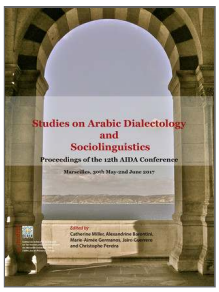

Catherine Miller, Alexandrine Barontini, Marie-Aimée Germanos, Jairo Guerrero and Christophe Pereira (dir.)

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Marijn van Putten

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Introduction

1 An oft-cited common morphological feature of the Modern Arabic dialects as opposed to Classical Arabic, is the reflex of the plural pattern of some of the *faʿīl* adjectives. Where in Classical Arabic the pattern is *fiʿāl*, in modern dialects have *fuʿāl,* whenever a reflex of **u* is retained (Ferguson 1959: 627; Cohen 1962: 137; Blau 1977: 24). This can be seen through labialisation in Maghrebi, e.g. *kbir* pl. *kʷbaṛ* 'big' (Heath 2002: 307), and the vowel *u* in Cairene Arabic, e.g.:

CAr.	Cairene	
kabīr pl. *kibār*	*kibīr* pl. *kubāṛ*	'big'
saġīr pl. *ṣiġār*	*ṣuġayyaṛ* pl. *ṣuġāṛ*	'small'
qaṣīr pl. *qiṣār*	*ʾaṣīr* pl *ʾuṣāṛ*	'short'
ḫafīf pl. *ḫifāf*	*ḫafīf* pl. *ḫufāf*	'light'
ǧadīd pl. *ǧidād*	*gidīd* pl. *gudād*	'new'

2 While it is true that this development has taken place both in Cairene and Maghrebi Arabic, one cannot simply project this to a "Proto-dialectal" Koiné-phase (if there ever was such a thing), as it is simply impossible to see this contrast in the vast majority of the

dialects, as they have lost these short vowels. Nevertheless, the *fiʿāl* to *fuʿāl* development is an innovation which must be explained. No satisfying explanation has been posited so far. Both Ferguson and Blau suggest an *ad hoc* assimilation to the adjacent labial consonant, e.g. *kibār* > *kubār*, which would have subsequently spread to all other adjectives. This development has not taken place in otherwise identical environments, so this explanation introduces more problems than it solves. Moreover, this development did not just affect this plural adjective pattern but also *fiʿāl* nouns, e.g. Cair. *ḥumāṛ* 'donkey' (CAr. *ḥimār*) and Cair. *ḥuṣāṇ* 'horse' (CAr. *ḥiṣāṇ*).

3 It seems then, that we are dealing with a phonetic development which not only affected the plural adjectives, but also affected some nouns. This paper aims to examine this innovation, and the conditioning of the shift of *i* to *u*.

Conditioning of *i* and *u* in Eastern Libyan Arabic

4 A solution to the conditioning of these vowels, might be found in dialects such as Eastern Libyan Arabic. In this dialect, the vowels *i* and *u* are phonetic reflexes of the same phoneme /ĭ/.[1] As the original short vowels **i* and **u* have been lost in open syllables, this pattern no longer affects the vowel in **kibār* as it has become ELA *ukbāṛ*. However, new high vowels that are the result of **a* > /ĭ/ in open syllables as well as epenthetic vowels are affected by it, e.g. ELA *libas* 'he dressed' but ELA *ṭubaḶ* 'he cooked' < *labasa, ṭabaḶa.*[2]

5 Owens (1984: 36ff.) shows that the *i* and *u* can be predicted by the phonetic environment. If the word contains an emphatic consonant, /ĭ/ becomes *u*, whereas in non-emphatic environment the vowels becomes *i*. This is demonstrated in the overview below:

ṭubaḶ 'he cooked'	< **ṭabaḶa*	*kitab* 'he wrote'	< **kataba*
rubaṭ 'he tied'	< **rabaṭa*	*žibal* 'mountain'	< **ǧabal-*
nuḏaṛ 'he watched'	< **naḏara*	*mišat* 'she went'	< **mašata*

6 ELA *g* (< **q*) may also be associated with a back vowel harmony, when there are no high vowels in the word (Owens 1984: 38).

