Sabri Alshboul, Yousef Al Shaboul, Sahail M. Asassfeh

Defaultness patterns: a diachronic account

MUZEUM HISTORII POLSKI

Sabri Alshboul, Yousef Al Shaboul, Sahail M. Asassfeh
The Hashemite University, Zarqa, Jordan
Department of English Language, Literature and Cultural Studies

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1. Introduction

Different accounts of inflectional morphology converge on the idea that only one regular (suffixation-based) default exists in the grammar of a language. The symbolic accounts [Pinker and Prince 1988; Marcus et al. 1992; Marcus et al. 1995; Clahsen 1996; Pinker 1998] and associative accounts [Rumelhart and McClelland 1986; McWhinny and Leinbach 1991; Plunkett and Marchmann 1993; Stemberger 1994; Bybee 1995] indicate that no distinction exists between the default and regular forms. Furthermore, according to the associative accounts, defaultness is achieved by associative memory. While the difference between the associative accounts and the symbolic accounts is in its treatment of the default regular inflection. According to the associative model, both the default regular and irregular forms are processed in the associative memory.

Research on Jordanian Arabic (hence JA) offers an analysis having more than one default inflection. This is accomplished by showing that unlike the previous morphological accounts such as associative mechanism model, symbolic mechanism model; and the schema model (cf. Pinker 1990; Rumelhart and McClelland 1986; Bybee 1985], the current research relies upon the 'openness' mechanism as a major determinant to define defaultness. Thus, we define 'openness' as the ability of the inflectional system to be extendible to accept new forms in the grammar of a language system. In our system, two inflectional systems are open and thus default: the sound feminine plural and the iambic broken plural. Our assumption is that a change in the architecture of defaultness (from the

iambic broken plural to the sound feminine plural) is diachronically motivated due to the shift between the two default forms in two different periods of time.

2. Diachronic morphological change

In this research we will focus on the diachronic representation that provides accounts for the morphological change mechanism observed in the language system of JA. We need to establish the historical properties and development of the language through the domain of a diachronic analysis. Thus, we assume that the diachronic account will provide a fuller picture regarding the morphological structure of a language. Moreover, the morphological change in a language can be realized through different levels. According to Joseph [1998], different levels of grammar can be subject to change in morphology. For example, the change in the number marking of the nominal marker */s/* in English, for it has been spreading at the expense of other plural markers for centuries. So the earlier English form *shoo-n*, as a plural of 'shoe' with the plural ending *-n* still found in the word *oxen*, has given away to *shoe-s*, with the most frequent, and indeed default plural ending *-s*, in this case, the marker has not passed from the language altogether, as *oxen* shows, but the domain of a particular marker has come to be more and more restricted, and that of another has expanded. In our study, the assumption is that the in the grammar of Jordanian Arabic would be extended to predict the occurrence of two defaults: the sound feminine plural and the iambic broken plural rather than one default: the sound feminine plural.

3. The plural system in Jordanian Arabic

JA displays two gender classes: feminine and masculine. The sound feminine plural is formed by attaching the suffix *-aat* to the end of some non-human masculine singular nouns (e.g. *kaas/kas-aat* 'a cup/cups') or feminine singular (human and non-human) nouns-ending with the feminine marker *-a-* (e.g. *ṭaawl-a/ /ṭaawlaat* 'a table/tables'). This form of the plural is productive, i.e., it has broad application over different kinds of nouns regardless of their gender (masculine/ /feminine) or category (human/non-human) in the singular form. To form the sound masculine plural, the suffix *-een* is attached to the end of the singular human masculine noun (e.g. *sawwaag/sawwaag-een* 'a driver/drivers'). JA also has the so-called 'broken plural' forms, which are highly similar to the broken plurals in Modern Standard Arabic. This kind of plural is formed through a non-linear pattern shift referred to as the broken plural in which the consonantal root is retained as the singular form but vowels are changed nonlinearly between the consonants in accordance with a strict template [El-Yasin 1985]. For example,

the singular *kursi* 'a seat' of the root *krs* has the iambic plural pattern *karaasi* CVCVVCV 'seats'. There are four shape-defined prosodic categories: the *iambic patterns* CVCVV; the *trochaic patterns* CVCVC *monosyllabic* plural patterns. Finally, JA contains collectives. Collectives form a separate morphological category used to refer to uncountable entities or to living things like fruit, animals, etc. In JA, the collective plural form seems to be used less with the plural replacing it in collective contexts and there is a tendency towards the development of the analytic singular/plural distinction by using free lexemes like "one, a piece of, a single item of, a single example of, etc" [Suleiman 1986]. Another way of forming collectives in JA is the deletion of the singular feminine marker *-a* (e.g. *samaka/samak* 'one fish/fish').

