

Scope Ambiguities among Suffixes in Hungarian: Mood and Modality

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Intro: The Puzzle

- Hungarian verbal suffixes have a fixed surface order: V-Mod-T-Mood, but variable interpretations corresponding to scope ambiguities

- (1) a. Vár-hat-ott.
wait-MOD-PST
'She was allowed to wait.'
'She may have waited.'
- b. Vár-t vol-na.
wait-PST EXPL-M
'She would have waited.'
'She wanted to wait.'
- c. Vár-hat-na.
wait-MOD-M
'She could wait.'
'It is desirable that she would wait.'
- d. Vár-hat-ott vol-na.
wait-MOD-PST EXPL-M
'She could have waited.'
'It is desirable that she would have waited.'

- two previous accounts:
 - entirely structural morphosyntactic phenomenon (Bartos 1999)
 - non-structural and entirely discourse-dependent phenomenon (Alberti, Dóla & Kleiber 2014)

Focusing on the syntactic and logical representation of Hungarian verbs:

- argue **against a morphosyntactic mismatch** à la Mirror Principle (Baker 1985)
- relocate the source of the ambiguities to **Logical Form**
- argue for the **unified treatment of word internal and sentence level ambiguities** via movement at LF
- show that available and unavailable readings can be accounted for by embracing the intertwined relationship of mood and modality

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Defining Mood and Modality: Conceptually

- **Modality:**
 - modifies the meaning of the verb directly
 - expresses some modification pertaining to the *agent's perspective* (permission, volition, ability)
 - both Cinque (1999) and Bybee (1985) note that it rarely occurs as an inflectional category
- **Mood:**
 - modifies the meaning of the entire proposition
 - expresses the *perspective of the speaker* (illocutionary force, commitment to validity of proposition)
- cross-linguistically, one and the same category may be encoded as mood in one and as modality in another language
- the spectrum of meanings covered by each category often coincides

Defining Mood and Modality: Structurally

- Cinque (1999) proposes a specific hierarchy of projections based on cross-linguistic evidence:

(2) $\text{Mood}_{\text{speech act}} \succ \text{Mood}_{\text{evaluative}} \succ \text{Mood}_{\text{evidential}} \succ \text{Mod}_{\text{epistemic}} \succ T_{\text{past}} \succ T_{\text{future}} \succ \text{Mood}_{\text{irrealis}} \succ \text{Asp}_{\text{habitual}} \succ T_{\text{anterior}} \succ \text{Asp}_{\text{perfect}} \succ \text{Asp}_{\text{retrospective}} \succ \text{Asp}_{\text{durative}} \succ \text{Asp}_{\text{progressive}} \succ \text{Asp}_{\text{prospective}} / \text{Mod}_{\text{root}} \succ \text{Voice} \succ \text{Asp}_{\text{celerative}} \succ \text{Asp}_{\text{completeive}} \succ \text{Asp}_{(\text{semel})\text{repetitive}} \succ \text{Asp}_{\text{iterative}}$

(ibid., p. 76)

- modality stands fairly low, mood is at the very top of the structure
- modality tends to take scope over the verb (and aspect) only, while mood takes scope over the entire proposition
- two exceptions: epistemic modality standing above T, and irrealis mood standing below T

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The Ambiguities: Deontic and Epistemic Modality

- the modality morpheme can express deontic, i.e. root modality (permission) or epistemicity (belief)

- (3) a. DEONTIC
Vár-hat.
wait-MOD
'She may wait.'
- b. EPISTEMIC
Vár-hat.
wait-MOD
'She might wait.'

- this free alternation perseveres in the presence of tense marking:

- (4) a. DEONTIC+PAST
Vár-hat-ott.
wait-MOD-PST
'She was allowed to wait.'
- b. EPISTEMIC+PAST
Vár-hat-ott.
wait-MOD-PST
'She might have waited.'

