

Syntax

Pavel Caha

1 Nov 2021

Recap

Noun phrase

Does the mirror principle describe differences among languages?

Head movement

Choosing between head-movement and affix hopping

Back to Czech

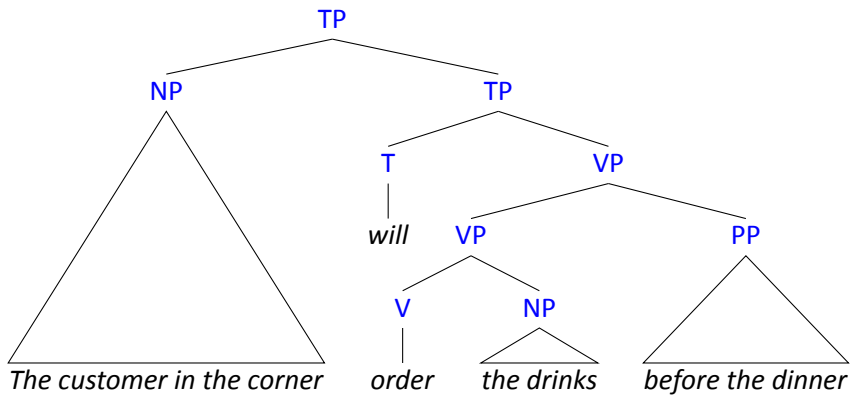
Constituency tests

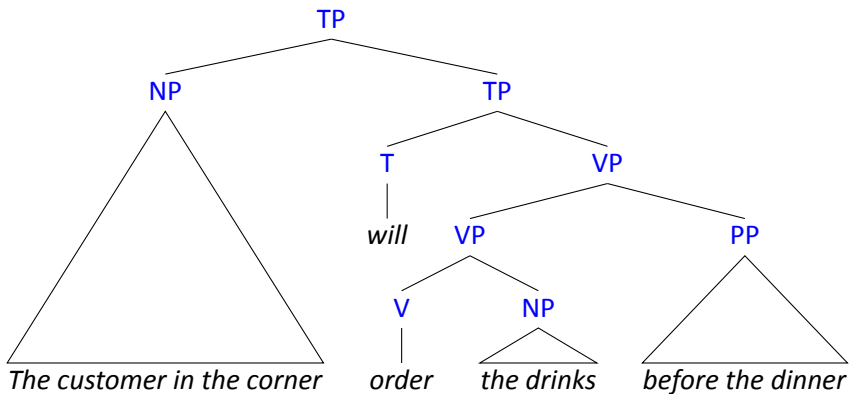
- (1) Constituents can be
 - a. replaced by a pronoun
 - b. moved around
 - c. provided as an answer to a question
 - d. co-ordinated
 - e. elided

Constituency tests

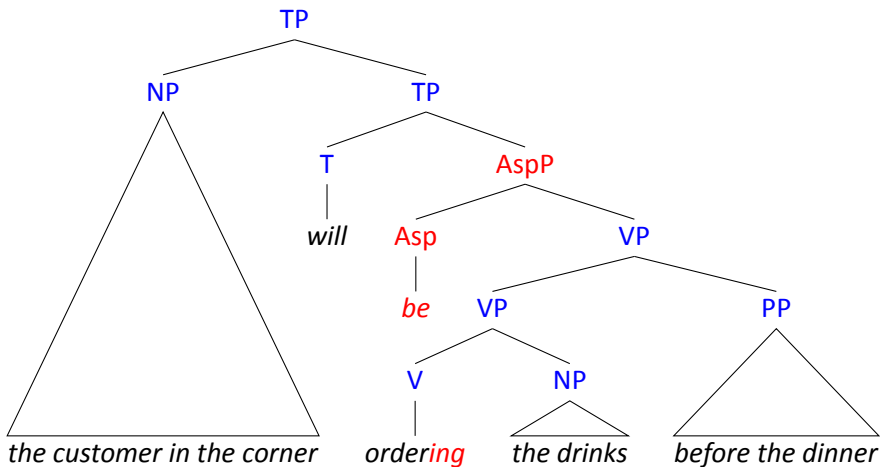
- (1) Constituents can be
 - a. replaced by a pronoun
 - b. moved around
 - c. provided as an answer to a question
 - d. co-ordinated
 - e. elided

- (2) The head
 - a. determines the type of meaning
 - b. determines the distribution of the whole
 - c. determines the form of the sister node

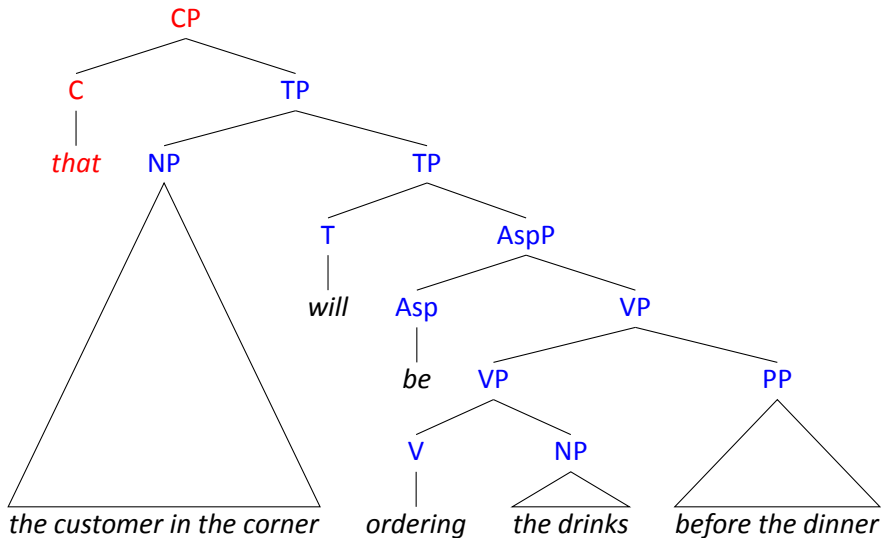




- (3) a. VP → describe an event
 b. TP → anchor it in time with respect to the speech time



- (4)
- VP → describe an event
 - AspP → perspective: event seen from inside/outside
 - TP → anchor it in time with respect to the speech time



- (5)
- VP → describe an event
 - AspP → perspective: event as a whole/part of the event
 - TP → anchor it in time with respect to the speech time
 - CP → the anchored event is a fact/wish/query/condition

Czech

- (6) a. **objedn -at**
order -INF
'to order'

Czech

- (6) a. **objedn** -**at**
order -INF
'to order'
- b. **objedn** -**áv** -**at**
order -PROG -INF
'to be ordering'

Czech

- (6)
- a. **objedn** -at
order -INF
'to order'
 - b. **objedn** -**áv** -at
order -PROG -INF
'to be ordering'
 - c. **objedn** -**áv** -**á** -**š**
order -PROG -PRES -2.SG
'you are ordering'