4. Defaultness

The mechanism of defaultness needs to be investigated in order to account for the emergence of the two default forms in JA. According to the symbolic model [Marcus 1998, 1999; Pinker and Prince 1988], the wide application of the default inflection results from the fact that the regular inflection applies to mental variables which are abstract labels 'VERB or NOUN'. Marcus [1995] views 'defaultness' as an operation which applies not to particular sets of stored items or to their frequent patterns, but to any item whatsoever, as long as it is not listed in the lexical memory. This item may be unfamiliar, dissimilar to familiar items or computationally inaccessible because of noise in memory or because of the way the data in memory is structured.

Evidence of regular inflection as a default can be observed with the inflection which is assigned to borrowings, names and denominals in English and Hebrew, all of which fail to trigger default irregular patterns as a stored association, because these default forms lack a canonical root [Berent 1999; Kim et al. 1991, 1994; Marcus et al. 1995]. According to the symbolic account, default inflection can apply to non-words that are dissimilar to English forms, hence are unlikely to activate stored irregular tokens [Prasada and Pinker 1993]. In terms of the irregular inflection, this account has the same application observed with the distribution asymmetry account. This is based upon the argument that the irregular forms are tightly bounded and thus new words take similar inflection to these clustered ones and if blocked the default regular inflection is applied.

Further, a canonical root can be of considerable importance in the generality of the default inflection to words that have no access to the memory such as borrowings, denominals, names, etc. Canonical root is defined, according to the dual mechanism approach, as:

address or distinct identity as a word in the language; a part-of-speech category, subcategory features (e.g., transitive or intransitive for verbs, count or mass for nouns); a semantic representation and phonological representations [Marcus 1995].

A canonical root has the implication that words cannot be represented in the mental lexicon as random collections of information, one of the prominent features of the 'canonical root' is that it has a representation format for these words. The phonological representation must conform to a canonical template for words in the language [McCarthy and Prince 1990]. In JA, canonical roots are marked by their inflection in the plural. For example, the two-syllable words ending with the feminine marker -*a* take the sound feminine plural (for instance the word *ṯaawla/ /ṯawl-aat* 'a table/tables'). On the other hand, JA presents instances of noncanonical root words such as the loan words, diminutives, names and deverbal nouns that do not have the feminine marker -*a*. These noncanonical words may be assigned any plural form due to the lack of access of these categories to their canonical root in the lexicon. In this case, no lexical access exists between the word and any mental representation.

Based upon the discussion pertaining to 'defaultness' above, it is necessary to maintain that the symbolic mechanism account confounded the notion of 'regularity' with the notion of 'defaultness'. Put it differently, the regular inflection is viewed as the default as it applies to any target that fails to activate stored associations by the "elsewhere condition" which can be defined as the application of a general linguistic process upon the failure to trigger a more specific process [Kiparsky 1973]. The notion of confounded 'regularity' and 'defaultness' is replicated by Clahsen [1992] in his proposal that 'regular' and 'default' inflections could be the same based upon Kiparsky's level-ordered phonology. Clahsen [1992] found that the German regular affixes (like -*s* and -*n*), which were overregularized by children, are omitted within compounds. In compounds, the regular inflection occurs after the irregular inflection. Moreover, Pinker [1999] assumes that the English plural -*s* is simultaneously the regular form and default. According to Pinker

> Rules, nonetheless, are distinct from pattern association, because a rule concatenates a suffix to a symbol for verbs, so it does not require access to memorized verbs or their sound patterns, but applies as the "default", whenever memory access fails [Pinker 1999: 4–5].

4.1. Defaultness in Jordanian Arabic

The grammar of JA displays two default plural forms: the sound feminine plural marked with the suffix -*aat* (e.g. *maṯaar/maṯar-aat* 'an airport/airports') where a suffixation rule predicts the occurrence of the default plural. The second default plural is the iambic broken plural marked with an internal vowel change (short – long vowel) (*kursi/karaasi* 'a seat/seats').

