

# When Grammaticalization Causes Trouble:

## The Case of the Korean TAM marker *-te*

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### Introduction

Morphemes are not arbitrarily ordered (the Mirror Principle, Baker 1985).

- (1) Modern Korean (MoK)

*mek-i-ess-keyss-ta*  
eat-CAUS-PST-MOD<sub>epistemic</sub>-DECL  
'may have fed'

What happens if a diachronic change results in a mismatch between syntax and morphology?

- Morpheme order is repaired.
- No change in morphology → Syntax-morphology mismatch

The 15th-century Middle Korean (MiK) instantiates the second scenario.

- The syntax-morphology mismatch with regard to an aspect marker *-te* and an epistemic modal marker *-(u)li*

#### Proposal

- The mismatch is due to the grammaticalization of the modal *-(u)li*.
- A post-syntactic rule accounting for the 15th-century pattern.
- Subsequent grammaticalizations induced a reanalysis of *-te* as a higher functional head and the mismatch was removed from the grammar.
- The structural reanalysis resulted in semantic changes so that *-te* obtained its MoK meaning as an evidential marker.
- The reanalysis of *-te* demonstrates Roberts's (2022) simplicity preference.

### Difference between MiK and MoK *-te*

#### Section summary

*-te* is Asp in MiK, but EVID in MoK.

- Semantic difference
  - MoK *-te*: an epistemic modal or evidential marker (Chung 2020; Song 2020 a.o.)
  - MiK *-te*: a past imperative marker (Choi 2015; Lee 2020 a.o.)
- Morphosyntactic difference
  - MoK *-te*: EVID (a shorthand for Mood<sub>EVID</sub> à la Cinque 1999)
  - MiK *-te*: Asp

- (2) a. MiK

*ho-te-si-ta*  
do-PST-IPFV-HONS-DECL  
'was doing (subject honorific)'

- b. MoK

*ha-si-te-la*  
do-HONS-PST.SENS.EVID-DECL  
'do(es)/did/will do (subject honorific, evidential)'

### MiK *-te* violates the Mirror Principle

MiK *-(u)li*

- A morpheme expressing epistemic modality such as conjecture, inference, etc.
- Assumed to be MOD<sub>epistemic</sub> (abbreviated as MOD)
- Asp *-te* is predicted to precede MOD *-(u)li* according to the universal functional hierarchy (Cinque 1999)

mod *-(u)li* is constantly closer to the root than Asp *-te* (exposed as *-le* in (3a)).

- (3) a. *ho-li-le-la*  
do-MOD-PST-IPFV-DECL  
'would be going to do'
- b. \**ho-te-li-la*  
do-PST-IPFV-MOD-DECL  
(MiK)

### Mismatch as a diachronic accident

#### Section summary

The grammaticalization of *-(u)li* resulted in the mismatch regarding Asp *-te* and MOD *-(u)li*.

The diachronic history of *-(u)li* → Mismatch

- (u)li* was grammaticalized from an analytic construction consisting of an adnominalizer *-(u)l* and a copula *-i* (Lee 1998; Lee and Ramsey 2011, Choi 2015 a.o.).
- Crucially, *-te* cannot precede the adnominalizer in the original construction (4a).