Czech

- (6)
- a. **objedn** -at
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'to order'
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order -PROG -PRES -2.SG
'you are ordering'
 - d. **objedn** -**áv** -**á** -**m**
order -PROG -PRES -1.SG
'I am ordering'

Czech

- (6)
- a. **objedn -at**
order -INF
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order -PROG -INF
'to be ordering'
 - c. **objedn -áv -á -š**
order -PROG -PRES -2.SG
'you are ordering'
 - d. **objedn -áv -á -m**
order -PROG -PRES -1.SG
'I am ordering'
 - e. **objedn -áv -á -š -li**
order -PROG -PRES -2.SG -COND
'if you are ordering'

Czech

(7) **objedn -áv -á -š -li**
order -PROG -PRES -2.SG -COND
'if you are ordering'

(8) Czech order
event > **asp** > *tense* > **subject** > **mood**

Czech

(7) objedn -áv -á -š -li
order -PROG -PRES -2.SG -COND
'if you are ordering'

(8) Czech order
event > asp > tense > subject > mood

(9) English order:
that you will be ordering the drinks
mood > subject > tense > aspect > event

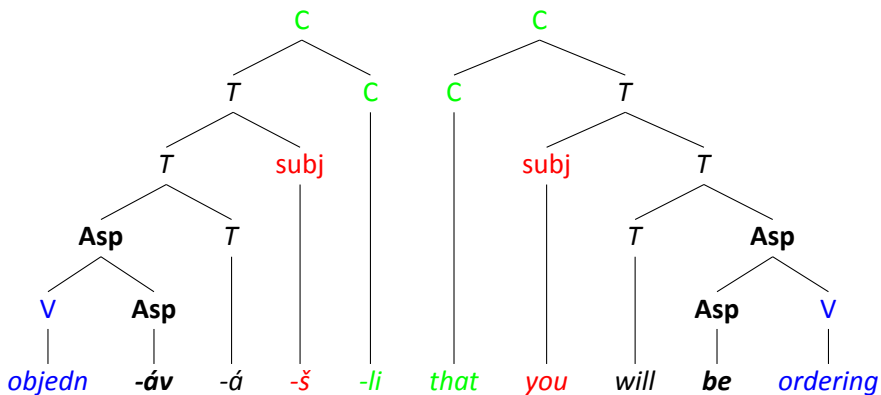
Czech

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order -PROG -PRES -2.SG -COND
'if you are ordering'

(8) Czech order
event > asp > tense > subject > mood

(9) English order:
that you will be ordering the drinks
mood > subject > tense > aspect > event

► The English order is the mirror image of the Czech one



(10) The Mirror Principle

- a. The order of morphemes inside words is the mirror image of the order of words in syntax

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- a. The order of morphemes inside words is the mirror image of the order of words in syntax
- b. The order of morphemes mirrors the syntactic derivation

Recap

Noun phrase

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Back to Czech

- (11) a. nosorožec
rhino

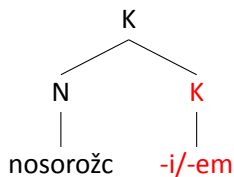
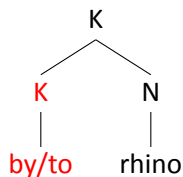
Czech

- (11) a. nosorožec
rhino
- b. nosorožc -em
rhino INS
'by (the) rhino'

Czech

- (11)
- a. nosorožec
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 - b. nosorožc **-em**
rhino INS
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 - c. nosorožc **-i**
rhino DAT
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'to (the) rhino'



(12) youngsters

a. nosoržc -em
rhino -INS

(12) youngsters

a. nosoržc -em

rhino -INS

b. nosoržč -et -em

rhino -BABY -INS

'by (the) baby

rhino'

(12) youngsters

a. nosoržc -em

rhino -INS

b. nosoržč -et -em

rhino -BABY -INS

'by (the) baby

rhino'

c. nosoržc -i

rhino -DAT

(12) youngsters

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rhino -INS

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rhino -BABY -INS

'by (the) baby

rhino'

c. nosoržc -i

rhino -DAT

d. nosoržč -et -i

rhino -BABY -DAT

'to (the) baby rhino'

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a. nosoržc -em

rhino -INS

b. nosoržč -et -em

rhino -BABY -INS

'by (the) baby

rhino'

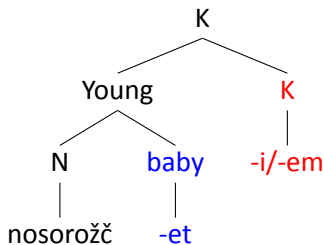
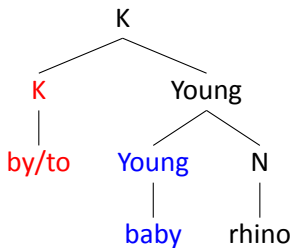
c. nosoržc -i

rhino -DAT

d. nosoržč -et -i

rhino -BABY -DAT

'to (the) baby rhino'



(13) youngsters

- a. nosoržč -et -em
rhino -BABY -INS
'by (the) baby rhino'

(13) youngsters

a. nosoržč -et -em

rhino -BABY -INS

'by (the) baby rhino'

b. nosoržč -át -k -em

rhino -BABY -SMALL -INS

'by (the) small baby rhino'

(13) youngsters

a. nosoržč -et -em

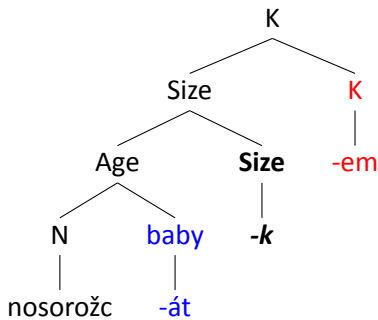
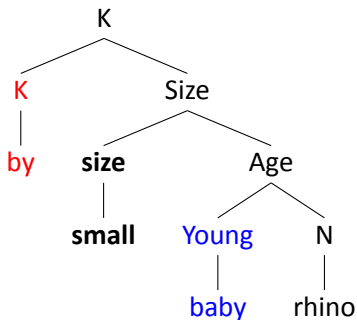
rhino -BABY -INS

'by (the) baby rhino'

b. nosoržč -át -k -em

rhino -BABY -SMALL -INS

'by (the) small baby rhino'



The construction of the noun phrase

(14) (you can open the lock) with these two old keys

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- ▶ describe the thing by listing its properties (*old keys*)

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- ▶ describe the thing by listing its properties (*old keys*)
- ▶ say how many they are (*two*)
- ▶ 'anchor' the object in space (*these/those*)

The construction of the noun phrase

(14) (you can open the lock) with these two old keys

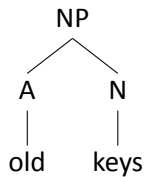
- ▶ describe the thing by listing its properties (*old keys*)
- ▶ say how many they are (*two*)
- ▶ 'anchor' the object in space (*these/those*)
- ▶ say what role this object has in the event (*with* = instrument)