Accordingly, the purpose of this research is to articulate the following predictions. The dual mechanism account can be extended to deal with the plural forms of loan words, diminutives, names and deverbal names to define 'defaultness' in JA. However, this model offers no basis for predicting a "multiple default system" as manifested by the use of the sound feminine plural and the iambic plural as two defaults in the plural system of JA. The dual mechanism approach assumes a single-default rule system for the grammar, which follows from an exclusive reliance on the 'elsewhere' principle. The notion of a single-default mechanism – as presented by the symbolic account – might be motivated by the suffixation process applied in English. Accordingly, looking solely at 'defaultness' as 'regular' makes it hard to look for another default which is necessarily a regular; i.e., a suffixation process. Based upon this argument, the notion of suffixation as a 'regular' process hallmark restricts the scope of defaultness to only suffixation-formed words. While, on the other hand, having a rule-governed process makes it possible to predict the existence of a multiple default system in the language grammar.

The current research aims at exploring the representation of the default system in JA at a diachronic level. Our diachronic analysis would take into account the default shift that occurred in the grammar of JA in two different periods: the Turkish period and the British period. Jordan was considered as part of the Turkish Empire till the advent of the British in Palestine and Jordan. Turkish was also the official language used in political and commercial affairs. Accordingly, we can conclude that Turkish words came into JA before most English words because the influence of the European languages – specifically English – began to take place in the late 1920s [Suleiman 1985]. During the influx of the Turkish loan words, the lack of the canonical root triggered the Iambic broken plural to be the domain for the inflection of loan words as default forms. On the other hand, following the Turkish loan words, the loan words coming from English could be differently inflected using the sound feminine inflection as the default form.

5. Predictions and data analysis

5.1. Predictions

1. JA consists of two default forms: the suffixation formed sound feminine with the -*aat* attached to the end of the singular to form the plural noun; and the internally formed iambic broken plural with an internal vowel change represented by the short-long vowel format, i.e. CVCVV.

2. There is a diachronic default shift which occurred in JA. This shift is displayed as in the following two phases. The first phase is represented in Turkish loan words which came into JA and took the iambic broken plural inflection. The

second phase is introduced through English loan words also which came into English and have the sound feminine plural inflection as a default pattern.

3. The occurrence of two defaults is accounted for through the introduction of the diachronic representation of the lexicon. The existence of two defaults is expected to motivate the so-called Lexical Evolution in which default forms are realized through two different stages of morphological representation.

4. A new role of openness comes into play to contribute to the emergence of a multidefault hierarchy as it allows new forms to be categorized in the lexical paradigm of the language.

5.2. Data analysis

To examine the occurrence of two defaults in the grammar of JA, we collected loan words that represent two different phases: the Turkish and the British. The data representing the Turkish loan words are taken from Farghal and Al-khatib [1999] and Ababneh [1997]. For the corpus representing the English loan words we used the data taken from Butros [1963] and Farghal and Al-khatib [1999].

6. Why loan words?

In terms of the lexicon architecture, it is necessary to maintain that, according to the inflectional morphology accounts [cf. Marcus 1995], loan words fall outside the phonological space – they do not belong to the lexical system of a language. In other words, loan words do not have any orthographic, phonological or semantic representation in the lexicon, so these forms cannot be inflected using the lexical memory retrieval system available for the language, thus the default operations apply whenever memory retrieval fails to provide an inflected form in the lexicon. Default inflection, thus, applies freely in any circumstance in which memory fails since default inflection is created by a mental operation that does not need access to contents of memory. The mental operation could be either linear (suffixation) or hierarchical (internal vowel change). In the case of JA, either sound feminine or iambic broken plural is a possible default forms.

According to the word/rule symbolic hypothesis [Pinker 1998], the assignment of 'default' inflection does not just require the activation of a bundle of orthographic, phonological and semantic features that correspond to a 'default' word. Namely, these features given to such borrowings must be labeled by a mental variable, i.e. they must be a canonical root. Words are categorized in the lexicon in a standard format that is called 'canonical root' which is defined as:

an address or distinct identity as a word in the language; a part-of-speech category, sub-category features (e.g., transitive or intransitive for verbs, count or mass for nouns); a semantic representation and a phonological representations [Marcus 1995].

Loan words usually lack canonical roots [Marcus 1995; Berent et al. 1999], so words lacking canonical roots take a default inflection.

