From competing patterns to competing structures: Verbal constructions based on loanwords in Hebrew

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1 Introduction

The study examines the competition between morphological and periphrastic structures in the expression of verbal meaning, based on loanwords in Hebrew. As demonstrated in the online examples below, the meaning of the verb 'talkback' is expressed morphologically using the infinitive form of the verb *tikbek*, which is formed in the *CiCeC* pattern (1a). In contrast, the same meaning is expressed periphrastically (1b) by using the infinitive form of the verb *katav* 'write' with the loanword 'talkback'. The same meaning can be expressed either by a single word using a morphological process, or by a multi-lexemic expression, and the two structures compete for the same meaning.

(1) a. kol exad yaxol **letakbek**
     'Everybody can write a talkback'

    b. kol adam yaxol **lixtov tokbek**
   'Every person can write a talkback'

Semitic morphology relies highly on non-concatenative morphology, namely the combination of root and pattern. The patterns indicate the prosodic structure of verbs, their vocalic patterns and their affixes (if any). For example, the verb *siper* 'tell' is formed in *CiCeC*, and *hitraxec* 'wash oneself' in *hitCaCeC*. The phonological shape of a verb is essential for determining the shape of other forms in the inflectional paradigm (Berman 1978; Schwarzwald 1981, Bolozky 1978, Ravid 1990, Bat-El 1994, Aronoff 1994). Most studies of Hebrew verb formation focus on verbal patterns, the relations between them and competition between them namely, the criteria for selection of one pattern and not another. For example, transitive verbs are typically formed in *CiCeC*, e.g. *tilfen* 'telephone', while intransitive verbs like reflexives and inchoatives are formed in *hitCaCeC*, e.g. *hitmagnet* 'become magnetized'. The current study examines a different type of competition, namely the competition between using one of the verbal patterns or a periphrastic construction. I will show that the selection between the two structures can be partially predicted based on the interaction between morpho-phonological and lexical-semantic criteria. The study is based on online searches and the HebTenTen corpus.

2 Morpho-phonological criteria

2.1 Number of syllables

Most studies have focused on the competition between patterns. Examine the verbs in (2) which are derived from the loanwords *debug* and *spam*.

(2) a. dibag - dibeg / *hidbig 'debug'
    b. spam - hispim / *sipem 'send a spam'

The verb *dibeg* is formed in CiCeC and not *hiCCiC* (*hidbig*), while the verb *hispim* is formed in *hiCCiC* and not *CiCeC* (*sipem*). The selection of *hiCCiC* allows preserving the consonant cluster of *spam*, and therefore, such formation is more faithful to the base. *dibeg* is derived from a base with no consonant cluster, and a formation of *hiCCiC* would result in an undesired cluster. This is an example of faithfulness constraint that determines the competition between patterns, and as a result of such faithfulness, the structural relations between the base and derived verb is more transparent. Various studies have demonstrated the importance of preserving properties of the base in Hebrew verb formation (Bolozky 1978, Bat-El 1994, 2017, Ussishkin 2005, Faust 2015, among others). The current study takes this matter one step further, arguing that low structural transparency can also block verb formation, and bring about preference for periphrastic constructions (see Halevy-Nemirovsky 1998), where the loanword remains intact. This is primarily related to the number of syllables of the base. Most verbs are derived from bases that do not exceed two syllables. In case of 3 or more syllables, at least one vowel has to be deleted, making the derived verb less faithful to the stem. For example, the verb *kitleg* 'put in a catalogue' is derived from *katalog* 'catalogue' and its formation involves deletion of second vowel. Such cases are possible, but are less frequent in comparison with stems with less syllables. In contrast, the formation of verbs like *tikbek* based on *tokbek* 'talkback' (1a) involves only changing one of the vowels and the syllabic structure remains intact. The word *fotošop* 'Photoshop', for example, has no derived verb like *fitšep*. Instead, the construction *asa fotošop* 'do Photoshop' is used. There seems to be no semantic reason for not deriving such a verb, apart from the low structural transparency. It is important to note that this reflects tendencies rather a dichotomy. Verb formation based on words with more than two syllables is possible, but the fact that most cases of the lack of verb formation is when there are more than two syllables is not a coincidence. Loan words like *babysitter, relocation, taekwondo, filibuster* and *paparazzi* are all common in periphrastic verbal constructions in Hebrew, and have no derived verbs, and the more syllables there are the smaller the chances of verb formation.

