Language and thought

Day 4: What information about the world does language encode?

Wenkai Tay

UCL Linguistics
Short Courses 2024

22 Nov 2024

taywenkai.com

Linking problem

Linking problem

Absolute linking:

- Link agent to subject, theme to object

Relative linking:

- Link arguments in a way that preserves prominence relations
  - subject > object
  - agent > theme

Unaccusative verbs

intransitive verb

John (subject=agent) **laughed** .

transitive verb

John (subject=agent) **broke** the vase (object=theme) .

Unaccusative verbs

intransitive verb (unergative)

John (subject=agent) **laughed** .

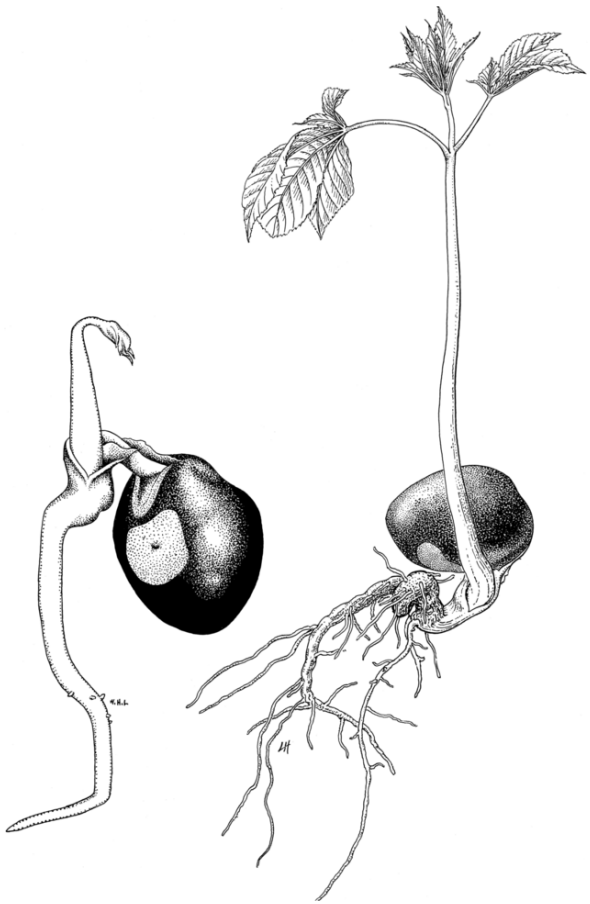
intransitive verb (unaccusative)

The vase (subject=theme) **broke** .

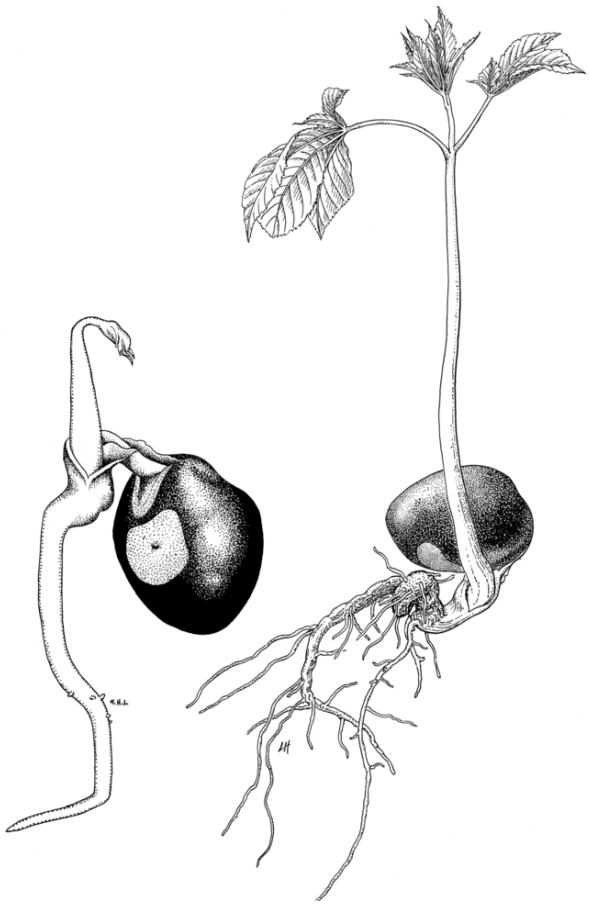
transitive verb

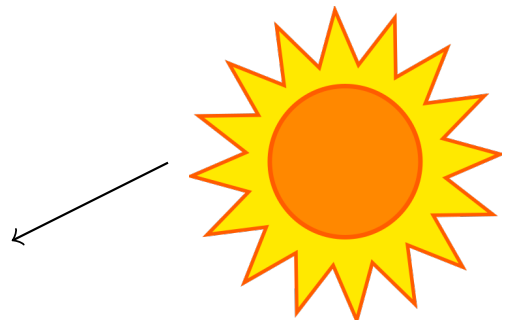
John (subject=agent) **broke** the vase (object=theme) .

