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**ENLARGING ARABIC LEXICON BY NON
CONCATENATIVE PROCEDURES.
THE CASE FOR FAʿLALA PATTERN
IN MODERN ARABIC**

1. Arabic, just like any other language, needs to coin new words to refer to new realities and concepts, specially technical and abstract meanings appearing every day in our globalized world. Many of these new words come from English or, not so frequently, other European languages such as French, German, Italian or Spanish. It is well known that these languages, in order to produce new terms, resort frequently to a powerful tool, namely suffixation, that is to say, adding a segment called suffix to a lexical basis just to denote a derivative new meaning. This type of procedure is labeled in morphology studies as concatenative, based on stringing morphemes together.

2. However, Arabic, as a Semitic language, does not rely mainly on concatenative procedures. While it is true that Arabic do have a set of inflectional suffixes (number and gender), and one derivational suffix, called in native terminology *nisba* (-*īya*), some of the most characteristic morphological devices of this language are based on the non concatenative morphology, also called discontinuous or introflexional. As Arabic morphology largely relies on a three consonant root, just like a skeleton, which can be modified and adapted according to many fixed patterns conveying different meanings and semantic nuances, the non concatenative procedures are simple to be applied and become powerful at every historical stage of the language. Prominent samples include the formation of the so-called ‘broken plural’¹ or the diminutive, both by means of modifying the root and not by adding suffixes.

¹ An excellent study of the non concatenative morphology of Arabic and Semitic in respect to broken plural is Ratcliffe (1998), together with some previous work on the same line, such as McCarthy & Prince (1990).

3. In this paper we will explore the way in which Arabic incorporates to its lexicon some Western words and concepts based on the addition of a set of suffixes taken from Latin, namely, *-ation*, *-ization*, and *-isation*, found in many European languages, in addition to English *-ing*. The purpose is to form new nouns denoting the act, process, or result of doing something, or of making something. When we say, for instance, ‘programming’, we refer to the action of creating and producing programs (especially in computer sciences). When we say ‘internacionalización’ (Spanish), we mean that a given action or concept acquires an international dimension and comes to be found in many countries. When we use the new term ‘évaluation’ (French), we seek to indicate the process of assigning a given value to an action.

4. The first choice of Arabic to reproduce this new terms is clearly the pattern called by native grammarians *tafʿīl*², which symbolizes a noun having a first ‘t’ followed by a ‘a’ vowel, the first consonant of the root, the second consonant, a long ‘ī’ vowel and finally the third consonant of the root². This may also be represented as [ta12ī3]. This pattern is the *maṣḍar* (verbal noun, having sometimes the value of western infinitives) of the second derivate verb in Arabic, characterized by a doubled middle consonant (but not in the *maṣḍar tafʿīl*). It stands to reason to choose this pattern, as the second verbal form usually denotes causative and factitive meanings, and it is frequently employed to coin a deverbal noun starting from a pre-existing simple noun to express the action of doing, giving or transforming something according to the basic noun. So, if *siyāsa* means “politics”, Arabic can create a new term *tasyīs*, by inserting the three basic consonants of the first noun [s, y, s] in the pattern *tafʿīl*, thus producing the aforementioned *tasyīs*, which means ‘politization’. Other samples include:

Basic noun	Meaning	New noun	Meaning	AC ³	W ⁴
<i>jisr</i>	bridge	<i>tajsīr</i>	bridging	159	0
<i>jamād</i>	Inanimate body	<i>tajmīd</i>	Freezing, blocking	5038	X

² The three symbols *f-ʿ-l* are taken from the root [f-ʿ-l], which refers to the concept of ‘action, doing’.

³ The figure in this column indicates the number of occurrences of the term in the database *ArabiCorpus* maintained by Dilworth Parkinson (www.arabicorpus.byu.edu), abbreviated as AC. The search was performed on the newspapers section of the database, as it reflects the actual nowadays language. It should be observed that including a word in this paper does not necessarily mean that this word is well established in actual language use, only that we have documented the word in at least one source. Among a variety of sources, we have relied on Moroccan press, where a good deal of samples have been attested.

⁴ A 0 means that the word is not attested in Hans Wehr’s dictionary (Wehr 1979), whereas an X means that the word is included therein.

