Competing suffixes: feminine formation of Hebrew loanwords

Lior Laks, Bar-iLan University, Israel

The study examines cases of variation in feminine formation of Hebrew loanwords, where the same masculine base can take two different feminine suffixes, -it and -a. While most loanwords in Hebrew demonstrate uniformity in feminine formation and take the default feminine suffix -it, the study reveals a set of words that can take both suffixes. What triggers this variation and what blocks it? I argue that it results from the interaction of both semantic and morpho-phonological criteria, and that variation is predictable based on systematic guidelines. On the semantic dimension, words that also take -a have negative meaning, and the use of this vowel is indeed more typical of marking lexical meaning, in addition to grammatical gender. From the morpho-phonological point of view, words that take both suffixes do not have typical non-native structure and they resemble, to some extent, to native Hebrew words that take the suffix -a. The study sheds light of the factors that play a role in morphological variation and the adaptation of loanwords.

Keywords: *feminine formation*, *Hebrew*, *gender*, *variation*, *loanwords*, morphological adaptation

1. Introduction

This study examines the criteria that are responsible for variation in feminine formation of Hebrew loanwords. Such variation is demonstrated in (1).

(1)	a.	hem xošvim še-ani eyze snob<u>-it</u>
		'they think I am some snob'
		http://www.tapuz.co.il/blogs/viewentry/371153
	b.	ve-hu xošev še-ani eyze snob-<u>a</u>
		'and he thinks I am some snob'
		https://stips.co.il/ask/4988953/%D7%A9%D7%90%D7%9C%D7%94-
		%D7%9C%D7%A1%D7%A0%D7%95%D7%91%D7%99%D7%95%D7%AA-
		%D7%90%D7%95-%D7%9E%D7%99-%D7%A9%D7%9E%D7%91%D7%99%D7%9F-
		<u>%D7%AA%D7%A8%D7%90%D7%A9</u>

(2)hi mamaš larj-it / *larj-a be-tšekim 'she is really larje with checks' celebs.walla.co.il/item/2968806

The loanword *snob* 'snob' takes either the suffix *-it* (1a) or *-a* (1b), and both forms are found in similar contexts. In contrast, the loanword larj 'large (generous)' (2) does not demonstrate variation and takes only the suffix -*it* (*larj-it* / **larj-a*). It is important that not the majority of Hebrew loanwords take the suffix -it in feminine formation, and cases examples like snob-a in (1b) are not very common. However, web searches reveal a set of words that take both suffixes -*it* and -*a*, while other suffixes systematically take only -*it*. Why does such variation occur and while is it blocked in other cases? Such competing forms within a single morphological slot deviate from canonicity, as defined in Corbett (2005, 2007) and they pose a challenge for models that aim to explain why and how speakers select one form and not another. I argue that the existence of variation (and lack thereof) is predictable based on systematic guidelines, and is based on the interaction of both semantic and morpho-phonological criteria.

This paper is structured as follows. §2 provides background in gender marking in Hebrew with focus on loanwords. In §3, I provide an analysis of the criteria that are responsible for variation in feminine formation of loanwords. Specifically, I will show that loanwords that can also take the suffix -*a* has negative connotation and that the selection of -*a* in such cases marks the negative meaning in the lexicon. Further, loanwords that take -*a* do not have a typical foreign structure and could fit into the type of Hebrew native words that typically take the suffix -*a*. §4 consists of concluding remarks.

2. Feminine formation in Hebrew

2.1 Grammatical gender and word formation

Grammatical gender is a core feature in various areas of linguistics and it has drawn a great deal of attention from different perspectives. It is a dominant feature is some languages, while it is absent in many others. The rules if gender assignment vary from being fully transparent is some languages to representing complex systems (see Corbett 2006, 2013 and references therein). Languages with grammatical gender typically have two to four gender classes, but there are some languages with more classes. Nouns can be assigned with different gender classes and adjectives and verbs can have gender agreements, depending on the specific languages. In Hebrew, all nouns have grammatical gender, and adjectives, verbs and pronouns are morphologically inflected fore gender in order to match the gender of nouns.¹ Before turning to feminine formation in Hebrew, some background on words formation in Hebrew is in order.

Word formation in Hebrew relies highly on non-concatenative morphology (Berman 1978, 1987; Bolozky 1978, 1999a; Schwarzwald 1981, 2002; Ornan 1983, 2003; Goldenberg 1985; Ravid 1990; Aronoff 1994, among others). Hebrew verbs are formed only via non-concatenative morphology. The Hebrew verbal system consists of patterns. The pattern indicates the prosodic structure of verbs, their vocalic patterns and their affixes (if any) (Bat-El 2011). For example, the verbs *siper* 'told', *xibek* 'hugged' and *diber* 'spoke' belong to the *CiCeC* pattern and differ only in their consonantal root. Every new verb that enters the language must conform to one of the existing patterns. Noun and adjective formation. Nouns can be formed in patterns, but are also formed by affixation and other word formation strategies. For example, agent nouns can be formed in patterns like *CaCaC*, e.g. *cayar* 'painter', or by suffixation, e.g. *psanter* 'piano' – *psantr-an* 'pianist', as well as by other strategies.² While there are only five verbal patterns, there are between 30–35 nominal and adjectival patterns, that differ from each other in productivity and semantic function. It is important to note that the meaning of Hebrew patterns reflect tendencies, rather than

¹ In some verb forms there is no gender distinction, e.g. third person plural past forms. These cases are irrelevant to this study.

