

A construction-theoretic approach to lexical periphrasis in Hungarian complex predicates

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Whoever undertakes to set himself up as the judge in
the field of truth and knowledge is shipwrecked by the
laughter of the gods. Albert Einstein

Goals

In dealing with problems which can be solved in more ways than one, the solutions themselves are of less interest than the reasons for making the choices. Newman 1967:192 cited in P. H. Matthews 1976.

- Conceptual case for **construction-theoretic** approach (Fillmore et. al. 1988, 1999, Sag 2008, Culicover & Jackendoff 2005, Goldberg 2006) to the morphology-syntax interface that
- recognizes (classes of) **periphrastic expressions**, e.g. **phrasal predicates**, as **morphological constructions** whose surface syntactic realization may consist of two (or more) independent words (Ackerman 1987; Ackerman & LeSourd 1997; Ackerman & Webelhuth 1998; Ackerman & Stump 2004; Booij 2002, 2008 ms: Lee S-H 2007...),

Basic goal

- consistent with the pre- and post-structuralist tradition in **Word and Paradigm (WP) morphology** (Matthews 1976, Anderson 1992, Aronoff 1993, Bochner 1993, Blevins 2006, 2007, Bonami, O. & Boyé G. 2007, A. Harris 2007, 2008,...)

Chomsky on the **superiority of paradigmatic over morphemic, syntagmatic approaches** to morphology:

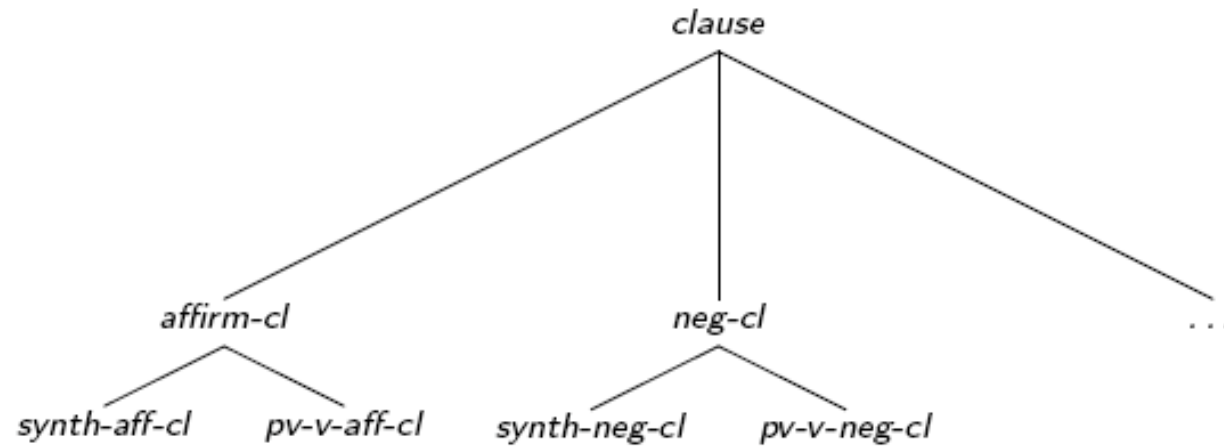
"I know of no compensating advantage for the modern descriptive reanalysis of traditional paradigmatic formulations in terms of morpheme sequences. **This [= structure-based morphemic analysis - FA et. al.] seems, therefore to be an ill-advised theoretical innovation.**" -
Chomsky 1965:174

Basic goal

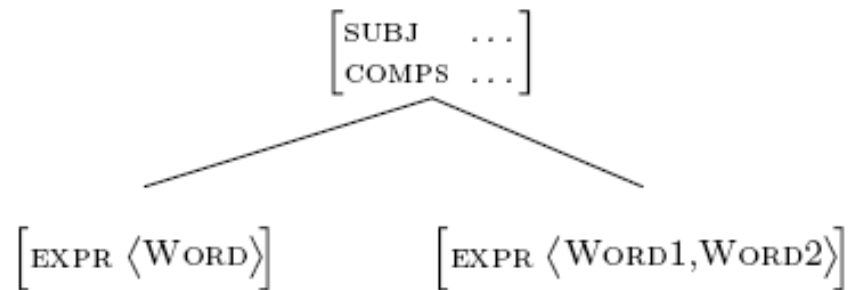
- Encourages the consideration that both **words and syntactic structures represent patterned configurations of meanings and forms (= constructions) in irreducibly different domains, encoding different types of information, and related by systems of systematic correspondences.**

