not yet been fully established as a definite article” and “its deictic meaning, denoting proximity has not faded completely”. Moreover, Khamis and Owens (2007: 212) write “there is no definite article” and “nouns can be made definite with the proximate singular demonstrative ***de*** ‘this’”, and that “***de*** can follow another demonstrative for emphasis: ***naade de*** ‘that one’”. On this view, although it may also function as a focus marker, *de* is the proximal demonstrative[9], which should be added to the list of bases for reduplication:

(27) *'ase 'de* > *'ase '**de-** **'de***
now DEM PROX now DEM PROX DEM PROX

The available Nubi corpus also includes examples of negator reduplication and of reduplicated question words, the meaning of which is not clear:

(28) a. *sa'far ti'nen 'ama **'maf-'maf** 'de 'mara ta'lata* (Wellens 2003: 267)
time two or NEG NEG DEF time three
‘twice or [if] not three times’

b. *'Kan **ke'fin-ke'fini**?* (Wellens 2003: 190)
ANT how how
‘How was it?

2. JUBA ARABIC

A pidgin for some speakers, but a creole for others, Juba Arabic is spoken in Southern Sudan (Prokosch 1986, Miller 1993, Owens 1997, Miller 2002).

Juba Arabic exhibits a large number of pseudo-reduplicated forms. Those of Arabic origin include the following:

[9] Compare e.g. Nubi *'ase* and *'ase'de* ‘now’ with Juba Arabic *hasa* ‘now’ and *hasa de* ‘this moment, now’ (Smith and Ama 1985: 140).

(29) a. *fašfaš* / *fasfas* ‘lungs’ (Smith, Ama 1985: 132, Miller 1993: 161)
b. *keškeš* ‘pleats’ (Smith, Ama 1985: 150)
c. *simsim* ‘sesame’ (Smith, Ama 1985: 173)
d. *suksuk* ‘beads’ (Smith, Ama 1985: 175)

Wehr (1976: 714) lists *fašfāš* as Egyptian Arabic for ‘lungs’; a similar form presumably occurs in Sudanese Arabic. The Egyptian Arabic verb *kaškaša* ‘to pleat’ and the noun *kaškaš* ‘seam; hem, edge, border’ are listed in Wehr (1976: 830); again, similar forms probably occur in Sudanese Arabic. With respect to *simsim* and *suksuk*, Miller (2003: 291) writes that they “are also known in Sudanese Colloquial Arabic”. Pseudo-reduplicated forms are also found among African-derived lexical items:

(30) a. *golonggolong* / *gulunggulung* ‘round’ (Smith, Ama 1985: 137, Miller 1993: 161)
b. *ǧokǧok* ‘possession’ (Smith, Ama 1985: 145)
c. *ningning*[10] / *nyingnying* ‘nag’ (Smith, Ama 1985: 164, Miller 1993: 161)
d. *sukusuku* ‘local gin’ (Smith, Ama 1985: 175)

Miller (1993: 290) states that “noun reduplication appears to be restricted”, and only expresses a distributive meaning:

(31) *Nas géne baráo- baráo* ***grúúp-grúúp***. (Miller 2003: 291)
people stay separate separate group group
‘People were staying separately in groups.’

However, distributiveness is also conveyed by repetition, often in conjunction with a reduplicated verb:

(32) '*Umon bi- gáta-gáta* ***híta, híta, híta***. (Miller 2003: 291)
3PL PROG cut cut piece piece piece
‘They cut [the meat] in small pieces.’

According to Miller (2003: 290), reduplicated nouns also express what she calls an “augmentative” meaning, but all her examples actually illustrate repetition. One such example is given below:

(33) ***Grús, grús, grús*** *ligó wén fi zamán dé?* (Miller 2003: 290)
money money money find where in time DEM

[10] Also attested in Nubi, see example (2d), in section 2.

'Where is [such an amount of] money to be found at this time?'

As noted by Miller (2003: 291), some reduplicated nouns can be considered lexicalized forms:

(34) a. *nus* 'middle; half' > *nus-nus* 'average' (Smith, Ama 1985: 165)
b. *saba*[11] 'morning' > *sabá-sabá* 'dawn' (Miller 2003: 291)

Noun reduplication can also yield adjectives of the "X-like quality" (Miller 2003: 291):

(35) a. *béle* 'village > *béle-béle* 'rural, popular, violent' (Miller 2003: 291)
b. *sumuk* 'glue, gum' > *sumuk-sumuk* 'sticky' (Smith, Ama 1985: 175)

According to Nhial (1975: 85), Prokosch (1986: 94) and Miller (2003: 291), reduplication of adjectives expresses an intensifying meaning:

(36) a. *Bínia de* ***ǧemíl- ǧemíl*** *se(h)i-se(h)i*. (Nhial 1975: 85)
girl DEM beautiful beautiful really really
'The girl is really beautiful.'
b. *Bet de* ***geríb-geríb***. (Miller 2003: 292)
house DEM near near
'The house is very close.'

The intensifying meaning already expressed by a reduplicated adjective may be reinforced by the co-occurrence of a reduplicated adverb, as shown in (36a). Moreover, the intensifying meaning of a reduplicated adjective is identical to that expressed via repetition of an adjective:

(37) *Majúb yaú* ***sukún, sukún, sukún***. (Miller 2003: 291)
Majub FOC hot hot hot
'Majub was very tough.'

Also, the intensifying meaning of a reduplicated or iterated adjective can equally be conveyed by an adjective modified by the reduplicated adverb *seí-seí*. Compare (36a) and (37) to (38a) and (38b) respectively:

(38) a. *Bet de geríb* ***seí- seí***. (Miller 2003: 292)
house DEM near really really
The house is very close.'

[11] Smith and Ama (1985: 168) only list the form *sabaah*.

b. *A'leela su'kun* ***se'(h)i-se'(h)i***. (Nhial 1975: 85)
today hot really really
'It's very hot today.'

Reduplicated adjectives may also express an attenuative or X-like meaning:

(39) *Inglízi ínta be- súfo* ***meit-meit*** *keda*. (Miller 2003: 292)
English 2SG HAB see dead dead like this
'You see the English as quiet / dull / passive.'