² Nouns and adjectives, unlike verbs, can also be borrowed directly from other languages without regarding to templatic structure (see for example, Ravid 1992; Schwarzwald 1998 and references therein).

one-to-one relations. Some patterns host nouns with typical meaning, while other host a variety of types of nouns, but none of the pattern has exclusive meaning (see Berman 1978, 1987; Ravid 1990, 2006; Bolozky 1999a; Schwarzwald 2002, 2009; Berman & Seroussi 2011; Shatil 2014, among many others).

Hebrew inflection is typically marked via affixation. Hebrew has three feminine suffixes: -a, -it, -et.³ -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. -et is the least productive and is not discussed here (Schwarzwald 1984, 2002). Suffix selection is predictable based on semantic and morpho-phonological properties of the base, but is subject to irregularity. For example, when the masculine noun is formed in the *CaCaC* pattern, different bases can take different suffixes. The examples in (3) share *CaCaC* pattern but each form takes a different feminine suffix. It is unclear, for example, why *zamar* 'singer' (3a) takes -et, while *sapar* 'barber' (3b) takes -it. However, both of them are occupational nouns and they never take -a. In contrast, *ravak* 'single' (3c) is not occupational and it takes -a and not -et or -it. These examples show that even though suffix selection is to some extent arbitrary, it also follows some systematic guidelines. In this case, there is a semantic condition that determines in which cases variation is possible. In case of occupational nouns, both suffixes -et and -it can be selected (and the selection between them is unpredictable), while in other bases -a is selected.

(3) <u>Feminine formation of CaCaC forms</u>

a.	zamar –	zamer-et / *zamar-it / *zamar-a	'singer'
b.	sapar –	<i>sapar</i> -it / *saper-et / *sapar-a	'hairdresser'
c.	ravak –	ravak-a / *ravek-et / * ravak-it	'single'

However, in most cases suffix selection is based on properties of the base. Schwarzwald (1984, 1991, 2002; Faust 2013) proposes a model that predicts the selection of each suffix. This model is based mostly on phonological and morphological features of the base. For example, words in the *CaCCan* pattern systematically take *-it* (e.g. *daykan – daykan-it* 'punctual').⁴ Monosyllabic words and words whose last vowel is *o*, *u* and *i* typically take the suffix *-a* (e.g. *pil – pil-a* 'elephant', *xamud – xamud-a* 'cute'). Words whose last vowel is *e* typically take the suffix *-et* (e.g. *meratek – meratek-et* 'fascinating'). Acronyms and loanwords take the suffix *-it*. For example, *mankal* 'CEO' stand for *menahel klali* ('general manager') and its feminine form is *mankal-it*. These are only some of Schwarzwald's generalizations, and they provide the relevant picture of the complexity of feminine formation in Hebrew. These are all examples of strong tendencies that apply systematically, though they are subject to a few exceptions.

Cases of variation in Hebrew feminine formation are not new, and have been addressed in different studies on Hebrew native words. It is found in some present participle forms (Schwarzwald 1982, 1991), e.g. *kore – koret / kor*?a 'reads', in nationality related adjectives that denote humans, e.g. *yehudi – yehudit / yehudiya* 'Jewish', in child language (Berman 1978, 2003; Ravid 1995), e.g. *šakran – šakranit / šakraniya* 'liar', and in present forms of weak verbs (Schwarzwald 1977, 1984; Asherov & Bat-El 2016), e.g. *mexate – mexatet / mexata* 'disinfects'. Asheron & Bat-El (2016) examine the competition between *-a*

³ The suffix -ot is also attached to a small set of nouns, e.g. ax 'brother' – axot 'sister'. In addition, some suffixes have allomorphs. These cases are irrelevant to the current study and therefore will not be discussed.

⁴ Faust (2013) that the suffix -it is a complex suffix composed of two elements -i and -t and.

and *-et*, distinguishing between local default and global default. They argue that *-et* is the local default of present feminine singular forms, while *-a* is the global default in feminine formation. In cases where the assignment of *-et* is blocked, for different reasons, *-a* takes over. In general, gender marking in Hebrew has been addressed from various perspectives (see Muchnik 2015 and references therein). This study addresses a specific aspect of gender marking, namely, cases where loanwords can take more than one suffix.

2.2 Loanwords in Hebrew

Hebrew is subject to the influence of foreign languages in general, and English in particular (Kutscher 1956; Rosén 1956, 1977; Blanc 1957; Blau 1976; Berman 1978; Ornan 1983, 2003; Ravid 1992; Nir 1993; Kaddari 1993; Agmon-Fruchtman & Alon 1994; Schwarzwald 1995, 1998, 1999, 2013; Izre'el 2002; Eldar 2007; Rosenhouse & Fisherman 2008, among many others). Loanwords undergo two types of adaptation (Schwarzwald 1998, 2002, 2009). Phonological adaptation concerned with adaptation to the phonetic inventory and the prosodic constraint of the native language. It is to a great extent obligatory. Non-native segments in the donor language undergo adaptation in order to comply with the native phonological restrictions. Loanwords also undergo adaptation to the syllable structure of the native language in order to comply with prosodic constraint on syllable structure. Morphological adaptation is based on adaptation to word formation strategies of the native language (see Ravid 1992; Schwarzwald 1998, 2002, 2009, 2013). Ravid (1992) accounts for the adaptation strategies of three lexical categories of loanwords in Hebrew: verbs, nouns and adjectives. She offers a model that allows to predict what adaptation strategy (or lack thereof) is more likely to be selected based on the lexical category of the loanword, ranging from complete adaptation of verbs, hardly any adaptation in most nouns and partial adaptation of adjectives. Schwarzwald shows in a series of studies (1998, 2002, 2013) the systematic behavior of loanwords. Unlike native words, loan words do not undergo alternations when they are inflected for gender and number, the selection of gender and number suffixes is highly predictable and systematic and, again unlike native words, the location of stress is preserved. With respect to feminine formation, loanwords systematically take -it as a default suffix, e.g. bos - bosit 'boss', partnter - partmerit 'partner', eks - ekit 'ex- (husband, wife, etc)'. I now turn to a case study of variation in feminine formation of loan words, where the same base can take the suffix -a in addition to -it. Although such cases are less common, I will show that when they occur, they follow systematic guidelines that shed light on the criteria of word formation in general and specifically the morphological adaptation of loanwords.