The Syntax-Morphology Interface

Syntax:



Morphology (Lexicon):



The basic empirical problem: Hungarian phrasal predicates

PV V compositions constitute single “semantic words”, comparable to simple lexical items; yet they permit tmesis, or syntactic separation, suggesting that internal parts are independent syntactic entities. C. Watkins 1964:1037

“One can distinguish the following main types of functions concerning the relation between the preverb verb construction and the simple verb without a preverb:

1. The preverb indicates direction of activity;
2. The preverb expresses verbal aspect;
3. The preverb modifies the meaning of the verb;
4. The preverb changes the syntactic roles of the verb;
5. The preverb is a means of verb formation.

(Soltész 1959:155)

A representative sample of `causal predicates`.

belebolondul `go nuts over X`

belekábul get dumbfounded by X

beledöglik die of X

belebetegedik get sick of X

belebolondul get/go crazy from X

belecsömörlik get disgusted from X

belefájdul get pain from X

belehal die from X

beleizzad sweat from X

belenyugszik acquiesce because of X

beleöszül get grey from X

beleremeg tremble out of X

belepusztul perish from X

beleszédül get dizzy from X

belevénül get old from X

beledolgozik get tired from working on X

belefullad suffocate from X

beleörül get angry because of X

belefárad get tired from X

belevakul get blinded by X

General Conditions:

(i) intransitive one-place predicate of psychological/physical state

(ii) preverb *bele*

(iii) phrasal predicate is two-place predicate governing **SUBJ_{NOM}** and **OBL_{ILL}** where **OBL_{ILL}** represents the cause for **SUBJ_{NOM}** entering psychological/physical state.

A causal predicate: lexical NP_{cause}

1. a fiú me**g**bolondult

the boy crazy.3sg

`The boy went crazy`

2. a fiú be**le** bolondult a lány-**ba**

the boy PV crazy.3sg the girl-ILL

`The boy went nuts over the girl.`

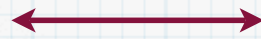
3. a fiú nem bolondult be**le** a lány-**ba**

the boy **not** crazy.3sg PV the girl.ILL

`The boy didn't go nuts over the girl.`

Predicate representation for lexical NP_{cause}

/X/
V ⟨NP_{nom}⟩
Z
Expression Type:
E-synthesis: *V*



/beleX/
V ⟨NP_{nom}, NP_{ill}⟩
BECOME Z BECAUSE OF NP_{ill}
Expression type:
E-synthesis: *beleV*
E-periphrasis: *bele, V*

/bolondull/
V ⟨NP_{nom}⟩
GO CRAZY
Expression Type:
E-synthesis: *bolondul*



/belebolondull/
V ⟨NP_{nom}, NP_{ill}⟩
GO CRAZY BECAUSE OF NP_{ill}
Expression Type:
E-synthesis: *belebolondul*
E-periphrasis: *bele, bolondul*

A causal predicate: Pronominal_{cause}

4. a fiú belé-m bolondult inflected PV = pro
the boy PV-1sg crazy.3sg
'The boy went nuts over me'
5. *a fiú bele bolondult belém *illative case of
the boy PV crazy.3sg pro_{ILL} independent pro
'The boy went nuts over me'
6. a fiú nem bolondult belém
the boy not crazy.3sg PV-1sg
'The boy didn't go nuts over me'

Predicate representation for pronominal NP_{cause}

/X/
V ⟨NP_{nom}⟩
Z
Expression Type:
E-synthesis: V



/bele-pro X/
V ⟨NP_{nom}, NP_{ill}⟩
BECOME Z BECAUSE OF Pro_{ill}
Expression Type:
E-synthesis: *bele_{pro} V*
E-periphrasis: *bele_{pro}, bolondul*

/bolondull/
V ⟨NP_{nom}⟩
GO CRAZY
Expression Type:
E-synthesis: *bolondul*



/belé-m bolondull/
V ⟨NP_{nom}, NP_{ill}⟩
GO CRAZY BECAUSE OF Pro-1sg_{ill}
Expression Type:
E-synthesis: *belémbolondul*
E-periphrasis: *belém, bolondul*

Observations about pronominal expression

- Preverb inflects with person/number markers from the **nominal possessive paradigm**, functioning as **oblique pronominal arguments of the whole phrasal predicate**, while case-marked (ILL) independent pronoun cannot serve this function:

5. * a fiú *bele* *bolondul* *belém* *PV Pro_{III}

- Since inflected preverb e.g., *belé-m*, cannot be oblique independent pronoun associated with *bolondul* (cf. 5) on par with the case governed lexical NP, there is **complementarity in argument realization, i.e. syntactic with lexical NP, morphological with pronominal**.
- The simple predicate, e.g., *bolondul*, does not govern the ILL case, **so** the oblique lexical NP or pronominal inflected PV is governed by the phrasal predicate, e.g., *belebolondul*.