<i>jayš</i>	army	<i>tajyīs</i>	mobilizing	294	X
<i>ḥajm</i>	size	<i>taḥjīm</i>	sizing	1212	0
<i>ḥiss</i>	perception	<i>taḥsīs</i>	sensibilization	123 ⁵	0
<i>ḥiqba</i>	period, age	<i>taḥqīb</i>	periodization	49	0
<i>ḥīn</i>	time	<i>taḥyīn</i>	actualization	47	0
<i>dawla</i>	state, nation	<i>tadwīl</i>	internationalization	804	1
<i>šayx</i>	old men	<i>tašyīx</i>	ageing	0	0
<i>ṭifl</i>	child	<i>taṭfīl</i>	infantilization	0	0
<i>ġarb</i>	west	<i>taġrīb</i>	Westernizing	614	0
<i>qīma</i>	value	<i>taqyīm</i>	Evaluation	8788	1
<i>kabd</i>	affection, pain	<i>takbīd</i>	inflicting	102	1
<i>makān</i>	place	<i>tamkīn</i>	empowering	4922	1
<i>naẓm</i>	order, system	<i>tanẓīm</i>	organization	39278	1
<i>ḥāmīš</i>	margin	<i>tahmīš</i>	marginalization	3043	0

Some of these new coinages (and other similar terms not included in the above chart) can be found in Modern Arabic dictionaries. However, many of them, in spite of being currently used, did not find a way into lexical works, and continue to be analyzed and discussed by language academies and scholars interested in lexicology⁶. This process is known in native linguistic studies as *ištiqāq*, that is to say, resorting to an existing Arabic pattern and inserting the skeleton (three consonants) of a given root to denote a new meaning related to the same lexical root. As this is the preferred way to coin new terms in Arabic, Academies usually accept it⁷. The fact that dictionaries, even the recent ones, do not include many of these new terms, reveals some gap between language usage and lexicography works. A question of time, to be sure.

⁵ Almost every instance of this word is attested in the Moroccan material used in the ArabiCorpus, the newspaper *Attajdid*, as this term is widespread in Morocco, but quite unusual with this meaning in other Arabic countries.

⁶ In fact, almost every term included in the above chart is discussed in the works by ʿAbd al-ʿAzīz 2007, and, to a lesser extent, ʿDayf1990, among many other studies devoted to the lexical creation process in Arabic.

⁷ As stated by ʿAbd al-ʿAzīz (2007: 190), these coinages can be accepted on the basis that they come to fill a gap in the root derivatives, or to complete the morphological potential of a root (*takmila furūʿ mādda luġawiyya lam taḍkur baqiyyatahā l-maʿājim*).

5. However, there are many new words which entered Arabic from English, or, not so frequently, other European languages such as French, German, Italian or Spanish, which contains four or more than four consonants. So they do not conform with genuine Arabic patterns, mostly formed by three consonants. In this case, *tafʿīl* pattern, applied only to three consonant words, is no longer useful. Some of these borrowings, specially those having five or more consonants, remain unchanged, or with slight modifications, such as *tiknūlūjiyā* ‘technology’, *dīmuqrāṭiyyā* ‘democracy’, *diblūmāsiyā* ‘diplomacy’, and *ʔaydiyūlūjiyā* ‘ideology’, among many others. But if the foreign term can be reduced to a skeleton of four consonants, Arabic resort to another nominal pattern to form new nouns based on the borrowed term, called *faʿlala*⁸ in native grammar terminology, which can also be represented as [1a23a4a]. Interestingly enough, native terminology uses only three distinct consonants in the symbol *faʿlala*, the last ‘l’ standing for any consonant, not necessarily for the same third consonant, which could give raise to [1a23a3a]⁹. That may be somehow confusing, but the way Arab grammarians analyzed and described the language was entirely based on the three consonants pattern, symbolized by f-ʿ-l. A fourth consonant is felt, at least from this angle, as an addition.