The construction of the noun phrase

(15) (you can open the lock) with these two old keys

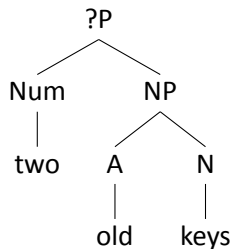
The construction of the noun phrase

(15) (you can open the lock) with these two old keys



The construction of the noun phrase

(16) (you can open the lock) with these two old keys



(17) He wants to sell (one thousand) apples

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(18) a. Chce prodat (*tisíc) jabka
 he.wants to.sell one.thousand apples

(17) He wants to sell (one thousand) apples

(18) a. Chce prodat (*tisíc) jabka
 he.wants to.sell one.thousand apples

b. Chce prodat tisíc jablek
 he.wants to.sell one.thousand apples

(17) He wants to sell (one thousand) apples

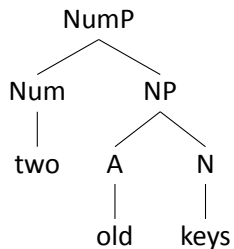
(18) a. Chce prodat (*tisíc) jabka
 he.wants to.sell one.thousand apples

b. Chce prodat tisíc jablek
 he.wants to.sell one.thousand apples

c. ??Chce prodat jablek
 he.wants to.sell apples

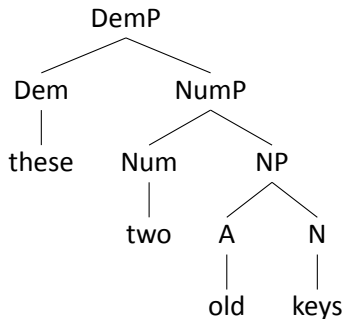
The construction of the noun phrase

(19) (you can open the lock) with these two old keys



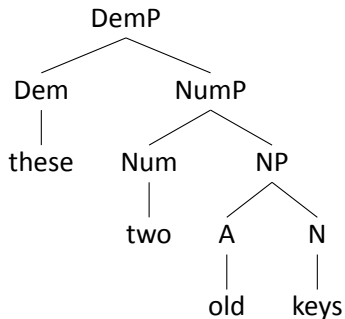
The construction of the noun phrase

(20) (you can open the lock) with these two old keys



The construction of the noun phrase

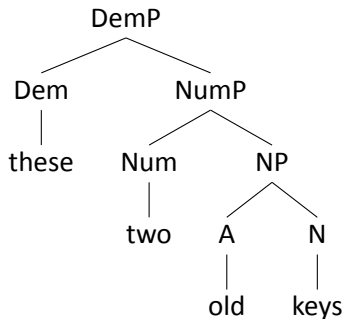
(20) (you can open the lock) with these two old keys



(21) a. *He found key

The construction of the noun phrase

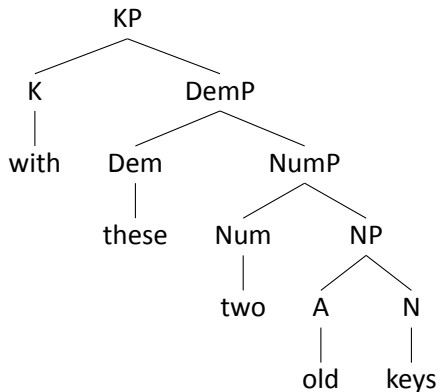
(20) (you can open the lock) with these two old keys



- (21) a. *He found key
b. He found { the / this } key

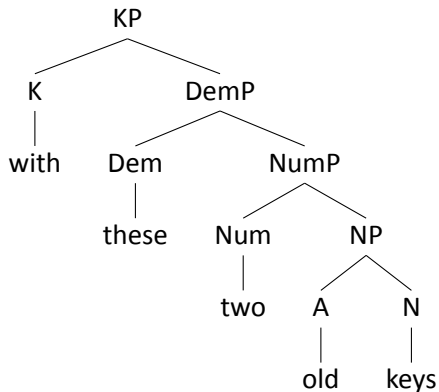
The construction of the noun phrase

(22) (you can open the lock) with these two old keys



The construction of the noun phrase

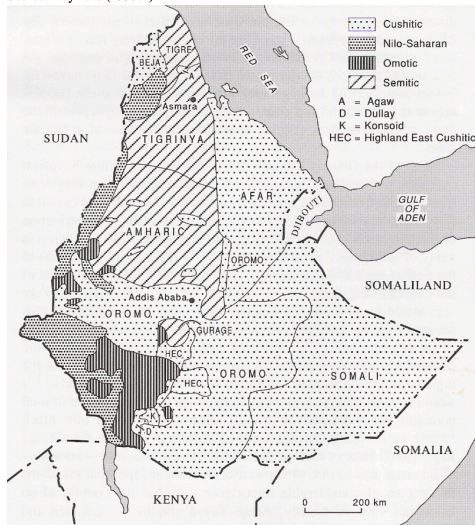
(22) (you can open the lock) with these two old keys



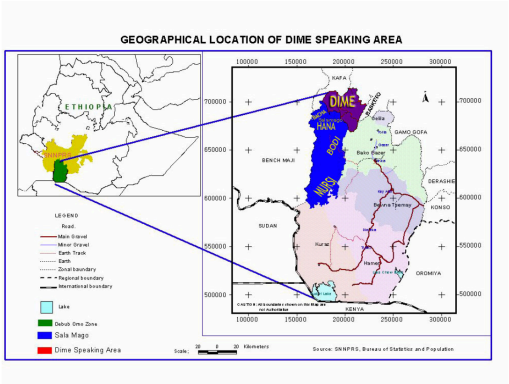
Dime (Omotic)

Major language families in Ethiopia

Source: Hayward (1995:7)



Dime (Omotic)



The definite marker **-is** may optionally be changed to **-iz** when following voiced consonants. Examples:

11. [ʔéh-**is**] 'the house'
[gáʃʃ-**is**] 'the road'
- [ʔámz-**iz**] 'the woman'
[zúúb-**iz**] 'the red one'

Generally, definiteness is marked at the end of the noun. With the exception of the accusative marker **-im**, other grammatical morphemes precede it.