Observations about pronominal expression

- Marking of pronominal argument on the (pieces of the) predicate is consistent with Hungarian verbal head-marking for the 3rd person OBJ_{pro} and 1 & 2 person SUBJ_{pro} and OBJ_{pro} with simple synthetic verbs:

6. Váro-**m**

wait.Pres.1sg/3rd

'I am waiting for him/her/it'

7. Vár-**lak**

wait.Pres.1sg/2sg

'I am waiting for you'

- **Generalization:** Person/number markers on (pieces of) Hungarian predicates function as pronominals for governed arguments.

Lexeme derivation and inflection

- If we knew nothing about the syntax of these phrasal predicates, the most natural and conventional analysis would be:

bolondul \Leftrightarrow bele bolondul \Leftrightarrow bele_{pro} bolondul

LEXEME DERIVATION

INFLECTION INTERNAL TO DERIVATION

CRAZY <SUBJ> CRAZY over <SUBJ, OBL> CRAZY over <SUBJ, OBL_{PRO}>

- Where *bele_{pro} bolondul* would exemplify **inflection internal to derivation**.
- **But**, we know that the preverb is **separable from verbal stem under specific syntactic conditions**, so what are the available theoretical options of analysis?

Word & Paradigm morphology

- A leading idea: **lexical and grammatical property content (tense, agreement...) expressed in morphological constructions are associated with either single word or multiple word surface realizations** (Matthews 1974; Stump 2001; Booij 2002; Ackerman & Webelhuth 1998; T. Mohanan 1994, 1995; Manova ms.; Crysmann 2002, J. P. Blevins 2006, Ackerman & Stump 2004, Spencer & Luis 2004...).
- Restricting morphological realization solely to synthetic or periphrastic wordforms is a **stipulative restriction** that requires more compelling empirical argumentation than has been provided heretofore.

Word & Paradigm morphology

- Cross-linguistic empirical data suggest that

(1) inflectional morphological realization for **distinct ensembles of grammatical properties** can be synthetic or periphrastic.

Different ensembles: Obligatory periphrastic realization

Tundra Nenets (Samoyed branch of Uralic) nominal declension where **dual local case** forms are only periphrastic:

| Grammatical Case: | Singular | Dual | Plural |
|-------------------|------------------|---------------------------------|--------|
| Nominative | ti | tex ^o ? ⁿ | ti? |
| Accusative | tim | tex ^o ? ⁿ | tí |
| Genitive | ti? ⁿ | tex ^o ? ⁿ | tí? |

Local Case:

| | | | | |
|-------------|---------------------------------|-------------------------------------|-------------------------|----------------------|
| Dative | ten ^o ? ⁿ | tex^o?ⁿ | nya?ⁿ | tex ^o ? |
| Locative | tex ^o na | tex^o?ⁿ | nyana | tex ^o ?na |
| Ablative | texød | tex^o?ⁿ | nyad | texøt |
| prosecutive | tew ^o na | tex^o?ⁿ | nyamna | te? ^m na |

Periphrasis

Word & Paradigm morphology

- and cross-linguistic empirical data suggest that

(2) sometimes inflectional morphological realization for **the same ensemble of grammatical properties** can be either synthetic or periphrastic.

Same ensemble: Optional periphrastic realization

Erzya Mordvin definite singular declension for *moda* 'land, country'¹. (R. Bartens 1999:83)

| | |
|----------|--------------------------|
| Nom. | modaś |
| Gen/Acc. | modańń |
| All/III. | modańńeń |
| Abl. | modadońń |
| El. | modastońń ~ modańń ejste |
| In. | modasońń ~ modańń ejse |
| Pro. | modavańń ~ modańń ezga |

Synthesis Periphrasis

(Optional Expression)

1. Where *ńń* = marker of def. conj. for all non-nominatives and *ej* = 'in'. Mokša Mordvin displays only periphrastic expression for ablative, inessive, and prolativ.