6. As regards to the morphological mapping of *faʿlala*, it may be composed by four different consonants: *handasa*, *tarjama*, *haykala*. This is the basic pattern in which the native representation is based. Another possible formation consists of three ‘original’ consonants with the insertion of a ‘w’: *ʕawlama*, *ḥawsaba*, *ḥawkama*. In this case, Arabic linguists use the pattern *fawʕala* to refer to it. Other *faʿlala* variant includes an insertion of a ‘y’: *bayṭara*, *ʕaydala*, thus getting a pattern labeled as *fayʕala*. A final ‘n’ may be added to produce another variant: *qarʕana*, *ʕaxʕana*, *farḍana*. The pattern which refers to this type of nouns is, consequently, *faʕlana*.¹⁰ Other *faʿlala* samples are formed by the duplication of a supposed bilateral root, like *xaxxaʕa*, *raʕraʕa*, *zaʕzaʕa*, *waswasa*. As our main concern in this paper is to explore the synchronic dimension of new Arabic coinages based on *faʿlala*, we can leave aside the question of the originality of its components and the historical and diachronical perspective.

7. *Faʿlala* was already in use in pre-modern Arabic, probably to incorporate new borrowings by means of adapting them to a pattern which sounded not too

⁸ The pattern ends with a *taʔmarbūta* in Arabic writing: *فَعَالَة*. We don’t represent this final –t, for it is only realized in context form, when the noun is followed by other word. In pausal form, no –t is perceived, or only a weak –h in careful pronunciation.

⁹ For a detailed study of quadriconsonant words in Arabic, see Fleisch (1979:425-464), and also the native point of view in Sibawayhi (286-304)

¹⁰ Arab grammarians and linguists devoted many pages of their treatises to discuss if this final ‘n’, in every word it is attached to, belongs to the original root or must be considered as a suffix. See, for instance, Sibawayhi (IV, 299-300). See also a detailed study of *faʕlana* in modern Arabic by al-Aqṭaš (2011).

strange at Arabs' ears. Some prominent samples of these relatively old terms include *tarjama*, *falsafa*, *handasa*, *daḥraja*, *qaṭara*, *zaxrafa*. Interestingly enough, these terms refer mostly to an activity which may be projected into an object, but may remain also in the intransitive domain, whereas the new terms coined after faʿlala in modern Arabic are mainly transitive and need an object, as we state below.

8. It is important to have in mind that *faʿlala* is a verbal noun, a *maṣdar* according to Arabic terminology. Consequently, it is often possible to create a verbal form derived from it¹¹. Consider, for instance, the term *maḡraba* 'make something or someone Moroccan, Moroccanization'. Automatically, following the morphological rules of Arabic, a verb *maḡraba* (past) *yumaḡribu* (present) may be posited, meaning 'to make something or someone Moroccan'. And, in the same line, a derivative verbal noun and a finite verb can be created starting from *maḡraba*, by adding a *ta-* prefix and modifying the noun pattern by insertion of an *-u-* vowel and deletion of the final *-a(t)*: *tamaḡrub*. This new noun is used to account for an intransitive and reflexive action, and should be translated as 'to make/become (oneself) Moroccan'. And, once again, a finite verb may be formed on the same basis: *tamaḡraba* (past) *yatamaḡrabu* (present)¹². This formation process clearly shows the power of non concatenative morphology in a Semitic language like Arabic, giving rise to a considerable number of new words which cover somehow the area that are covered by suffixation in European languages.

9. The first set of examples considered here are new faʿlala coinages created from previous Arabic words with four or more consonants. When the base noun has five or more consonants, it is reduced to only four by means of deleting letters which can be seen as additional, not belonging to the original root. This is the case of *barmaja* 'programming', formed from the noun *barnāmaj* 'program' by deletion of the 'n' and the 'ā'¹³, or *ʔaṣṭara*, derived from *ʔuṣṭūra* with deletion of 'ū'.

¹¹ This is not the place to discuss what comes first, the *maṣdar* or the finite verb. Arab grammarians have largely dealt with this point, but from the perspective applied in this paper, the question is of little interest.

¹² Interestingly enough, there are some cases in which only the second intransitive form is in use. For instance, the verb *tamaḡwara yatamaḡwaru* 'to focus on' (*yatamaḡwar an-niqāš ḥawla mawḏūʿ al-muṣṭawṭanāt al-ʔisrāʔiliyya* 'discussion focuses on Israeli settlements'), derived from a base noun *miḡwar* 'axis' through a hypothetical **maḡwara* with its verb **maḡwara yumaḡwiru* which is not in use. Another sample is that of the verb *tamaḡkaza yatamaḡkazu* 'to concentrate', whereas the transitive form **markaza yumarkizu* is not attested.

¹³ A similar procedure in the formation of broken plurals of nouns whose singular consist of 5 or 6 consonants is observed and analyzed in Moujib (1998).