The Ambiguities: Conditional and 'Wishful' Mood

- mood has a conditional reading and a desiderative (expressing a wish):

(5) a. CONDITIONAL

Vár-na.

wait-M

'She would wait.'

b. DESIDERATIVE

Vár-na.

wait-M

'She wants to wait.'

- like with modality, the readings do not seem to interact with tense marking:

(6) a. PAST+CONDITIONAL

Vár-t vol-na.

wait-PST EXPL-M

'She would have waited.'

b. PAST+DESIDERATIVE

Vár-t vol-na.

wait-PST EXPL-M

'She wanted to wait.'

The Ambiguities: Modality and Mood Combined

- (7) a. DEONTIC+CONDITIONAL
Vár-hat-na.
wait-MOD-M
'She could wait.'
- b. DEONTIC+OPTATIVE
Vár-hat-na.
wait-MOD-M
'It is desirable that she can wait.'

- the presence of mood restricts modality to its deontic reading; modality shifts the perspective regarding the 'wishful' reading (agent → speaker)

- (8) a. DEONTIC+PAST+CONDITIONAL
Vár-hat-ott vol-na.
wait-MOD-PST EXPL-M
'She could have waited.'
- b. DEONTIC+PAST+OPTATIVE
Vár-hat-ott vol-na.
wait-MOD-PST EXPL-M
'It is desirable that she could have waited.'

- again, tense seems to have no active role but serves as a point of orientation regarding scope

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Bartos (1999): Morphology cannot keep track of syntax

- previously, the ambiguities have been suggested to derive in syntax proper
 - heads are generated in basic Mod-T-M order
 - movement caused by the intended scope
 - BUT: suffixes are shipped off to morphological component after the *initial formation*, i.e. before movement
- a number of issues:
 - syntactic movement based exclusively on semantic properties
 - prediction that syntactic movement should have no morphophonological effect, only the 'original' order of heads should prevail
 - technicalities: merging as alternative to movement, wishful aspect of mood?

Bartos (1999) also makes a number of discoveries of crucial importance:

- close relation of epistemic modality to mood
 - close relation of 'wishful' mood to modality
 - the availability of readings, due to their systematic nature, must depend on the vacancy of certain landing positions
- movement of some sort is the key after all, yet the restrictions of syntax make the proposed derivation quite tedious in the technical sense

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New LF Approach: Word vs. Sentence-Level

- scope ambiguities in sentences accounted for at LF (May 1977, 1985), why not also within words? → **what is a word?**
- Julien (2002): words do not exist in the morphosyntactic sense
 - word boundaries only gain relevance at vocabulary insertion
 - no evidence for word formation device: words are a matter of perception, not formation→ morphological constituents are minimal elements of syntax, i.e. heads
→ no fundamental difference between word-internal and external processes in syntax
- Pesetsky (1985): no distinction based on logical representation
 - words have a logical representation entirely parallel to that of sentences→ bracketing paradoxes
→ idiosyncratic readings

What makes LF movement an attractive endeavor?

1. it targets the area of interest, i.e. semantic representation, directly
 - semantic matters have no place in syntactic derivations
2. it makes use of established mechanisms
 - scope ambiguities on sentence level standardly resolved at LF
3. it makes stipulation superfluous
 - **What do we gain if we move past the notion of wordhood?**

New LF Approach: Preliminary Assumptions

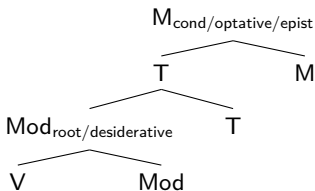
- recall the hierarchy proposed by Cinque (1999), highlighting the categories relevant for Hungarian:

(9) Mood_{evidential} \succ Mod_{epistemic} \succ T_{past} \succ Mood_{irrealis} \succ Mod_{root}

- heads move to their respective position at LF
 - the order of heads in syntax proper corresponds to their surface form
 - syntactic output serves as the input for two distinct levels of representation, Phonological Form on the one hand and Logical Form on the other
- the morphological component is located on the path from syntax to PF and has no interface with LF (cf. Halle & Marantz 1993)