Two approaches to argument structure



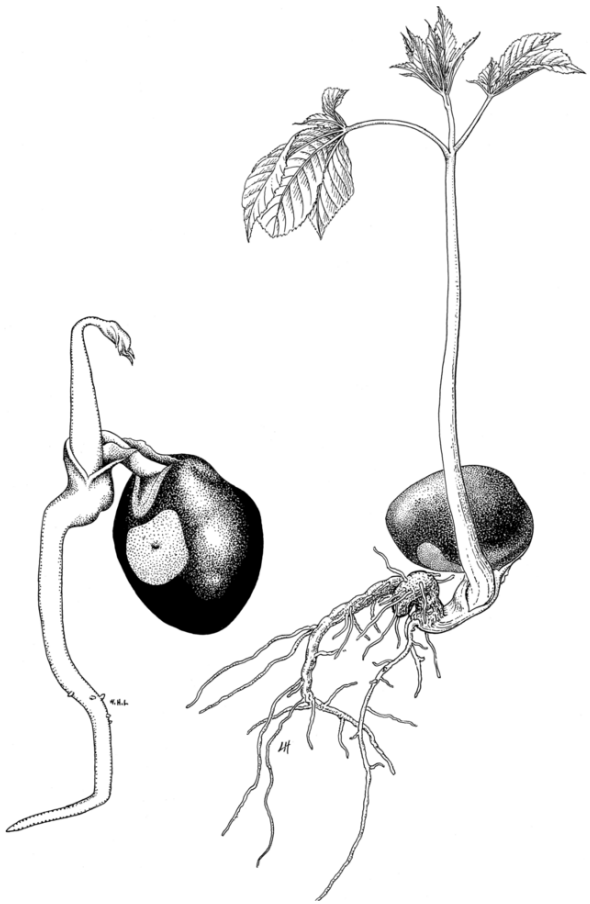
Two approaches to argument structure



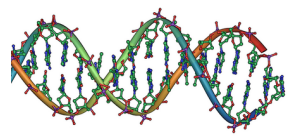


decompositional
configurational

Two approaches to argument structure

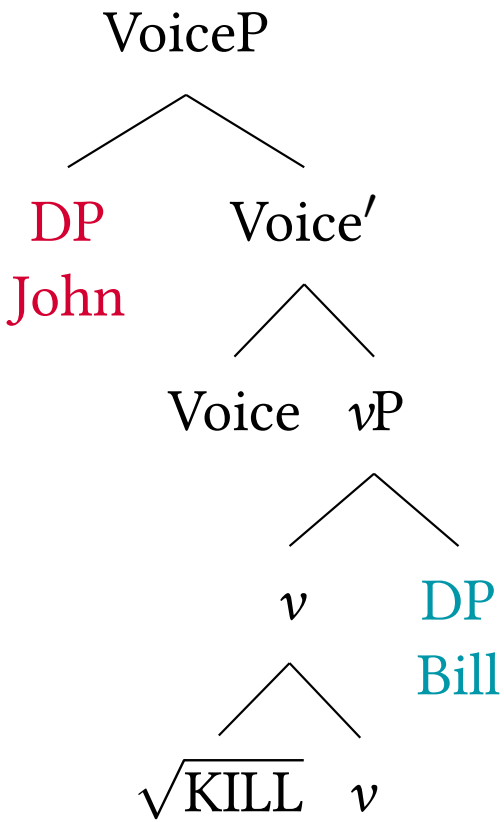


decompositional
configurational

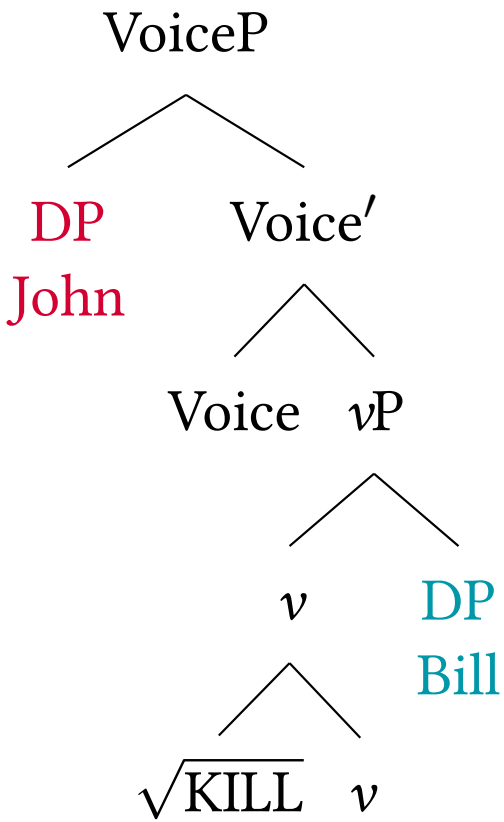


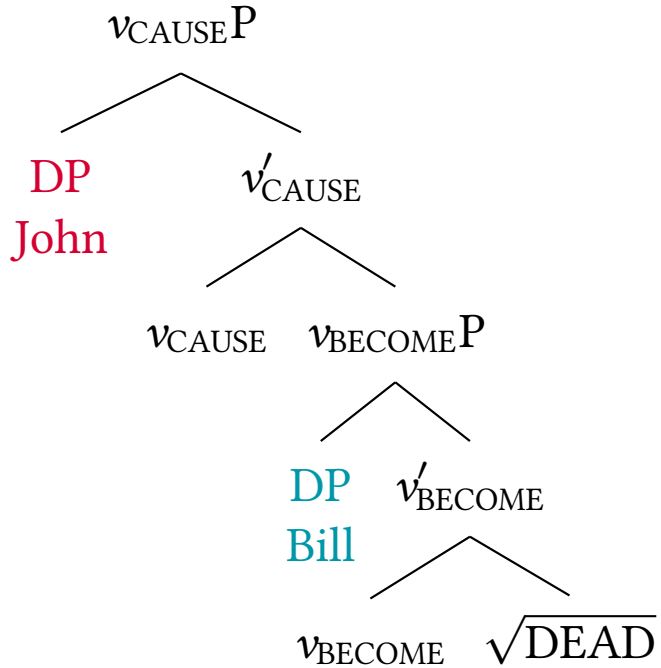
projectionist