7. Turkish loan words

Turkish was the official language used in political and commercial affairs as Jordan was considered as part of the Turkish Empire till the advent of the British in Palestine and Jordan. So Turkish words came into JA before most English words because the influence of the European languages – specifically English – began to take place in the late 1920s [Suleiman 1985, Farghal and Al-khatib 1999]. According to Butros [1963] and Suleiman [1985], no documented evidence is available to deal with the existence of loan words before the Turkish period. This borrowing had an influence on the plural template that loan words are expected to take; i.e. most of the loans that came earlier have iambic broken plurals.

In this part, I offer evidence that JA contains the iambic broken plural as a default inflection applied to the loan words. The main determinant for the establishment of defaultness is the lack of the canonical root which is defined by Marcus [1995] as the lexical, semantic, phonological and orthographic representation of the word in the lexicon.

I have classified the plurals according to their inflection. For example, in data set (table 1) the default iambic broken plural is shown to be the inflection for the Turkish loan words; while the last data set in (table 2) provides a word list of Turkish loan words taking the second default: the sound feminine plural.

The data set in table 1 presents the distribution of the Turkish loan words in JA in terms of semantic domain. Thus, the data instantiate the following categories or domains: first, we encounter food and drink-related loans such as *kazuuze/kazuuz* 'a soft drink'; *ṭaawuug/ṭawuug* 'fried chicken'. Second, we can also notice that there are politics-related loans such as *sulṭan/salaaṭeen* 'a leader/leaders'; *diwann/ /dawaaween* 'a divan/divans' and *xazuuq/xawaazeeq* 'a torture tool/torture tools'. Third, there are clothing and fashion loans such as *ṭarbuush/ṭaraabeesh* 'a fez/ /fezzes'; *nishaan/nayaasheen* 'a medal/medals' and *suug/?aswaaq* 'a market/ /markets'. I make the assumption that these forms would take the default iambic inflection, as this form is open to inflect words that fall outside the templatic format of JA.

Quantitavily speaking, according to the data in tables 1 and 2, about 88% (20) of the nouns are iambic plural inflected and 12% (2) of the nouns are sound feminine inflected.

Partially assimilated Turkish loan words only taking iambic plural form
[Farghal and Al-khatib 1999; Ababneh 1997]

Word	Plural form	Gloss
?argeel-a(e)	?araageel	'a huka'
?umbashi	?umbaashiyeh	'a sergeant'
baxsheesh	baxaasheesh	'bribe'
diwaan	dawaaween	'a divan'
duulaab	dawaaleeb	'a drawer'
kaubb-a	kabaab	'a meat ball'
kazuuze	kazuuz	'a soft drink'
kubri	kabaari	'a bridge'
marhab	maraahib	'hello'
nishaan	nayaasheen	'a medal'
qateef-a(e)	qataayif	'a kind of patisseries'
qshaat	qshataat	'belt'
qubtaan	qabaatineh	'captain'
sultan	salaaTeen	'a leader'
suug	?aswaaq	'a market'
taawuug	tawuug	'fried chicken'
tarbush	taraabeesh	'a fez'
xashuug-a	xawaasheeq	'a spoon'
xazuuq	xawaazeeq	'a torture tool'

Turkish loan words only taking sound feminine plural
[Farghal and Al-khatib1999; Ababneh 1997]

Word	Plural form	Gloss
baasha	baashaw-aat	'a respected man'
hafle	hafl-aat	'celebration'
hammam	hammaam-aat	'restrooms'
xaan	xaan-aat	'a storage place'

This indicates that iambic plural is predominant – as a default for the inflection of about 88% of the Turkish borrowings in JA. The data also indicate that the forms that are not iambic plural inflected do not go outside the 'defaultness' domain, i.e, these words are default (sound feminine) inflected (e.g., *xaan/xaan-aat* 'a storage place', *hammaam/hammam-aat* 'a restroom/restrooms') which implies that a loan word takes either default. Since these forms fall in the openness category, it would be unnecessary to predict which plural should take a singular form because these forms fall outside the templatic format, so they the take the open default inflection.

To summarize, this investigation provides compelling evidence on the existence of the iambic broken plural as a default inflection due to the 'openness' of this inflection to accept forms falling outside the lexical system of JA. The discussion of the data above also reveals the importance of the diachronic factors in determining the status of 'defaultness' in terms of the ability of the lexicon to accept two default inflections. This mechanism of accepting two defaults gives insights into applying this multiple default format crosslinguistically in which a grammar of a language can host a multiple default system.