7 Finally, the phoneme /r/ in the environment *ar, ra, rā* and *ār#* triggers this vowel harmony as well (Owens 1984: 39). This is even true if synchronically the *r* is no longer next to an *a* vowel, e.g. *uḶružaṭ* 'she left' < **Ḷa**ra**ǧat*. A small number of words remain, whose back vowel harmony cannot be easily explained, e.g. *lubaz* 'rubbish'.

8 This conditioning also affects original high vowels and epenthetic vowels when they are not syncopated, e.g.

kātib 'he has written'	< *kātib	*kabiš* 'ram'	< **kabš*
rāgud 'asleep'	< *rāqid	*ṭaḅuḶ* 'cooking'	< **ṭabḶ*
ḥāmuḏ 'bitter'	< *ḥāmiḍ		

Fuʿāl nouns and adjectives in Cairene Arabic

9 It seems to be possible to explain Cairene Arabic nouns with a *fuʿāl(a)* pattern (< **fiʿāl(ah)*) with a vowel harmony rule similar to that found in Eastern Libyan Arabic. Whenever a Classical Arabic *fiʿāl(ah)* noun has become *fuʿāl(a)* in Cairene it is in an emphatic environment.[3] As with Eastern Libyan Arabic, *ar, ra, rā* and *ār#* also trigger back vowels. The forms are taken from Hinds & Badawi (1986).

burāẓ 'excrement'	CAr. *birāz*
busāṭ 'carpet'	CAr. *bisāṭ*
ḥuṣāṇ 'stallion'	CAr. *ḥiṣān*
ḥumāṛ 'donkey'	CAr. *ḥimār*
rubāṭ 'tie'	CAr. *ribāṭ*
firāʾ, furāʾ 'separation, partition'	CAr. *firāq*
ʾumāṛ 'gambling'	CAr. *qumār*
ʾumāṭ 'infant's binder'	CAr. *qimāṭ*
ʾušāṭ, ʾišāṭ 'leather strap'	CAr. *qišāṭ*
ṭirāš, ṭurāš 'deafness'	*ṭirāš*[4]
tigāṛa, tugāṛa 'trade'	CAr. *tiǧārah*
gubāṛa, gibāṛa 'splint'	CAr. *ǧibārah*
šikāṛa, šukāṛa 'gunny sack'	CAr. *šikārah*
ḍumāḍa 'bandage'	CAr. *ḍimādah*
nišāṛa, nušāṛa 'sawdust, shaving'	CAr. *nišārah*
il-ġuṭās, il-ġiṭās 'epiphany'	CAr. *ġiṭās*

10 While it is clear that whenever a noun has a *fuʿāl(a)* pattern where *fiʿāl(a)* is expected, the word is in an emphatic environment, the opposite is not true: There are several examples of *fiʿāl(a)* patterns in emphatic environments, e.g.

sitāṛ 'curtain, screen'	CAr. *sitār*
biṭāna 'lining'	CAr. *biṭānah*

biḍāʿa 'goods, merchandise'	CAr. *biḍāʿah*
ʿiṭāra 'spices and herb trade'	CAr. *ʿiṭārah*
ṭibāʿa 'printing'	MSA *ṭibāʿah*
ʿimāra 'apartment building'	MSA *ʿimārah*

11 Sound laws operate without exception, therefore these exceptions require an explanation. It is possible to identify at least one source, namely, Modern Standard Arabic. Words like *ṭibāʿa* 'printing' and *ʿimāra* 'apartment building' are likely MSA borrowings. This however does not yet explain all exceptions.

12 For other exceptions, we may take into account the specific linguistic situation on which Hinds & Badawi's dictionary is based. As pointed out by themselves (1986: XI), the dictionary is primarily based on the dialect of Cairo. Already by the time of writing the dictionary, Cairo had seen massive growth[5] and a certain amount of dialect mixing must have resulted from this.[6] This can plausibly be taken as one of the causes for the somewhat obscured signal in the reflexes of Cairene Arabic.

13 A large number of the *fuʿāl* plural formations of adjectives found in Cairene Arabic can be explained as the result of this vowel harmony pattern, e.g.