lexicalist

Decompositional approach

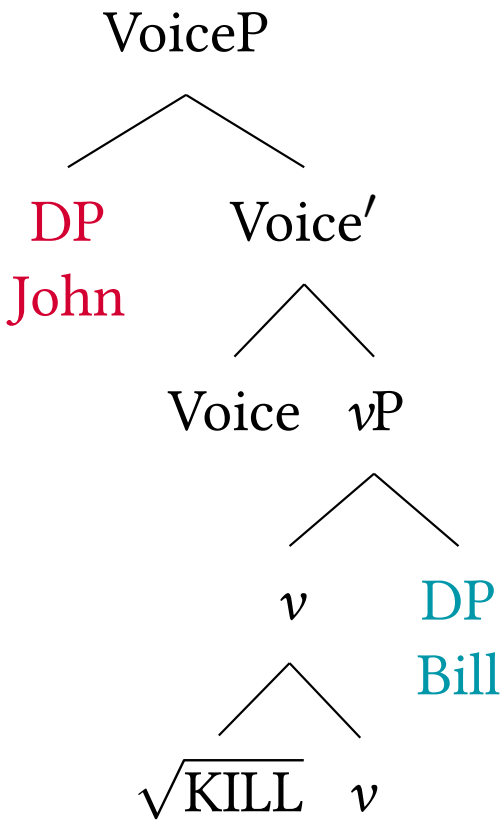


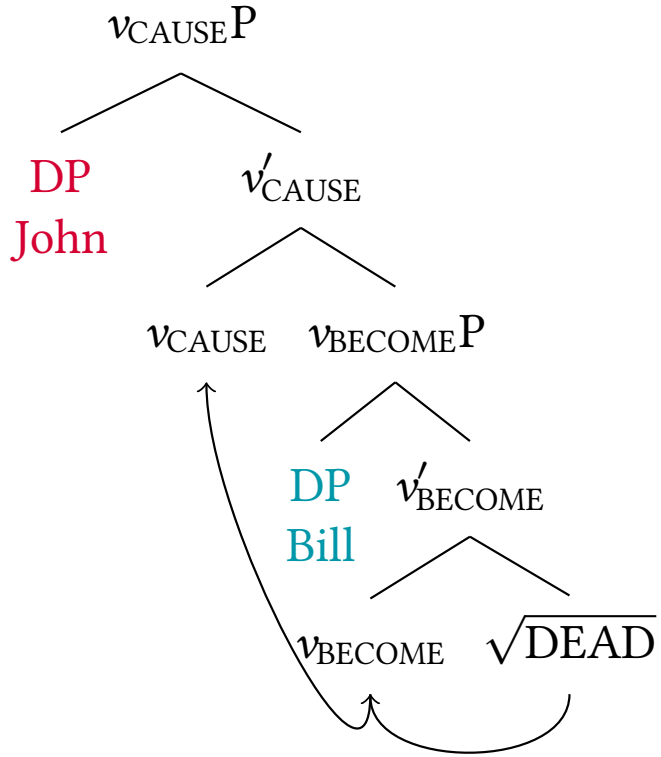
Decompositional approach





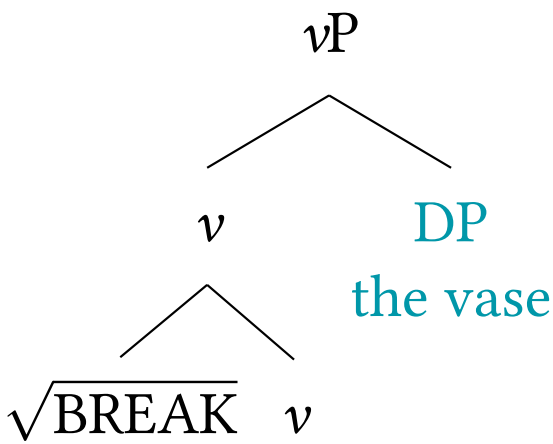
Decompositional approach





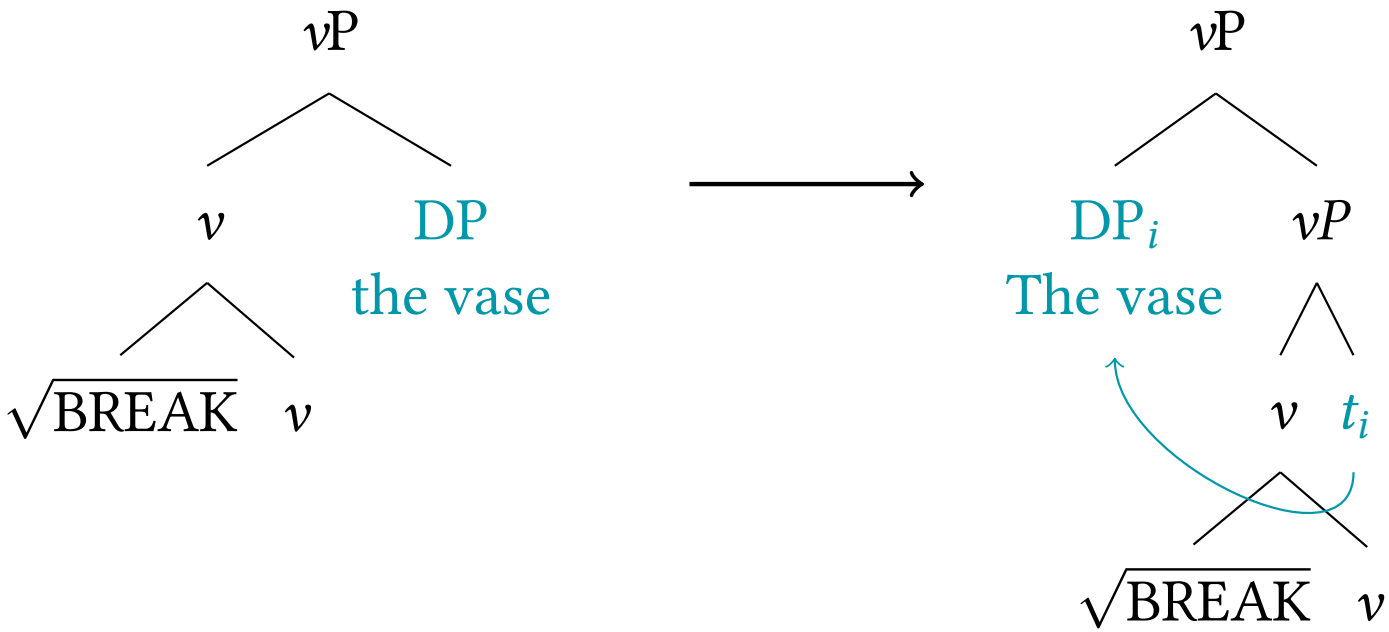
Decompositional approach

(1) The vase **broke** .



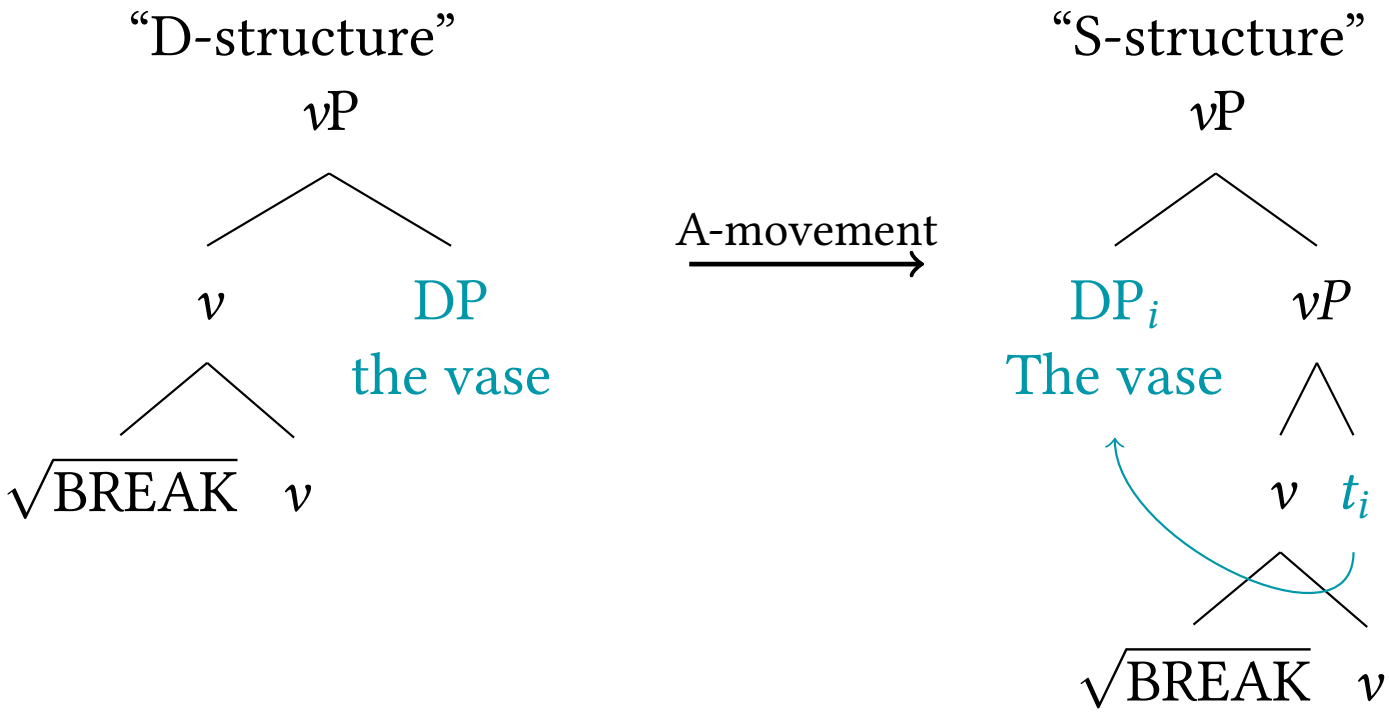
Decompositional approach

(1) The vase **broke** .