3. Competing suffixes in feminine formation of loanwords

As noted in §2.2 above, the majority of Hebrew loanwords take the suffix *-it* in feminine formation. Some loanwords also take the suffix *-a*, but there are no cases where only *-a* is selected. More examples of such variation are presented in (4) and (5) below, where the loanwords *xnun* 'nerd' and *debil* 'idiot' can take both *-it* (4a, 5a) and *-a* (4b, 5b) and occur in similar contexts.

- (4) haviti kazot xnun-it in those a. 'I was such a nerd those days' https://www.ted.com/talks/keren_elazari_hackers_the_internet_s_immune_system/transcript?l anguage=he b. bederex-klal lo haviti kazot xnun-a 'I usually wasn't such a nerd' http://hportal.co.il/index.php?act=fanfiction&showpic=4285&showchap=1 (5) eze debil-it ani, ze mamaš be-roš ha-amud a. 'I am such so stupid idiot, it really on top of the' page'http://www.tapuz.co.il/forums/viewmsg/183/28634756/%D7%94%D7%9E%D7%95% D7%9E%D7%97%D7%99%D7%9D/%D7%94%D7%95%D7%A8%D7%99%D7%9D %D7 %91%D7%98%D7%99%D7%A4%D7%95%D7%9C%D7%99 %D7%A4%D7%95%D7%A 8%D7%99%D7%95%D7%AA b. at lo mevina eze debil-a ani
 - 'you don't understand what an idiot I am' http://www.kipa.co.il/community/show/9342048

Cases in which -a is also selected are not highly common, but I will show that they are predictable to a great extent. The paper is based on web searches in which the selection of both suffixes was compared. Let us compare the loan words in Table 1. The items in a were found mostly with -it and a few instances were also found with -a. In contrast, the items in b were found only with -it.

a. Words w	ith both feminine suffixes - <i>it</i> and - <i>a</i>	b. Words with the suffix - <i>it</i> only		
snob	'snob'	larj	'large (generous)'	
debil	'stupid'	bos	'boss'	
xnun	'nerd'	barmen	'barmen'	
farš	'not cool'	inteligent	'intelligent'	
maafan	'lame'	hiler	'healer'	
babun	'monkey (ugly)'	slizi	'sleazy'	
šlux/šlox	'slopy'	homles	'homeless'	
dos	'ultra-orthodox' (derogatory)	trabel maker	'trouble maker'	
xnevec	'nerd'	kul	'cool'	

Table 1. Feminine formation of Hebrew loanwords

Using web-searches raises the question to what extent the examples represent the actual usage. How many examples should be found in order to determine that variation and doublet formation indeed exit? While there is obviously no absolute answer to this question, it is important to emphasize that the analysis is not based on the number of instances that are found, but mainly on the contrast between what is found, to different extents, and what is not found at all. Loanwords like *snob* 'snob' and *debil* 'stupid' mostly take the suffix *-it*, while there are only a few instances with the suffix *-a*. However, other adjectives like *larj* 'large' and *kul* 'cool' take only *-it* and no instances with the suffix *-a* were found. Although the use of *-a* with loanwords is marginal, I argue that the contrast between the two groups of items in

not a coincidence and can be predicted systematically. Such contrast can be revealed mostly by conducting web searches. Relying on spoken corpus can also provide relevant instances, but the chances of finding enough examples are rather low.

Why then, can some loan words take both feminine suffixes, while most of them take only *-it*? I argue that the fact that some loan words can also take the feminine suffix *-a*, even to a small extent, is not arbitrary, but stems from the interaction of semantic and morpho-phonological criteria. I now turn to examining the factors that bring about the selection of *-a*.

3.1 Semantic condition

Let us compare again the loanwords that take both *-it* and *-a* (6a) with words that take only *-it* (6b) above. The picture that emerges is that almost all loan that take *-a*, in addition to *-it*, have negative meaning, e.g. *debil* 'idiot', *farš* 'jerk' and *xnun* 'nerd'. Examine for example, the loanwords *bos* 'boss' and *dos* 'ultra orthodox'. The former only takes the *-it* suffix (6a), while the latter can take both *-it* (6b) and *-a* (6c). Both words are monosyllabic and share the same vowel *o*. There seems to be no phonological or morphological factor that would explain the difference in their feminine formation. I argue that the difference is semantic and specifically, it lies in the existence of negative connotation and lack thereof. *bos* 'boss' has a neutral meaning, while *dos* is used to relate to an ultra orthodox in a derogatory way.

(6)	a.	kol axat meitanu hi bos-it / *bos-it šel acma		
		'each one of us is her own boss'		
		http://ambarchia.wixsite.com/shvilhamishpaha/single-post/2015/05/10/% D7%D7%99		
	b.	axoti ha-gdola mamaš kazot dos-it		
		'my elder sister is really such a Dos'		
		https://www.askpeople.co.il/question/221009		
	c.	kedey še-lo yaxševu še-anu kazot dos-a		
		'so that (they) don't think I am such a Dos'		
		https://www.kipa.co.il/community/show/4891642/		

Note that not all words with negative meaning can take both suffixes. The word *luzer* 'loser', for example, is negative, but can take only *-it* (*luzer-it*/ **luzer-a*). As will be explain in 3.2, this can also be predicted systematically. The claim made here is that only loanwords with negative meaning can take *-a* in addition to *-it*, but not necessarily all of them.

