

# Accounting for Hebrew verbal MWEs in HPSG

Livnat Herzig Sheinfux<sup>H</sup>, Nurit Melnik<sup>O</sup>, Shuly Wintner<sup>H</sup>  
 University of Haifa, Israel • The Open University, Israel

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## INTRODUCING HEGRAM

We present an account of verbal MWEs in HeGram, a deep linguistic computational grammar of Modern Hebrew. HeGram is implemented in the Linguistic Knowledge Builder (LKB) system and is grounded in the theoretical framework of Head-driven Phrase Structure Grammar (HPSG).

## HEBREW VERBAL MWEs

### V NP idioms

- (1) dn hgdil rae  
 Dan made.grow head  
 'Dan assumed responsibility.'

### V PP idioms

- (2) dn ird m-hyc  
 Dan went.down from-the.tree  
 'Dan conceded.'

### V NP<sub>poss</sub> PP idioms

- (3) dn vmn at raew b-xwl  
 Dan<sub>i</sub> buried ACC head.his<sub>i</sub> in.the-sand  
 'Dan buried his head in the sand.'

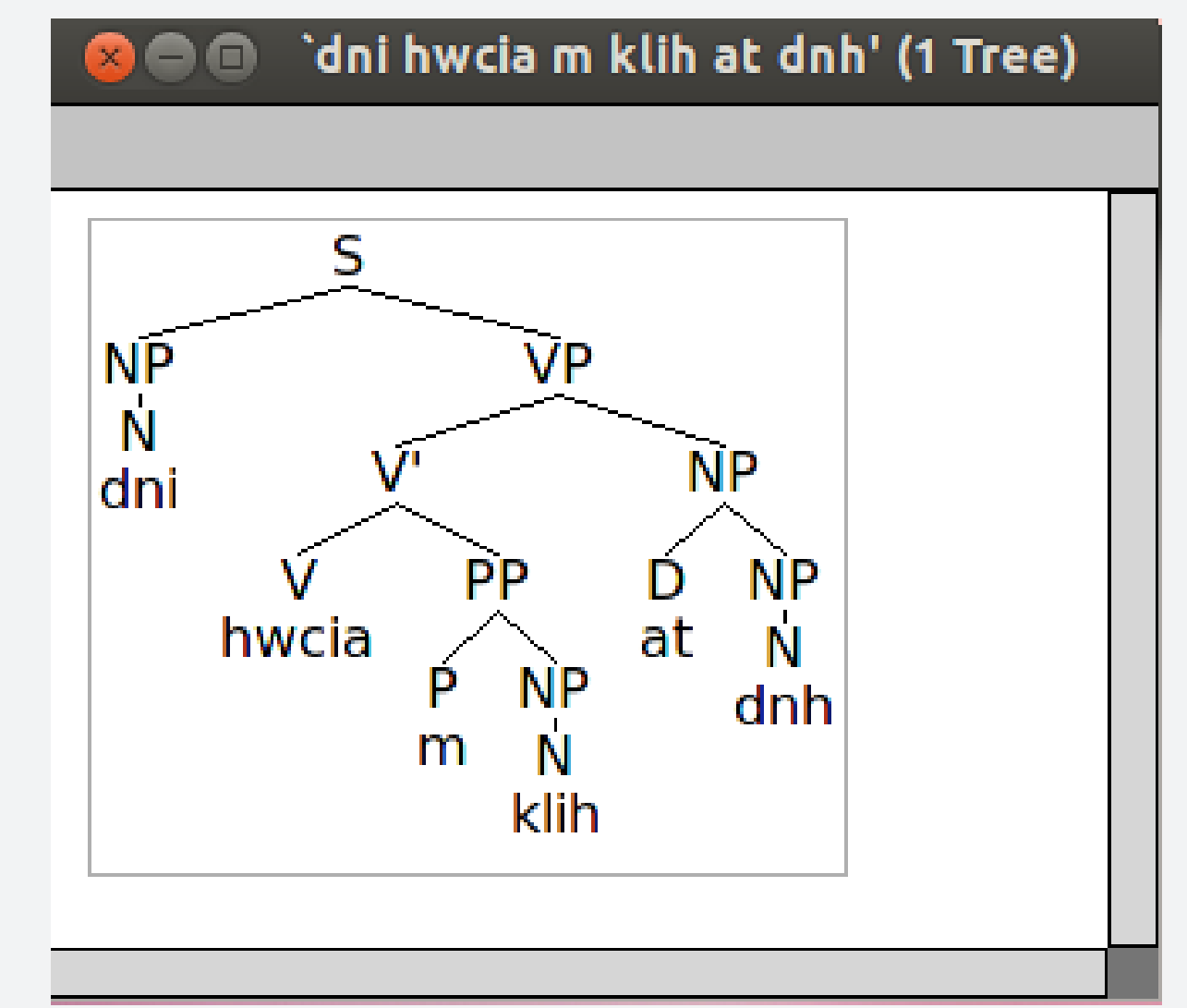
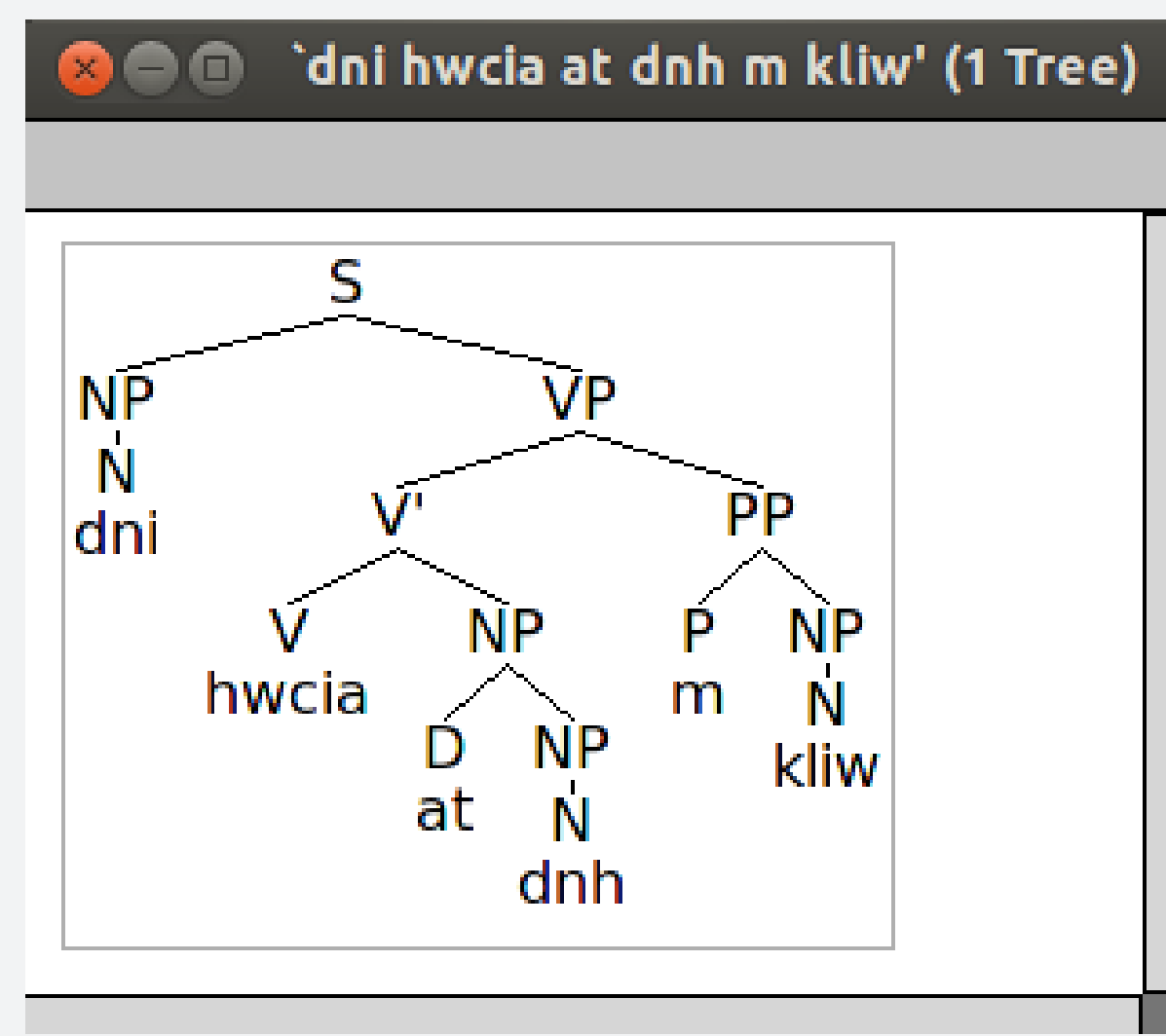
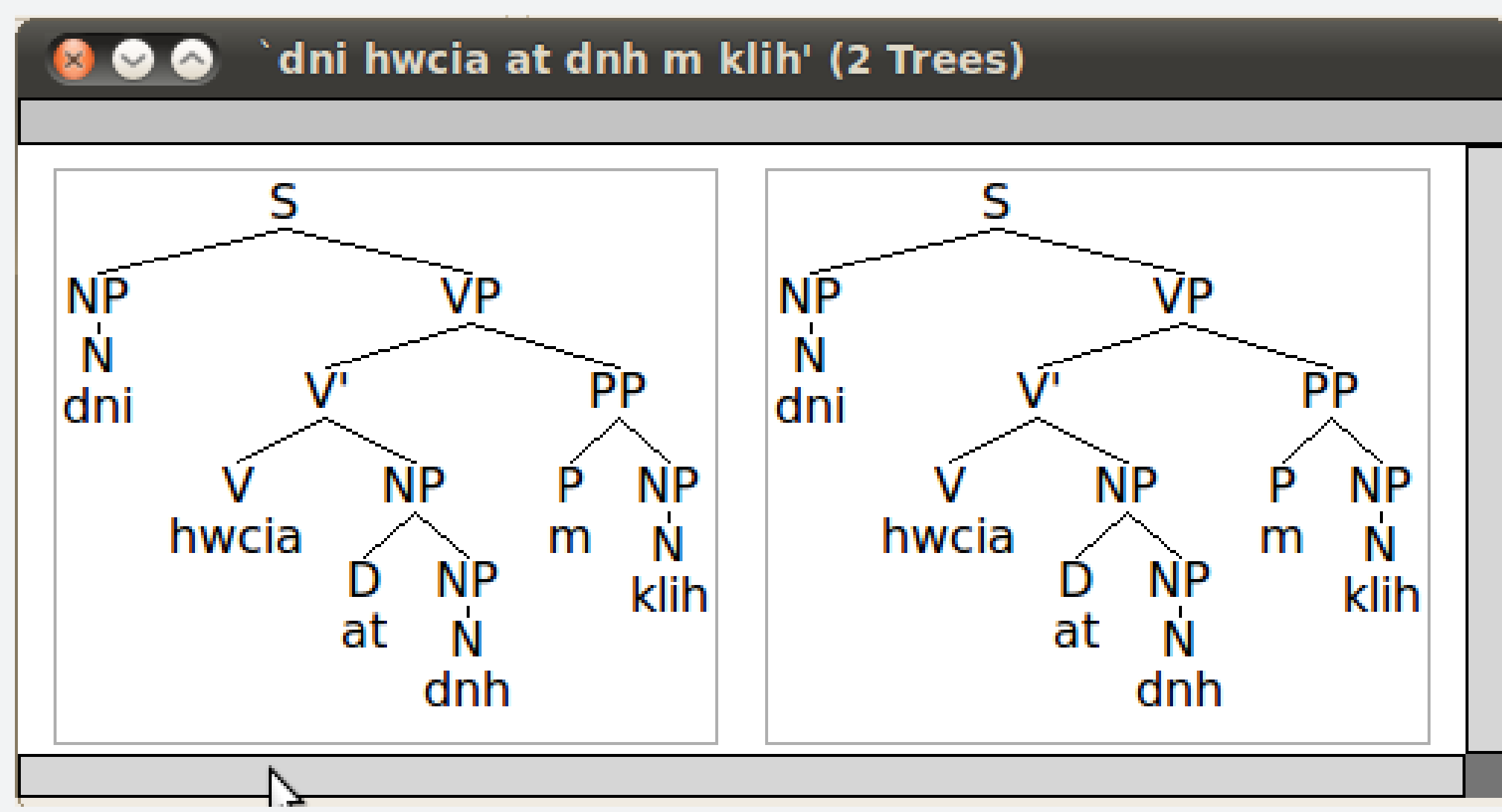
## POSSESSIVE IDIOMATIC CONSTRUCTIONS: V NP PP<sub>poss</sub>