8. English loan words

JA has had extensive contact with English since the late nineteenth century. The number of loaned words increased after the 1920s with the British influence in the area of Jordan. The influence was also boosted by Jordanian students who studied in British and American universities [Butros 1963].

In this section, we discuss how Jordanian Arabic acquires the sound feminine inflection as the second default for inflecting the loan words (e.g. *faaks/faaks-aat* 'a fax/faxes') borrowed from English. We also provide an analysis on how a new default has come into the grammar of JA. The data are taken from Butros [1963] and Farghal and Al-khatib [1999].

In data (table 3) the corpus of the loan words shows that these words made their way into JA recently; i.e. they were borrowed after the 1920s. This can be supported by the fact that the majority of these nouns are classified into the technological or technical domain (e.g. *?anteen/?anteen-aat* 'antenna') of about 53% of the total number of loan words coming from English. There are also some words in the academic or the fashion domains (e.g. *kours/kours-aat* 'course/ /courses; moudeil/moudeil-aat* 'model'). The fact that the sound feminine inflection is the target for the recently loaned forms provides strong evidence for the fact that this inflection has become the open inflection for the new words in the lexicon; i.e. it represents an open schema that is capable of inflecting new forms into the grammar of JA.

Table 3

Loan words coming from English that take the *-aat* for plural
[Butros 1963; Farghal and Al-khatib 1999]

Singular	Plural *-aat*	Gloss
1	2	3
?afarhoul	?afarhoul-aat	'an overhaul'
?aks	aks-aat	'an axle'
?amblifayar	?amblifayar-aat	'an amplifier'
?anteen	?anten-aat	'an antenna'
?anzeem	?anzeem-aat	'an enzyme'

Table 3 – continuation

1	2	3
?emeil	?emeil-aat	'an email'
?igzost	?igzost-aat	'an exhaust'
?iksersaiz	?iksersaiz-aat	'exercise'
?ilbuum	ilbuum-aat	'an album'
?iliktroun	?iliktroun-aat	'an electron'
?imbalans	imbalans-aat	'an ambulance'
?insh	?insh-aat	'an inch'
?istaad	?ustad-aat	'a stadium'
baar	baar-aat	'a bar'
baas	baas-aat	'a bus'
balanti	balanty-aat	'a penalty'
baldouzar	baldouzar-aat	'a bulldozer'
boylar	boylar-aat	'a boiler'
breik	breik-aat	'a break'
brojektar	brojektar-aat	'a projector'
budy	budy-aat	'a body'
busukleit	busukleit-aat	'a bicycle'
disk	disk-aat	'a disk'
drum	drumm-aat	'a drum'
dulaar	dular-aat	'a dollar'
faaks	faaks-aat	'a facsimile'
faawil	faawl-aat	'a foul'
faayl	fayl-aat	'a file'
freizar	freizar-aat	'a freezer'
fyuuz	fyuuz-aat	'a fuse'
geezar	geezar-aat	'a gyser'
ghoreilla	ghoreill-aat	'a gorilla'
ghraam	ghraam-aat	'a gram'
gril	gril-aat	'a grill'
handbreik	handbreik-aat	'a handbrake'
harmoun	harmoun-aat	'a hormone'
houmweirk	houmweirk-aat	'a homework'
kafteerya	kafteery-aat	'a cafeteria'
kanteen	kanteen-aat	'a canteen'
karaaj	karaaj-aat	'a garage'
karboreitar	karboreitar-aat	'a carburetor'
katalouj	katalouj-aat	'a catalog'
keilo	keilow-aat	'a kilo'
keiloghraam	keiloghraam-aat	'a kilogram'
kolidour	kolidour-aat	'a corridor'