14 *kibīr* pl. *kubāṛ* 'big'
kitīr pl. *kutāṛ* 'many'
riḪīṣ pl. *ruḪāṣ* 'cheap'
ṣuġayyaṛ pl. *ṣuġāṛ* 'small'
ʾaṣīr pl. *ʾuṣāṛ* 'short'
laṭīf pl. *luṭāf* 'kind'
niḍīf pl. *nuḍāf* 'clean'
sarīʿ pl. *surāʿ* 'swift, fast'

15 While in nouns the *fuʿāl(a)* pattern can only occur in emphatic environments, this is not the case for the adjective, where the pattern has become regular for non-emphatic adjectives as well, e.g.

16 *raʾīʾ* pl. *ruʾāʾ* 'delicate, fine'
ʾadīm pl. *ʾudām* 'old'
gidīd pl. *gudād* 'new'
Ḫafīf pl. *Ḫufāf* 'light'
gamīl pl. *gumāl* 'beautiful'
tiḪīn pl. *tuḪān* 'thick'

17 These forms are best explained as the result of analogy that spread from the adjectives that regularly received the *fuʿāl* pattern through vowel harmony. As nouns did not have an analogical base to spread such a pattern, *fiʿāl(ah)* nouns retain this original phonetic conditioning, which has been lost in the adjectives.

Labialisation in Skūra Arabic

18 The *fuʿāl* plural pattern attested in Cairene Arabic is often associated with the labialization that we find in Maghrebi Arabic in several of the adjectival plural forms, e.g. Ferguson (1959: 627) who cites kʷbaṛ (<kubāṛ> in his transcription) as a reflex of this pattern. While Ferguson is correct to say that "in some dialects, such as Moroccan, the loss of /u/ often leaves labialized consonants", it is not necessarily proven that this is the only origin of labialization, and it is therefore not established that the labialization in these adjectives must be attributed to a shared innovation **fiʿāl* > *fuʿāl* in adjectives with Cairene. To put this hypothesis to the test, we will look at the Moroccan Arabic dialect of Skūra as described by Aguade & Elyaacoubi (1995).

19 In this dialect, the plural adjective has labialization: *sḤūn* 'warm' pl. *sʷḤān* (Aguade & Elyaacoubi 1995: 108, sec. 5.1.2). The other adjectives with a CCiC pattern are not explicitly mentioned as having labialization, but Aguade & Elyaacoubi (1995: 33) mention several examples in the section on labialization:

20 *kbīr* pl. *kʷbāṛ* 'big, old'
qdīm pl. *qʷdām* 'old'
ktīr pl. *kʷtāṛ* 'much'
ṛqīq pl. *ṛʷqāq* 'soft, fine'
ṣġīṛ pl. *ṣʷġāṛ* 'small'
tqīl pl. *tʷqāl* 'heavy'
Ḫfīf pl. *Ḫʷfāf* 'light'

21 It is clear that an original adjacent short **u* can labialize velar or uvular consonants from the diminutive formations (< **fuʿayl*), although in these it only affects a consonant if it is the first stem consonant. This is presumably because the consonant in second position is next to a high vowel, blocking the labialization (Aguade & Elyaacoubi 1995: 112):

With Cʷ	Without Cʷ
kəlb dim. *kʷlīb* 'dog'	*škəl* pl. *škīl* 'shape'
kəff dim. *kʷfīf* 'palm of the hand'	
gdəḥ dim. *gʷdīḥ* 'bowl'	
qŭbba dim. *qʷbība* 'dome'	*ḥəqq* pl. *ḥqīq* 'truth, reason'
ġəlla pl. *ġʷlīla* 'harvest'	*bġəl* pl. *bġīl* 'mule'

22 Therefore, it is at least possible that the plural adjectives go back to a **fuʿāl* pattern rather than the expected *fiʿāl*. However, if we examine nouns with labialization in similar environments, we find that labialization is not exclusively linked to a vowel **u*. Several examples of labialization are linked to an emphatic environment rather than an etymological **u*:

23 *gʷṭāṛ* ‘hectare’ < Fr. *hectare* ‘hectare’[7]
ġʷṭa ‘cover’ < *ġiṭāʾ*
gəsʿa pl. ***gʷṣāʿ*** ‘large wooden dish’ < *qaṣʿah* pl. ***qiṣāʿ*** (qaṣaʿah, qiṣaʿ)
grīb pl. ***gʷrāb*** ‘relative’ < *qarīb* pl. *ʾaqribāʾ* ‘relative’ (plural presumably form ****qirāb***)
gŭṣṣa pl. ***gʷṣāṣ*** ‘lock of hair’’ < *quṣṣah* pl. ***qiṣāṣ*** (*quṣaṣ*) ‘forelock; lock of hair’
nqŭb pl. ***nʷqāb*** ‘hole’ < *naqb* pl. *ʾanqāb,* ***niqāb*** ‘hole’

24 Some others appear to have transferred the labial quality of the consonant from the singular stem that contained an old **u*, e.g.:

25 *kŭṃṃ* pl. ***kʷṃāṃ*** ‘sleeve’ < *kumm* pl. *ʾakmām* (*kimamah*) ‘sleeve’

26 There is one noun which seems to come from an old *faʿāl* pattern that has undergone spontaneous labialization, namely *ġʷzāl* ‘gazelle’ (cf. CAr. *ġazāl*).

27 The evidence as found in Skūra Arabic is therefore similar to Cairene Arabic. Original **u* causes labialisation, and old *fiʿāl* patterns in emphatic environments also cause labialization. It therefore seems reasonable to assume that, as in Cairene Arabic, *fiʿāl* shifted to *fuʿāl* in emphatic environments. This likewise caused many adjectival plurals to regularly shift to *fuʿāl*. This gave it a broad analogical basis to spread it to all adjectival plurals.

i-umlaut in Jewish and Christian Baghdadi

28 Ferguson (1959: 627, fn. 21) cites yet another example which would point to the adjectival pattern **fuʿāl* in the modern dialects. He points out that Haim Blanc noticed that for several dialects, namely Mosul, Jewish Baghdadi and Aleppo Arabic, the adjectival plural is *CCāC*, whereas the original shape **fiʿāl* undergoes *i*-umlaut, yielding *klēb, klīb* ‘dogs’ < *kilāb*; *lsēn, lsīn* ‘tongue’ < *lisān*; *jmēl, jmīl* ‘camels’ < *ǧimāl*, but *smān, kṯār, mlāḥ*.

29 To test this claim, I have consulted Haim Blanc’s description of the communal dialects in Baghdad, who reproduces this claim for the Jewish and Christian dialect of Baghdad (Blanc 1964: 79-81). Here adjectival plurals indeed always have a CCāC pattern in Jewish and Christian Arabic, whereas nouns with an original pattern *fiʿāl* have a reflex *ī* in Jewish, and *ē* in Christian Arabic. The examples of adjectives cited by Blanc are:

J	C	CAr.	
smān	smān	simān	‘fat’
kbāġ	*kbāġ*	*kibār*	‘big’
zġāġ	*zġāġ*	*ṣiġār*	‘small’
ṭwāl	*ṭwāl*	*ṭiwāl*	‘long’
nḏāf	*nḏāf*	*niḏāf*	‘clean’
ʿġāḏ	*ʿġāḏ*	*ʿirāḍ*	‘broad’
mlāḥ	*mlāḥ*	*milāḥ*	‘nice’

qṣāġ	*qṣāġ*	*qiṣār*	‘short’
qwāy	*qwāy*	*qiwāʾ*	‘strong’

30 Nouns with the *fiʿāl* pattern with *i*-umlaut are:[8]

J	C	CAr.	
lsīn	*lsēn*	*lisān*	‘tongue’
lḥīf	*lḥēf*	*liḥāf*	‘quilt’
ḥzīm	*ḥzēm*	*ḥizām*	‘belt’
lbīs	*lbēs*	*libās*	‘underpants’
(ktāb)	*ktēb*	*kitāb*	‘book’
ḥsīb	*(ḥsāb)*	*ḥisāb*	‘account’
ġjīl	*ġjēl*	*riǧāl*	‘men’
klīb	*klēb*	*kilāb*	‘dogs’
jmīl	*jmēl*	*ǧimāl*	‘camels’
sbīʿ	*sbēʿ*	*sibāʿ*	‘lions’
šmīʿ	*šmēʿ*	*šimāʿ*	‘candles’
slīl	*slēl*	*silāl*	‘baskets’
ḥbīl	*ḥbēl*	*ḥibāl*	‘ropes’
jbīl	*jbēl*	*ǧibāl*	‘mountains’