The effect of the negative meaning in suffix selection is even attested in cases where the same word takes only *-it* when it has a neutral meaning, but can also take *-a* only with a negative meaning. Examine the words *babun* 'baboon'. In case it denotes a female baboon, only *-it* is used (7). In contrast, when it has a derogatory meaning of an ugly person, it can take both *-it* (8a) and *-a* (8b).

(7) sagit me-ha-safari be-ramat-gan tesaper lanu al **babun-it** / ***babun-a** jinjit xadaša 'Sagit from the Ramat-Gan safari will tell us about a new red hair baboon' <u>http://www.iba.org.il/zap/zap.aspx?classto=InnerKlali&type=247&entity=711321&topic=888</u> (8) a. hi medaberet kše-yeš la mašehu baal erex lomar, lo mekaškešet kmo eze babun-it
'she speaks when she has something valuable to say, doesn't babble like some baboon'
<u>http://www.mako.co.il/nTalkbacksPage/vgnextchannel=4e4652692dddb210VgnVCM2000002</u>
<u>a0c10acRCRD&page=18&vgnextoid=1e38a7fcd9a9d210VgnVCM2000002a0c10acRCRD&</u>
b. ani kozot babun-a lo fotogenit
'I am such an unphotogenic baboon'

http://israblog.nana10.co.il/blogread.asp?blog=442924 How is the selection of the feminine suffix -*a* related to negative meaning? I claim that -*a* is more accessible as a marker of such meaning, and as a result, it is attached to other words, competing with the default suffix -*it*. When selecting -*a*, speakers lexically mark words as negative. Why is it so? In order to account for that, some background on gender marking in Hebrew is in order. In general, several studies have shown that Hebrew is a gender biased language. To put is very generally, there are many cases in which language usage and specifically gender marking reflects some aspects of the society's attitude towards women

2015; Muchnik 2003, 2007, 2015; Valden 2005; Livnat 2006, among others). Examine the Hebrew native words *par* 'bull' and its feminine form *para* 'cow'. Only the feminine form *para* has the metaphoric meaning of 'fat', and it is used to depict overweight women in a derogatory way (Ariel 1982). In contrast, the masculine form *par* is not used to refer to overweight men. Ariel (1982) shows systematically that in many cases, words and expressions with negative connotation are used exclusively for women. This is not related to the use of one feminine suffix or another, but to the fact that Hebrew has feminine forms with negative meaning that is not shared with masculine forms. In most of Ariel's examples, the feminine forms with negative meaning that exist only in the feminine form, e.g. *zona* 'prostitute' (**zone*).

(see for example, Ariel 1982, 1988; Ariel & Giora 1998; Giora 2001; Tobin 2001; Rosental

In addition, Hebrew has feminine loanwords with no masculine base, and the majority of them have negative meaning e.g. *pustema* 'blockhead' (**pustem*), *kunefa* 'ugly' (**kunef*). More such examples are presented in (9).

(9) Feminine loanwords with no masc. base

pustema	'blockhead'
fakaca	'shallow and stupid person'
kunefa	'ugly'
jifa	'filthy, ugly'
primadona	'prima dona'

These words in (9) were borrowed into Hebrew as is from different languages, where the ending vowel does not function as a suffix but as part of the stem. In some cases, they could also relate to men, but they are typically feminine. There are some cases of back formation, where the a vowel is dropped and the remaining stem is used as a masculine form, but such case are rare and have entered the language late. The point made here is that there is a set of -a ending loanwords are typically feminine and the majority of them has negative

meaning.⁵ The fact that most of these words end with -a and have negative meaning makes the vowel a more typical of negative meaning and associated with it. Such loanwords are stored in lexicon, making the negative meaning more accessible. This echoes with Schwarzwald's (1991, 2002) findings on the role of the lexicon in feminine formation. Schwarzwald shows cases where properties of the masculine base have to be specified in the lexicon so that the right feminine suffix is selected. The case examined in this study is one in which the feminine suffix itself marks a specific semantic feature.

It follows that the feminine suffix -a is less semantically neutral, in comparison to -it, as it is more accessible to the negative meaning. I argue that as a result of the negative association of this suffix, especially in loanwords, it is also attached other loanwords with negative meaning, marking the feminine form as typically negative. I claim that such marking is assumed to apply in the lexicon, in contrast to regular gender marking which is typical inflection that is assumed to be syntactic. As noted in §2.2, all loanwords can take the suffix -it, which is the default suffix for loanwords. There is a set of words that can receive additional gender marking that also bears the semantic feature of negative meaning.

The tendency to select a suffix that has the vowel 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; Bolozky & Becker 2006) and it is part of various word formation processes. Bolozky (1999a, 2003), Schwarzwald (2002, 2012) and Schwarzwald & Cohen-Gross (2000) show that -a is the most common vowel in Hebrew patterns, and Bat-El (1994) and Bolozky (1999b) show that it is the default vowel in acronym formation. I claim here 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.⁶ Though gender is considered inflection, which typically applies in the syntax (see Perlmutter1988; Anderson 1992; Corbett 2013; Štekauer 2015; Stump 2016, among others), marking the negative meaning applies in the lexicon because of the accessibility of -a. Semantic marking is more typical of derivation than inflection, and assuming that derivation typically applies in the lexicon, the morphological mechanism marks loanwords as negative with a typical vowel that is used in derivation.