New LF Approach: Proposed Structure

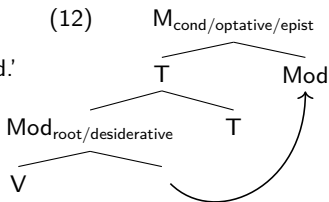
(10)



- conditional, optative ('wishful', speaker-oriented) and epistemic expressions modify the entire proposition, thus they should have scope over all other affixes
- deontic (root modality) and desiderative ('wishful', agent-oriented) readings modify the verb directly, therefore they are lower than T

Epistemic Modality

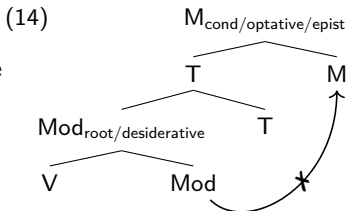
(11) Vár-hat-ott.
wait-MOD-PST
'She could have waited.'



- the Mod head raises to the higher M head to take scope over the entire proposition

Epistemic Modality

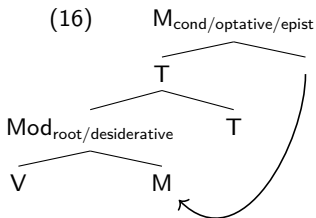
- (13) Vár-hat-na.
wait-MOD-M
'*It could be the case that she
might wait/*It is desirable
that she might wait.'



- the proposed structure depicts that the epistemic reading is a type of mood conceptually (cf. Bybee 1985; Cinque 1999)
- correctly rules out the co-occurrence of mood and epistemic modality by postulating a single position for both of them

Desiderative Mood

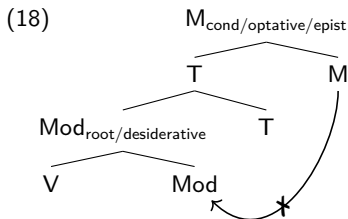
- (15) Vár-t vol-na.
wait-PST EXPL-M
'She wanted to wait.'



- Mood lowers to the Mod head below T, directly modifying the meaning of the verb (May 1985; Lasnik 2021)

Desiderative Mood

- (17) Vár-hat-na.
wait-MOD-M
'*She is allowed to want to
wait/*wants to be allowed to
wait.'



- correctly rules out the co-occurrence of modality and desiderative mood by postulating one and the same position for them

The Desiderative and the Optative

- no previous discussion of this contrast: scope ambiguity parallel to epistemic/deontic modality?
- contrary to the two modalities, the desiderative and the optative are in complementary distribution
- what if the desiderative and optative (and conditional) are structurally equivalent after all?
- free alternation based on discourse? (cf. Alberti, Dóla & Kleiber 2014)

- (19)a. Bárcsak vár-na/vár-t vol-na!
if.only wait-M/wait-PST EXPL-M
'If only she would wait/would have waited!'
- b. #Nem ért-em, miért nem men-nek még haza, talán
not understand-1SG why not go-3PL yet home, maybe
vár-hat-ná-nak?
wait-MOD-M-3PL
I don't understand why they aren't going home yet, maybe they want to wait?

(Bartos 1999, p. 78)

- context enhances the intended reading, but it cannot turn the optative into a desiderative as in (19-b) → only plain conditional readings can be attributed to the verb itself in (19)

Food for Thought

- do we ever stumble upon genuine scope ambiguity with these verbs?
- does the optative deserve to be treated as a separate reading? alternative: conditional mood with or without the hint of a wish

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Words or sentences? No difference

- the source for semantic phenomena on word level should not be different from their source at sentence level, i.e. Logical Form

Mood and modality may coincide

- the proposed structural model predicts the available readings and rules out the unavailable ones based on the interwoven dependency of mood and modality

Structural or discourse-based? Probably both

- epistemic and deontic modality as well as conditional and desiderative mood comprise a very systematic case for scope ambiguity
- but: separation of optative questionable due to lack of actual scope ambiguity

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