- 12a. ʔéh-**áf-is** 'the houses'
dər-**áf-is** 'the goats'
- 12b. ʔaté guur-af-is-im deis-i-t
1S.SUBJ crocodile-**PL-DEF-ACC** kill-PF-1
'I killed the crocodiles'

Dime (Omotic)

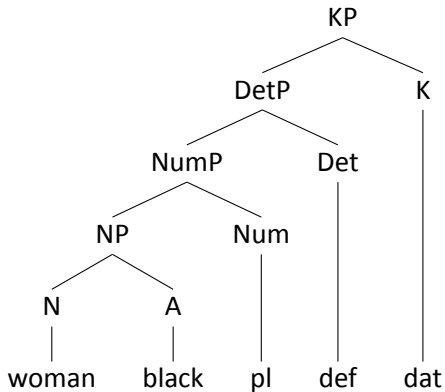
13.2.4 Text 4: The selection of a chief in Dime

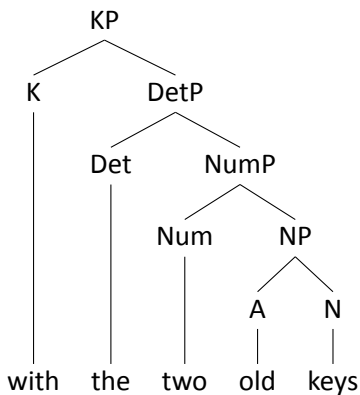
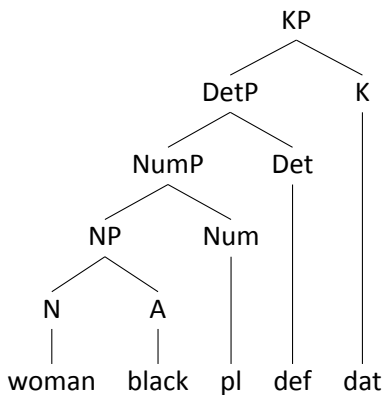
This story was told by Miakro Gizachew Keto on December 26, 2003, Ethiopia.

001. **zimé wondéebis wutódée tussiné gašká**
zimé won-dée-b-is wutó-dée tussiné gaš-ká
chief be-IPF-M.RELT-DEF beg-IPF hereditary road-INST
- zimé wókkilub laŕt'inká nĩtsafisóde wókkilim**
zimé wókkil-ub laŕt'-inká nĩts-af-is-ó-dé wókkil-im
chief one-REL(M) die-REAS child-PL-DEF-LOC-ABL one-ACC
- wuddéen nĩtsafisóde wutunub nĩsis**
wud-dée-n nĩts-af-is-ó-de wutun-ub nĩts-is
assign-IPF-3 child-PL-DEF-LOC-ABL begin-M.RELT child-DEF
- zimín**
zim-in
chief-DAT

'A chief is selected according to his degree of kinship with the previous chief. When a chief dies, one of his sons will be assigned to succeed him as the next chief. Normally the eldest son of a chief is assigned to inherit his father's role as a chief'.

25. nú ʔámz-af s'án-id-is-in meh-im ʔím-i-n
 3MS.SUBJ woman-PL black-PL-DEF-DAT money-ACC give-PF-3
 'He gave money to the black women.'





Recap

Noun phrase

Does the mirror principle describe differences among languages?

Head movement

Choosing between head-movement and affix hopping

Back to Czech

- (23) a. jeden velký starý stůl
one big old table
'number > size > age > thing'

- (23) a. jeden velký starý stůl
one big old table
'number > size > age > thing'
- b. nosorožč -át -k -a
rhino -BABY -SMALL -PL / -SG
'number < size < age < thing'

- (23) a. jeden velký starý stůl
one big old table
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- b. nosorožč -át -k -a
rhino -BABY -SMALL -PL / -SG
'number < size < age < thing'
- c. nosorožč -át -k -o
rhino -BABY -SMALL -SG
'number < size < age < thing'

- (23)
- a. jeden velký starý stůl
one big old table
'number > size > age > thing'
 - b. nosorožč -át -k -a
rhino -BABY -SMALL -PL / -SG
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 - c. nosorožč -át -k -o
rhino -BABY -SMALL -SG
'number < size < age < thing'

- ▶ It is not only something that differentiates languages
- ▶ It is also about word/affix difference within a single language

- ▶ It is not a difference between languages
- ▶ It is about word/affix difference

(24) a. jestli Petr bude běhat, ...
if Petr will run
'mood > subject > tense > event'

- ▶ It is not a difference between languages
- ▶ It is about word/affix difference

- (24)
- a. jestli Petr bude běhat, ...
if Petr will run
'mood > subject > tense > event'
- b. běh -á -te -li, ...
run -PRES -YOU.PL -IF
'mood < subject < tense < event'

Recap

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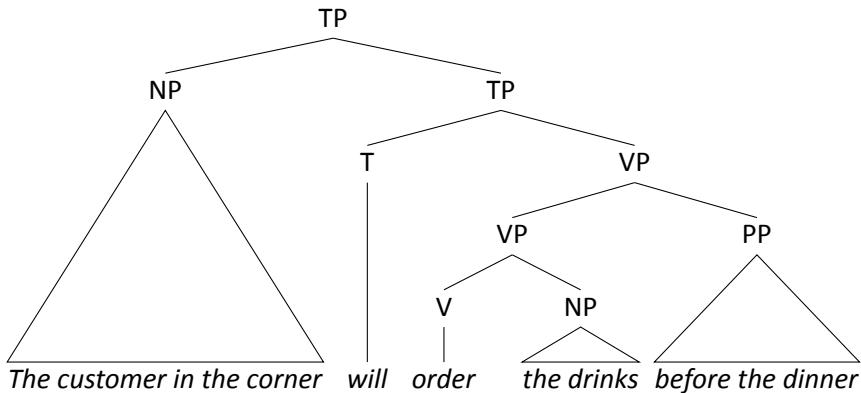
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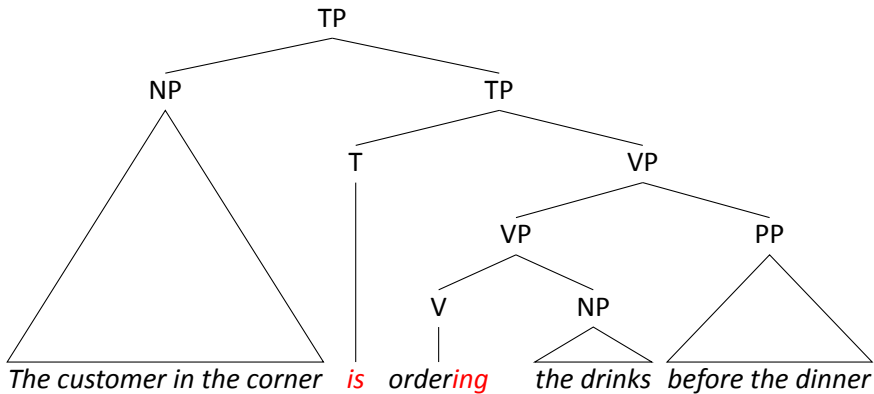
Back to Czech

(25) The customer in the corner is ordering the drinks.