According to Nhial (1975: 85), "an adjective may be reduplicated to correspond to the plural in the noun being qualified":

(40) *Anína áuǧu nás* ***tewíl-tewíl***. (Nhial 1975: 85)
1PL want people tall tall
'We want tall people.'

This function of adjective reduplication has not been reported anywhere else in the literature. Also, Miller (2003: 292) writes that "the reduplication of *barau* 'alone' to *barau-barau* 'alone, apart, far away, different' […] involves semantic shift in at least some of its uses". According to Smith and Ama (1985: 125), however, the non-reduplicated form *barau* means both 'alone' and 'different, separate'.

The reduplicated form of the non-numeral quantifier *ke'tir* expresses an intensifying meaning:

(41) *nas* ***ke'tir-ke'tir*** (Miller 2002: 36)
people many many
'very many people'

The quantifier *'kulu* 'all' undergoes reduplication accompanied by a semantic shift, whereby the reduplicated form is lexicalized as a negative polarity item:

(42) a. *ta* ***'kulu-'kulu*** (Smith, Ama 1985: 152)
of all all
'for ever'

b. *'Ana ma der 'ainu zol de* ***'kulu-'kulu***. (Smith, Ama 1985: 152)
1SG NEG want see person DEM all all
'I never want to see that person.'

c. *'Ana ma bi- 'raǧa* ***'kulu-'kulu***. (Miller 2003: 292)
1SG NEG FUT return all all
'I will not come back at all.'

Two numerals, *'wae* / *'waed* 'one' and *tnin*, undergo reduplication with a distributive meaning (Miller 2003: 292):

(43) a. *'Uman […] bi- 'durbu **'waed-'waed***. (Miller 2003: 292)
3PL HAB hit one one
'They […] shoot one after another.'
b. *An'saar 'wodi 'lehum si'la **'tnin-'tnin***. (Miller 2003: 292)
Ansar give to.3PL weapon two two
'The Ansar gave two weapons to each of them.'

According to Miller (2003: 293) *'wae-'wae* can also have the deictic meaning 'this very one' or the anaphoric meaning[12] 'the one we just mentioned':

(44) a. *Ay, a'set **'wae-'wae***. (Miller 2003: 293)
yes lion one one
'Yes, this very lion.'
b. *Ka'man 'kali bi'to **'wae-'wae** de gaal…* (Miller 2003: 293)
also uncle POSS.3SG one one DEM say
'Then his uncle [the one we just mentioned] said…'

As mentioned by Miller (2003: 293), verbal reduplication is the most frequently attested case. Nhial (1975: 85) states that "the reduplication of […] a verb indicates intensity", while Miller (2002: 34) writes that "reduplication has an intensive or distributive meaning". In fact, as also shown by Miller (2003: 293), verb reduplication expresses a wider range of meanings. Consider first an example illustrating an intensifying meaning:

(45) *'Ana bi- 'gum **'biu-'biu** ha'ǧat*. (Tosco 1995: 445)
1SG PROG start buy buy thing-PL
'I start buying [all sorts of] things.'

However, the intensifying meaning can also be expressed via repetition:

(46) *'Ana **'kuruǧu, 'kuruǧu, 'kuruǧu**, 'ena bi'to 'tala*. (Miller 2003: 293)
1SG cultivate cultivate cultivate fruit POSS.3SG come out
'[After] I cultivate [it for a long time], it bears fruit.'

A habitual meaning can also be conveyed by reduplication:

(47) *De de'gid el kami'ru **'timu-'timu** 'saba yom*. (Miller 2003: 293)
DEM flour REL ferment.PASS finish finish seven day
'This is [a kind of] flour which fermented for seven days.'

[12] Miller (2003: 292) uses the term "referential meaning".

The following is an example of iterative meaning:

(48) '*Malu* '*inta ge-* '***asalu-'asal****u* '*kede?* (Miller 2003: 293)
what 2SG PROG ask ask like this
'Why do you keep asking like this?

Finally, verb reduplication can also express a distributive meaning[13]:

(49) '*Uwo bi-* '***gata-'gata*** '*lahan de*. (Miller 2002: 34)
3SG PROG cut cut meat DEM
'He cut the meat in small pieces.'

Miller (2003: 294) is right in stating that "in some cases, the interpretation of a reduplicated verb involves a semantic change which affects the lexical meaning". Consider the examples below:

(50) a. *gidu* 'pierce' > *gidu-gidu* 'perforate' (Smith, Ama 1985: 136)
b. *kasaru* 'break' > *kasaru-kasaru* 'smash' (Smith, Ama 1985: 148)
c. *kore* 'cry' > *kore-kore* 'quarrel' (Smith, Ama 1985: 150)

This fact that the reduplicated verbs are listed separately in the dictionary by Smith and Ama (1985) suggests that they are lexicalized. This conclusion is supported by examples such as the following:

(51) '*Uma* '*tae* '***kore-'kore*** *ma* '*ana*. (Miller 2003: 294)
mother POSS.1SG cry cry with 1sg
'My mother quarreled with me.'

However, the next set of examples, from two independent sources, suggests that, at least for some speakers, the reduplicated form does not induce any semantic shift (while it conveys an intensifying meaning):

(52) a. '*Čena de* '***kore-'kor****e* '*laman* '*ēna* '*tou* '*baga* '*ammer*. (Nhial 1975: 85)
child DEM cry cry until eye poss3sg become red
'The child cried so much that his eyes became red.'
b. '*Ana* '*asmu nas* *ge-* '***kore-'kore*** *hi*'*nak*. (Tosco 1995: 425)
1SG hear people PROG cry cry there
'I hear people crying there.'

[13] As already mentioned, reduplication of a verb and repetition of a noun can co-occur in the same sentence. See example (32).

As shown below, reduplicated adverbs always express an intensifying meaning (Miller 2003: 292):

(53) a. *birā* 'slowly' > *birā-birā* 'gradually' (Smith, Ama 1985: 126)
b. '*Silu* ***guw'am-gu'wam***. (Miller 2003: 292)
take quickly quickly
'Take [it] quickly.'

