

# A Deep Computational Grammar of Hebrew

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## Introducing HEGRAM

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

Deep linguistic processing is required in order to identify and represent non-trivial relationships between arguments. Existing parsers, whether phrase-structure or dependency-based, are unable to produce such representations.

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## Example 1: Subject and Object Control

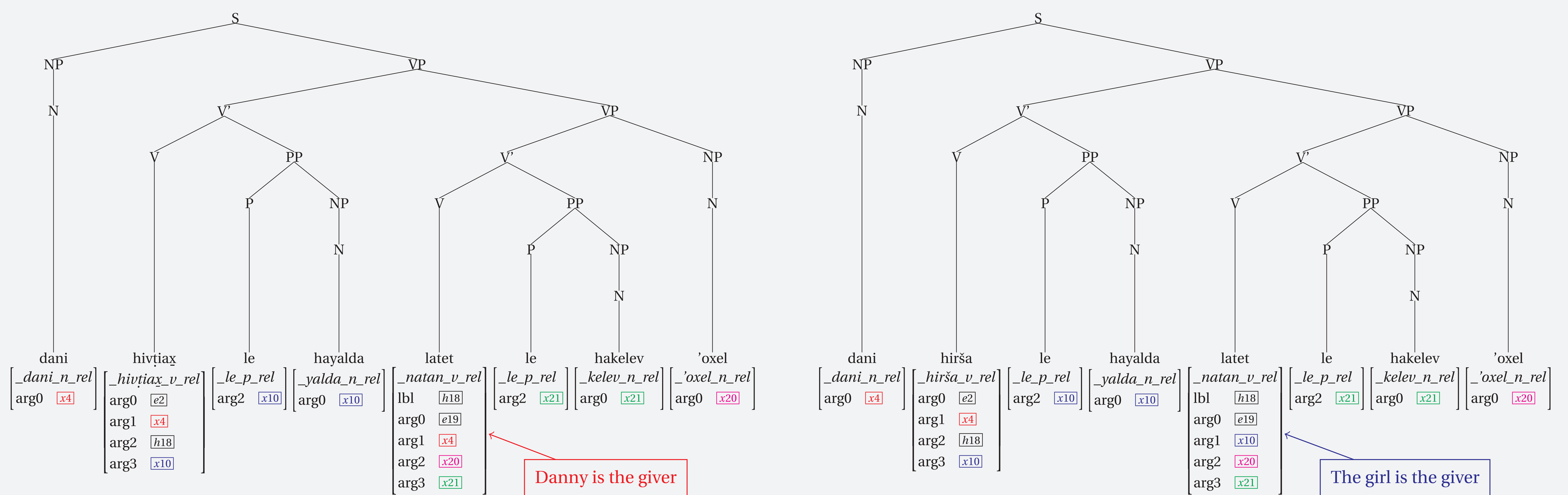
### Subject Control

- (1) **dani** **hivtiax** la-yalda latet la-kelev 'oxel  
 Danny promised to.the-girl to.give to.the-dog food  
 'Danny promised the girl to give the dog food.'