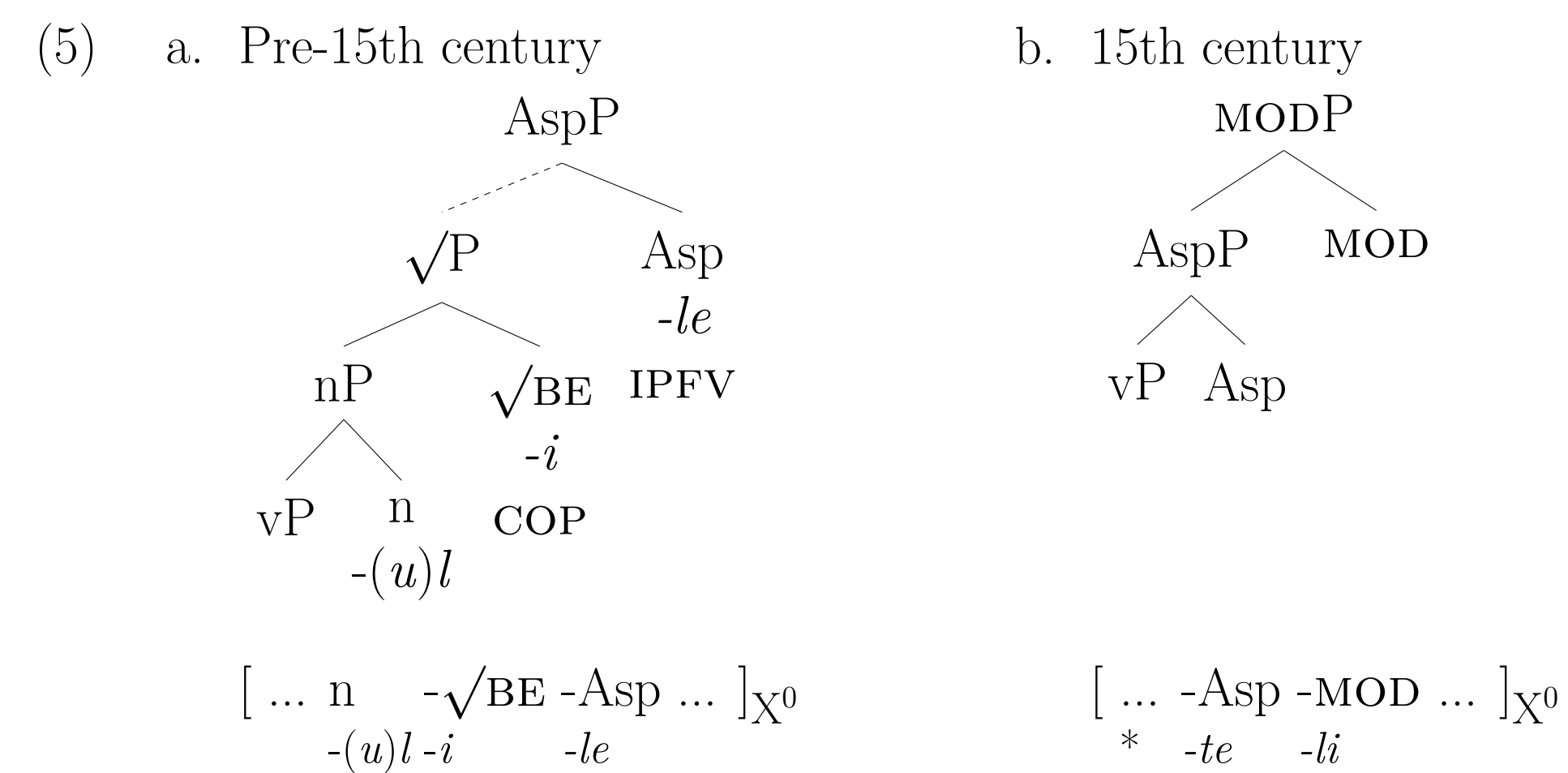
- (4) Grammaticalization of *-(u)li* and *-te*'s position

a. Pre-15th century

$\sqrt{-(*)te}-(u)l-i-le \dots$   
(\*Asp) ADN COP Asp

b. 15th-century

$\sqrt{-(*)te}-(u)li-le \dots$   
(\*Asp) MOD Asp



### Asp-climbing rule

#### Section summary

Asp-climbing rule made it possible to dislocate Asp *-te* to a location relative to epistemic modal *-(u)li* that is not predicted the Mirror Principle.

Let's think from a MiK learner's perspective...