As with reduplication of other bases, there is no difference between the meaning of reduplicated adverbs and that expressed by repetition of adverbs:

(54) *baa'din bi- 'kelem ka'lam de* ***bi'raa, bi'raa, bi'raa***. (Miller 2003: 291)
after HAB speak matter DEM slowly slowly slowly
'Then [they] discuss the matter very slowly.'

In one case, not mentioned by Miller (2003), the reduplication of an adverb forms an adjective:

(55) *sawa* 'together' > *sawa-sawa* 'equal, even, same' (Smith, Ama 1985: 168)

Miller (2003: 293) states that "grammatical words such as demonstratives, pronouns and particles are not usually reduplicated", but she does illustrate reduplication of possessive pronouns, with an emphatic / contrastive effect:

(56) *De ma* ***'tae- 'tae,*** *de* ***'to- 'to***. (Miller 2003: 293)
DEM NEG POSS1SG POSS1SG DEM POSS3SG POSS3SG
'That it's not mine, it's his.'

Finally, a preposition is also listed among the bases undergoing reduplication:

(57) *fog* 'up' > *fog-fog* (no gloss provided) (Miller 2003: 294)

4. TURKU

Turku is a pidginized variety of Arabic, formerly used in Chad (Prokosch 1986, Tosco, Owens 1993).

Turku has several pseudo-reduplicated forms, mostly from Arabic:

(58) a. *dúrdur* 'wall' (Tosco, Owens 1993: 235)
b. *kalkal* 'similar' (Tosco, Owens 1993: 235)
c. *semsem* 'sesame' (Miller 2003: 291)

d. *siksík* ‘different’ (Tosco, Owens 1993: 231)
e. *suksuk* ‘pearl’ (Miller 2003: 291)

Two of these forms, *dúrdur* and *kalkal*, are included by Tosco and Owens (1993: 235) among “a great number of vocabulary items that link Turku with WSA [= Western Sudanic Arabic]”. According to Tosco and Owens 1993: 231), *siksík* belongs to the “host of vocabulary items that link Turku to general Sudanic Arabic”. Miller (2003: 291) notes that *semsem* and *suksuk* “are also known in Sudanese Colloquial Arabic”. The following is an example of a pseudo-reduplicated word of African origin, attested in several West African languages (e.g. Twi, Yoruba, Lingala), with various genetic affiliations:

(59) *potopoto* ‘mud’ (Tosco, Owens 1993: 185)

According to Tosco and Owens (1993: 214), “reduplication occurs, though it is not strikingly common”. The extremely few examples available suggest that reduplication applies to nominal and adverbial bases only.

The noun *fóğur* ‘early morning’ (Tosco, Owens 1993: 212) undergoes reduplication and yields an adverb with an intensifying meaning:

(60) *fóğur-fóğur* ‘very early’ (Tosco, Owens 1993: 214)

Reduplication of the adverb *šúya* / *súya* ‘a little’ (Tosco, Owens 1993: 212) expresses a distributive meaning:

(61) *šúya-šúya* ‘little by little’ (Tosco, Owens 1993: 214)

Note, finally, that even these reduplicated forms may actually originate in the lexifier language, since, as shown by Tosco and Owens (1993: 212), they “are equally found in SA [= Sudanic Arabic] dialects, suggesting that they were taken over as lexical wholes”.

5. GULF PIDGIN ARABIC

Gulf Pidgin Arabic is a cover term for pidginized varieties of Arabic spoken in various countries in the Arab Gulf and in Saudi Arabia (Smart 1990, Næss 2008, Bakir 2010).

Only a few pseudo-reduplicated forms are attested in the available corpus:

(62) a. *sawasawa* ‘together’ (Smart 1990: 96)
b. *sēm-sēm* / *seym-seym* ‘same’ (Smart 1990: 96; Næss 2008: 53)

Sawasawa is of Arabic origin, whereas *sēm-sēm* / *seym-seym* is etymologically derived from English *same*.

According to Smart (1990: 95), "there are examples of reduplication of adjectives, nouns and adverbs", expressing an intensifying meaning.

The Gulf Pidgin Arabic samples in Smart (1990) and Næss (2008) include just one instance of a reduplicated noun phrase:

(63) *Ana bāba* ***kell yōm-kell yōm*** *kalām Arabic*. (Næss 2008: 60)
1SG father all day all day speak Arabic
'So then, my boss spoke Arabic to me every day.'

Næss (2008: 60, f.n. 17) writes that "I see that as a potential example of productive reduplication", claiming that *kell yōm-kell yōm* "means "every day" […], whereas a simple *kill yōm* […] is used […] to mean "all day"". However, this claim is disconfirmed by many other examples:

(64) a. ***Kull yōm*** *fakkar*. (Næss 2008: 75)
every day think
'Every day I was thinking.'
b. ***Kul yōm*** *sawwi māl 'ana muškil*. (Bakir 2010: 212)
every day make of 1SG problem
'Every day she makes a problem for me.'

Such examples show that, regardless of the variant (*kell yōm*, *kill yōm*, *kul yōm* or *kull yōm*), the reduplicated noun phrase is the reflex of both *kill yōm* 'every day' and *kill il-yōm* 'the whole day, all day long' from Gulf Arabic. The meaning 'every day' is not necessarily conveyed via reduplication, which is, therefore, optional.

Two reduplicated adjectives are attested in the available corpus:

(65) a. *ǧildi ǧildi* 'quick quick' (Smart 1990: 96)
b. *sarī' sarī'* 'quick quick' (Smart 1990: 96)

A variant of the form in (65b) occurs in the following example:

(66) *Arabi hada sekl, bādēn yisūp, bādēn* ***sara-sara*** *kallam*. (Næss 2008: 40)
Arabic DEM way then see then fast- fast speak
'Arabic [was written], like that, then you look at it and can speak quickly.'

Verb reduplication is illustrated by one example, in which the corresponding simplex form also occurs:

(67) *Huwa **amsi-amsi**, […] bādēn ati pulūs sīr dikān amsi*. (Næss 2008: 58-59)
3SG go go then give money go shop walk
'She walks and walks. […] you give her money and she walks to the store.'

One reduplicated adverb is also attested:

(68) *Ana bādēn fakkar **šwey- šwey***. (Næss 2008: 83)
1SG then think a little
'So then I [had to] think a little.'