2.2 Non-native suffixes

Loanwords with typical non-native suffixes do not have derived verbal counterparts. The is mostly found in loanwords with the English suffix *-ing*. Hebrew speakers identify these words as typical loanwords, and as a result they are less likely to be integrated into the morphological system. A loanword like *šoping* 'shopping' does not have a verbal counterpart like *šipeng,* but only a periphrastic construction like *asa šoping* 'do shopping'. Similarly, loanwords like *mingeling* 'mingling', *gosting* 'ghosting' and *fišing* 'fishing',* which are highly frequent in verbal periphrastic constructions, but do not have derived verbs. This suggests that the morphological mechanism is sensitive to the morphological structure of loanwords, and in cases where it identifies typical non-native morphological elements, it tends not to integrate such words into the verbal system.

3 Lexical-semantic criteria

3.1 Semantic transparency

Low semantic transparency blocks periphrastic formation. In such cases, the meaning of the derived verb is not transparent in relation to the base. For example, the verb *firmet*, derived from format 'format' does not mean formatting in general but formatting a computer. The noun *format* is borrowed into Hebrew but in a more general sense, not restricted to the domain of computers. The verb *firmet* has no periphrastic alternative like *šina format* 'change format' or *sam be-format* 'put into a format' that would match the context of computer formatting. As a result, only the morphological construction is used. Similarly, the verb *tirped* 'ruin (plans)' is derived from *torpedo* 'torpedo', but has a metaphorical meaning, which cannot be expressed via a periphrastic construction with the word *torpedo*.

3.2 Lexical category

The selection between morphological and periphrastic formation can be partially predicted based on the lexical category of the base. In case the base is a verb, morphological formation is obligatory. Verbs that are borrowed directly into Semitic languages must have a pattern. The verb *hitfayed* 'fade', for example, cannot have a periphrastic alternative as the word *fade* itself is not used in Hebrew because it is a verb. Nouns are borrowed directly into Hebrew without morphological adaptation (only phonological), and therefore can be the base for both morphological and periphrastic formation, based on the criteria discussed so far. Adjectives are an intermediate category between nouns and verbs with respect to borrowing (Ravid 1990, Schwarzwald, 2013). Some adjectives are borrowed directly with no morphological adaptation, e.g. *snob* 'snob'. Most borrowed adjectives undergo morphological adaptation of three types: (i) affixation of *-i*, which is a typical Hebrew adjectival suffix, e.g. *efektiv-i* 'effective'; (ii) truncation of a final consonant, which results in an *i* ending adjective, e.g. *komi* 'comic'; and (iii) templatic formation, e.g. *medupras* 'depressed', which is formed in the *meCuCaC* pattern. So nouns never undergo morphological adaptation, verbs are systematically integrated into the morphological system of root and pattern, and adjectives are in the middle. This intermediary status of borrowed adjectives is also manifested in the selection between morphological and periphrastic constructions to express a verbal meaning. Most adjectives have periphrastic verbal constructions. For example, the adjective *larj* 'large (generous)' is used in the construction *nihya larj* 'become large', while there is no verbal counterpart like **hitlarej*. Similarly, borrowed adjective like *targi* 'tragic' and *senili* 'senile' have no verbal counterparts. Since most borrowed adjectives undergo some type of morphological adaptation, they are perceived as derived entries and there is a tendency to avoid further derivations, and therefore verb formation is relatively rare. In contrast, in case the base is a borrowed noun, both constructions can be found. For example, the noun *ʔobsesya* 'obsession' is the base for the formation of the verb *hiʔtabses* 'become obsessed' and the periphrastic construction *haya be-ʔobsesya* 'be in an obsession'.