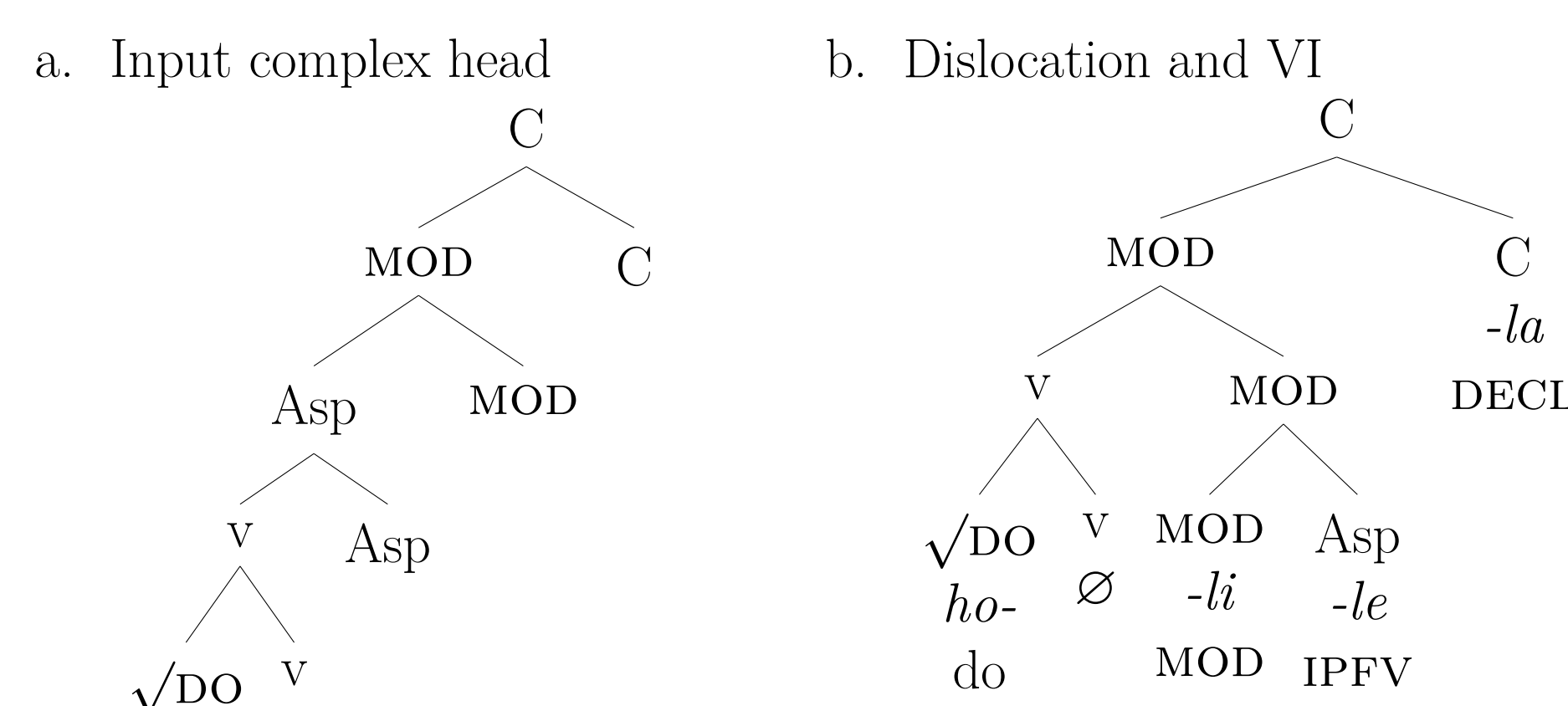
- Two conflicting inputs
  - te* as Asp and *-(u)li* as MOD
  - The Mirror-Principle-violating order

#### Asp-climbing rule

Asp is dislocated to the right of MOD within the same complex head before Vocabulary Insertion.

- (6)  $[X^0 \dots Asp \text{ MOD } \dots] \rightarrow [X^0 \dots \text{ MOD } Asp \dots]$

- (7) Derivation of (3a)



### More grammaticalization and reanalysis of *-te*

#### Section summary

Later grammaticalizations introduced similar syntax-morphology mismatches. *-te* was eventually reanalyzed as a head in the higher functional domain.

Remember: *-te* is evidential in Modern Korean. But what brought about this change, and why?