However, there appears to be no difference in meaning between the reduplicated form and its base:

(69) *Bas arap **swey***. (Næss 2008: 32)
only know a little
'I just know a little'

6. PIDGIN MADAM

Pidgin Madam is spoken in Lebanon by Sri Lankan female domestic workers and their Arab employers (Bizri 2005, 2009, 2010).

No pseudo-reduplicated forms have been identified in the available corpus. As for reduplication, it appears that it cannot be easily distinguished from repetition. Thus, while Bizri (2009: 9) writes that "Pidgin Madam makes extensive use of reduplication of adjectives […], adverbs […], and nouns", Bizri (2010: 152) only once refers to "repetitions for marking an intensive action or repeated over a long period".

According to Bizri (2009: 9), "reduplication serves either to pluralize a noun, or to intensify its meaning". In the available corpus plurality is illustrated by one example of noun reduplication:

(70) *Ana kil yōm **sogol-sogol***. (Bizri 2010: 9)
1SG every day work work
'I have so much work to do every day.'

Intensifying reduplication is also illustrated by the phrase *kel yōm kel yōm* / *kul yōm kul yōm* 'every day'[14]:

(71) *Ente Ser Lanka **kel** **yōm-kel** **yōm** šu ta'mle?* (Bizri 2010: 153)

[14] Cf. Gulf Pidgin Arabic, example (62), section 5.

2SG Sri Lanka every day every day what do
'What were you doing every day in Sri Lanka?'

However, the meaning of the reduplicated form does not seem to be different from that of its corresponding simplex one, *kel yōm* / *kil yōm* / *kul yōm*:

(72) *Ana* ***kel yōm*** *pʰäyye soboh bakkīr*. (Bizri 2010: 93)
1SG every day wake up morning early
'I wake up every day early in the morning.'

There is one instance of a reduplicated adjective, with an intensifying meaning:

(73) *Bēt bīr, bēt* ***bīr-bīr*** *ʧīr bīr*. (Bizri 2010: 160)
house big house big big much big
'The house is big, very big, really very big.'

Reduplicated quantifiers also express an intensifying meaning:

(74) *Pʰi* ***swäy- sway*** *sogol*. (Bizri 2010: 238)
COP a little a little work
'There is little work.'

Reduplication of adverbs is illustrated by one example:

(75) *Misʧer* ***hēk-hēk*** *əsit*. (Bizri 2010: 227)
mister thus thus come
'Mister has come to do so and so.'

7. ROMANIAN PIDGIN ARABIC

Romanian Pidgin Arabic is a pidginized variety of Arabic formerly used by Romanian and Arab oil workers in Iraq (Avram 1997, 2007, 2010).

Several pseudo-reduplicated forms have been recorded:

(76) a. *fikifiki* 'sexual intercourse'
b. *sawasawa* 'together'[15]
c. *semsem* 'similar, identical'[16]

[15] Cf. *sawasawa* in Gulf Pidgin Arabic, example (62a), section 5.

Of these forms, *fikifiki* and *sawasawa* are etymologically derived from Arabic, while English *same* is the source of *semsem*.

Reduplication only applies to adjectives, quantifiers and adverbs (Avram 2010). A frequently occurring reduplicated form is *zen-zen*, with an intensifying meaning:

(77) *Hada **zen- zen***.
DEM good good
'This is very good.'

The reduplicated quantifier *kulu-kulu* occasionally marks plurality:

(78) *sayara **kulu-kulu***
car all all
'cars'

In addition, reduplication turns *kulu* 'all' into the adverb meaning 'completely, totally':

(79) *Halas šogol **kulu-kulu***.
finish work all all
'[I] have finished my work completely.'

Two adverbs frequently undergo reduplication and may convey an intensifying meaning:

(80) a. *Ani šogol **zen- zen***.
1SG work well well
'I work very well.'
b. *Inte ruh **šuwaya-šuwaya***.
2SG go slowly slowly
'You walk very slowly.'

In at least some cases, however, there seems to be no demonstrable difference in meaning between the simplex and the reduplicated forms. Thus, both *šuwaya* and *šuwaya-šuwaya* mean 'a little; slowly'. In addition, an intensifying meaning may also be expressed by repetition:

[16] Cf. *sēm-sēm* / *seym-seym* in Gulf Pidgin Arabic, example (62b), section 5.

(81) a. A: *Šlonek, zen?*
how you well
'How are you, are you alright?'
b. B: *Ani zen*.
1SG well
'I'm fine.'
c. A: *Inte **zen, zen, zen**?*
2SG well well well
'Are you really alright?'

8. THE STATUS OF REDUPLICATION IN ARABIC PIDGINS AND CREOLES

The Arabic-lexified pidgins and creoles examined exhibit total reduplication exclusively. However, they differ significantly with respect to the type and number of bases for reduplication, as shown in Table 1 (N = Nubi; JA = Juba Arabic; GPA = Gulf Pidgin Arabic; PM = Pidgin Madam; RPA = Romanian Pidgin Arabic):

Table 1

Bases for reduplication

	N	JA	T	GPA	PM	RPA
nouns	+	+	+	−	+	−
adjectives	+	+	−	+	+	+
quantifiers	+	+	−	−	+	+
verbs	+	+	−	+	−	−
adverbs	+	+	+	+	+	+
demonstratives	−	+	−	−	−	−
possessives	+	−	−	−	−	−
prepositions	+	−	−	−	−	−
negators	−	+	−	−	−	−
question words	−	+	−	−	−	−

Arabic pidgins and creoles display both inflectional reduplication, which is iconic, and derivational reduplication, which is non-iconic, expressing e.g. similarity or attenuation. As shown in Table 2, however, there are considerable differences in the range of meanings[17] expressed by reduplication:

[17] I have not included the deictic and referential meanings of '*wae*-'*wae* in Juba Arabic, illustrated in (44), section 3, since these only occur in the speech of 2 speakers, with the same Baka background (see Miller 2003: 293). Negators and question words do not figure since the meaning of reduplication is not clear, as discussed in section 2.