Basic noun	Meaning	New noun	Meaning	AC	W
<i>ʔijrāʔ</i>	proceeding	<i>ʔajraʔa</i>	implementation, formalization	21 ¹⁴	0
<i>ʔusṭūra</i>	legend	<i>ʔasṭara</i> ,	legendarization	55	0
<i>ʔislām</i>	Islam	<i>ʔaslama</i>	Islamization	382	0
<i>ʔinsān</i>	human kind	<i>ʔansana</i>	humanization	210	0
<i>barnāmaj</i>	rogram	<i>barmaja</i>	programming	825	X
<i>dustūr</i>	constitution	<i>dastara</i>	constitutionalization	17	0
<i>saraṭān</i>	cáncer	<i>sarṭana</i>	cancering, producing cáncer	11	0
<i>ʕaskar</i>	army	<i>ʕaskara</i> ¹⁵	militarization	394	0
<i>fibrāyir</i>	february	<i>fabrara</i> ¹⁶	februarization	0	0
<i>kahrabāʔ</i>	electricity	<i>kahraba</i>	electrization	1321	X
<i>muʔassasa</i>	institution	<i>maʔsasa</i>	institutionalization	406	0
<i>muʕjam</i>	dictionary	<i>maʕjama</i>	including in a dictionary, dictionarization	0	0
<i>miʕyār</i>	criterion	<i>maʕyara</i>	applying criteria	10	0
<i>namūḍaj</i>	model	<i>namḍaja</i>	taking as a model	64	0
<i>minhāj</i>	method	<i>manhaja</i>	making methodological	18	0
<i>haykal</i>	structure	<i>haykala</i>	structuration	4034	0

10. A second set of new words showing the pattern faʕlala consists of coinages made by means of borrowing foreign words, after determining the four consonants skeleton on which the derivative process is to be based.

Basic noun ¹⁷	Meaning	New noun	Meaning	AC	W
<i>ʔūtūmātikī</i>	authomatic	<i>ʔatmata</i>	making authomatic	722	0
<i>ʔaydiyulūjijā</i>	Ideology	<i>ʔadlaja</i>	ideologization	129	0
<i>ʔiḍāʕa</i>	Radio	<i>ʔaḍyaʕa</i>	broadcasting	0	0
<i>uksīd</i>	Oxid	<i>ʔaksada</i>	oxidization	241	X
<i>bastūrais</i>	pasteurizing	<i>bastara</i>	pasteurization	5	X
<i>tilifṭizyūn</i>	Television	<i>talfaza</i>	televising	1039	X

¹⁴ All these 21 cases are attested in the Moroccan material used in the ArabiCorpus, the newspaper Attajdid.

¹⁵ Compare with *tajyīs* as mentioned above.

¹⁶ This new word has been attested in Moroccan press. It refers to the movement of 20th February 2011, when many cities lived social contestations and demonstrations headed by the young generation.

¹⁷ Some of these nouns do not have a clearly independent status in Arabic. They have been borrowed just like they arrived from other languages, with only slight modifications.

<i>tīlifān</i>	Telephon	<i>talfana</i>	telephoning	1	X
<i>twītar</i>	Twiter	<i>tawtara</i>	twitering	0	0
<i>dūblāj</i>	Doubling	<i>dablaja</i>	dubbing	91	0
<i>rādīkāli</i>	Radical	<i>radkala</i>	radicalization	3	0
<i>rīsaykl</i>	Recycle	<i>raskala</i>	recycling	0	0
<i>galfanais</i>	galvanize	<i>Ġalfana/ jalfana</i>	galvanization	9	X
<i>fābrika</i>	factory	<i>fabraka</i>	fabrication	256	0
<i>fāys bāk</i>	facebook	<i>fasbaka</i>	facebooking	0	0
<i>hallūsin</i>	hallucination	<i>halwasa</i>	hallucination	177	X