31 The way the data is presented, one gets the impression that there is absolutely no doubt that the *fiʿāl* nouns underwent *i*-umlaut, whereas the adjectives did not. However, as we have already seen in the previous sections, emphatic consonant play an important role in the *i/u* alternation of nouns of this type in Cairene and Skūra Arabic. All but two adjectives cited are emphatic, whereas none of the nouns cited are. Blanc cites several CCāC nouns, which have not undergone *i*-umlaut. While indeed some of these can be explained as being originally *fuʿāl* (e.g. *flān* ‘so-and-so’), or being borrowed from the Muslim dialect (e.g. *ʿgāḷ* ‘rope for headdress’). Several words have the *i*-umlaut blocked due to emphaticness of the sequence *ār#/ra*.

J	C	CAr.		

ḥṃāġ	*ḥmāġ*	*ḥimār*	‘donkey’	
zyāra	*zyāġa*	*ziyārah*	‘pilgrimage’	
blād	*blād*	*bilād*	‘country’	(M *blād*)
zmāl	*zmāl*	*zmāl*	‘donkey’	(M *zmāl*)

32 A further study of the glossary of Abu Haidar’s Christian Baghdadi description (1991) uncovers more examples:

C	CAr.	
dġāʿ	*ḏirāʿ*	‘old measurement’
qmāġ	*qimār*	‘gambling’
qmāṭ	*qimāṭ*	‘swaddling cloth’
ḥṣān	*ḥiṣān*	‘horse’
nǧāġa	*niǧārah*	‘carpentry’
təǧāġa	*tiǧārah*	‘commerce’
nəḍām	*niḏām*	‘order’

33 In other environments emphatic consonants also block the *i*-umlaut, as pointed out by Abu Haidar (1991: 29): *ǧawēġīn* ‘neighbours’ vs. *faṣāṭīn* ‘dresses’ and *ǧémə*ʿ ‘mosque’ vs. *ṭā́ləb* ‘student’.

34 The material as attested in Christian (and probably Jewish) Baghdadi Arabic is comparable to Cairene Arabic: *i*-umlaut is blocked when there is an emphatic consonant in the root. This is similar to the environment that turns Cairene Arabic **fiʿāl(ah)* into *fuʿāl(a)*. As *fuʿāl* obviously blocks *i*-umlaut, one is able to interpret the distribution of the Baghdadi material as having originally had the same *fiʿāl(ah)* > *fuʿāl(a)* shift in emphatic environments, preceding the *i*-umlaut and syncope. The spread to the few non-emphatic adjectives is then a simple analogy identical to what we find in Cairene and Skūra Arabic.

A Neo-Arabic innovation?

35 The *fiʿāl* > *fuʿāl* shift in the plural adjective, so often cited as a “Neo-Arabic” innovation, has so far not received a clear explanation in terms of historical development. By examining Cairene Arabic, Skūra Arabic and Baghdadi Christian Arabic, I hope to have shown that *fuʿāl* form must be understood within a broader pattern of *vowel harmony* that shifts the high vowel **i* to *u* in emphatic environments. This splits the historical *fiʿāl(ah)* pattern into two groups:

	fiʿāl(ah) [-emphatic]	*fiʿāl(ah)* [+emphatic]
Cairo	CiCāC(a)	CuCạ̄C(a)
Skūra	CCāC(a)	C^{w}CāC(a)
Baghdad	CCēC(i)	CCāC(a)

36 Due to what is probably a statistical accident, the majority of adjectives that had an original *fiʿāl* plural contained emphatic consonants in the root, or became emphatic in the plural due to the emphasization of the sequence *ār# > ạ̄r#*. As a result, most of them regularly became *fuʿāl* plurals in these dialects. This pattern was then spread to all adjectival plurals.

37 This split should probably be understood as a shift **i > u* before *ā* in an emphatic environment for these dialects.[9] There are however several questions that are relevant to the history of the modern Arabic dialects. First, one needs to answer whether this is a shared innovation between the modern dialects; Second, one needs to answer whether this truly is a pan-Arabic innovation, and happened at an early enough period to be considered a true shared "neo-Arabic" innovation.