The picture that emerges is that the two feminine suffixes -it and -a, do not completely overlap on 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 of marking a negative meaning. 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. Examples of inherent inflection is dictated by syntax, e.g. agreement markers for verbs and adjectives. 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.

⁵ There are some rare counter examples of -a ending loanwords without a negative meaning, e.g. *balerina* 'ballerina'.

⁶ Note that this does not mean that only -*a* can contribute to the lexical meaning. The suffix -*it* can also be used as a derivational suffix with different meanings, for example, diminution (e.g. *mapa* 'map' – *mapit* 'napkin') (see Bolozky 1994; Muchnik 1996; Schwarzwald 2002; Faust 2013). However, -*a* is more typical of semantic marking.

So far, I have discussed the semantic condition for -a selection, i.e. the existence of negative meaning. However, not all loanwords with negative meaning take -a. I now turn to the morpho-phonological condition that dictates which loanwords with negative meaning can take -a.

3.2 Morpho-phonological conditions

I have shown that only loan words with negative meaning can take the suffix -*a* in addition to -*it*. This semantic condition is the primary condition for variation in suffix selection and the current study shows that it is exception free. However, not all loanwords with negative meaning can take -*a*. Loan words like *luzer* 'loser' (10) and *klules* 'clueless' (11) can only take -*it*.

- (10) ani pašut margiša **luzer-it** / ***luzer-a** 'I simply feel like a loser' <u>http://hadas123.bloger.co.il/page/4/</u>
- (11) az ani dey klules-it / *klules-a ba-inyan 'so I am quite clueless in the matter' http://forums.tipa.co.il/forum-10/msg-37269.html

Why do loanwords with negative meaning like *debil* 'idiot' and *snob* 'snob' can take both suffixes, while loanwords like *luzer* 'loser' and *klules* 'clueless' cannot? I argue that only loanwords with no typical non-native features can take both suffixes. Such words could be perceived as similar to Hebrew native words, and such native words can indeed take the suffix *-a*. As detailed below, there are two main morpho-phonological criteria that make loanwords typically non-native. Typical non-native structure brings about the selection of the default suffix *-it* and the selection of *-a* is blocked.

Loanwords that take only *-it* can have typical non-native structure if they consist of non-native suffixes like *-er* (12a) and *-less* (12b).

(12) <u>Feminine formation of loanwords with non-native suffixes</u>

aer			
tizer	_	tizer-it / *tizer-a	'teaser (provocative)'
maxer	—	maxer-it / *maxer-a	'kon'
luzer	_	luzerit / *luzer-a	'loser'
hipoxonder	_	hipoxonder-it / *hipoxonder-a	'hypochondriac'
bless			
hoples	_	hoples-it / *hoples-a	'hopleless'
klules	_	klules / *klules-a	'clueless'
homles	_	homles-it / *homles-a	'homeless'

Because of these foreign suffixes speakers identify these words as typical loanwords, and as a result they employ the default feminine suffix *-it*.

In addition, Hebrew words are typically disyllabic or monosyllabic, unless they consist of a suffix (e.g. xašmal 'electricity' – xašmal-i' electronic'). Words without suffixes

that exceed two syllables, e.g. *paranoid* 'paranoid', are also perceived as atypical Hebrew words and again, take only the *-it* suffix (13).

(13)	pedofil	_	pedofil-it / *pedofil-a	'pedophile'
	paranoid	_	paranoid-it /* paranoid-a	'paranoid'
	socyopat	_	socyopat-it / *socyopat-a	'sociopath'
	mizantrop	_	mizantrop-it / *mizantrop-a	'misanthrope'

The picture that emerges is that loanwords with negative meaning that take only -*it* either have a non-native suffix or they exceed two syllables, which is less typical for Hebrew word. In contrast, loanwords that take -a do not have a particular foreign structure and some of them resemble native words. They are mostly monosyllabic words or disyllabic words with final stress. The Hebrew lexicon consists of such words that do not belong to a particular pattern, but are also perceived as part of the basic vocabulary of native speakers. For example, a loanword like dos 'ultra orthodox' is monosyllabic and has negative meaning, and can take both feminine suffixes (dosa/dosit) because it resembles the structure of native monosyllabic Hebrew words like gur 'cub' that take systematically only the suffix -a (gura), regardless of their meaning (Schwarzwald 1982, 2002). These loanwords demonstrate variation in feminine formation as on the one hand, they can take the typical suffix of loan words, and on the other hand, they can behave like similar native Hebrew words and that take -a. Such loanwords act as an intermediate category on a continuum between typical native words and typical non-native words. Being an intermediate category also triggers variation. In contrast, loanwords words like socyopat 'sociopath' and klules 'clueless' do not resemble any type of native words and therefore they only take the suffix that is typical for loanwords.

As shown in (14), there seems to be a continuum of types of words that behave differently with respect to feminine formation.