The figures at the two last columns show that, while some of these new terms are relatively well established in Arabic (*talfaza*, *atmata*, *fabraka*, *adlaja*), others remain unknown to the general public¹⁸. As to the morphological angle, it is clear that an abstraction process led to a theoretically new root made of four consonants, by means of deleting every consonant or glide felt by Arabic ears as additional not belonging to the root. Language purists do not easily accept these new coinages, just because they are not based on genuine Arabic roots. This process is generally called *taʕrīb*, that is to say, ‘arabization’, a method of creating lexical items which must be avoided unless the first and preferred method, called *ištiqāq* ‘internal derivation from a pre-existing Arabic root’ cannot be used. A particular case is that of the noun ‘democratization’, based on ‘democracy’, which entered into Arabic in an “extended” non regular pattern: *damaqrata*, consisting of five consonants, and thus theoretically not acceptable in Arabic (*tafaʕlala*). Some linguists, like ʕAbd al-ʕAzīz (2007:225-6), treat this question and propose a shortening of the pattern, giving rise to *daqrata*, or even *maqrata*. However, a quick perusal on ArabiCorpus database reveals 380 occurrences of *damaqrata* against 5 cases of *daqrata* and 3 cases of *maqrata*. These figures indicates that such a popular and widespread new word imposes himself in actual language use in spite of being a non heterodox pattern.

11. The next set of samples included in the chart below are formed in a pattern labeled by native linguists as *faʕlana*, because it is based on a given three consonants root plus a ‘n’ suffix, forming a new quadriconsonantal root. It is important to have in mind that a pattern *tafʕīl* should have been applied

¹⁸ We would like to emphasize at this point that our aim is to describe language use, even if it is not widespread. Concerning the terms that do not appear in Wehr nor in Parkinson’s database (*aḡyaʕa*, *tawtara*, *raskala* and *fasbaka*) are attested in a variety of sources, mainly Moroccan press. This is not surprising if one has into account that the edition of Wehr we used here was edited in the late seventies, and most sources of Parkinson press database are newspapers dating back to late nineties.

to the basis, the trilateral root. However, this is not the case, mainly because a word conforming to *tafʕīl* pattern does exist, but with another meaning. So, the semantic space is occupied, and language has to create a new form. A good sample of this is the word ‘personalization’, which, in principle, should have been translated as *tašxīš*, taking the root [š-x-š] ‘person’. But *tašxīš* is frequently attested with the meaning of ‘diagnosis’. For that reason a new word is created by adding an ‘n’ suffix: *šaxšana*, according to *faʕlana* pattern. The same may be said concerning *šaklana*, because of the spreading of *taškīl* with the sense of ‘formation, creation’, or *ʔarxana*, because *taʔrīx* is semantically occupied by the meanings of ‘date; history’.

Basic noun	Meaning	New noun	Meaning	AC	W
<i>taʔrīx</i>	date	<i>ʔarxana</i>	‘datation’	0	0
<i>tilqāʔi</i>	spontaneous	<i>talqana</i>	‘making spontaneous’	0	0
<i>raqm</i>	number	<i>raqmana</i>	digitalization	30	0
<i>šabaka</i>	net	<i>šabkana</i>	‘to use the internet’	0	0
<i>šaxš</i>	person	<i>šaxšana</i>	‘personalization’	212	0
<i>šarʕ</i>	Law	<i>šarʕana</i>	‘to make something legal’	162	0
<i>šaʕb</i>	people	<i>šaʕbana</i>	‘popularization’	1	0
<i>šakl</i>	form	<i>šaklana</i>	‘formalization’	4	0
<i>ʕašr</i>	Time, period	<i>ʕašrana</i>	‘make something contemporaneous, modern’	281	0
<i>ʕaḍw</i>	member	<i>ʕaḍwana</i>	‘make someone a member’	0	0
<i>ʕaql</i>	Mind, intellect	<i>ʕaqlana</i>	‘rationalization’	273	X
<i>ʕilm</i>	Science, knowledge	<i>ʕalmana</i>	‘laicization, secularization’	295	0
<i>fard</i>	One, single person	<i>fardana</i>	‘individualization’	5	0
<i>fušḥà</i>	Classical Arabic	<i>fašḥana</i>	‘classization’	0	0
<i>walad</i>	boy, child	<i>waldana</i> ¹⁹	‘infantilization’	31	0

The figures at the right side of the chart point to the same situation we discussed in the above chart: some of the neologisms are relatively widespread in nowadays Arabic, while others remain unknown or not frequently used.