Bulgarian verb paradigms (Manova 2006)

| TENSE: <i>PRESENT</i> | | AORIST | | IMPERFECT | | |
|-----------------------|-----------------------------|----------------------------|--------------------|------------------------------|--------------------------|--------------------------------|
| POL | <i>affirmative negative</i> | <i>affirmative</i> | <i>negative</i> | <i>affirmative</i> | <i>negative</i> | |
| 1SG | piša ,I write‘ | ne piša ,I don‘t write‘ | pisax ,I wrote‘ | ne pisax ,I didn‘t write‘ | pišex ,I was writing‘ | ne pišex ,I wasn‘t writing‘ |
| 2SG | pišeš | ne pišeš | pisa | ne pisa | pišeše | ne pišeše |
| 3SG | piše | ne piše | pisa | ne pisa | pišeše | ne pišeše |
| 1PL | pišem | ne pišem | pisaxme | ne pisaxme | pišexme | ne pišexme |
| 2PL | pišete | ne пишete | pisaxte | ne pisaxte | pišexte | ne pišexte |
| 3PL | pišat | ne pišat | pisaxa | ne pisaxa | pišexa | ne pišexa |

Synthesis Periphrasis

| TENSE: <i>FUTURE SIMPLE</i> | | |
|-----------------------------|----------------------------|----------------------------------|
| POL | <i>affirmative</i> | (10b) POL <i>negative</i> |
| | | 1. 2. |
| 1SG | šte piša ,I will write‘ | ne šte piša ,I won‘t write‘ |
| 2SG | šte pišeš | ne šte pišeš njama da pišeš |
| 3SG | šte piše | ne šte piše njama da piše |
| 1PL | šte pišem | ne šte pišem njama da pišem |
| 2PL | šte пишete | ne šte пишete njama da пишete |
| 3PL | šte pišat | ne šte pišat njama da pišat |

Periphrasis

Periphrasis Periphrasis

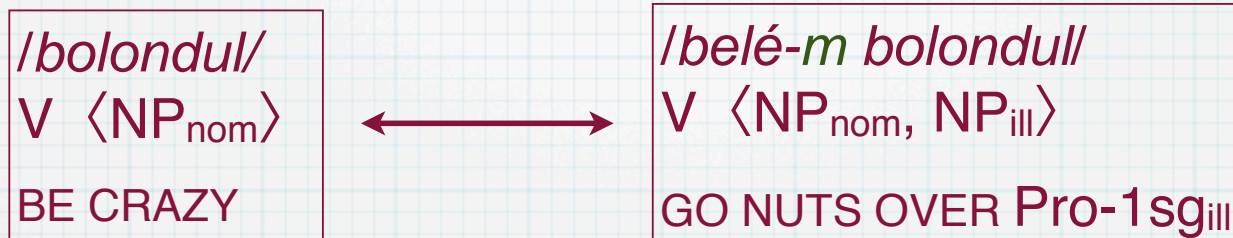
(Optionality)

A basic Lexicalist assumption

- On **Strong Lexicalist Hypothesis** (SLH) both inflection and derivation are in lexical/morphological component, not in syntax.
- Since inflectional realization can be periphrastic (Tundra Nenets, Erzya Mordvin), why shouldn't derivation be periphrastic ?
- If derivation can be periphrastic, why wouldn't this interact with periphrastic realization of inflection, all in expected accord with the SLH?

Phrasal predicates in WP morphology

Expected interaction:



where **bele** can be a syntactically independent element which inflects for the pronominal argument of the whole phrasal predicate.

The either/or paradox of current competing approaches

- In syntactocentric (structure-theoretic) approaches **all morphology is essentially periphrastic with favorite theoretical mechanisms to achieve synthesis¹**, while in lexicalist approaches **all morphology is hypothesized to be synthetic, with favorite theoretic mechanisms to achieve periphrasis.**

1. Within Hungarian there is a line of lexical/morphological analysis of these constructions which is associated with Ackerman (1982; 1987 - explicitly devoted to periphrastic expression), Komlosy (1992) Kiefer & Ladányi (2000). In contrast, there is a syntactocentric line of inquiry typified by such proposals as that in É. Kiss (1987, 2002), Koopman–Szabolcsi (2000) (and references therein). Both interpretative approaches are anteceded by several much earlier and often more insightful works such as Simonyi (1889) and Molecz (1900), among others.