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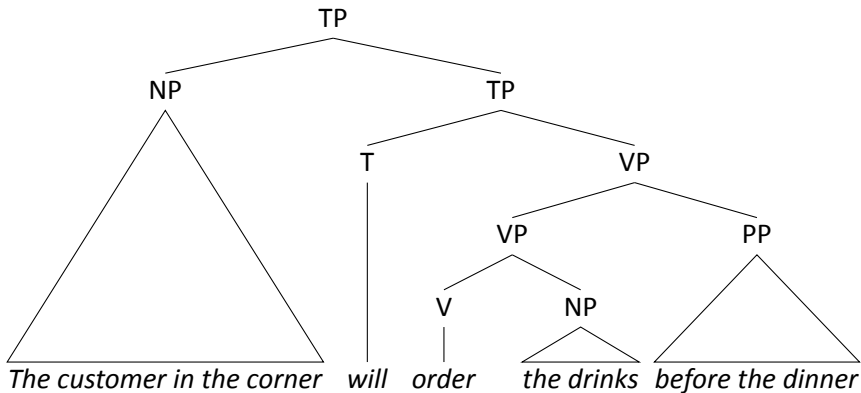


(25) The customer in the corner is ordering the drinks.

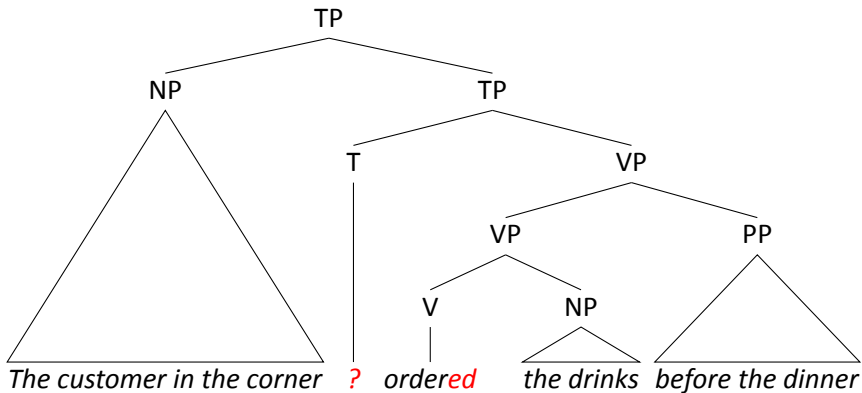


(26) The customer in the corner ordered the drinks.

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(26) The customer in the corner ordered the drinks.



Past Tense Slavic

	slovene		Czech		Russian	
	AUX	participle	AUX	participle	Aux	participle
1.sg	sem	jedla				
2.sg	si	jedla				
3.sg	je	jedla				

Past Tense Slavic

	slovene		Czech		Russian	
	AUX	participle	AUX	participle	Aux	participle
1.sg	sem	jedla	jsem	jedla		
2.sg	si	jedla	jsi	jedla		
3.sg	je	jedla	∅	jedla		

Past Tense Slavic

	slovene		Czech		Russian	
	AUX	participle	AUX	participle	Aux	participle
1.sg	sem	jedla	jsem	jedla	∅	jela
2.sg	si	jedla	jsi	jedla	∅	jela
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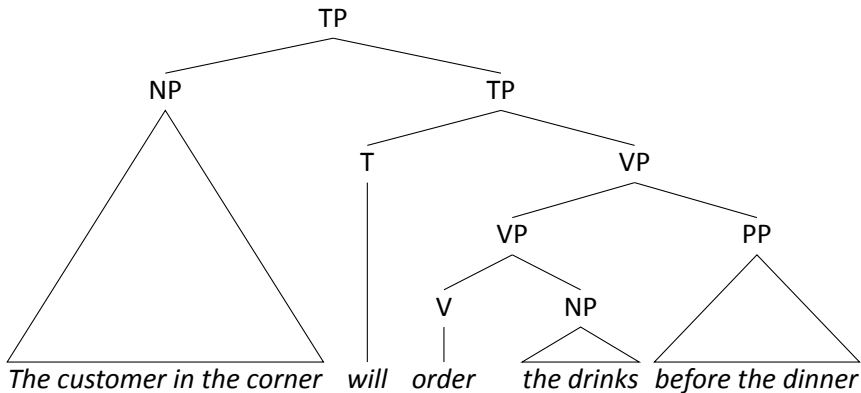
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1.sg	sem	jedla	jsem	jedla	∅	jela
2.sg	si	jedla	jsi	jedla	∅	jela
3.sg	je	jedla	∅	jedla	∅	jela

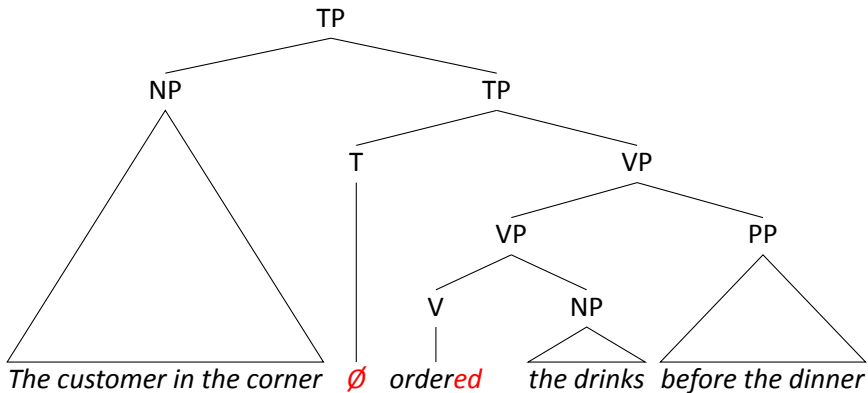
	English			
	AUX	participle	AUX	participle
1.sg	∅	slept	have	slept
2.sg	∅	slept	have	slept
3.sg	∅	slept	has	slept

(27) The customer in the corner ordered the drinks.

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(27) The customer in the corner ordered the drinks.