### Object Control

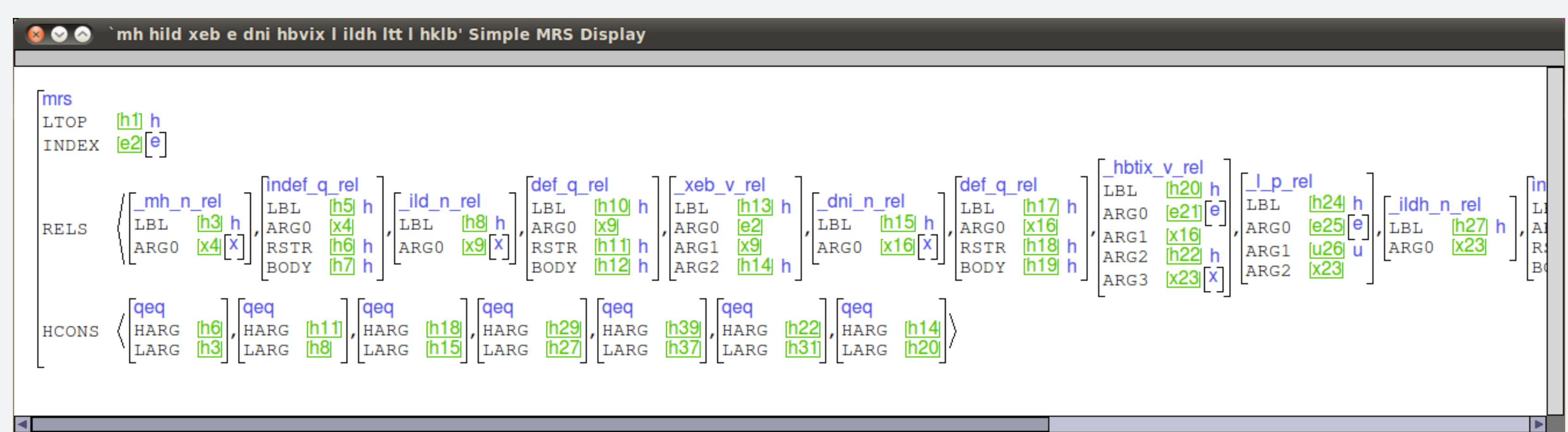
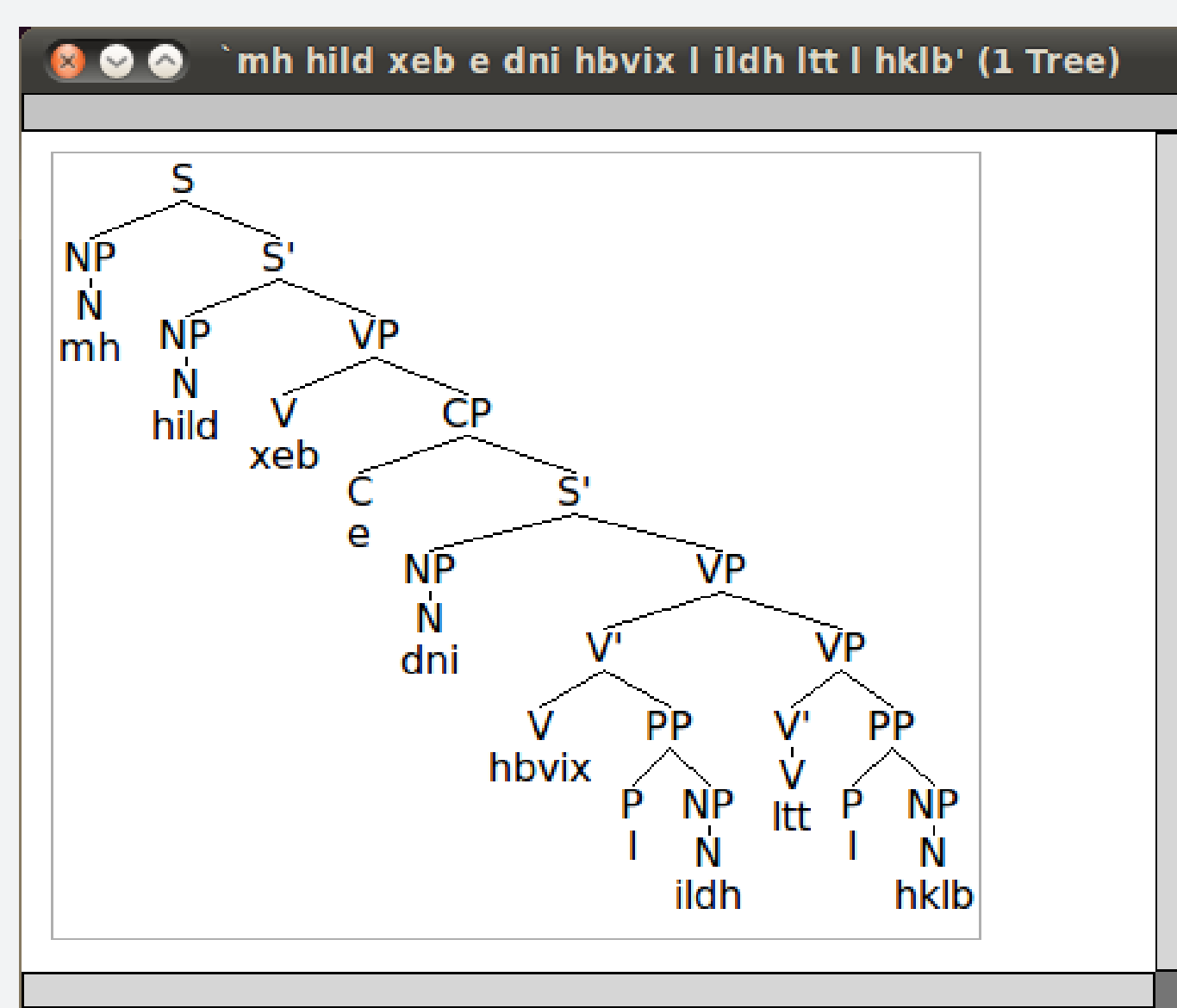
- (2) **dani** **hirša** la-yalda latet la-kelev 'oxel  
 Danny allowed to.the-girl to.give to.the-dog food  
 'Danny allowed the girl to give the dog food.'

Who will give the dog food in each case?



## Example 2: Long distance wh-questions

- (3) ma ha-yeled xāšav še-dani hivtiax la-yalda latet la-kelev  
 what the-boy thought that-Danny promised to.the-girl to.give to.the-dog  
 'What did the boy think that Danny promised the girl to give the dog?'



## Example 3: Zero copula

- (4) ha-lexem 'al ha-šulxan 'axšav  
 the-bread on the-table now  
 'The bread is on the table now.'