#### Later grammaticalizations

- The grammaticalizations of past *-es* (17th century, Choi 2002b; 2002a; 2015) and modal *-keys* (19th century, Choi 2002a) must be responsible for this.
  - Each grammaticalization → a post-syntactic rule (i.e., Asp-climbing rule for T and MOD) → Increased complexity
- (8) Grammaticalization of *-es*

a. 15th century:  
Resultative *-e is(i)-*

$\sqrt{-(*)te}-e \text{ is } -te \dots$   
(\*Asp) CON AUX Asp

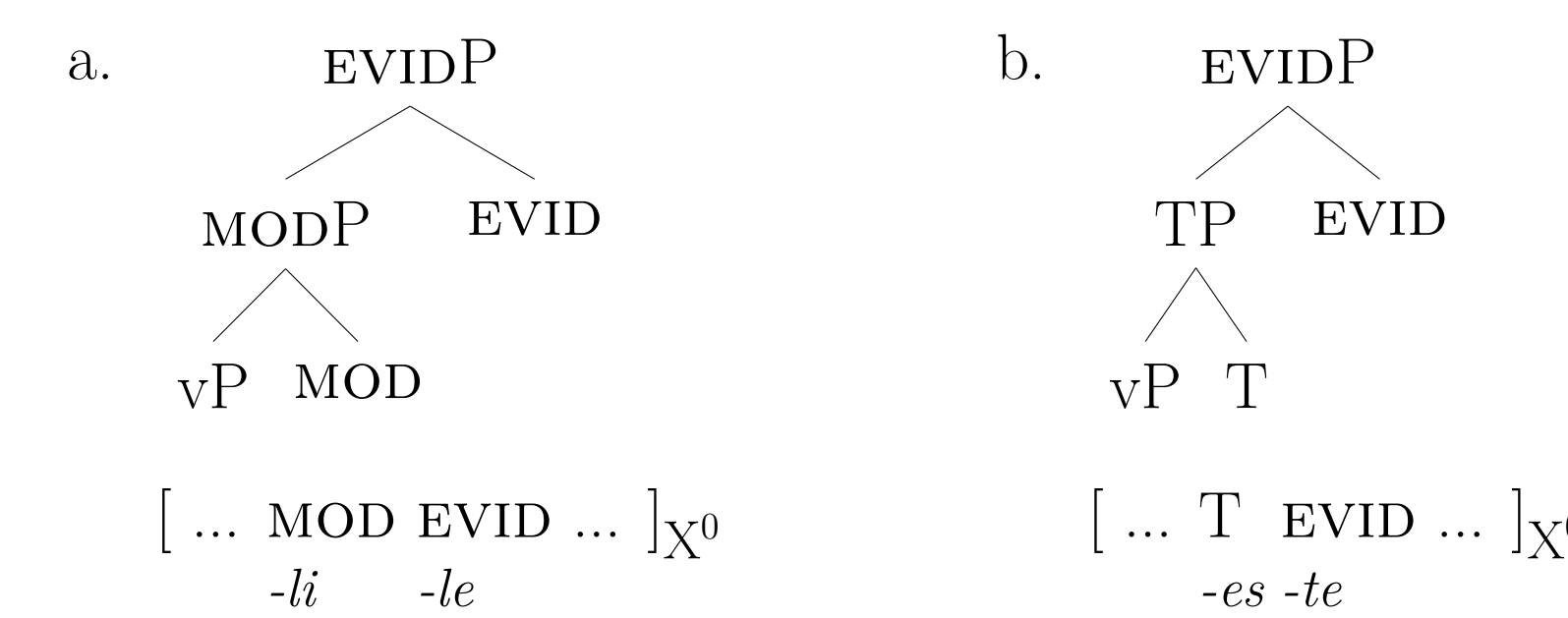
b. 17th century:  
Past *-es*

$\sqrt{-(*)te}-es-te \dots$   
(\*Asp) T Asp ...