Why does this **complementarity paradox** arise?

- Both generally adapt a neo-structuralist morphology that assumes morphemes and operations for their composition, but differ with respect to the domain in which such morphemes get composed, i.e. syntax versus the lexicon.

WP avoids theory-favored reductions

- Does not theoretically privilege one type of surface realization over the other.
- Prioritizes content over formal expression, i.e., focuses on how lexical and grammatical content is formally realized (Stump 2001; Ackerman & Stump 2004, but Embick & Noyer 2006; Embick & Marantz 2008 for a competing realizational view).
- Compatible with the empirical fact that both inflection and derivation cross-linguistically are realized synthetically and periphrastically, and that coding of expression changes over time.

WP and basic principles of Lexicalism

(1) Principle of Morphological Integrity (aka Lexical Integrity)

Syntactic operations cannot manipulate parts of complex morphological constructs words, i.e., “words” are atomic units in phrase structure.¹

(2) Principle of Lexical Modification

Derivation does not occur in phrase structure.

1. It is crucial to note that each element (word) in morphological periphrasis is subject to Principle 1. Hence the relation between this principle and principle 4 below (see Ackerman and LeSourd 1997 for a proposal concerning how to reconcile Lexical Integrity with lexical (morphological) periphrasis)

WP and basic principles of Lexicalism

(3) Principle of Morpholexical Inflection

Inflection does not occur in phrase structure.

(4) Principle of Unary Expression: What's a word wrt (1)?

Words are expressed solely as morphophonologically cohesive and syntactically atomic units.

Problematic, if other principles are maintained and periphrasis exists in inflection and derivation, since periphrastic forms are morphological/lexical constructs without unary expression.

Each word in multi-word morphological periphrasis obeys Principle 1, i.e., the internal composition of independent pieces in periphrastic expression is opaque for purposes of syntactic manipulation.

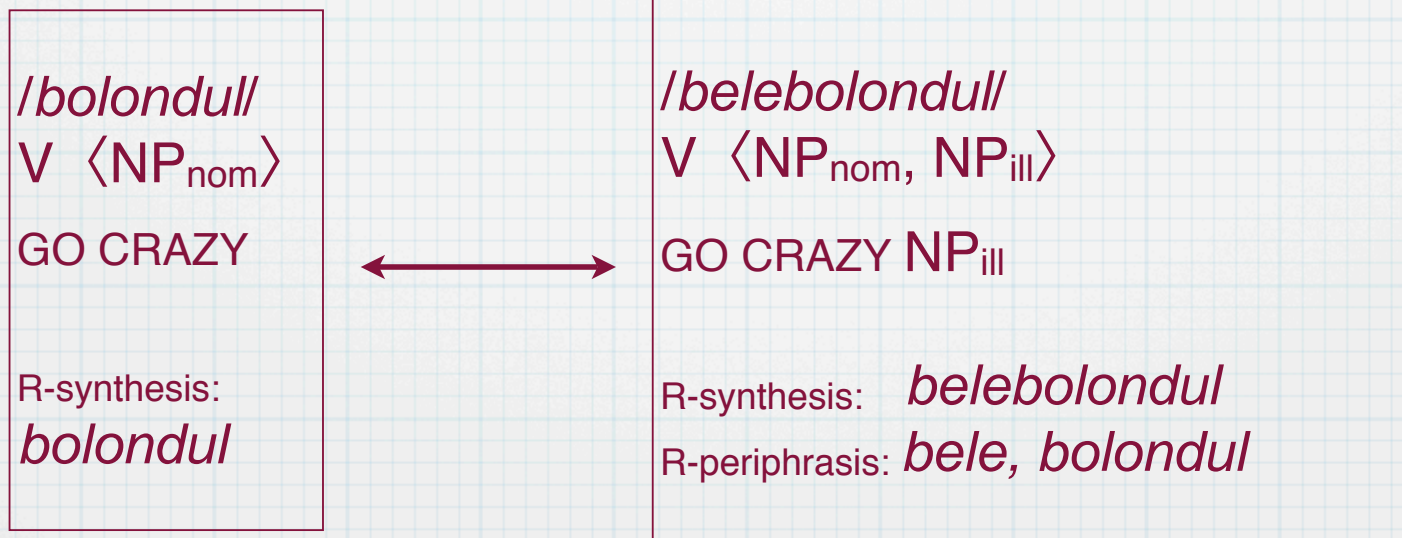
The words themselves, however, exhibit independence in various syntactic constructions.