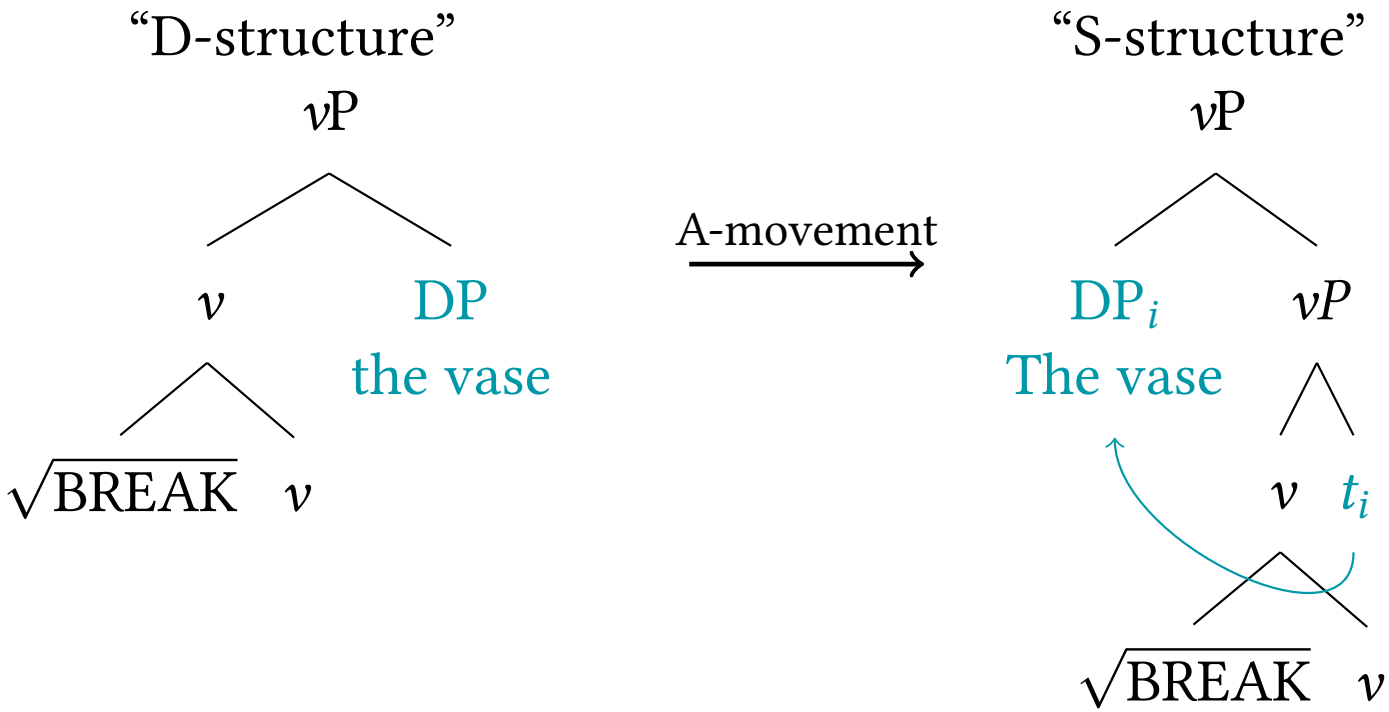
Decompositional approach

(1) The vase **broke** .



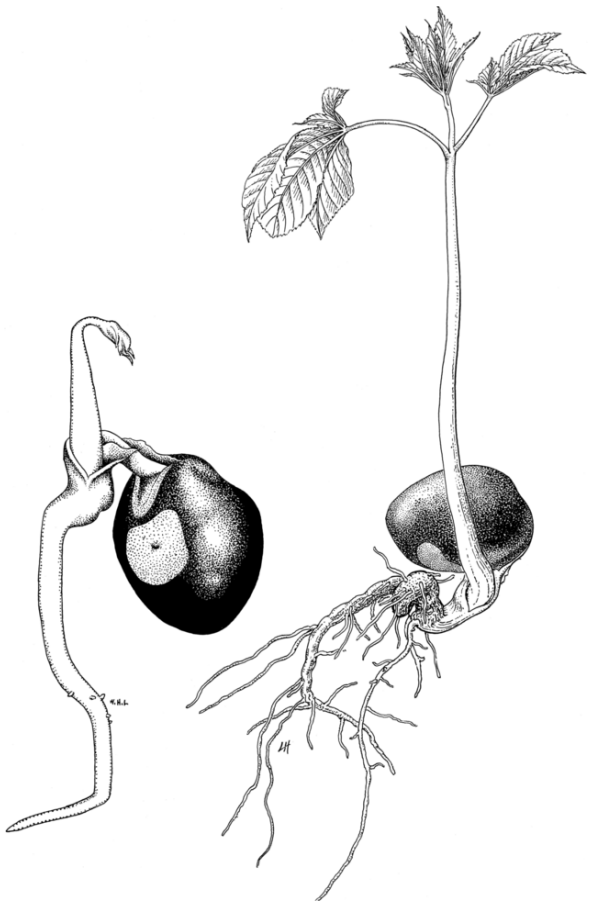
Decompositional approach

(1) The vase **broke** .

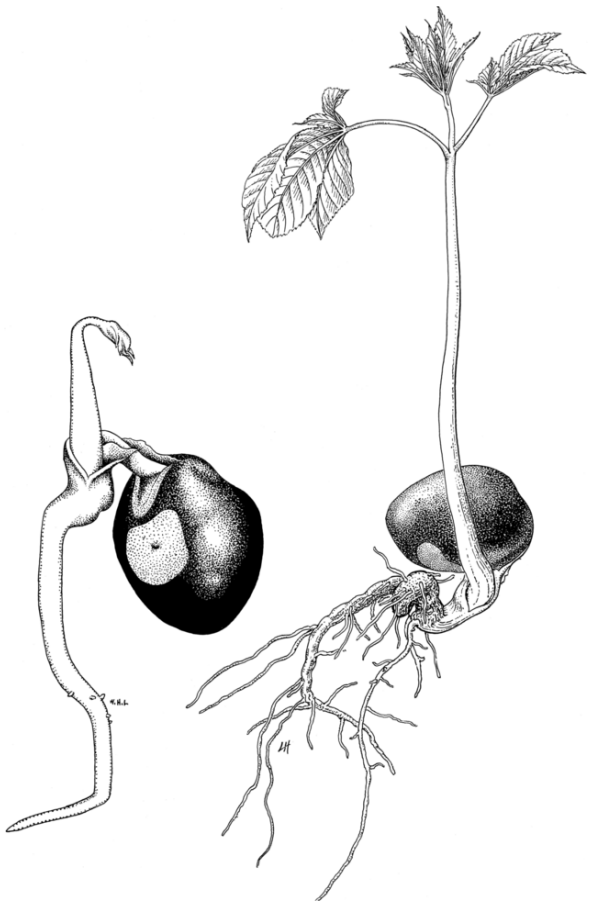


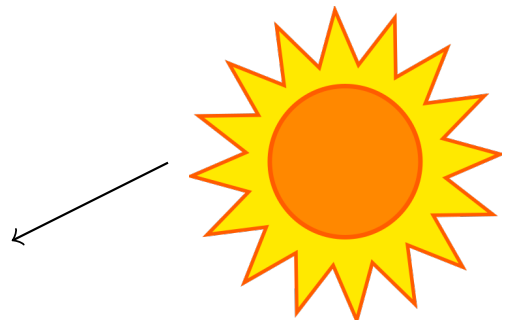
Case? EPP?