#### Reanalysis of *-te*

- Each mismatch → Evidence in favor of *-te*'s high position
- Reanalysis → No more Mirror-Principle violation (9).
- No more Asp-climbing rule

- (9) After the reanalysis of *-te*



### Testing predictions: two observations

#### Prediction

The current analysis makes a prediction that semantic change lags behind the completion of the structural reanalysis. This prediction is borne out.

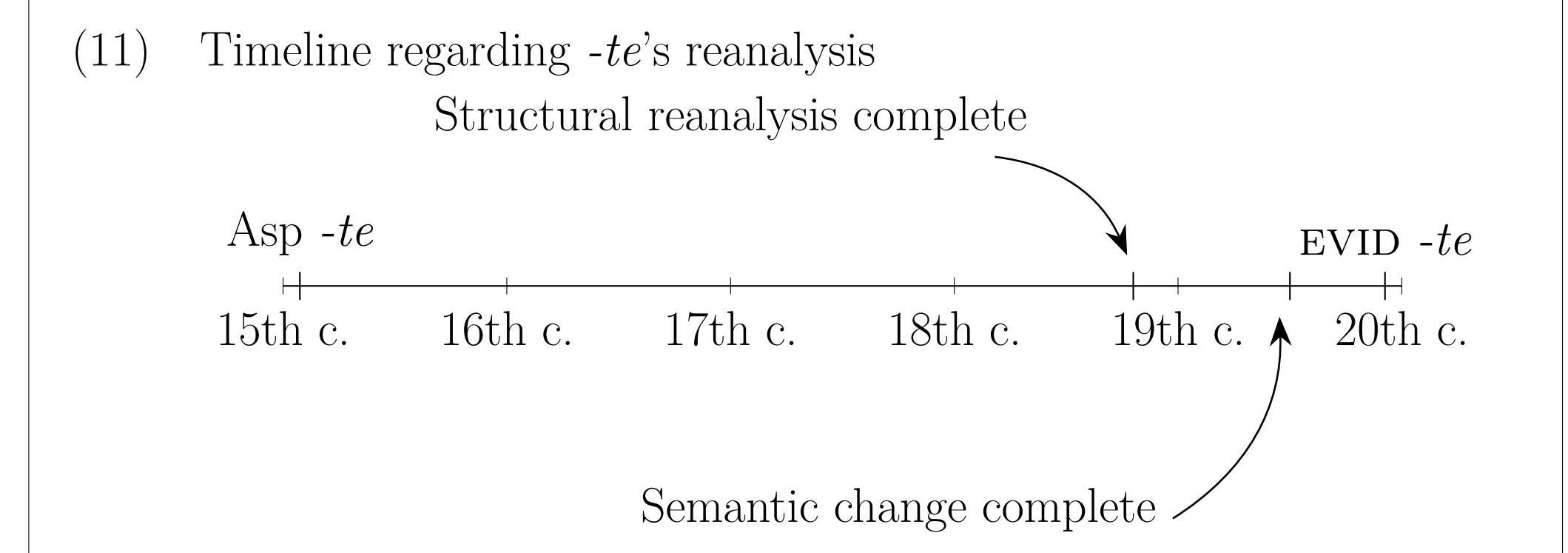
Evidence 1: Completion of the structural reanalysis – prior to the 19th century

- The number of *tes-i* tokens significantly dropped in the 17th century and the pattern was replaced by the *s-i-te* pattern by the end of the 18th century.

Evidence 2: Completion of the semantic change – mid-19th to early 20th century

- First-person constraint on Modern Korean *-te* did not exist before the mid-19th century (Choi 2015; Lee 2020).

- (10) First-person constraint on *-te*
- a. *Nay hujlwongho-te-nila.*  
I.NOM joke-?EVID-DECL  
'I was joking.'  
(1772 Sipkwusalyak Enhay 2:1)
- b. #*Nay-ka nongtamha-te-la.*  
I-NOM joke-EVID-DECL  
'I joked.'  
(MoK)



### Preference for simplicity in UG

#### Section summary

The reanalysis of *-te* makes the grammar simpler. This can be viewed as a manifestation of Roberts's (2022) preference for simplicity extended to post-syntax.