Realization Based Lexicalism (RBL): a minor change

- Interpret Principle of Unary Expression as **frequent endpoint in diachronic development of complex wordforms rather than as categorical grammar principle.**
- Empirical prediction: there will be degrees of synthesis at any specific time slice for different categories (Tundra Nenets above) and sometimes optionality of expression types within the same category (Erzya Mordvin above; Luutonen 1997 for Uralic).
- Loosening Principle of Unary Principle renders Lexicalism compatible with the WP axiom that morphological expression can be synthetic or periphrastic, since neither derivation nor inflection are constrained to have synthetic realization.

The paradox resolved

- All standard lexicalist evidence, i.e., meaning change, valence change, change of grammatical function inventory, participation in nominalization..., consistent with Principles 1-3, while periphrastic expression consistent with reinterpretation of Principle 4 as a diachronic tendency:



Honest accounting: a consequence of WP/RBL for syntax

- Reinterpretation the Principle of Unary Expression entails different interaction between morphology and syntax than the counterfactual assumptions that complex morphological constructs are only X^0 (= Principle 1) and placed in syntactic head positions, since such constructs,

Can be individual lexical categories distributed within a clause, where $X^0 \dots Y^0$ may display no standard empirical evidence for constituency of X and Y OR for X or Y to be in constituency with any other complement:

- **This, of course, varies from language to language, and over time.**

Mysteries in the Morphology-Syntax Interface

Simple clause

8. a fiú belém bolondult
the boy PV_{1sg} crazy.past.3sg
'the boy went nuts over me'

PV_{pro}

9. * a fiú bele bolondult belém

*PV Pro_{ill}

- The uninflected **cannot** co-occur with an **oblique independent pro** (9).

But,

Mysteries in the Morphology-Syntax Interface

- among other constructions, it **can** co-occur with a **clause initial pro** with an element in focus: **Contrastive Topic** and **Focus**

CT

FOC

CT

FOC

11. **belém** a fiú bolondult bele, **beléd** a lány (**bolondult bele**)

1sg.pro the boy crazy PV , 2.sg.pro the girl (crazy PV)

`As for me, it was the boy who went nuts (over me), as for you it was the girl who went nuts (over you)'

- Note that **what is elided must be the phrasal predicate**, given ILL case-marking on the **Contrastive Topic**, **beléd**.

Morphology-Syntax Interface: Phrasal Constructions¹

- No theory **predicts** all of the distributions associated with periphrastic expression: each theory can be adapted to **redescribe** them.
- **Every theory must provide the structures that accommodate the two expression types for phrasal predicates and each possesses different fundamental assumptions entailing different claims about the relation between structure and function. i.e., what is structural realization of Topic and does it reflect, however abstractly, *universal principles or language particular systemic properties?* etc.**

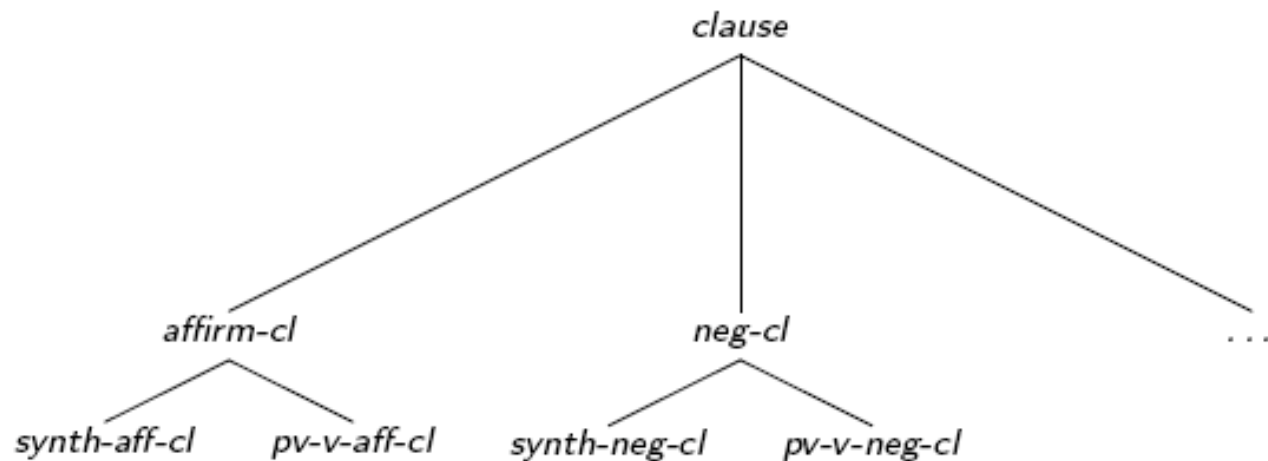
1. The complexities of Hungarian syntactic and discourse structure have been intensively studied (É. Kiss 1987, 2002, 2007, Kiefer and É. Kiss 1994 and references therein,...)