Two approaches to argument structure



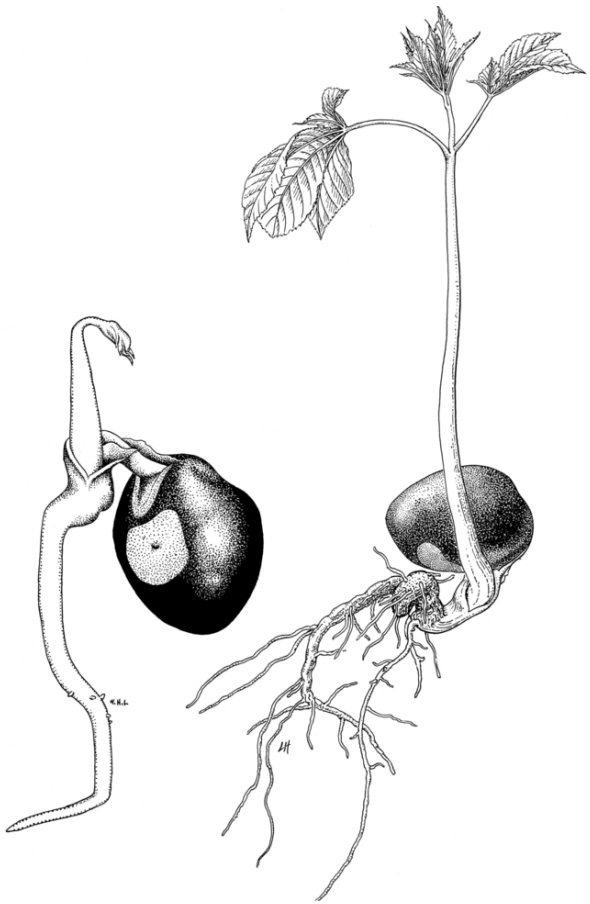
Two approaches to argument structure



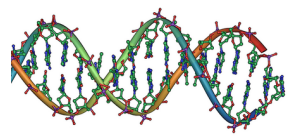


decompositional
configurational

Two approaches to argument structure



decompositional
configurational



projectionist
lexicalist

Outline

1 Theta grids

2 Unaccusative verbs

3 Thematic hierarchy

4 Morphological operations

5 Decompositional vs projectionist approaches

θ-grids

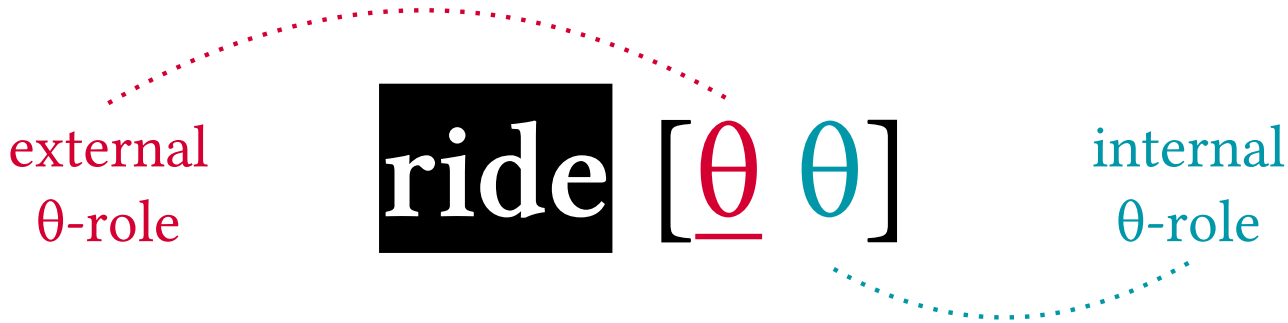
ride [θ θ]

θ-grids

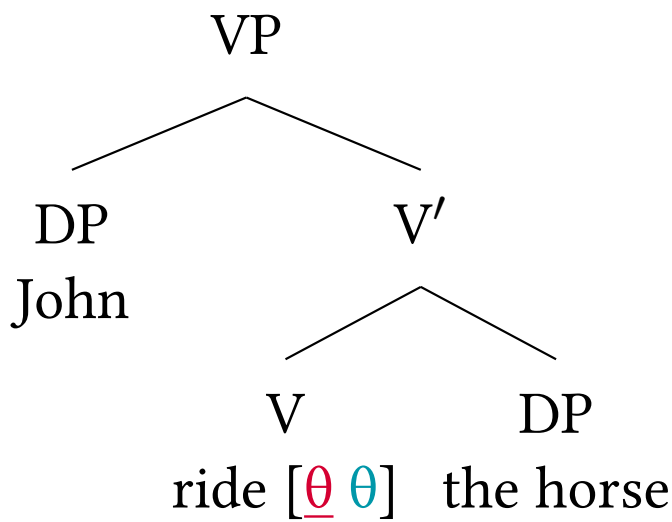
ride [θ θ]