38 To answer the first question, it does not seem unlikely that several separate dialects would have innovated the vowel harmony as we find it. Even Classical Arabic *i* and *u* are not very contrastive (for a discussion see Owens 2006: 51-67), this low contrastive value of the high vowels as well as the backing effect of emphatic consonants is found in most - if not all - Arabic dialects. The phonetic conditioning of the vowel harmony therefore cannot be taken as a convincing case of a shared innovation. Parallel development is also possible. The analogy of the *fuʿāl* plural to adjectives whose stems do not trigger the vowel harmony is more difficult to explain as parallel development; This is a specific analogical innovation, and it does not seem likely that every dialect would have participated in this development in the same way.

39 The second question has already previously been questioned. Behnstedt & Woidich (2005: 14) for example, point out the Jiblih dialect does not seem to have the *fuʿāl* plural for adjectives. Jastrow (1986) does not contain enough data to fully confirm this: *samīn(ih)* pl. *simān* 'fat', *ṣaġīr(ih)* pl. *ṣiġār* 'small'. Ṣanʿānī provides us with more data, and seems to generally point in the same direction. There are clear cases of *fiʿāl* adjectival plurals in Ṣanʿānī Arabic, but Watson (1993; 1996), Qafisheh (1992: 175f) and Behnstedt (1992-2006) seem to disagree on whether the plural is always *fiʿāl* or occasionally *fuʿāl*. The list below is the list as given by Qafisheh, but forms added by Watson and Behnstedt are given.

40 *ḏaʿīf* pl. *ḏiʿāf* (Q), [*ḏaʿīfīn/ḏuʿafāʾ* (B)] 'weak'
gaṣīr pl. *giṣār* (Q), [*gaṣwar/gaṣīrīn* (B)] 'short'
ḥawīs pl. *ḥiwāṣ* 'narrow'
wasiḤ pl. *wisāḤ* 'dirty'
ǧadīd pl. *ǧidād* (Q), *ǧudād* (B) 'new'
ṯagīl pl. *ṯigāl* 'heavy'
dagīg pl. *digāg* 'thin'
kabīr pl. *kibār* (Q, B, W), *kubār* (W) 'big'

ġalīḏ pl. *ġilāḏ* ‘fat’
naḏīf pl. *niḏāf* ‘clean’
galīl pl. *gilāl* ‘little; few’
ṭawīl pl. *ṭuwāl* (Q, B, W) ‘long; tall’
zġīr (Q) *zaġīr* (B, W) pl. *zġār* (Q), *zuġār* (B, W) ‘small, little’
samīn (B) pl. *simān* (B) ‘fat’

41 The Ṣanʿānī data suggests that there is either variation in this position (due to dialect mixing? Free variation?) or that *i* and *u* are not actually contrastive in this position. Whatever the case may be, it seems clear that there was no general shift of the adjectival plural from *fiʿāl* to *fuʿāl*. From this data we may tentatively suggest that the innovation to have *fuʿāl* in all adjectival plurals is not a pan-Arabic innovation that affected all modern dialects.

42 Also Andalusi Arabic does not appear to have undergone this development. This much can be deduced from the cases of Andalusi Arabic transcribed in the Latin script (forms taken from Corriente 1997):

43 *quibír* pl. *quibár* ‘big’
cacír pl. *quiçár* ‘short’
çaguér pl. *cigár* ‘small’
c/çemín pl. *cimén* ‘fat’
raq(q)uíq pl. *ric/quáq* ‘thin’
raḳíç pl. *riḳáç* ‘light’
ḳafíf pl. *ḳif(f)éf* ‘light’
ĉaquíl pl. *ĉicál* ‘heavy’

44 While it is true that Alcalá’s dictionary, from which most of the Latin-script transcriptions of Andalusi Arabic stem, has a fair share of classicisms (e.g. Corriente 2013: 126, 130), it also contains many vulgarisms. It seems unlikely that something so basic, and well outside of Classical Arabic phraseology, as adjectival plurals would be classicized, and I am therefore inclined to take them as true examples of retained *fiʿāl* plurals in Andalusi Arabic.

