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# Competing vowels in feminine formation: Evidence from Hebrew and Jordanian Arabic

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## 1 Introduction

This study examines variation in the formation of feminine forms in Hebrew and Jordanian Arabic, based on three case studies. The study shows that variation (and lack thereof) can be predicted based on systematic guidelines. Such competing forms within a single morphological slot deviate from canonicity (Corbett 2005, 2007) and they pose a challenge for models that aim to explain why speakers select one form and not another. I argue that in the three cases, the competition is not just between rival suffixes, but between vowels. Specifically, I will show that the selection of a suffix with one vowel and not another is correlated with word formation in the lexicon and in the syntax.

## 2 Hebrew loanwords

Hebrew has three main feminine suffixes: *-a*, *-it*, *-et*. Suffix selection is predictable based on properties of the base, but is subject to irregularity (Schwarzwald 1984, 2002, Faust 2013, Asherov & Bat-El 2016). *-a* consists of the unmarked vowel *a* and can be attached to a variety of stems. *-it* is the productive default suffix in acronyms and loanwords. While most loanwords take only *-it*, there is a noticeable variation with some words. The loanword *snob* 'snob' takes *-it* (1a) or *-a* (1b), and both forms are found in similar contexts, while *larj* 'large (generous)' (2) takes only *-it*.

- (1) a. *hem xošvim še-ani eyze snob-it*  
'they think I am some snob' (<http://www.tapuz.co.il/blogs/viewentry/371153>)  
b. *ve-hu xošev še-ani eyze snob-a*  
'and he thinks I am some snob'

(<https://stips.co.il/ask/%AA-%D7%90%D7%95-%D7%9E%D7%99-%D7%A9%D7%9E%D7%91%D7%99%D7%9F-%D7%AA%D7%A8%D7%90%D7%A9>)

- (2) *hi mamaš larj-it* / *\*larj-a be-tšekim*  
'she is really large with checks' ([celebs.walla.co.il/item/2968806](https://celebs.walla.co.il/item/2968806))

### What triggers this variation and what blocks it?

Most loanwords that can take *-a* in addition to *-it*, are derogative, e.g. *debil* 'stupid', *farš* 'jerk' and *xnun* 'nerd'. Hebrew has feminine loanwords with no masculine base, and the majority of them have derogatory meaning, e.g. *pustema* 'blockhead' (*\*pustem*), *kunefa* 'ugly' (*\*kunef*). These words end with *-a*, which is not a suffix in such cases, and this makes this vowel more typical of derogatory words. I argue that as a result of the negative association of this vowel in loanwords, it is attached to other loanwords with negative meaning in order to mark words as negative. While gender is considered inflection, which typically applies in the syntax (Perlmutter 1988, Anderson 1992, Corbett 2013, Štekauer 2015, Stump 2016, among others), I argue that marking the derogatory meaning applies in the lexicon because of the accessibility of *-a*. The tendency to select a suffix with *a* in order to lexically mark it with additional meaning is not surprising. In general, *a* has a morpho-lexical status in Hebrew. It is the most frequent vowel in word formation processes (Plada 1959, Bat-El 1994, Bolozky

1999, 2003, Schwarzwald 2002, 2012, Schwarzwald & Cohen-Gross 2000, Bolozky & Becker 2006). I claim that the use of *-a* in feminine formation of loanwords does not only play a grammatical role of gender marking, but it also labels these words as typically negative. It follows that the two suffixes *-it* and *-a*, do not completely overlap in their function. While *-it*, which is the default suffix of loanwords, has only a grammatical role of gender marking, *-a* also has a semantic role. The distinction between the two suffixes resembles, to some extent, the distinction between inherent and contextual inflection (Booij 1996, 2006). In general, inherent inflection is not required by the syntactic context, although it can be relevant to the syntax, e.g. number and gender for nouns. Contextual inflection is dictated by syntax, e.g. agreement markers for verbs and adjectives (Anderson 1992). I argue that the use of *-a* as a feminine marker for loanwords is "more inherent" than the use of *-it* in the sense that it provides a morphological marker of the negative meaning and does not only denote grammatical gender.

