

Modern Hebrew prepositions are enclitics: converging evidence from lexical morpho-phonology and natural speech segmentation

Noam Faust, Hebrew University, and Vered Silber-Varod, Open University

In this talk, it is claimed that several clitics in Modern Hebrew - such as the prepositions *le*, *be* *et* - are enclitics, rather than proclitics: they cliticize to the preceding word and form a phonological phrase with it. Evidence for this claim is provided from two angles: 1) the prosody and segmentation of natural speech; and 2) lexical morpho-phonology. It is further shown that if one adopts the view of morpho-syntactic segmentation provided by Distributed Morphology (Halle & Marantz 2003), both the encliticization of these particles and the morpho-phonological facts follows naturally. As a final step, the morpho-phonological fusions of prepositions+definite article (e.g. *b-a* 'in the', *l-a* 'to the', *t-a* 'acc. the') are shown to further support of the view proposed, rather than falsify it.

The talk begins with the introduction of the study of the segmentation of natural speech in Silber-Varod (2012). In this study, types of pauses were distinguished in the natural flow of speech and classified according to their prosodic surroundings. One such pause, transcribed CE (Continuous Elongated) was found to appear, among other cases, between prepositional clitics and their complements (1). Interestingly, this type of pause never appears between these items and the preceding word (unless it is itself a clitic). It is deduced from the distribution of such pauses that at least prosodically, these are not proclitics but enclitics.

The next stage of the talk discusses the different verbal forms of Modern Hebrew, portrayed in (2). It is noted that the distribution of [h]¹ is somewhat erratic: it appears in types 3 and 5 in the past, infinitive and action-noun forms, but not in the prefixed participle and future forms; and it appears in Type 4 only in the infinitives and action nouns. The traditional account of this /h/ is that it is lexically present in types 3 and 5, and deleted in the prefixed forms (e.g., *m+haQTiL* > *maQTiL*). This leaves out, however, all infinitives and type 4.

The analysis proposed in the talk relies on the formal similarity between the exponent of the infinitive, *le*, and that of the preposition *le*. It is shown that if the two are treated on a par, then infinitival *le* is an enclitic, and does not belong to the same phonological word as its complement. As a result, its base is found without an onset; it is for this reason that [h] is inserted (see derivation in 3). All the other cases of non-root [h], including those unaccounted for by the traditional view, would also lack an onset without the [h]; they are thus immediately covered by the present account. To summarize, if *le-* is enclitic in both infinitive and preposition, the distribution of [h] is accounted for: it is never erased, but always inserted.

Back to natural speech, if the morpho-phonological analysis is correct, cases of CE boundaries between the infinitival *le-* and its complement have to be attested. This is indeed the case (4). Finally, one asks why there are CE boundaries between the prepositions and their complements, but not after prefixes. The answer is shown to be provided by two basic principles of Distributed Morphology: derivation by phase (Chomsky 2001) and the sister spell-out (Scheer 2008). This is done in the following manner. The complement of prepositions is the DP. If D is taken to be the first phasal head, then the complement of D and whatever selects the DP are in different phases, just like the morpho-phonology indicates (5). When the noun is spelled out, the existence of *le* is not yet known, and epenthesis must take place. *le* will only be realized as an enclitic on the preceding word.

If so, both the distribution of [h] in the verbal system and the segmentation of natural speech point to an enclitic status of prepositions. In the last part of the talk, it is shown that the coalescence of prepositions+definite article (e.g. *le+ha* = *la*) is completely in line with the analysis: as can be seen in (5), D is spelled out with the preposition, not with its complement. If so, unlike the infinitive base, nothing prevents the definite article from exhibiting simple allomorphy. The prediction is rather that CE boundaries will never be found between the preposition and the article, even if a separation is in principle possible. Indeed, for *et ha* 'acc. the', CE is never found between *et* and *ha* and abounds after *ha* or *ta*.

¹ The fact that this /h/ is rarely pronounced is irrelevant for the present purpose.

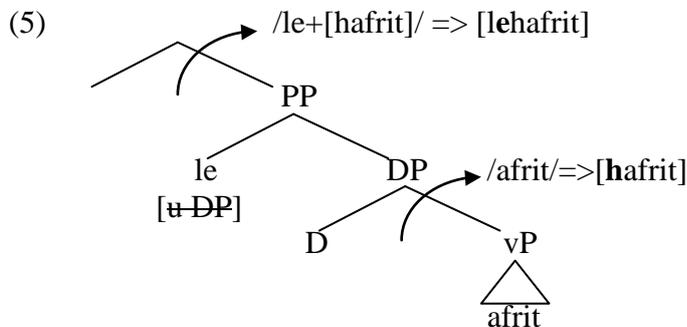
- (1) a. mešer li-xjot be CE be hitnagšut kol ha zman
 than to-live in CE in conflict all the time
 'than living in conflict all the time'
 b. ze mea kilometer ze exad le CE elef ||
 this one-hundred kilometer this one to CE one-thousand
 'this is one hundred kilometers it is one to a thousand'

(2)²

Type	Past	non-Past			Action nouns	
		Participle	Future	Infinitive		
I	ragaš	rogeš	-rgoš	li-rgoš	(rgiša)	'be agitated'
II	rigeš	me-rageš	-rageš	le-rageš	riguš	'excite, move'
III	hirgiš	m-argiš	-argiš	le- h argiš	h argaša	'feel (trns./intrns.)'
IV	ni-rgaš	ni-rgaš	(-irageš)	(le- h irageš)	(h iragš-ut)	'be excited'
V	hit -rageš	m-it-rageš	-it-rageš	le- hit -rageš	hit -ragš-ut	'be/become excited'

- (3)
- | | | | |
|------------|----------------|-----------------|----------------|
| | a) past | b) participle | c) infinitive |
| input | ifrit | afrit | afrit |
| morphology | ∅ | m+afrit | ∅ |
| epenthesis | h ifrit | ma f rit | h afrit |

- (4) a. at yodaat le- CE le-šapec oto kcat ve ze
 you.2FM know-FM.PTCP.SG.F to- CE to-renovate.INF it a little and that
 'you know how to renovate it a little etc.'
 b. holex li- CE krot
 going.PRES to- CE happen.INF
 'it is going to happen'



References

- Halle, M. & A. Marantz. 1993. Distributed Morphology and the Pieces of Inflection. In *The View from Building 20*, ed. Hale, K. & Keyser S.J. Cambridge: MIT Press. 111-176.
 Silber-Varod, V. 2011. The SpeeCHain Perspective: Prosodic-Syntactic Interface in Spontaneous Spoken Hebrew, PhD dissertation, Tel Aviv University.
 Chomsky, N. 2001. Derivation by Phase. In *Ken Hale: A Life in Language*, ed. Michael Kenstowicz. Cambridge: MIT Press, 1-52.
 Scheer, T. 2008. Spell out your Sister! In *Proceedings of the 27th West Coast Conference on Formal Linguistics*, ed. Abner, N. & J. Bishop. Somerville: Cascadilla. 379-387.

² Some of the forms are either not in use or non-existent. Nevertheless they can easily be provided by speakers. Such forms are in parentheses.