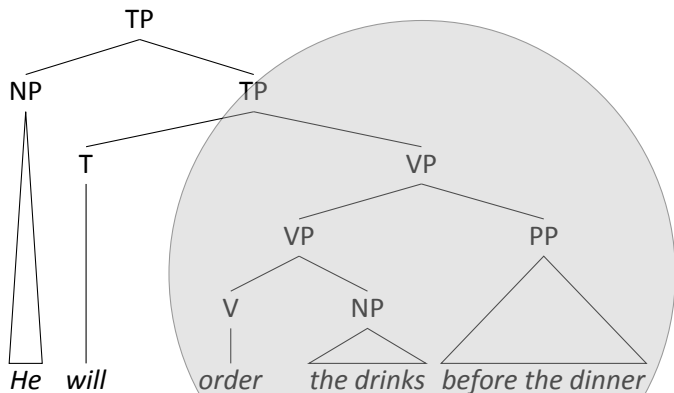


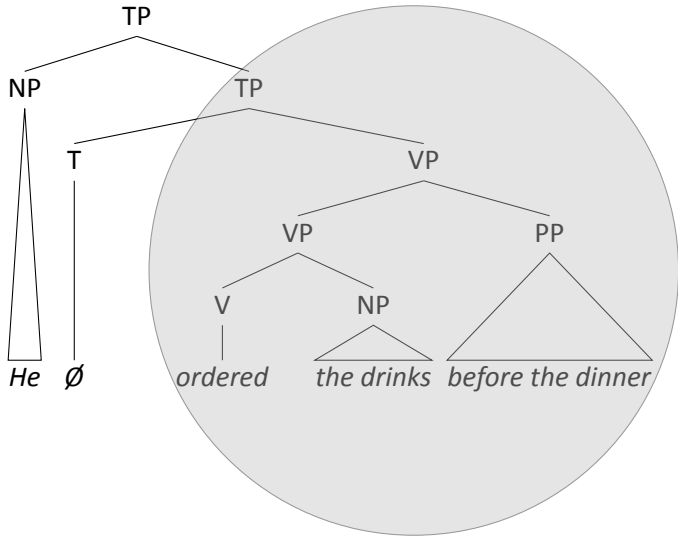
ellipsis

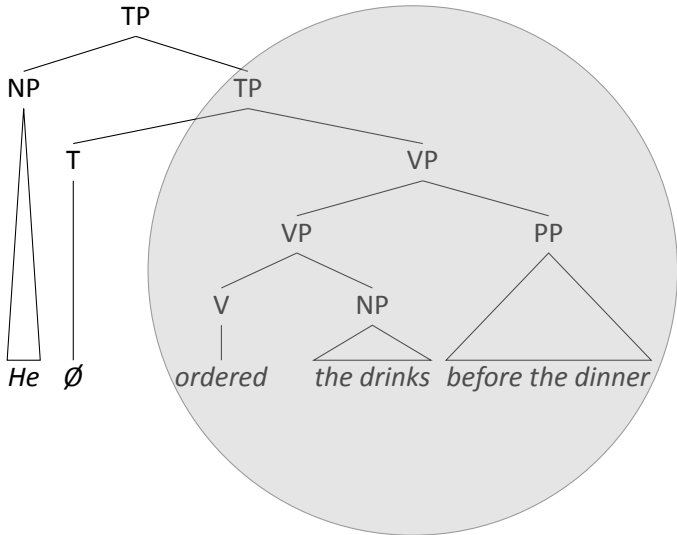
- (28) A: The customer in the corner will order the drinks before the meal.
- (29) B: Actually, I wouldn't be so sure that he will —.

ellipsis

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- (29) B: Actually, I wouldn't be so sure that he will —.

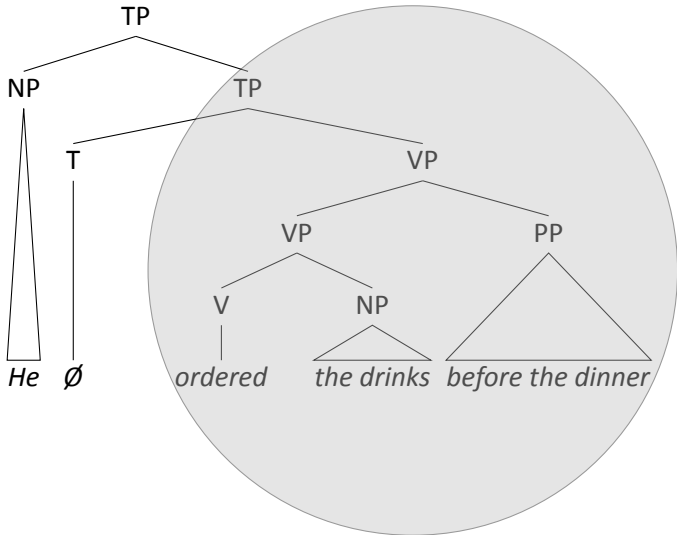






(30) A: The customer in the corner \emptyset order-ed the drinks.

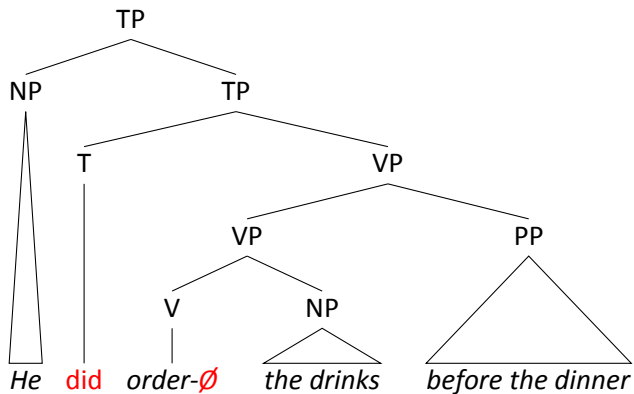
(31) B: *Actually, I wouldn't be so sure that he \emptyset —.



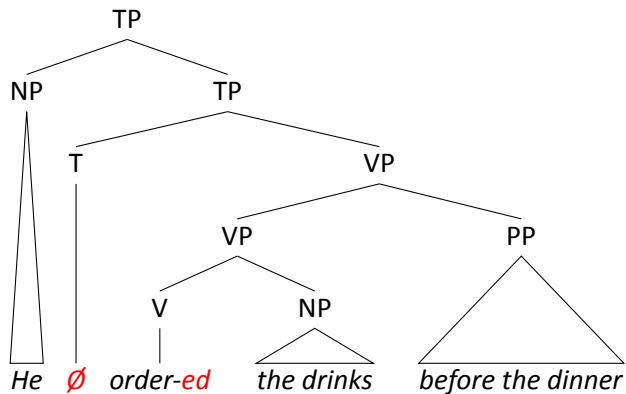
(30) A: The customer in the corner \emptyset order-ed the drinks.

(31) B: Actually, I wouldn't be so sure that he **did** —.