12. As to the pattern *fawʕala*, which is a variant of *faʔlala* in which the four basic consonants include a ‘w’ in the second position, it is clear that an ‘ā’ present at the surface of the basic noun has been reinterpreted as a ‘w’. This is a very common phenomenon in the realm of broken plural patterns in Arabic, where a singular *fāʕil* or *fāʕila* produces a plural *fawāʕil*, because the ‘ā’ is reinterpreted

¹⁹ Compare with *tatfīl*, with the same meaning.

as an 'w' in the deep structure level²⁰. The word *ḥawkama*, however, is somehow problematic, as it is not easy to detect the basic noun. Could it be connected to *ḥākīm* 'ruler, sovereign', and then the new term *ḥawkama* could design the (positive) way a ruler acts?

Basic noun ²²	Meaning	New noun	Meaning	AC	W
<i>ḥāsūb</i>	computer	<i>ḥawsaba</i> ,	computering	243	0
<i>ḥukm</i>	power	<i>ḥawkama</i> ²³	governance	248	0
<i>xāṣṣ</i>	private	<i>xawṣaṣa</i> ²⁴	privatization	232	0
<i>ʕālam</i>	world	<i>ʕawlama</i>	globalization	8834	0
<i>qānūn</i>	law	<i>qawnana</i>	codification	74	0

13. Another interesting set of samples are taken from names of countries and regions, to convey the general meaning of making someone or something like it were from the country or region which performs as the noun base. Let us consider the next samples:

Basic noun ²⁵	Meaning	New noun	Meaning	AC	W
<i>al-ʔurdun</i>	Jordan	<i>ʔardana</i>	jordanization	8	0
<i>ʔisbāniya</i>	Spain	<i>ʔasbana</i>	hispanicization	3	0
<i>ʔisrāʔil</i>	Israel	<i>ʔasrala</i>	israelization	58	0
<i>ʔalmāniya</i>	Germany	<i>ʔalmana</i>	germanization	2	0 ²⁶
<i>ʔamrika</i>	America	<i>ʔamraka</i>	americanization	267	0 ²⁷
<i>ʔinjlitirā</i>	England	<i>ʔanjala</i>	anglicization	4	0
<i>al-baḥrayn</i>	Bahrein	<i>baḥrana</i>	making bahreini	16	0
<i>al-balqān</i>	The Balkans	<i>balqana</i>	balcanization	85	0
<i>tūnis</i>	Tunisia	<i>tawnasa</i>	making tunisian	4	1
<i>as-saʔūdiyya</i>	Saudi Arabia	<i>saʕwada</i> ²⁸	making saudian	176	0
<i>ṣahyūn</i>	Zion	<i>ṣahyana</i>	zionization	142	0
<i>aṣ-ṣūmāl</i>	Somalia	<i>ṣawmala</i>	somalization	40	0
<i>ʕirāq</i>	Iraq	<i>ʕarqana</i> ²⁹	iraqization	25	0
<i>ʕumān</i>	Oman	<i>ʕamnana</i> ³⁰	making omani	1	0

²⁰ Consider for example *rātīb* 'salary' pl. *rawātīb*, or *xātima* 'conclusion, end' pl. *xawātim*.

²¹ An alternative form *ḥakāma* is attested, but only 4 times in Arabi Corpus.

²² There is another form for this meaning: *xaṣxaṣa*, by doubling the two basic consonants, which is much more frequent (4596 times in Arabi Corpus).

²³ Wehr's dictionary includes the derived form *taʔalmana* 'to be Germanized'

²⁴ Wehr's dictionary includes the derived form *taʔamraka* 'to become Americanized'

<i>faransā</i>	France	<i>farnasa</i>	gallicization	38	X
<i>qaṭar</i>	Qatar	<i>qaṭrana</i> ³¹	qatarization	3	0
<i>lubnān</i>	Lebanon	<i>labnana</i>	lebanization	134	0
<i>al-mağrib</i>	Morocco	<i>mağraba</i>	making Moroccan	11	
<i>*hillīnus</i>	Greece	<i>halyana</i> ³²	hellenization	1	X