Table 2

Meaning of reduplication expressed by word classes

	N	JA	T	GPA	PM	RPA
nouns	plurality				plurality	plurality
adjectives	intensifying	intensifying		intensifying	intensifying	intensifying
quantifiers	intensifying distributive	distributive			intensifying	intensifying
verbs	intensifying habitual iterative distributive	intensifying habitual iterative distributive				
adverbs	intensifying	intensifying	intensifying	intensifying		
demonstratives	emphasis					
possessives		emphasis				

The relative importance of reduplication in inflection and derivation is also different. Miller's (2003: 290) conclusions that "reduplication in Juba Arabic is mainly of the inflectional and iconic type" and that "the very few cases of derivational reduplication are unproductive and largely lexicalized" can be extrapolated to the other Arabic-lexified pidgins and creoles discussed in this paper. Inflectional (iconic) reduplications is the best represented in all of them, whereas derivational (non-iconic) reduplication is not productive, with the exception of a few instances, most of which are already lexicalized or are undergoing lexicalization.

Moreover, the status of reduplication is very different in the languages under consideration. In Turku, Gulf Pidgin Arabic, Pidgin Madam and Romanian Pidgin Arabic it does not really qualify for the status of a formal operation in morphology[18]. Reduplication in these languages is infrequent, optional, i.e. not systematic. According to Maas (2005: 395), this "should be distinguished from grammaticalized reduplicating patterns […] which cannot be avoided (i.e. which are not mere stylistic options)". Moreover, the meanings of reduplicated forms are frequently identical to those of the corresponding bases or can be expressed via repetition, which may consist of three or even four copies[19]. As put by Hurch et al. (2005: 3), "the repetition of words and phrases is a frequent phenomenon in probably all languages of the world". Such cases should therefore be analyzed as instances of doubling or iteration, in the sense of Maas (2005: 395), who distinguishes between "*doubling* [and] in the case of more than two forms […] *iteration*". Maas (2005: 397) further states that "doubling or iteration can be holistic", i.e. "achieved by the simple repetition of utterances or their parts, e.g. words". To sum up, reduplication in Turku, Gulf Pidgin Arabic, Pidgin Madam and Romanian Pidgin Arabic should be regarded as a discourse strategy, since "repetitions of any kind usually serve rhetorical purposes" (Hurch et al. 2005: 3).

[18] In the sense of Haspelmath (2002: 22) and Booij (2005: 28).

[19] Miller (2003: 295) uses the term "triplication" and "quadruplication" to refer to such instances.

A somewhat stronger case for morphological reduplication can be made in the case of Nubi and Juba Arabic[20]. For instance, in both Nubi and Juba Arabic[21] reduplicated verbs behave just like simplex forms (Wellens 2003: 139, Miller 2003: 296). Thus, a reduplicated verb is marked for tense, mood and aspect just once, i.e. [marker[verb-verb]], but not on each member of the reduplicated form *[marker[verb]][marker[verb]]:

(82) a. Nubi
'*Ina* ***gi-*** '*kuruǧu-*'*kuruǧu* '*sia*. (Wellens 2003: 139)
1PL PROG cultivate cultivate a little.
'We are tilling the field a little.'
b. Juba Arabic
'*Bagara de* ***ge*** '*mutu-*'*mutu*. (Miller 2002: 34)
cow DEM PROG die die
'Cows are dying one by one.'

Semantically, in both languages a number of lexicalized reduplicated forms exhibit a shift in meaning, indicative of their having obtained via derivational (non-iconic) reduplication.

Consider finally evidence from phonology. According to Miller (2003: 295), in Nubi "stress variation seems to occur only with reduplicated forms like *ja* 'to come'", with either both members or just the first carrying stress. However, none of the 11 instances found in Wellens (2003) displays such variation: there are 7 occurrences of '*ǧe-*'*ǧa*[22] and 4 of '*ǧa-*'*ǧa*, showing that each member of the reduplicated form carries stress. The same is true not only of the reduplicated forms discussed in section 2, but also of those obtaining via conversion. For instance, in the passive and deverbal nouns[23] formed from reduplicated bases, where stress may shift to the penultimate syllable either just in the second member or in both (Wellens 2003: 140):

(83) a. '*isabu* 'count' > '*isabu-i*'*sabu* 'be counted' (Wellens 2003: 140)
b. '*kasuru* 'break' > *ka*'*suru-ka*'*suru* 'be broken' (Wellens 2002: 140)
c. '*abura* 'imitate > '*abura-a*'*bura* 'imitating' (Wellens 2003: 140)

Therefore, reduplication in Nubi always yields forms with stress on each member. This also appears to be the stress pattern in Nubi compound nouns[24]:

[20] Particularly in the case of rural speakers for whom Juba Arabic is L2 (see Miller 2003: 290 and 298).

[21] As spoken by mainly urban speakers, either as their mother tongue or their primary language (see Miller 2003: 290).

[22] Wellens (2003: 48) writes that "the form 'je-'ja […] although frequently occurring is rather exceptional, since *a* changes into *e* before *a*".

[23] Wellens (2003: 133) uses the term "gerund".

[24] See the examples of compounds in Wellens (2003: 84–85), who does not discuss stress.

(84) '*moyo* ‘water’ + '*ena* ‘eye’ > '*moyo*'*ena* ‘tear’ (Wellens 2003: 84)

This similarity between reduplicated forms and compounds is not surprising on the assumption that total “reduplication is a kind […] of compounding” (Booij 2005: 36).

As for Juba Arabic, most reduplicated forms preserve stress on each member, which “may be indicative of their separate word status” (Miller 2003: 296). However, Miller (2003: 296) also states that “some speakers”[25] assign a single stress to reduplicated verbs formed from a base of the CVCV type:

(85) '*ǧere* ‘run’ > '*ǧere-ǧere* ‘run very fast’ (Miller 2003: 295)

Reduplicated verbs formed from monosyllabic bases – not discussed by Miller (2003) – also appear to have a single stress, on their first member, judging by the only relevant example:

(86) *ǧa* ‘come’ > '*ǧa-ǧa* (no gloss provided) (Miller 2003: 294)

Finally, deverbal nominals, formed[26] by conversion and stress shift, also have a single stress, on their second member:

(87) '*gata-gata* ‘cut into pieces’ > *gata*-'*gata* ‘cutting into pieces’ (Miller 2003: 295)

To conclude, the occurrence of a single stress in such reduplicated forms suggests that they form a single phonological word.