Table 3 – continuation

1	2	3
kombyouter	kombuter-aat	'a computer'
kondishin	kondishin	'an air condition'
kouboun	koubon-aat	'a coupon'
kountar	kountar-aat	'a counter'
kournar	kournar-aat	'a corner'
kours	kours-aat	'a course'
kreim	kreim-aat	'a cream'
krunk	krunk-aat	'a crank'
kwiz	kwizz-aat	'a quiz'
maarshaal	maarshaal-aat	'a marshal'
maikrofoun	maikrofoun-aat	'a mike'
maikroskoub	maikroskoub-aat	'a microscope'
monoloug	monoloug-aat	'a monologue'
moudeil	moudeil-aat	'a model'
nyoutroun	nyoutroun-aat	'a neutron'
radar	radaar-aat	'a radar'
radyou	radyouh-aat	'a radio'
rikit	rikt-aat	'a racket'
rudeitar	rudeitar-aat	'a radiator'
rul	rull-aat	'a roll'
sbeir	sbeir-aat	'a spare'
seedee	seedeeh-aat	'a compact disk'
shak	shak-aat	'a check'
short	short-aat	'a short'
silindar	silindar-aat	'a cylinder'
slaid	slaid-aat	'a slide'
s̲oufa	s̲ouf-aat	'a sofa'
srinj	srinj-aat	'a syringe'
steeryou	steeryouh-aat	'a stereo'
studyo	studyoh-aat	'studio'
talafoun	talafoun-aat	'a telephone'
talagraaf	talagraaf-aat	'a telegraph'
taraktar	taraktar-aat	'a truck'
telfizyoun	telfizyoun-aat	'a television'
tiliskoub	tiliskoub-aat	'a telescope'
tranziztor	tranziztor-aat	'a transistor'
tyoub	tyoub-aat	'a tube'
voult	voult-aat	'a volt'
winish	winish-aat	'a winch'

9. Discussion: a new source for morphology

The fact that our new architecture is diachronically motivated, new defaultness patterns are observed in the lexicon of a language (JA in our case). Regardless of whether our new pattern of two defaults is concatenated or internal vowel based, the diachronic factors can account for a lexicon with two defaults. For instance, the loan words which came into JA in an earlier period – let us say before the British colonization – are hierarchically inflected while the loan word which came into JA later are linearly structured for the inflection of the plural form.

The major account for the establishment of the default inflection is supported by the dual mechanism hypothesis where the assignment of 'default' inflection does not just require the activation of a bundle of orthographic, phonological and semantic features that correspond to a 'default' word. In other word, these features given to such borrowings must be labeled by a canonical root [Marcus 1995; Berent et al. 1999]. In the data above, we notice that both the iambic broken plural and the sound feminine plural, despite their formation asymmetry both lack a canonical root; hence, the default inflection comes into play.

Moreover, in the data provided above, there is evidence that the morphological representation can account for the continuum of defaultness in the grammar of the language containing two defaults. Thus, more explicable architecture of morphological representation is expected to give more crosslinguistic accounts for the Universal Grammar.

10. Conclusion

Diachronic factors play a dominant role in the establishment of defaultness continuum in JA. I discussed data from loan words coming into JA during the Turkish and after the Turkish period, i.e. the British period. This hierarchy contains two defaults: the iambic broken plural and the sound feminine plural. This pattern of inflection calls for two major observations. First, not only synchronic but also diachronic representation of the inflectional morphology can give more details about the architecture of the grammar of a language which helps in broad knowledge about the role of diachronic morphology in better understanding of the Universal Grammar. Second, it is indispensable to call for the importance of 'openness' as a key factor for establishing defaultness that is language contact motivated. Put it differently, the lexicon of a language is composed of different levels of inflectional systems that vary in their degree of openness. Eventually, the shift from the application of the iambic broken plural into the application of the sound feminine plural gives insights into the so-called lexical shift in which a lexicon can undergo systematic change in the architecture of grammar. This lexical shift is manifested through the tendency of the default inflection towards linearization.

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Summary

Defaultness Patterns: A Diachronic Account

Most approaches to inflectional morphology propose a synchronic account for the establishment of defaultness in the plural inflection. The current research aims at exploring the representation of the default system in JA at a diachronic level. The grammar of JA displays two default plural forms: the sound feminine plural marked with the suffix *-aat* (e.g. *mataar/matar-aat* 'an airport/airports') where a suffixation rule predicts the occurrence of the default plural. The second default plural is the iambic broken plural marked with an internal vowel change (short – long vowel) (*kursi/karaasi* 'a seat/seats'). Our diachronic analysis would take into account the default shift that occurred in the grammar of JA in two different periods: the Turkish period and the British period. The findings reveal the importance of the diachronic factors in determining the status of 'defaultness' in terms of the ability of the lexicon to accept two default inflections. So, JA consists a hierarchy that contains two defaults: the iambic broken plural and the sound feminine plural. This mechanism of accepting two defaults gives insights into applying this multiple default format crosslinguistically in which a grammar of a language can host a multiple default system.