Many studies examined the competition between morphological and periphrastic structures from different points of view (see for example, Haspelmath 2000, Kiparsky 2005, Booij 2010, Corbett 2013, Bonami 2015, Aronoff 2016, Rainer 2016, Štekauer

2016, Masini 2019, among many others), but few studies have addressed it with respect to Semitic morphology, especially in derivation. The study proposes one step in this direction, shedding light on the criteria for the selection between morphological and periphrastic constructions to express verbal meaning. Morpho-phonological criteria block morphological formation due to low structural transparency between the base and the derived verb and the existence of non-native suffixes, which make morphological adaptation more difficult. Low semantic transparency tends to block periphrastic formation, as there are cases with no alternative periphrastic construction that would express the same meaning of the derived verb. In addition, the lexical category of the base provides partial prediction with respect to the possibility to employ wither construction.

4 References

Aronoff, Mark. 1994. Morphology by Itself. Cambridge: MIT Press.
Aronoff, Mark. 2016. Competition and the lexicon. In A. Elia, C. Iacobino & M. Voghera, Livelli di Analisi e fenomeni di interfaccia. Atti del XLVII congresso internazionale della società di linguistica Italiana. Roma: Bulzoni Editore. 39-52.
Bat-El, Outi. 1994. Stem modification and cluster transfer in Modern Hebrew. Natural Language and Linguistic Theory 12. 572-596.
Bat-El, Outi. 2017. Word-based items-and processes (WoBIP): Evidence from Hebrew morphology. In C. Bowern, L. Horn, & R. Zanuttini (eds.), On Looking into Words (and beyond), 115-135. Berlin: Language Sciences Press.
Berman, Ruth A. 1978. Modern Hebrew structure. Tel Aviv: University Publishing Projects.
Bolozky, Shmuel. 1978. Word formation strategies in Modern Hebrew verb system: denominative Verbs. *Afroasiatic Linguistics* 5, 1-26.
Booij, Gert E. 2010. Construction Morphology. Oxford: Oxford University Press.
Bonami, Olivier. 2015. Periphrasis as collocation. *Morphology* 25, 63-110.
Faust, Noam. 2015. A novel, combined approach to Semitic word-formation, *Journal of Semitic Studies LX.*
Halevy Nemirovsky, Rivka. 1998. Complementary distribution of single vs. expanded lexical units in Modern Israeli Hebrew. Leshonenu 3/4. 293-309.
Haspelmath, Martin. 2000. Periphrasis. In G. Booij, C. Lehmann & J.Mugdan (eds.), Morphology: An International Handbook on Inflection and Word-Formation. 654-664. Berlin: de Gruyter.
Kiparsky, Paul. 2005. Blocking and periphrasis in inflectional paradigms. Yearbook of Morphology 2004, 113-135.
Masini, Francesca. 2019. Competition Between Morphological Words and Multiword Expressions. In F. Rainer, F. Gardani, W. Dressler, & H.C. Luschützky (eds.), Competition in Inflection and Word Formation. Berlin: Springer
Rainer, Franz. 2016. Blocking. In M. Aronoff, *The Oxford Research Encyclopedia of Linguistics.*
Ravid, Dorit. 1990. Internal structure constraints on new-word formation devices in Modern Hebrew. *Folia Linguistica* 24. 289-346.
Schwarzwald, Ora R. 1981. *Grammar and reality in the Hebrew verb.* Bar Ilan University.
Schwarzwald, Ora R. 2013. The typology of nonintegrated words in Hebrew. *SKASE Journal of Theoretical Linguistics* 10(1). 41–53.
Štekauer, Pavel. 2016. Compounding from an onomasiological perspective. In P. ten Hacken (ed.), *The Semantics of Compounding.* Cambridge: Cambridge University Press. 54–68.
Ussishkin, Adam. 2005. A fixed prosodic theory of nonconcatenative templatic morphology. *Natural Language and Linguistic Theory* 23. 169-218.