45 If the interpretation of the Ṣanʿānī and Andalusi data is correct, it shows that the innovative *fuʿāl* adjectival plural did not spread over the complete dialect continuum of the modern dialects, the original situation being retained on the two edges of this continuum; Its absence in Andalusi, but presence in Maghrebi – with which Andalusi otherwise shares many similarities – may even suggest that this innovation only spread over the Arabic dialect continuum fairly late, and therefore did not affect Andalusi. The possibility of late and (almost) universal spread of innovations is something that needs to be taken into account at all times when discussing the history of the modern dialects, as these dialects should be seen as a large dialect continuum.

Conclusion

46 Cairo Arabic, Skūra Arabic and Christian (and Jewish) Baghdadi Arabic all appear to have innovated a new adjectival plural *fuʿāl* instead of the Proto-Arabic **fiʿāl* (as attested in Classical Arabic and Andalusi Arabic). I have argued that this innovation is an analogical generalization due to the large amount of adjectives affected by the conditioned shift of **fiʿāl(ah) > fuʿāl(ah)* in emphatic environments. The dialects discussed all show signs of this

conditioned development in nouns. This established conditioning gives a clear motivation for this morphological innovation, which has previously remained unexplained.

47 It has been argued that, while this vowel development and subsequent analogy in the adjectival plural might be a shared innovation, it cannot be an innovation that should be reconstructed back to a koiné ancestor of all the modern Arabic dialects as such the innovation would have to postdate the breakup of a single ancestor, since Andalusi Arabic and several varieties of Yemeni Arabic have not undergone this innovation.

48 A question that has not been dealt with in this paper, but certainly warrants further study, is whether there are other environments in which **i* shifts to *u* besides emphatic *fiʿāl(ah)* patterns.

49 It is hoped that this paper has shown the importance of the application of the comparative method to the Arabic dialects, and that a careful examination of the conditioning factors that motivate reflexes of Arabic dialects allows us to better understand their historical development.

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NOTES

1. I follow the transcription of Benkato (2016), which is an excellent reexamination and of the vowel harmony system as described by Owens (1984).
2. Very similar processes take place in Najdi Arabic (Ingham 1994: 14), Khuzistani Arabic (Ingham 1973: 534ff.) and Muslim Baghdadi Arabic (Blanc 1964: 34ff.).
3. However, original **u* is retained in Cairene Arabic. Unlike Eastern Libyan Arabic the high vowels have not merged, e.g. *fulān* 'so-and-so', *buḥūr* 'seas', *suxām* 'filth, dirt', *ḥubb* 'love'.
4. The CAr. verbal noun of 'to be deaf' is *ṭaraš*. But CiCāC is a productive verbal noun formation.
5. In the period from 1882 and 1937, the population of Cairo more than tripled (Raymond 2000: 319).
6. The earlier dictionary by Spiro (1895) already shows much of the same mixed pattern, but whenever both a *fiʿāl(a)* and *fuʿāl(a)* options are possible for Hinds & Badawi, Spiro only lists the *fuʿāl(a)* form. I have identified two forms that have a *fuʿāl(a)* pattern, where only *fiʿāl(a)* is recorded by Hinds & Badawi, namely: *buḍâʿa* 'merchandise' and *buṭâna* 'lining'.
7. While not of ancient origin, this example shows that labialization is not linked to the presence of **u*.
8. Words in brackets are likely loans from Muslim Baghdadi.
9. And certainly several more dialects, e.g. the Syrian Soukhne dialect lacks *i*-umlaut in the adjectival plural (Behnstedt 1994: 29) and Mekkan Arabic seems to have *u* in adjectival plurals like Cairene Arabic (Schreiber 1970: 64).

ABSTRACTS

In several modern Arabic dialects the noun pattern *fiʿāl(ah)* shifts to *fuʿāl(ah)* in emphatic environments. This development also affects adjectival plurals with an original shape *fiʿāl*. From this conditioned shift the innovative *fuʿāl* pattern was generalized to all adjectives. It is not likely that this development goes back to a Proto-dialectal "koiné".

INDEX

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AUTHOR

MARIJN VAN PUTTEN

Leiden University