### 3 Hebrew passive participle patterns

Semitic morphology relies highly on non-concatenative morphology, where words are formed in patterns. Focus here is on the participle patterns *meCuCaC* and *muCCaC*, which have two main functions: (i) present tense forms of passive verbs in the *CuCaC* and *huCCaC* patterns respectively; (ii) adjectives (and a few nouns) (Berman 1978, 2017, Schwarzwald 2002, Ravid & Levie 2010, Doron 2013, among others). The same form can be ambiguous. For example, *mesudar* is both the present form of *sudaʕ* 'was tidied up', denoting 'is tidied up', and an adjective 'tidy'. Participle forms typically take the fem. suffix *-et*. However, a web search reveals cases where *-a* is also used. Such variation exists only with adjectives and not verbs. The participle *murkav*, for example, can denote both the adjective 'complicated' and the verb 'is composed'. The adjectival form takes both *-et* (3a) and *-a* (3b), while the verb form takes only *-et* (3c).

- (3) a. *lelo safek zo šeela murkev-et*  
 'no doubt it's a complicated question' (<http://www.mako.co.il/nexter-weekend/Article-2875f5d77c56b51006.htm>)
- b. *zo šeela murkav-a*  
 'it's a complicated question' (<https://www.fxp.co.il/showthread.php?t=16146268&page=13>)
- c. *hi murkev-et al-yedey cevet mecumcam*  
 'it is composed by a small team' (<https://cars.walla.co.il/item/2833011>)

Morphology provides marking for different lexical categories in feminine formation. Similarly to the case of loanwords, it is not surprising that only adjectives can take *-a*. I assume that adjectives are derived and stored in the lexicon, while passive verbs are derived in the syntax (see Horvath & Siloni 2008). The morphological mechanism is sensitive to whether the masculine form 'comes' from the lexicon or is derived only in the syntax. It marks lexically derived forms with a vowel that is more typical to the lexicon.

### 4 Feminine formation on Jordanian Arabic

Arabic has one feminine suffix with two allomorphs: *-a* and *-e*. The suffix is attached to masculine nouns, adjectives and participle forms (*xabba:z* – *xabba:z-e* 'baker') and it could also be part of inanimate fem. nouns with no masc. base (*madin-e* 'city', \**madi:n*) Some dialects

have only *-a* but in most dialects there is some degree of variation. Data in this study is based on a corpus of 25 narrative texts in Jordanian Arabic. The conditions for selection of either allomorph is primarily phonological. *-a* tends to surface after *r* (*mudir-r-a* 'manager') and low consonants like pharyngeals (*falla:h-a* 'farmer'), while *-e* surfaces elsewhere (*mšallm-e* 'teacher') (Levin 1994, 2011, Shachmon 2011, Al-Wer & Horesh 2017, among others). In addition to the phonological conditions, the data shows that the distinction between the lexicon and the syntax is also relevant to the selection of either vowel. There is greater chance for *-e* to surface in adjectives. This is because feminine formation of adjectives, unlike that of nouns, is contextual inflection, which is more associated with the syntax. As in Hebrew, *-a* is more typical to Arabic word formation processes that apply in the lexicon (Holes 2004). As shown in (4), both the noun *ħufr-a* 'opening' and the adjective *zyir-a* 'small' have *r* before the suffix and should take *-a*. This is indeed the case in (4a), but in (4b), only the adjective takes *-e* despite the phonological condition. The prediction is that both words can take *-a* or *-e*, but in cases where there is a distinction, it is only the adjective that takes *-e* (*\*ħufre zyira* is supposed to be excluded).

- (4) a. *ħa:wal yešmel ħufr-a zyir-a* (File-7)  
 '(he) tried to make a small opening in the rock'
- b. *ša:f ħufr-a zyir-e* (File-10)  
 '(he) saw a small opening'

Similarly, *-e* tends to surface in nouns that are heads of construct states. For example, *majmu:f-a* 'group' typically surfaces with *a*, as it is preceded by *ʕ*, but when it is the head of a construct, there is some variation, e.g. *majmu:ʕ-at/majmu:ʕ-et kutta:b* 'a group of authors'. In such cases, the head is also marked with the consonant *t*, which indicates its syntactic position. Since this is a syntactic structure, there is tendency to also mark it with *-e*, which is more typical to the syntax. In contrast, when the word is not part of a construct state it tend to retain the vowel *-a*.

## 5 Conclusions

The three cases discussed above demonstrate competition between two fem. suffixes with different vowels: *a* vs. *e* or *i*. In each case, the selection of the less typical suffix (or allomorph) tends to take place systematically and occurs in order to mark an additional distinction: negative meaning and different lexical categories in Hebrew, and syntactic positions in Jordanian Arabic. These differences are all related to processes that typically apply in the lexicon or in the syntax and the morphological mechanism seems to be sensitive to such distinctions. The study sheds light on the role of gender with respect to morphological change. It adds to previous accounts of morphological variation and change, which result in doublet formation and competition (Thornton 2011, 2012, Aronoff 2016, 2017, among others).

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