9. REDUPLICATION IN ARABIC

In Classical Arabic there are “schemas containing reduplicated biconsonantal structures, of an onomatopoeic origin” (Anghelescu 2004: 159), which yield pseudo-reduplicated forms. Maas (2005: 404) notes that “doubling is frequently found in expressive forms, although it cannot be identified as a productive device of expressive word formation” and underscores the fact that “most words with this formation have an expressive component, but not all”:

(88) a. *bulbul* ‘nightingale’ (Anghelescu 2004: 159)
b. *dardar* ‘oak’ (Maas 2005: 404)
c. *na‘na‘* ‘mint’ (Maas 2005: 404)
d. *zalzala* ‘shake (about the earth)’ (Anghelescu 2004: 159)

[25] Only 2 out of the 13 speakers recorded and/or interviewed.
[26] From at most disyllabic bases (see Miller 2003: 295).

Reduplication is also attested. For instance, noun reduplication can convey a distributive meaning:

(89) *'ntazara* ***sanatan sanatan*** (Maas 2005: 403)
look out.3SG M PERF year-SG.ACC year-SG.ACC
'He looked out year after year.'

Similarly, reduplication of numerals (most frequently in the accusative) is one of the means of expressing distributiveness:

(90) *wāh idan* 'one-ACC > *wāh idan wāh idan* 'one by one'

An intensifying meaning may be expressed by reduplicated adverbs:

(91) *mašā* ***šuwayyatan šuwayyatan*** (Maas 2005: 403)
go.3SG M PERF little little
'He went very slowly.'

Maas (2005: 405) writes that since "neo-Arabic varieties are used especially in oral language, doubling is common as expressive device, sometimes even lexicalized". Thus, Miller (2003: 297) writes with respect to Sudanese Colloquial Arabic that "non-morphological reduplication / iteration has an expressive, stylistic function", it expresses "augmentative / repetitive / iterative notions" and it "can affect phrases or words (principally adjectives, adverbs and verbs)":

(92) a. *Salattun kitāl mōt* ***kabir-kabir***. (Miller 2003: 297)
Salattun murder death big big
'Salattun is a big killer [= warrior].'
b. *Ar- rājil* ***māšā, mašā, mašā*** *sanāt katīra*. (Miller 2003: 297)
DEF man walk walk walk year-PL.F much-SG.F
'The man walked for many years.'

Much the same holds for the varieties of Arabic which are the lexifiers of Gulf Pidgin Arabic, Pidgin Madam and Romanian Pidgin Arabic respectively. On the other hand, reduplication in Arabic peripheral dialects exhibits many similarities with the one occurring in Juba Arabic and Nubi. Consider reduplication in Nigerian Arabic (Owens 1993). Noun reduplication expresses distributiveness:

(93) *Bu- 'gōdu* ***bi'kinne-bi'kinn****e bas*. (Owens 1993: 199)
HAB stay-3PL place place only
'[They] just stay in different places.'

Reduplication of an adjective conveys intensification:

(94) *ma*' *dā rig* ***ru*'*gāg-ru*'*gāg*** (Owens 1993: 74)
branch.PL thin thin
'very thin branches'

Reduplicated numerals have a distributive meaning:

(95) '*Humma fi l- 'bēt* ***ti*'*nēn-ti*'*nēn***. (Owens 1993: 199)
3PL in DEF house two two
'They are two in a room.'

Nigerian Arabic has a large number of reduplicated verbs "which nearly always signify repeated or frequentive action" (Owens 1993: 129). These include forms "based on CVC […] stems" (Owens 1993: 122):

(96) a. '*šara* 'buy'> '*šar*-'*šar* > 'buy a lot' (Owens 1993: 122)
b. '*tana* 'fold' > '*tan*-'*tan* 'fold up much' (Owens 1993: 122)

Given their semantics and the fact they are formed from CVCV bases, such verbs closely resemble the reduplicated verbs of both Nubi and Juba Arabic. Reduplicated adverbs have an intensifying meaning:

(97) *B- akam*'*mila* '***lāki- 'lāki***. (Owens 1993: 198)
FUT finish a little a little
'I'll finish it little by little.'

Owens (1993: 191) states that "occasionally the singular proximal demonstrative is reduplicated, with or without stress on the repeated demonstrative" to express emphasis:

(98) a. '*hu* ***'da da*** (Owens 1993: 191)
3SG.M DEM PROX.M DEM PROX.M
'this one'
b. *hi* ***'di 'di*** (Owens 1993: 191)
3SG.F DEM PROX.F DEM PROX.F
'this one'

This is strikingly similar to the use of the reduplicated proximal demonstrative in Nubi[27]. Finally, reduplication of prepositions is also attested:

[27] See example (27), section 2.

(99) *Ar-'ru min 'tihit 'taji **'fōg-'fōg**.* (Owens 1993: 199)
DEF air from below F-come.IMPERF on on
'The air from below keeps rising.'

Nigerian Arabic thus resembles Juba Arabic, in which prepositions also undergo reduplication[28]. The uses and meanings of reduplication in e.g. Nigerian Arabic therefore disconfirm Miller's (2003: 298) claim with respect to reduplication in Arabic dialects that "similarities with JA [= Juba Arabic] processes are limited to the expression of an augmentative or repetitive in narratives".

10. REDUPLICATION IN THE SUBSTRATE LANGUAGES

Bari is the main substrate language of Nubi and Juba Arabic. Total reduplication is rather unproductive and appears to apply only to adjectives, quantifiers and verbs. Reduplication of an adjective can form lexicalized nouns:

(100) *mɛjɛ* 'red ochre' > *mɛjɛ-mɛjɛ* 'red widow bird' (Miller 2003: 297)

With both adjectives and quantifiers, reduplication expresses an intensifying meaning:

(101) *kijakwa joré- joré* (Miller 1993: 162)
wild animal many many
'very many wild animals'

Finally, reduplication of verbs can yield lexicalized nouns:

(102) *gör* 'span' > *göri-göri* 'rainbow' (Miller 2003: 297)

Consider next the first languages spoken by users of Gulf Pidgin Arabic and Pidgin Madam. The 16 informants of Næss (2008) and the 10 informants of Bakir (2010) include native speakers of Bengali, Hindi, Urdu and Sinhala (Indo-Aryan), Tamil (Dravidian), Javanese and Tagalog (Austronesian); Sinhala is also the mother tongue of the Sri Lankan informants of Bizri (2005, 2009, 2010). All these languages exhibit total reduplication[29], which is briefly surveyed in what follows.