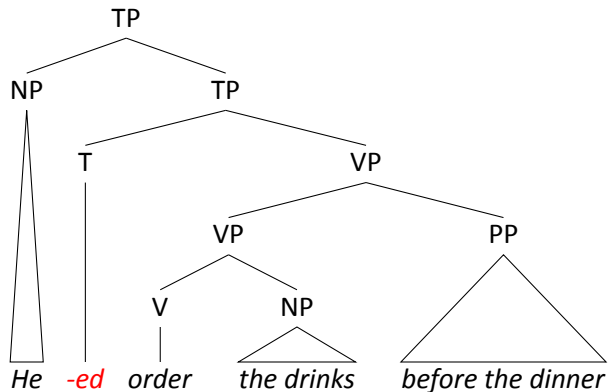
Structure 1



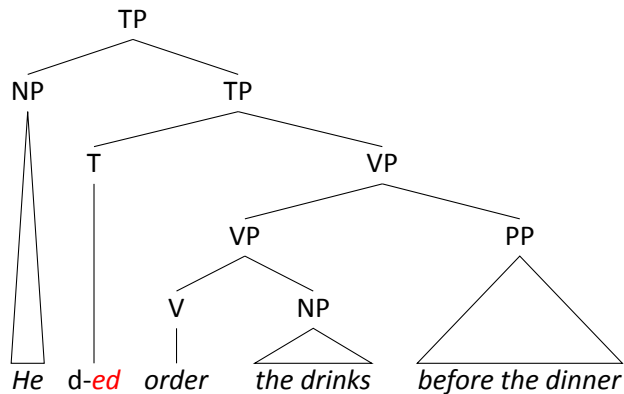
Structure 2



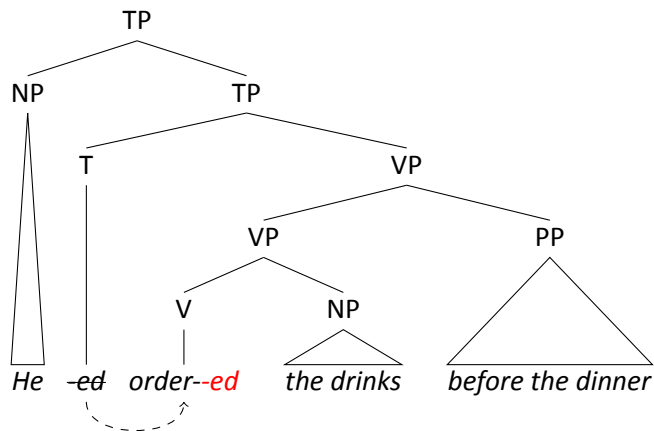
Both structures are the realization of an ‘underlying’ structure



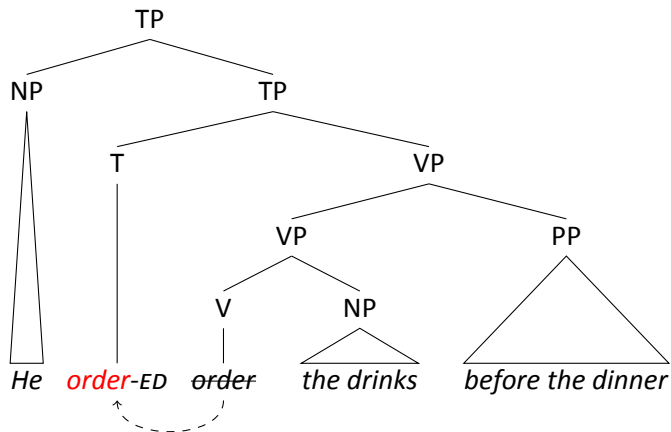
Rescue 1: Expletive insertion



Rescue 2a: Affix Hopping



Rescue 2b: Head movement



Recap

Noun phrase

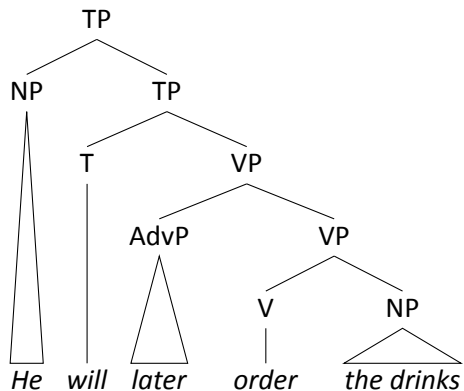
Does the mirror principle describe differences among languages?

Head movement

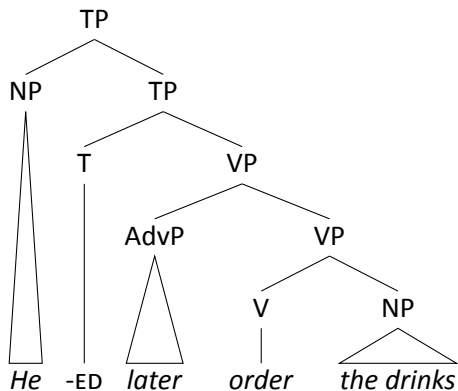
Choosing between head-movement and affix hopping