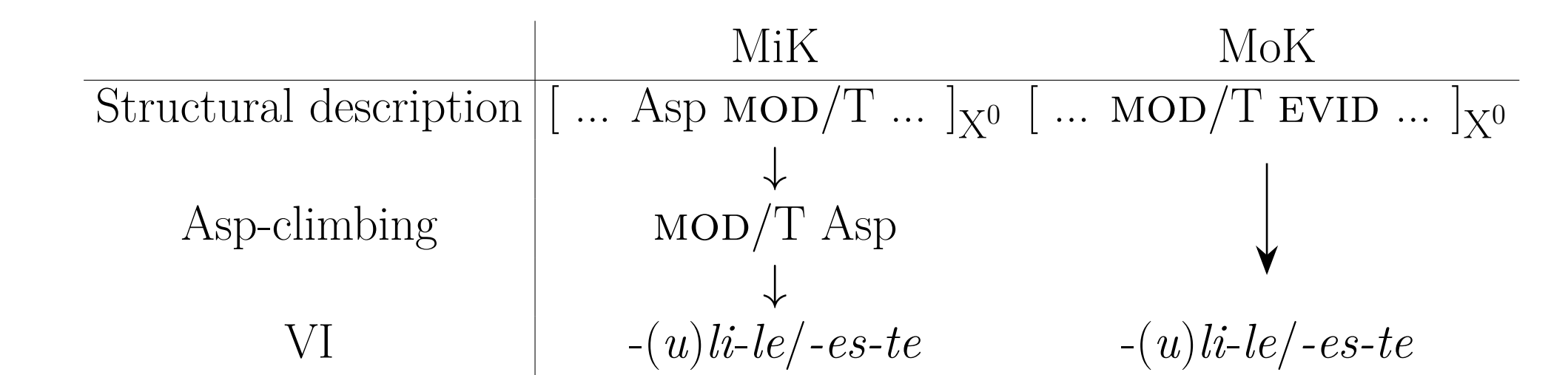


Table 1. Comparison of derivational complexity

Simplicity preference (Roberts 2022)

- A general preference for the simplest possible structural representations of strings
- Current case: extension to post-syntax

### Conclusion

#### Take away

- The syntax-morphology mismatch regarding MiK *-te* is an accidental result of grammaticalization.
- MiK needed a post-syntactic Asp-climbing rule to derive the correct linear order.
- The reanalysis of *-te* in the post-17th century demonstrates that the simplicity preference may operate in post-syntax and eventually lead to structural reanalysis.

Remaining issues

- Why did the structural reanalysis not happen in the 15th century?
- A possible answer: Yang's (2016) Tolerance Principle
  - Reanalysis needs enough evidence, otherwise the given complex structure is tolerated.

### Abbreviations

ADN	adnominal	HON	honorific
AUX	auxiliary	IPFV	imperfective
CAUS	causative	MOD	modal
CON	connective	NOM	nominative
COP	copula	PST	past
DECL	declarative	SENS	sensory evidential
EVID	evidential		

### Selected references

Baker, M. 1985. The Mirror Principle and Morphosyntactic Explanation. Choi, D.-J. 2002a. A Study on the Tense-Aspect-Mood System of the Late Modern Korean. Choi, D.-J. 2002b. A Study on the Tense-Aspect-Mood System of the Early Modern Korean. Choi, D.-J. 2015. *Diachronic Changes in Korean Tense-Aspect System*. Chung, K.-S. 2020. Korean Evidentials and Epistemic Modals. Cinque, G. 1999. *Adverbs and Functional Heads: A Cross-Linguistic Perspective*. Lee, B. 1998. The Origin of the Pre-final Ending *-li*. Lee, J.-Y. 2020. The Korean Pre-final Ending *-te*: A Historical Investigation. Lee, K.-M. and S. R. Ramsey. 2011. *A History of the Korean Language*. Roberts, I. 2022. *Diachronic Syntax* (2nd ed.). Song, J.-M. 2020. Evidentiality in Korean. Yang, C. 2016. *The Price of Linguistic Productivity: How Children Learn to Break the Rules of Language*.