(14) <u>The continuum of suffix selection in feminine formation</u>

a. Typical Hebrew Structur	e	b. Interr category		c. Typical non-native Structure -it only	
-a/-it/-et		-it / -a			
CaCiC ?amic – ?amica	'brave'	snob	'snob'	tizer	'teaser'
	Ulave	farš	'jerk'	hoples	'hopeless'
-an aclan – aclanit	'lazy'	debil	'stupid'	socyopat	'sociopath'
CoCeC boged – bogedet	'traitor'			, . F	
monosyllabic pil – pila	'elephant'				

On one edge of the scale (14a) we have native Hebrew words with typical Hebrew structure, mostly a pattern or suffix that select one of the feminine suffixes -a, -it and -et based on the system of rules proposed by Schwarzwald (1984, 2002). There is some degree of irregularity is suffix selection in this group as well, as discussed in 2.1, but in most cases it is possible to predict which suffix is selected. This groups also consists of native words with no pattern of suffix, where the feminine form is also predictable based on Schwarzwald's model. On the other edge of the scale (14c), we have loanwords with typical non-native structure: either a non-native suffix or words with more than two syllables. Words in this group take only -it in feminine formation, as this is the default suffix for loanwords. Between these two edges, we have an intermediate group (14b). On the one hand, these words are non-native and hence tend to take the suffix -it, but on the other hand they do not have a typical non-native structure. These are mostly mono-syllabic words that could be regarded as native words. As a result, they could behave like native Hebrew monosyllabic words that mostly take the suffix -a, and therefore they take this suffix as well in addition to -it. The structure of these words allows the existence of variation in feminine formation.

Note that Hebrew also have borrowed derivational suffixes like *-ist* and *-nik*. These suffixes have been established as part of the language and are attached to native Hebrew words (Schwarzwald 1998, 2002). Hebrew words with these suffixes take only *-it* as a feminine suffix (15). It is therefore not surprising that loanwords with a typical foreign suffix take only *-it*, which functions as a default feminine suffix.

(15)	Hebrew native words with borrowed suffixes					
	kibuc 'Kibbutz' –	mošav -nik	_	mošav -nik-it	'Kibbutz member'	
	bicu?a 'execution' -	bicu?-ist	_	bicu?-ist-it	'go getter'	

It can be concluded, that typical foreign structure brings about the selection of the default suffix *-it*, while non-typical foreign structure can allow the selection of *-a* as well, subject to the semantic condition discussed in $\S3.1$.

4. Conclusions

This study examined variation in the formation of feminine forms of loanwords in Hebrew. While the default feminine suffix of loanwords is *-it*, there are some cases of loanwords that take *-a* as well. It has been shown that such cases follow systematic guidelines based on two conditions. The first condition is semantic. Only loanwords with negative meaning take *-a*. The vowel *-a* has a lexical status in Hebrew as it plays a major role in word formation. By attaching *-a* to loanwords, speakers do not mark them only as feminine, but also mark them as negative. The second condition is morpho-phonological. Out of the loanwords with negative meaning, those that take also *-a* are mostly words with no typical non-native structure. These are mainly monosyllabic and disyllabic words, that can also be perceived as native words. Such words show partial resemblance to native words that take *-a* and therefore they can take this suffix as well.

The study sheds light on the role of status of gender with respect to morphological change. It adds to previous accounts of morphological variation and change, which result in doublet formation (Thornton 2012a, 2012b; Aronoff 2017, among others). The study enables

to reveal the motivation for such change in gender marking from both morpho-phonological and semantic perspectives. The study also intertwines variation with the degree of integration of loanwords. This provides direct access to word formation and shows how different types of criteria are taken into consideration.

References

- Agmon-Fruchtman, Maya & Alon, Emanuel. 1994. Chapters in the history of the Hebrew language, the modern division. Unit 8: the revival of Hebrew. Tel-Aviv, Israel: Open University publishers. (In Hebrew.)
- Anderson, Stephen. R. 1992. A-Morphous Morphology. Cambridge: Cambridge University Press.
- Ariel, Mira. 1982. Women in the hands of the language: Three aspects of women and language. Noga 7.
- Ariel, Mira. 1988. Female and male stereotypes in Israeli literature and media: Evidence from introductory patterns. *Language and Communication* 8(1). 43–68.
- Ariel, Mira & Giora, Rachel. 1998. Power and cooperation: An analysis of impositive speech acts: Gender biases in the Israeli cinematic discourse. In Gertz, Nurith & Lubin, Orly & Ne'eman, Judd (eds.), *Fictive aspects of Israeli movies*, 179–204. Tel-Aviv: Open University.
- Aronoff, Mark. 1994. Morphology by Itself: Stems and Inflectional classes (Linguistic Inquiry Monographs 22). Cambridge, MA: MIT Press.
- Aronoff, Mark. 2017 (submitted). Competitors and alternants. To appear in a volume of *selected* papers from International Morphology Meeting 17, Vienna, 2016.
- Asherov, Daniel & Bat-El, Outi. 2016. Multiple defaults: Hebrew feminine -*et* and -*a* in the present tense. *Morphology* 26. 399–423.
- Bat-El, Outi. 1994. The optimal acronym word in Hebrew. In Proceedings of the 1994 Annual Conference of the Canadian Linguistic Association. In Koskinen, Paivi (ed.), Toronto Working Papers in Linguistics. 23–37.
- Bat-El, Outi. 2011. Semitic templates. To appear in van Oostendrop, Marc & C. Ewen, Colin J. & Hume, Elizabeth V. & Rice, Keren (eds.), *Blackwell Companion to Phonology*.
- Berman, Ruth A. 1978. Modern Hebrew Structure. Tel-Aviv: University Publishing Projects.
- Berman, Ruth A. 1987. Productivity in the lexicon: New-word formation in Modern Hebrew. *Folia Linguistica* xxi (2–4). 425–461.
- Berman, Ruth A. 2003. Children's lexical innovations: developmental perspectives on Hebrew verb-structure. In Shimron, Joseph (ed.), *Language Processing and Language Acquisition in a Root-based Morphology*, 243–291. Amsterdam: John Benjamins.
- Berman, Ruth A. & Seroussi, Batia. 2011. Derived nouns in Hebrew: Structure, meaning, and psycholinguistic perspectives. In Fiorentino, Giuliana & Comrie, Bernard (eds.), *Nouns and nominalizations cross-linguistically (Special issue of Italian Journal of Linguistics)*. 105–125.