Total reduplication is well attested in the Indian languages. In Bengali, reduplicated nouns may express distributiveness (103a) or attenuation (103b):

[28] See example (57), section 3.
[29] In addition to other types of reduplication (partial, rhyming, chiming).

(103) a. ***pɔd̪e pɔd̪e*** *bipod̪*. (cf. *pɔd̪e* 'at a step') (Khan 2006: 117)
'There are problems at every step.'

b. *Hæɾ* ***ʤɔɾ ʤɔɾ*** *lag̪tse*. (cf. ***ʤɔɾ*** 'fever') (Khan 2006: 117)
'She's feeling a little feverish.'

With adjectives, reduplication conveys an intensifying meaning:

(104) ***ʤʱ*** *apʃa* 'dim' > ***ʤʱ*** *apʃa* ***ʤʱ*** *apʃa* 'very dim' (Khan 2006: 119)

Reduplication of numerals expresses plurality:

(105) *lak*^{h} 'hundred thousand' > *lak*^{h} *lak*^{h} 'hundreds of thousands' (Khan 2006: 118)

Reduplicated verbs express continuity (106a) or a habitual meaning (106b):

(106) a. *Tuj-ki* ***ʧillajte ʧillaj̪te*** *ajsos?* (cf. ***ʧillaj̪te*** 'yell') (Khan 2006: 116)
'Have you come yelling (all the way)?'

b. ***ʃuja ʃuja*** *tivi dækhe*. (cf. *ʃuja* 'lying down') (Khan 2006: 119)
'She lies down when watching TV.'

Reduplication of adverbs conveys intensification:

(107) *ʃat*^{h}*e* 'along with' > *ʃat*^{h}*e ʃat*^{h}*e* 'simultaneously' (Khan 2006: 118)

Finally, question words may also under go reduplication, with a distributive meaning:

(108) *ke:* 'who' > *ke: ke:* 'who all' (Khan 2006: 117)

Total reduplication is very productive in the closely related Hindi (Agnihotri 2007) and Urdu (Schmidt 2006). Some of the more frequent instances of total reduplication in Hindi and Urdu are illustrated below. With nouns, total reduplication expresses distributiveness (109a) or plurality (109b):

(109) a. *Axbaarvalaa roz* ***ghar-ghar*** *axbaar detaa hai*. (cf. *ghar* 'house') (Agnihotri 2007: 112)
'The newspaperman delivers newspapers every day from house to house.'

b. *Is dukān mēṁ* ***tarah tarah*** *kē masālē miltē haiṁ*. (cf. *tarah* 'spices') (Schmidt 2006: 13)
'Various kinds of spices are available in this shop.'

Some reduplicated forms of nouns also function as adverbs, with a distributive meaning (110a) or denoting continuity (110b):

(110) a. *roz* 'day' > *roz-roz* 'every day' (Agnihotri 2007: 75)
b. *raat* 'night' > *raat- raat* 'all night' (Agnihotri 2007: 75)

Reduplication of adjectives expresses intensification (111a), but may also have a distributive meaning (111b):

(111) a. *kalaa* 'black' > *kalaa-kalaa* 'very black' (Agnihotri 2007: 112)
b. *Sab* ***apnē apnē*** *ghar gaē*. (cf. *apnē* 'to one's own') (Schmidt 2006: 45)
'Everyone went to his own house.'

Reduplicated numerals have a distributive meaning:

(112) *Basemṁ* ***dō dō*** *ghantē kē bād haim*. (cf. *dō* 'two') (Schmidt 2006: 237)
'The buses go every two hours.'

Reduplication also occurs with verb roots in a conjunctive participle (113a), with imperfective participles (113b) and perfective participles (113c), and shows continuity or repetition:

(113) a. *Karvatēṁ* ***badal badal***. (cf. *badal* 'toss') (Schmidt 2006: 111)
'He spent the entire night tossing.'
b. *karte* 'doing' > *karte- karte* 'doing regularly' (Agnihotri 2007: 112)
c. *Ye* ***khaṛī khaṛī*** *usē pukārtī rahī*. (cf. *khaṛī* 'standing') (Schmidt 2006: 184)
'She kept standing and calling (him).'

Reduplication of adverbs usually expresses intensification:

(114) a. *jaldii* 'quickly' > *jaldii- jaldii* 'very quickly' (Agnihotri 2007: 112)
b. *Salim* ***zōr zōr*** *sē cillāyā*. (cf. *zōr* 'loudly') (Schmidt 2006: 65)
'Salim screamed very loudly.'

Question words also undergo reduplication, with a distributive meaning:

(115) a. *kyaa* 'what' > *kyaa-kyaa* 'what different things' (Agnihotri 2007: 112)
b. *Dāvat mēṁ* ***kaun kaun*** *āyā?* (cf. *kaun* 'which') (Schmidt 2006: 31)
'Which various people came to the party?'