θ-grids

θ-grids

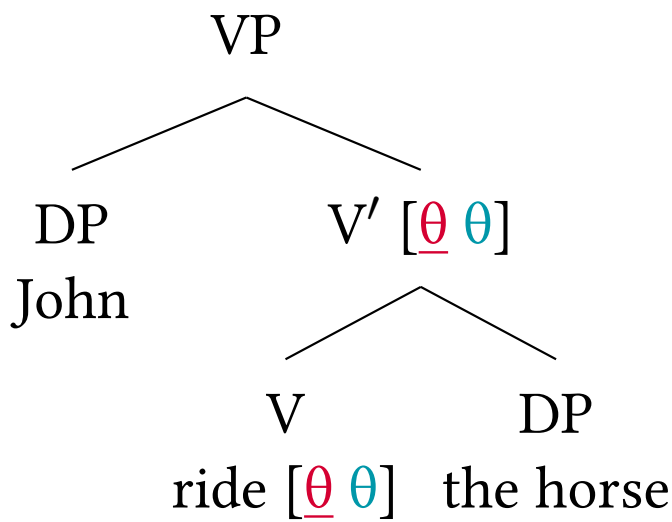


θ-grids



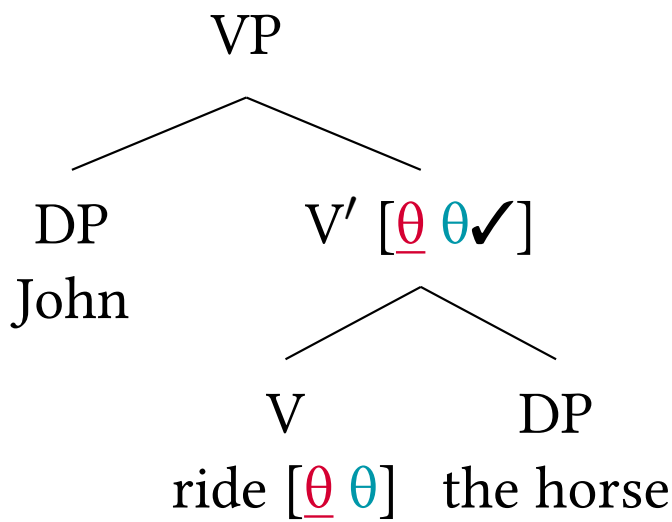
See Neeleman and van de Koot (2002).

θ-grids



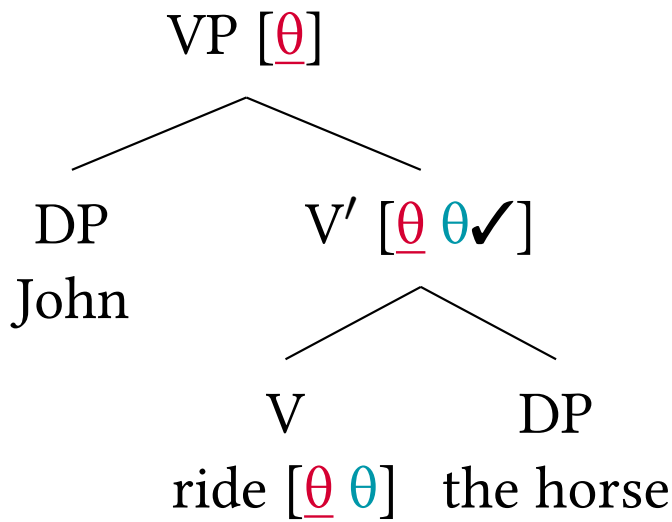
See Neeleman and van de Koot (2002).

θ-grids



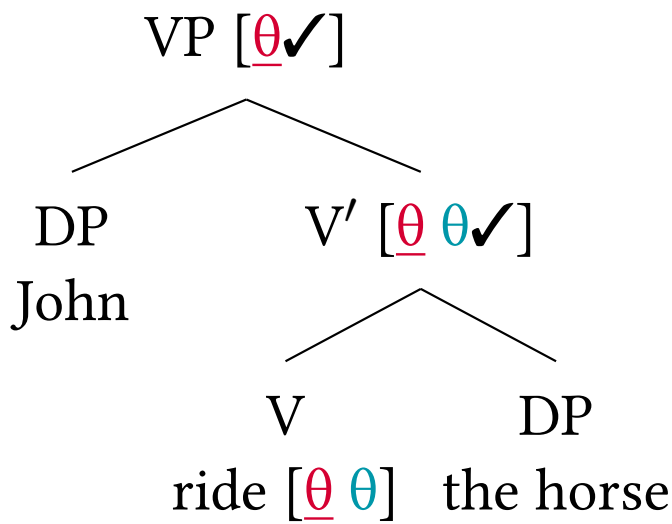
See Neeleman and van de Koot (2002).

θ-grids



See Neeleman and van de Koot (2002).

θ-grids



See Neeleman and van de Koot (2002).

θ-grids

VP [θ✓]

DP
John

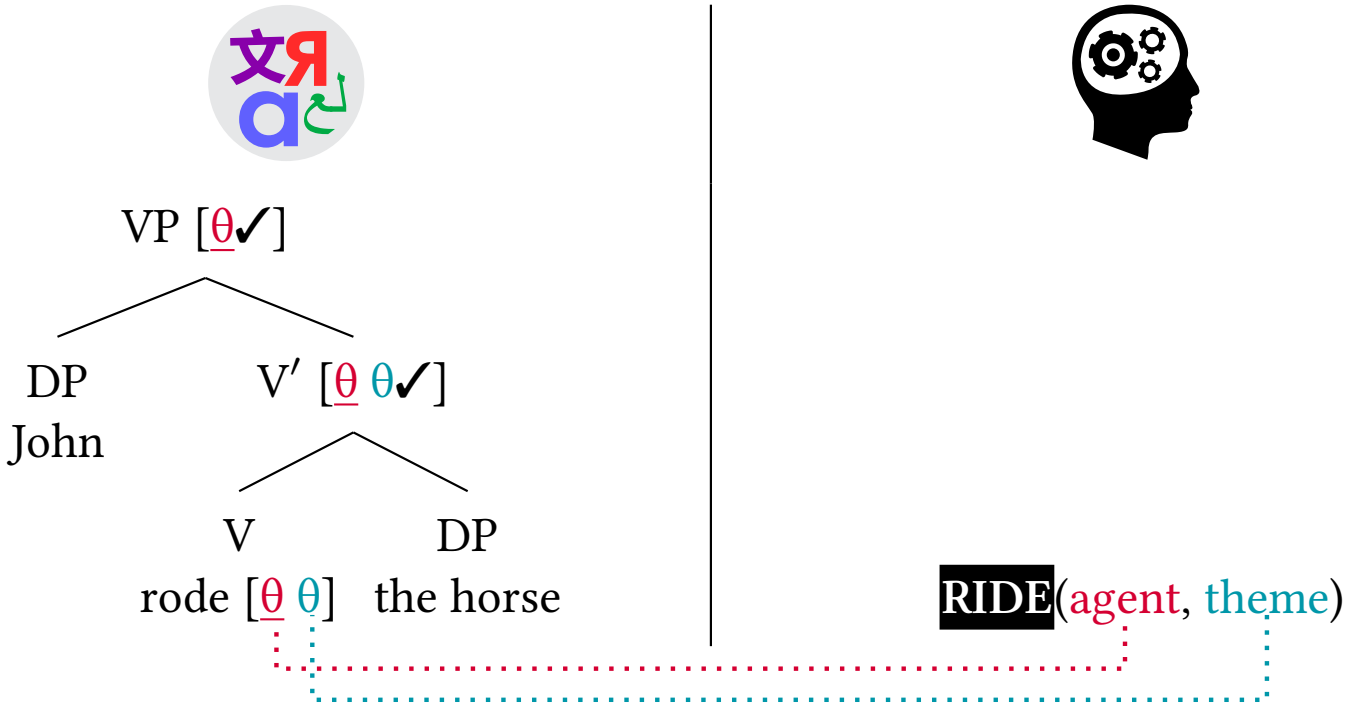
V′ [θ θ✓]