Blanc, Haim. 1957. Hebrew in Israel: Trends and problems. *Middle East Journal* 11. 397–409.

- Blau, Joshua. 1976. *The revival of Hebrew and Literary Arabic*. Jerusalem: The Hebrew Language Academy. (In Hebrew.)
- Bolozky, Shmuel. 1978. Word formation strategies in MH verb system: denominative Verbs. *Afroasiatic Linguistics* 5. 1–26.
- Bolozky, Shmuel 1994. On the formation of diminutives in Modern Hebrew morphology. *Hebrew Studies* 35. 47–63.
- Bolozky, Shmuel 1999a. Measuring Productivity in Word Formation: The Case of Israeli Hebrew. Leiden: Brill.
- Bolozky, S. 1999b. On the Special Status of the Vowels *a* and *e* in Israeli Hebrew. *Hebrew Studies* 40. 233–250.
- Bolozky, Shmuel 2003. Phonological and morphological variation in spoken Hebrew. In Hary, Benjamin H. (ed.), Corpus Linguistics and Modern Hebrew: Towards the Compilation of the Corpus of Spoken Hebrew (CoSIH), 19–156. Tel Aviv: Tel Aviv University Press.
- Bolozky, Shmuel &Becker, Michael. 2006. Living lexicon of Hebrew nouns. Ms., University of Massachusetts Amherst. (http://becker.phonologist.org/LLHN)
- Booij, Geert. 1996. Inherent vs. contextual inflection and the split morphology hypothesis. In Booij, Geert & van Marle, Jaap (eds.), *Yearbook of Morphology 1995*, 1–16. Dordrecht: Kluwer.
- Booij, Geert. 2006. Inflection and derivation. In Brown, Keith (ed.) *Encyclopedia of Language & Linguistics*. New York: Elsevier.
- Corbett, Greville G. 2005. The canonical approach in typology. In Frajzyngier, Zygmunt & Hodges, Adam & Rood, David S. (eds.), *Linguistic Diversity and Language Theories*, 25–49. Amsterdam: John Benjamins.
- Corbett, Greville G. 2006. Gender, Grammatical. *Encyclopedia of Language & Linguistics*. 749–756. Oxford: Elsevier.
- Corbett, Greville G. 2007. Canonical typology, suppletion, and possible words. *Language* 83(1). 8–41.
- Corbett, Greville G. 2013. The Expression of Gender. Berlin: Mouton De Gruyter.
- Eldar, Ilan. 2007. Following the language revival: The beginning of spoken Hebrew. *Ha-ivrit* Ve-Ahyoteha 6–7. 39–53. (In Hebrew.)
- Faust, Noam. 2013. Decomposing the Feminine suffixes of Modern Hebrew. *Morphology* 23(4). 409–440.
- Giora, Rachel. 2001. Theorizing gender: Feminist awareness and language change. In Baron, Bettina & Kotthoff, Helga (eds.), *Gender in Interaction*, 329–347. Amsterdam: John Benjamins.

- Goldenberg. Gideon. 1985. On Verbal Structure and the Hebrew verb. In Bar-Asher, Moshe (ed.), *Language Studies 1*, 295–348.
- Izre'el, Shlomo. 2002. The emergence of Spoken Hebrew in Israel. *Teuda* 18. 217–238. (in Hebrew)
- Kaddari, Zvi. 1993. Foreignness in Hebrew. Leshonenu La'am 44. 99-109.
- Kutscher, Edward Yechezkel. 1956. Modern Hebrew and Israeli Hebrew. *Conservative Judaism* 10(3). 28–45.
- Livnat, Zohar. 2006. Gender on-line in Hebrew: New technology, old language. In Thune, Eva-Maria Leonardi, Simona & Bazzanella, Carla (eds.), *Gender, language and new literacy: A multilingual analysis*, 169–181. London and New York: Continuum.
- Muchnik, Malka. 1996. A little suffix growing up. Helkat Lashon 23. 13-22. (In Hebrew.)
- Muchnik, Malka. 2003. Gender characteristics in political writing. In Toury, Gideon & Shahar, Ben R. (eds.), *Hebrew a Living Language* III, 207–220. Tel-Aviv: The Porter Institute. (In Hebrew.)
- Muchnik, Malka.2007. Gender differences in slang expressions as social communication. Social Issues in Israel 3. 5–20
- Muchnik, Malka. 2015. The Gender Challenge of Hebrew. Leiden: Brill
- Nir, Refael. 1993. Word Formation in Modern Hebrew. Tel Aviv: The Open University. (In Hebrew.)
- Ornan, Uzzi. 1983. How is the Hebrew word formed? In Bar-Asher, Moshe & Dotan, Aron & D. Tene & G.B. Sarfatti (eds.), *Language Studies*, 13–42. Jerusalem: Magnes. (In Hebrew.)
- Ornan, Uzzi. 2003. The Final Word. Haifa: Haifa University. (In Hebrew.)
- Perlmutter, David. 1988. The split-morphology hypothesis: evidence from Yiddish. In Hammond, Michael & Noonan, Michael (eds.), *Theoretical Morphology: Approaches in Modern Linguistics*, 79–99. Orlando: Academic Press.
- Plada, N. 1959. Phoneme frequency in Hebrew. Leshonenu 23. 235-242. (In Hebrew.)
- Ravid, Dorit. 1990. Internal structure constraints on new-word formation devices in Modern Hebrew. *Folia Linguistica* 24. 289–347.
- Ravid, Dorit. 1992. The absorption of foreign words in the noun and verbal systems. In M. Muchnik (ed.), *Foreign Influences on Contemporary Hebrew*, 11–20. Tel-Aviv: The Open University of Israel.
- Ravid, Dorit. 1995. Language change in Child and Adult Hebrew: A Psycholinguistic Perspective. Oxford: Oxford University Press.
- Ravid Dorit. 2006. Word-level morphology: A psycholinguistic perspective on linear formation in Hebrew nominals. *Morphology* 16. 127–148.