In Sinhala, several word classes undergo reduplication. Thus, reduplicated adjectives express intensification:

(116) *digəTə* 'long'> *digəTə-digəTə* 'very long' (Seratne 2009: 42)

As for verbs, past participles may be reduplicated and denote continuation:

(117) *gaa-nəvaa* 'painting'> *gaa-nəvaa gaa-nəvaa* 'while painting' (Seratne 2009: 199)

Reduplication of adverbs with an intensifying meaning is also attested:

(118) *hemin* 'slowly' > *hemin hemin* 'very slowly' (Seratne 2009: 42)

Reduplicated question words have a distributive meaning:

(119) *monəvə* 'what'> *monəvə monəvə* 'what various things' (Seratne 2009: 42)

In Tamil, noun reduplication expresses distributiveness:

(120) *viiti* 'street'> *viiti viiti* 'each street' (Kane 2001: 53)

A distributive meaning is also conveyed by reduplicated personal pronouns:

(121) *avan* 'he' > *avan avan* 'each and every man' (Kane 2001: 53)

With adjectives, reduplication expresses intensification:

(122) *nalla* ' good' > *nalla nalla* 'very good' (Kane 2001: 53)

Reduplicated infinitives and participles express a habitual meaning, continuity or intensity:

(123) a. *neruŋka* come > *neruŋka neruŋka* 'come closer' (Kane 2001: 53)
b. *vantu* 'coming' > *vantu vantu* 'coming regularly' (Kane 2001: 53)

Finally, reduplicated question words have a distributive meaning:

(124) *yaar* > 'who' *yaar yaar* 'which different persons' (Kane 2001: 53)

Total reduplication also occurs in the relevant Austronesian languages. In Javanese[30], noun reduplication may express plurality:

(125) *turis* 'tourist' > *turis-turis* 'tourists' (David 2000: 29)

With adverbs, reduplication conveys an intensifying meaning:

(126) *ésuk* 'morning' > *ésuk-ésuk* 'early in the morning' (David 2000: 82)

When undergoing reduplication question words have a distributive meaning:

(127) *såpå* 'who'> *såpå-såpå* 'each, every' (David 2000: 79)

In Tagalog, reduplicated nouns express either plurality (128a) or distributiveness (128b):

(128) a. *bágay* 'thing'> *bágay-bágay* 'several things' (Aspillera 1989: 117)
b. *araw* 'day' > *araw-araw* 'each and every day' (Rubino 2000: 8)

Reduplicated adjectives have an intensifying meaning:

(129) *pángit* 'ugly'> *pángit-pángit* 'very ugly' (Aspillera 1989: 35)

Verb reduplication may convey distributiveness:

(130) *hati* 'divide' > *hati-hati* 'divide into equal parts' (Rubino 2000: 8)

Reduplication also occurs with question words, which acquire a distributive meaning:

(131) ***Saán -saán*** *kayó nakatirá?* (Aspillera 1989: 29)
'Where [= several places] do you [plural] live?'

11. CONCLUSIONS

All Arabic-lexified pidgins and creoles display pseudo-reduplicated forms. Arabic-lexified pidgins and creoles also exhibit total reduplication. Reduplication is mainly of the inflectional (iconic) type. Derivational (non-iconic) reduplication is attested, but it is limited to a small set of largely lexicalized forms. This confirms

[30] All examples are in the so-called *Ngoko* register.

the observation made by Mühlhäusler (1997: 179) that "although there are a number of reduplicated forms in many Pidgins, in almost all instances these are fully lexicalized rather than members of a productive word-formation paradigm". The meanings of reduplicated forms are frequently identical to those conveyed by repetitions.

Reduplication in Arabic-lexified pidgins and creoles evinces many similarities with the one occurring in Arabic peripheral dialects, such as Nigerian Arabic. The similarities with reduplication in the substrate languages are, however, less numerous. Thus, in Nubi and Juba Arabic reduplication applies to a larger number of bases and expresses a wider range of meanings than in Bari. In Gulf Pidgin Arabic and Pidgin Madam, however, reduplication applies to a smaller number of word classes and covers only a subset of the meanings in comparison to the first languages of the users of these varieties of pidginized Arabic. Finally, there is no productive reduplication in either Romanian Pidgin Arabic or Romanian.

Neither the lexifier nor the substrate languages can therefore account for the status of reduplication in Arabic-lexified pidgins and creoles. This supports Bakker's (2003: 38) conclusion that "reduplication in the first languages of Pidgin speakers and/or in the lexifier language is not transferred to the Pidgin". The case of Hindi, Urdu and Sinhala users of pidginized varieties of Arabic provides further evidence that reduplication in the first language is not replicated in a pidgin, although it may spill over into a speaker's second language. Thus, neither the Gulf Pidgin Arabic of native speakers of Sinhala, nor Pidgin Madam, with Sinhala as its substrate language, exhibits any significant reduplication. On the contrary, according to Seratne (2009: 57), reduplication is one of "the main morphological properties in SLE [= Sri Lankan English]" of Sinhala speakers. Similarly, the Gulf Pidgin Arabic of native speakers of Hindi or Urdu does not display productive reduplication, while "it is quite common for non-standard IE [= Indian English] to use reduplication" (Sailaja 2009: 59).

On the other hand, the occurrence of productive morphological reduplication correlates with the developmental stage[31] of the variety at issue: (i) jargon; (ii) stable pidgin; (iii) expanded pidgin; (iv) creole. Thus, Baker (1995: 33) states that reduplication "is rare in pidgins as a productive process"; according to Bakker (2003: 43), the absence of reduplication in pidgin languages is "one of the most striking structural differences between Pidgins and Creoles"; Bakker and Parkvall (2005: 516) also conclude that "pidgins are for the most part devoid of reduplication, and yet, the process is featured in most documented creoles"[32] and further note that "reduplication as a grammatical process is virtually absent from pidgins" (Bakker, Parkvall 2005: 519); finally, reduplication in jargons and stable pidgins is said to be unproductive (Bakker 2003: 44, Bakker, Parkvall 2005: 514).

[31] In the sense of Mühlhäusler (1997: 5–6).

[32] Although, as noted by "Mühlhäusler (1997: 197 "productive reduplicative processes […] are neither a necessary nor sufficient typological property of Creoles".

These claims are confirmed by the status of reduplication in Arabic-lexified pidgins and creoles. Thus, reduplication is not productive in Pidgin Madam and Romanian Pidgin Arabic – which are jargons, in Gulf Pidgin Arabic – which appears to be undergoing stabilization[33], and in Turku – believed to have been a stable pidgin[34]. The only varieties which display (some) productive reduplication are Juba Arabic – an expanded pidgin, but also a creole – and Nubi – a creole, i.e. precisely those in the higher developmental stages.

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[33] See Næss (2008: 94), Bakir (2010: 226).

[34] Miller (2002: 26–27).

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