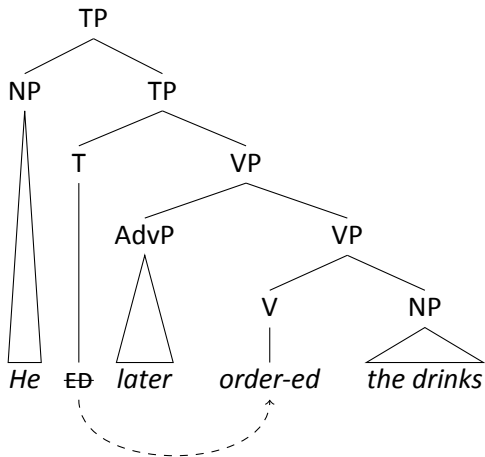
Back to Czech

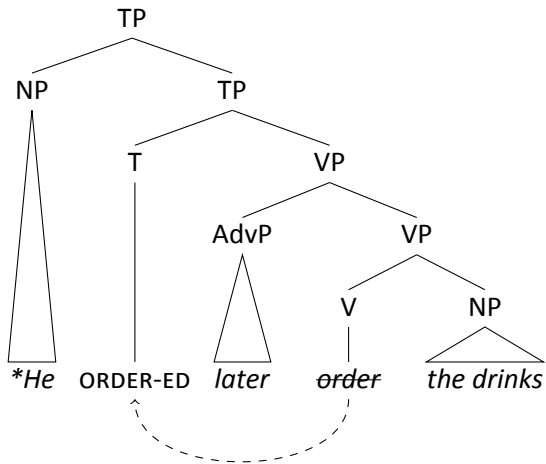
Introducing an adverb



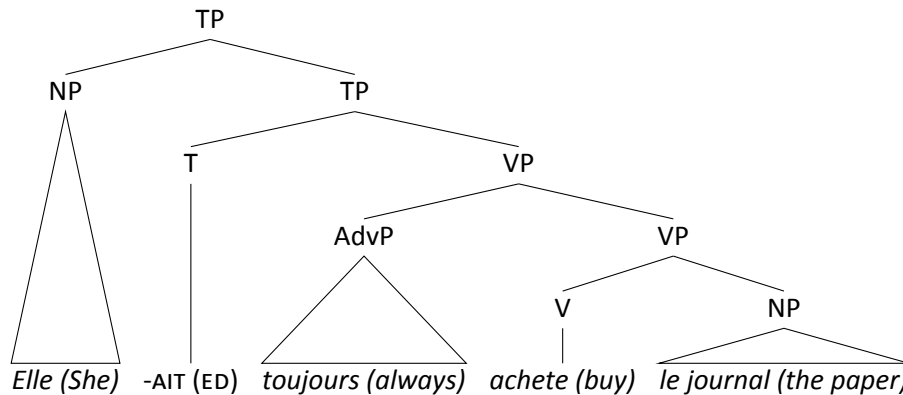
Adverb and lowering

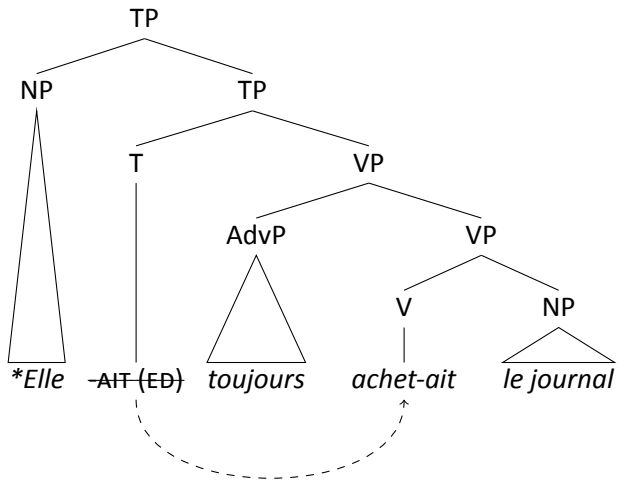


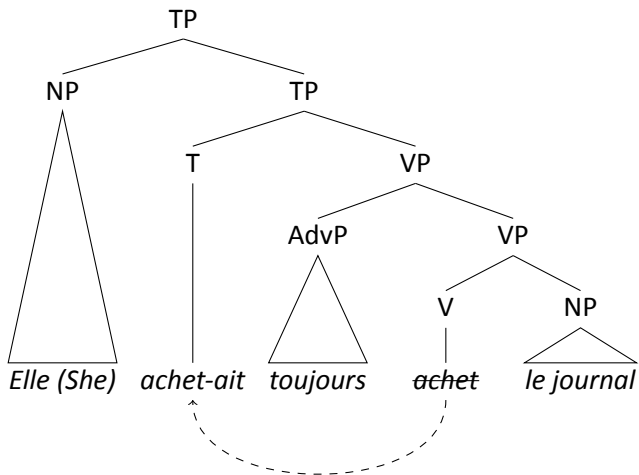


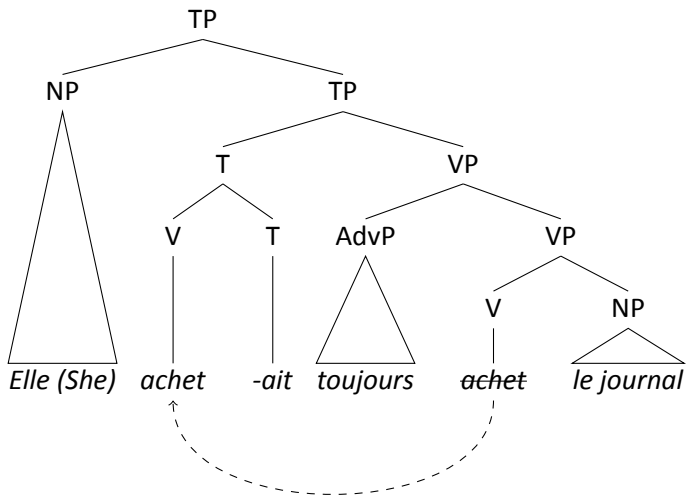


French









Summary

(32) When a head is an affix...

Summary

- (32) When a head is an affix...
 - a. Rescue 1: insert an expletive

Summary

- (32) When a head is an affix...
- a. Rescue 1: insert an expletive
 - b. Rescue 2: move something

Summary

- (32) When a head is an affix...
- a. Rescue 1: insert an expletive
 - b. Rescue 2: move something
 - (i) move the affix = affix hopping

Summary

- (32) When a head is an affix...
- a. Rescue 1: insert an expletive
 - b. Rescue 2: move something
 - (i) move the affix = affix hopping
 - (ii) move the host = head movement

Recap

Noun phrase

Does the mirror principle describe differences among languages?

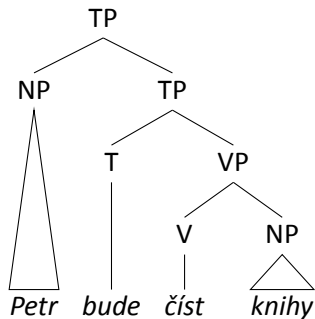
Head movement

Choosing between head-movement and affix hopping

Back to Czech

Future tense

- (33) Petr bude číst knihy.
Petr will read books



Present tense

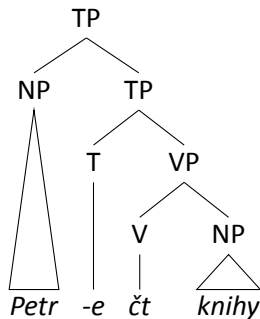
- (34) a. Petr bude číst knihy.
Petr will read books

Present tense

- (34) a. Petr bude číst knihy.
Petr will read books
- b. Petr čt-e knihy
Petr read -PRES books

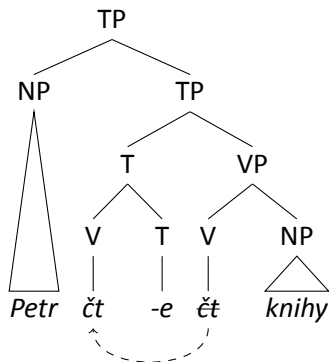
Present tense

- (34) a. Petr bude číst knihy.
Petr will read books
- b. Petr čt-e knihy
Petr read -PRES books



Present tense

- (35) a. Petr bude číst knihy.
Petr will read books
- b. Petr čt-e knihy
Petr read-PRES books



(36) Conditional

- a. **Čt-e** **-li** Petr knihy, ...
reads-PRES -IF Petr books
'if Petr reads books, ...'

(36) Conditional

a. **Čt-e** **-li** Petr knihy, ...
reads-PRES -IF Petr books
'if Petr reads books, ...'

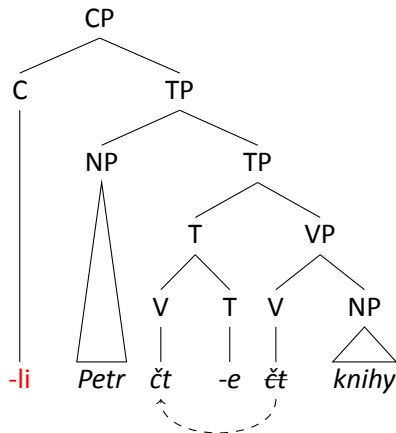
b. **Jest -li** Petr **čt-e** knih-y
be -textscif Petr read-PRES books

(36) Conditional

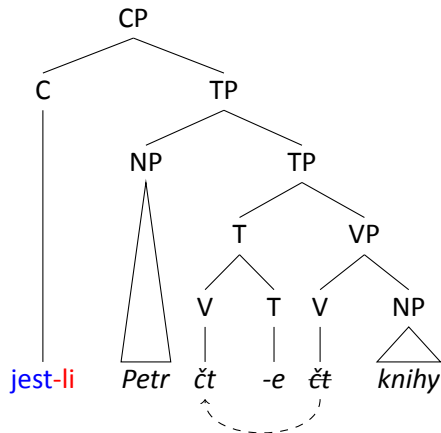
a. **Čt-e** **-li** Petr knihy, ...
reads-PRES -IF Petr books
'if Petr reads books, ...'

b. **Jest -li** Petr **čt-e** knih-y
be -textscif Petr read-PRES books

Semantic/underlying structure



Expletive insertion



Semantic/underlying structure