Morphology-Syntax Interface: Phrasal Constructions¹

- **Present hypothesis:** synthetic option or periphrastic option **keyed to phrasal construction types within a specific language's syntactic system**, i.e., different expression types licensed in different constructions.
- Presupposes an inventory of **phrasal constructions** (Ackerman & Webelhuth 1998; Sag 1997, 2008; Malouf 2002...) - basic affirmative, negative, constituent question, focus, topic, contrastive topic...

The Syntax-Morphology Interface

Syntax:



Morphology (Lexicon):

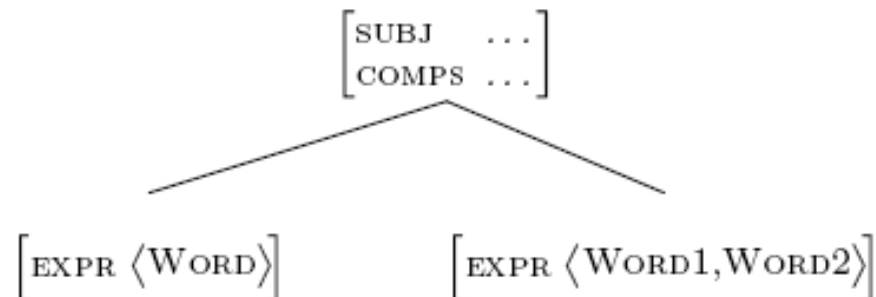
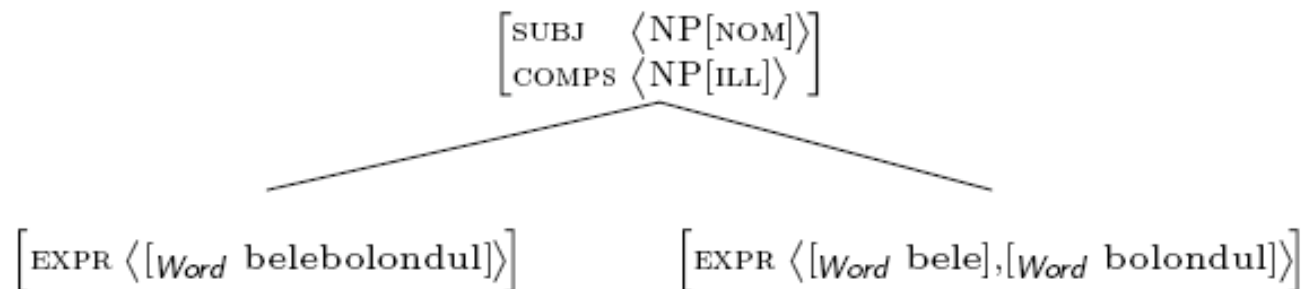


Illustration: the lexical entry of *belebolondul*



Two results:

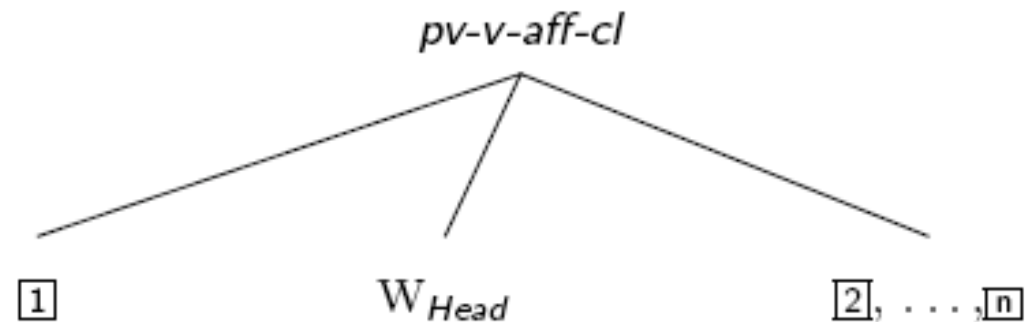
synthetic:

$$\left[\begin{array}{l} \text{EXPR} \langle [\text{Word } \textit{belebolondul}] \rangle \\ \text{SUBJ} \langle \text{NP}[\text{NOM}] \rangle \\ \text{COMPS} \langle \text{NP}[\text{ILL}] \rangle \end{array} \right]$$

periphrastic:

$$\left[\begin{array}{l} \text{EXPR} \langle [\text{Word } \textit{bele}], [\text{Word } \textit{bolondul}] \rangle \\ \text{SUBJ} \langle \text{NP}[\text{NOM}] \rangle \\ \text{COMPS} \langle \text{NP}[\text{ILL}] \rangle \end{array} \right]$$

Synthetic affirmative clauses



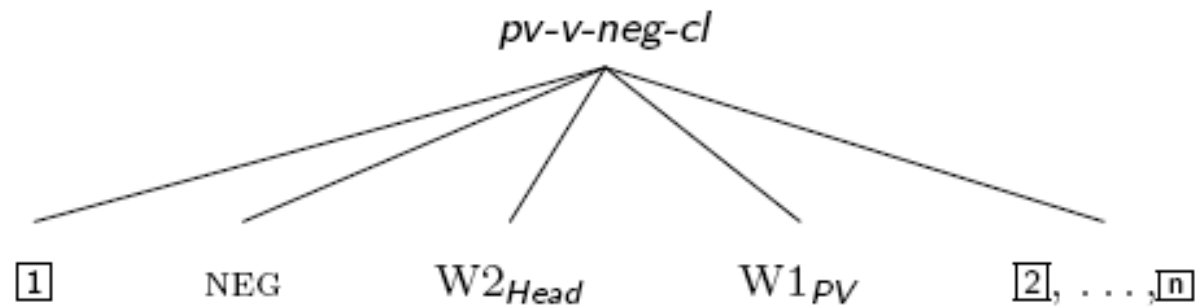
Condition:

- 1 there exists a lexical entry of the following form:

$$\left[\begin{array}{l} \textit{lex} \\ \text{EXPR} \langle \text{W}_{\textit{Head}} \rangle \\ \text{SUBJ} \langle \boxed{1} \rangle \\ \text{COMPS} \langle \boxed{2}, \dots, \boxed{n} \rangle \end{array} \right]$$

Illustration: $\left[\begin{array}{l} \text{EXPR} \langle [\textit{Word} \textit{belebolondul}] \rangle \\ \text{SUBJ} \langle \text{NP}[\text{NOM}] \rangle \\ \text{COMPS} \langle \text{NP}[\text{ILL}] \rangle \end{array} \right]$

Preverb-verb negative clauses



Condition:

- 1 there exists a lexical entry of the following form:

| | | |
|--|---------------|---|
| $\left[\begin{array}{l} lex \\ \text{EXPR} \langle W1_{PV}, W2_{Head} \rangle \\ \text{SUBJ} \langle \boxed{1} \rangle \\ \text{COMPS} \langle \boxed{2}, \dots, \boxed{n} \rangle \end{array} \right]$ | Illustration: | $\left[\begin{array}{l} \text{EXPR} \langle [Word1\ bele], [Word2\ bolondul] \rangle \\ \text{SUBJ} \langle \text{NP}[\text{NOM}] \rangle \\ \text{COMPS} \langle \text{NP}[\text{ILL}] \rangle \end{array} \right]$ |
|--|---------------|---|

- 2 $\text{NEG} \prec \text{H}$

- 3 $\text{H} \prec \text{W1}$

Summary

- Following workaday morphologists, as well as lexicalists (constructionists), advancing **correspondence theories of grammar** (LFG, HPSG, Jackendoff & Culicover's constructional grammar 2005; Fillmore et. al. Sag 2007), i.e., **multiple independent levels in correspondence with each other**, rather than syntacticians analyzing morphology in terms of syntactic structure,
- phrasal predicates are analyzable as *morphological constructions* exhibiting synthetic or periphrastic expression, with syntactic expression dependent upon the *syntactic constructions* they participate in.
- Morphological and syntactic constructions are different types of representations, neither reducible to the other, but both constituting systematic and systemic patterns of organization.

Thanks for listening.

**Please contact us for references mentioned
in the talk.**

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