The idiom imposes co-indexation between the NP complement and the possessor inside the PP complement, as well as strict ordering of the complements. Without them, only a literal interpretation is available.

- (4) dni hwcia at dnh m-klih  
 Danny took.out ACC dana<sub>i</sub> from-dishes.her<sub>i</sub>  
 'Danny took Dana out of **her** dishes.' (literal) OR  
 'Danny made Dana very angry.' (idiomatic)

- (5) dni hwcia at dnh m-kliw  
 Danny took.out ACC dana from-dishes.his  
 'Danny took Dana out of **his** dishes.'  
 (only literal)

- (6) dni hwcia m-klih at dnh  
 Danny took.out from-dishes.her ACC dana  
 'Danny took Dana out of **her** dishes.'  
 (only literal)



## POSSESSIVE IDIOMATIC CONSTRUCTIONS: ZOOMING IN

The analysis is inspired by Kay & Sag's (2012) "A Lexical Theory of Phrasal Idioms":

- Semantic relations are divided into *l(iteral)-rels* and *i(diomatic)-rels*. Idiomatic lexemes like *hwcia* ('take.out') select for complements with specific *i-rels*.
- TOPREL identifies the main semantic relation denoted by a lexeme, and percolates from the head daughter.
- Possessed NPs project the INDEX of their possessor via XARG, making it accessible for co-indexation between the possessor and one of the verb's dependents.