As it was the case with other faʿlala derivatives, it is possible to form a second derivative with intransitive and reflexive meaning according to the verbal pattern *tafaʿlala* (past) *yatafaʿlalu* (present) and *tafaʿlul* (verbal noun, maṣdar). For instance, *tafarnasa yatafarnasu tafarnus* ‘to becomes a French-man, to behave like a French-man’. It is also interesting to observe that this is a very productive derivation, by means of selecting the four consonants skeleton, thus implying a reduction in the country names that have more than four consonants³⁰. Even countries whose name is formed with only three consonants exhibit a faʿlala form alongside with a *tafʿīl* form (*maṣrana*, *ṣamnana*, *qaṭrana*, *halyana*), just because of the spreading of these four consonant coinages. In two cases, to the best of our knowledge, only the *tafʿīl* derivative is used: *takwīt* ‘making Kuwaiti’³¹, and *tamṣīr* ‘Egyptianization’³²

14. Finally, some cases of *faʿlala* pattern are detected to form new terms by the composition of two preexisting nouns. This process is called by native linguists *naḥt*, ‘composition’, and is not well considered, because it does not fit well into the Arabic language patterns. Examples include *ansala* ‘robotization’ from the compound *insān ālī* ‘automatic man, robot’, *zamṣana* ‘demineralization’, from the compound *izālat al-maṣādin* ‘to remove minerals’, *sarnama* ‘sonambulism’, from *as-sayr fī-n-nawm* ‘to walk while sleeping’, or *naqḥara* ‘transliteration’, from *naql al-ḥurūf*. These compounds do not find an easy way to become an

²⁵ Al-Aqṭaš (2011:66) mentions on this term that the expected choice, *saṣdana*, was eluded in order to avoid the confusion with *saṣdān* ‘ape’.

²⁶ Al-Aqṭaš (2011:66) mentions that people don’t use *ṣarqana*, but our figures states the opposite. Only one case of *taṣrīq* in this sense is found in Arabi Corpus, just because dictionaries state that *taṣrīq* means ‘taking, striking roots’.

²⁷ Another *tafʿīl* form is attested: *taṣmīn* (5 occurrences in Arabi Corpus).

²⁸ *Taqfīr* is two times attested with this meaning in Arabi Corpus

²⁹ A *tafʿīl* form is also attested: *tahlīn*, documented by Wehr, but not in Arabi Corpus.

³⁰ One could legitimately wonder how could be said in Arabic ‘making andalusi’ from *al-ʿandalus*. Following the deletion process observed in other terms, it could be *ʿadlusa*, dropping the ‘n’, or maybe *ʿandalasa*, according to the way exhibited in *damaqrata* and *falaṣṭana*, in which the five consonants remain. However, we could not attest any occurrence of this term in the consulted sources.

³¹ 29 occurrences of *takwīt* are attested in ArabiCorpus.

³² Included by Wehr through the verb *maṣṣara yumaṣṣiru* with this meaning, and attested 72 times in ArabiCorpus.

integral part of Arabic lexicon, unlike other older compounds firmly established, like *basmala* ‘to say the formula *bismillahi r-rahmān ar-rahīm* (in the name of God the Merciful the Compassionate)’, *ḥawqala* ‘to pronounce the formula *lā ḥawla walā quwwa illā billāh* (there is no power and no strength save in God)’, *ḥamdala* ‘to say *al-ḥamdu lillāh* (thanks to God)’³³, or *raʿsmāl* ‘capital’, a compound of *raʿs* ‘head’ and *māl* ‘goods, possessions’.

15. Conclusion. Enlarging the lexicon is one of the main challenges for any language. In the case of Arabic, a language without suffixes (or only with a few), it is necessary to explore other ways to give account for the huge number of new terms coined after suffixation models. One of the most promising ways is precisely the formation of new verbal nouns and verbs according to a quadriconsonantal pattern *faʿlala*, by reduction the word to an abstract root made of four elements and so mapping it into this pattern. This is a typical procedure in a language whose morphology can be labeled as non concatenative. This way of creating neologisms is quite powerful, as we have tried to show by quoting a good number of samples. While it is true that Arabic Academies, and also dictionaries, are quiet conservative and remain reluctant to include these new coinages in the official lexicon, it is hard to deny, in our opinion, that borrowing foreign words without adapting them into the morphological patterns of Arabic leads to an impoverishment of the language. With some caution and a good deal of good sense, the *faʿlala* mechanism, as other similar procedures (broken plural, *tafʿīl*, *nisba* suffix), can be very useful to the unavoidable task of enlarging Arabic lexicon and renewing the language.

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³³ Another compound in the same line, but this time according to *tafʿīl* pattern is *takbīr* ‘to say *allāhu akbar* (God is the greatest)’.

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