Rosén, Haim B. 1956. Our Hebrew. Tel-Aviv: Am Oved. (In Hebrew.)

Rosén, Haim B. 1977. Contemporary Hebrew. The Hague: Mouton.

- Rosenhouse, Judith & Fisherman, Haya. 2008. Hebrew: Borrowing ideology and pragmatic aspects in a modern(ised) language. In Rosenhouse, Judith & Kowner, Rotem (eds.) *Globally speaking: Motive for adopting English vocabulary in other languages. Multilingual Matters*, 121–144.
- Rosental, Ruvik. 2015. *The reflection of military hierarchy in the Israel Army language*. Israel: Bar-Ilan University. (Doctoral dissertation)
- Schwarzwald, Ora R. 1977. The weak verb representation in the Modern Hebrew lexicon. *Hebrew Computational Linguistics* 12. 25–36. (In Hebrew.)
- Schwarzwald, Ora R. 1981. *Grammar and Reality in the Hebrew Verb*. Ramat Gan: Bar Ilan University Press. (In Hebrew.)
- Schwarzwald, Ora R. 1982. Feminine Formation in Modern Hebrew. *Hebrew Annual Review* 6. 153–178.
- Schwarzwald, Ora R. 1984. Analogy and Regularization in Morphophonemic Change: The Case of the Weak Verbs in Post-Biblical Hebrew and Colloquial Modern Hebrew. *AfroAsiatic Linguistics* 9(2). 87–100.
- Schwarzwald, Ora R. 1991. Lexical weight in Hebrew inflectional feminine formation. Semitic Studies in Honor of Wolf Leslau on the Occasion of his 85th Birthday. 1409–1425. Otto Harrssowitz: Wiesbaden.
- Schwarzwald, Ora R. 1995. The components of the Modern Hebrew lexicon: The influence of Hebrew classical sources, Jewish languages and other foreign languages on Modern Hebrew. *Hebrew Linguistics* 39. 79–90. (In Hebrew.)
- Schwarzwald, Ora R. 1998. Word foreignness in Modern Hebrew. Hebrew Studies 39. 115-142.
- Schwarzwald, Ora R. 1999. Trends of foreign influence on Modern Hebrew. In Targarona Borras, Jufit & Saenz-Badillos, Ángel (eds.), *Jewish Studies at the Turn of the 20th Century*, 81–89. Leiden: Brill.
- Schwarzwald, Ora R. 2002. *Hebrew Morphology: 12 Study units*. Tel Aviv: The Open University. (In Hebrew.)
- Schwarzwald, Ora R. 2009. Historical and foreign influences on the development of Hebrew. In Bar-Asher, Moshe & Cohen, Chaim E. (eds.), *Mas'at Aharon: Linguistic Studies presented to Aron Dotan*. 619–629. Jerusalem: The Bialik Institute. (In Hebrew.)

Schwarzwald, Ora R. 2012. On Vowel Polarity in Hebrew. Leshonenu 74. 79–92. (In Hebrew.)

Schwarzwald, Ora R. 2013. The typology of nonintegrated words in Hebew. SKASE Journal of Theoretical Linguistics 10(1). 41–53.

- Schwarzwald, Ora R. & Dalia Cohen-Gross. 2000. The productive noun patterns in Hebrew. In Horvits, Miri (ed.), *The Language of Contemporary Press: Mina Efron's Memorial Volume*, 148–161. Tel-Aviv: The Mofet Institute. (In Hebrew)
- Shatil, Nimrod. 2014. Noun patterns and their vitality in Modern Hebrew. *Hebrew Studies* 55. 171–203
- Štekauer, Pavol. 2015. The delimitation of derivation and inflection. In Müller, Peter O., & Ohnheiser, Ingeborg & Olsen, Susan & Rainer, Franz (eds.), Word-Formation. An International Handbook of the Languages of Europe, 218–234. Berlin: De Gruyter.
- Stump, Gregory T. 2016. Inflectional Paradigms: Content and Form at the Syntax-Morphology Interface. Cambridge University Press.
- Thornton, Anna M. 2012a. Overabundance in Italian verb morphology and its interactions with other non-canonical phenomena. In Stolz, Thomas & Otsuka, Hitomi & Urdze, Aina & van der Auwera, Johan (eds.), *Irregularity in Morphology (and beyond)*, 251–269. Berlin: Akademie Verlag.
- Thornton, Anna M. 2012b. Reduction and maintenance of overabundance: A case study on Italian verb paradigms. *Word Structure* 5. 183–207.
- Tobin, Yishai. 2001. Gender switch in Modern Hebrew. In Hellinger, Marlis & Bußmann, Hadumod (eds.), *Gender across languages: The linguistic representation of women and men*, 177–197. Amsterdam: John Benjamins.

Valden, Zvia. 2005. Rav, rabit, rabat, raba ve-ravraba. Panim 33. 77-84. (In Hebrew.)

Lior Laks Deparment of English Literature and Linguistics Bar-Ilan University, Israel Lior.Laks@biu.ac.il

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