V
rode [θ θ]

DP
the horse

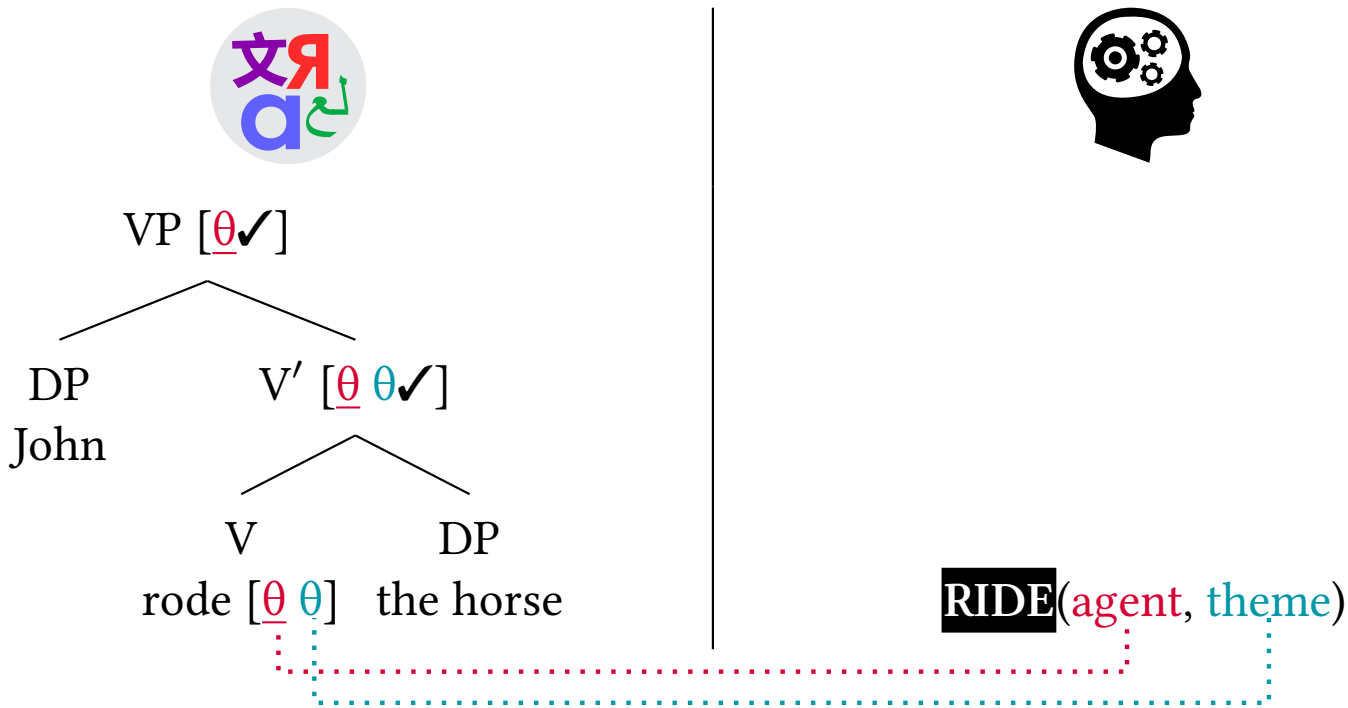
RIDE(agent, theme)

θ-grids



Possible set of linking rules:

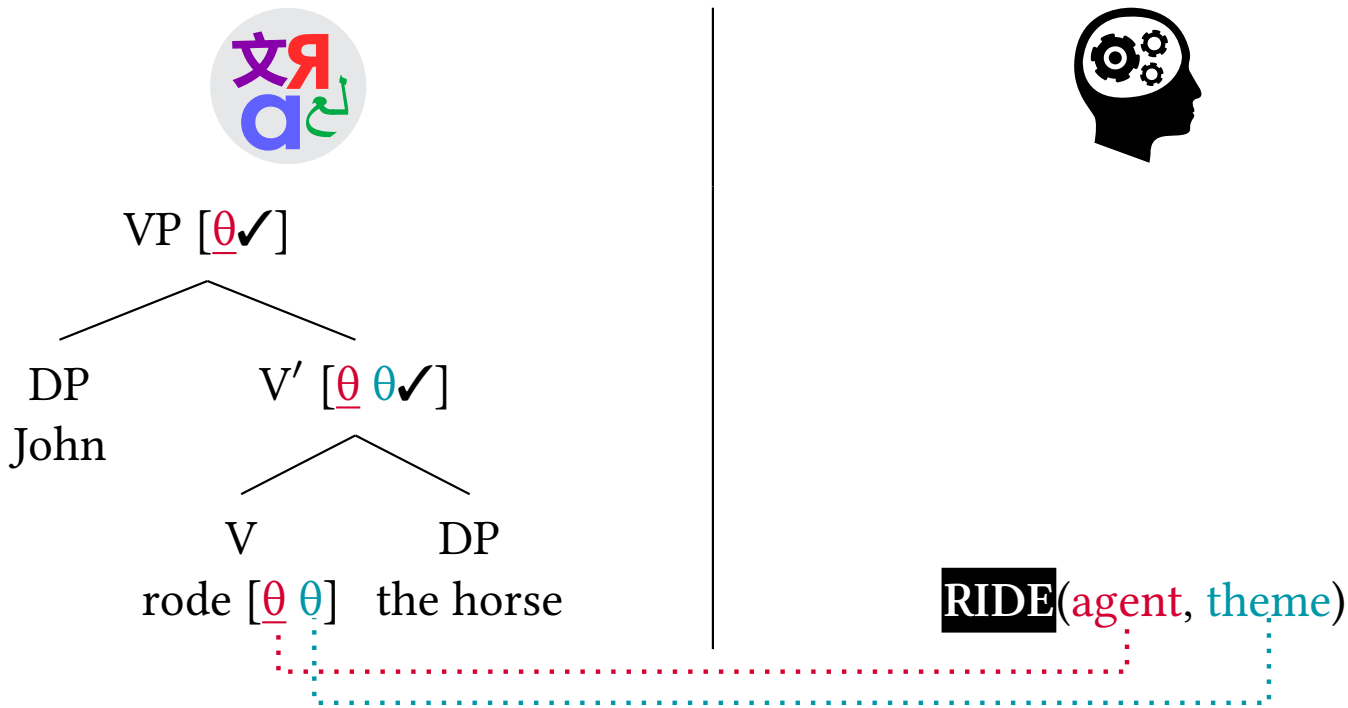
θ-grids



Possible set of linking rules:

- Link agent to external θ-role, theme to internal θ-role

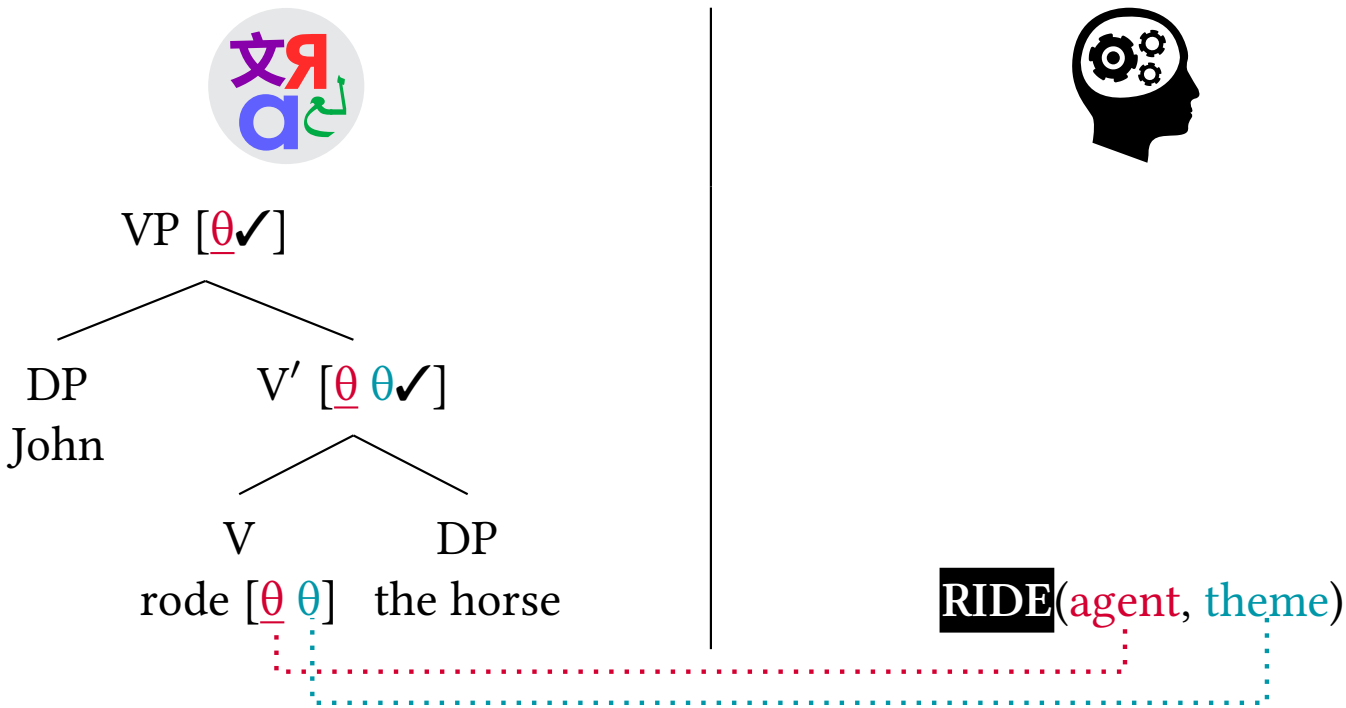
θ-grids



Possible set of linking rules:

- Link agent to external θ-role, theme to internal θ-role
- Link θ-roles to arguments in a way that preserves prominence relations

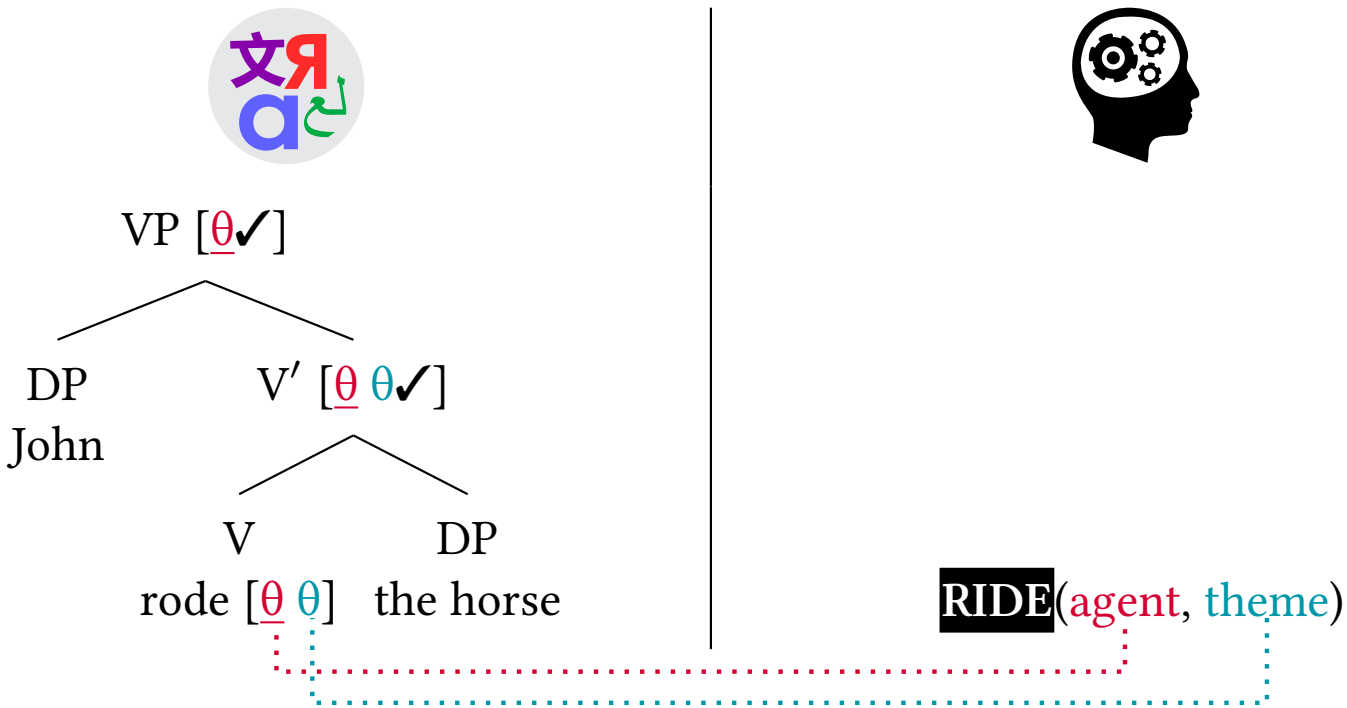
θ-grids



Possible set of linking rules:

- Link agent to external θ-role, theme to internal θ-role
- Link θ-roles to arguments in a way that preserves prominence relations
  - external θ-role > internal θ-role

θ-grids



Possible set of linking rules:

- Link agent to external θ-role, theme to internal θ-role
- Link θ-roles to arguments in a way that preserves prominence relations
  - external θ-role > internal θ-role
  - subject > object

Outline

1 Theta grids

2 Unaccusative verbs

3 Thematic hierarchy

4 Morphological operations

5 Decompositional vs projectionist approaches

Unaccusative verbs

intransitive verb

John (subject=agent) **laughed** .

transitive verb

John (subject=agent) **broke** the vase (object=theme) .

Unaccusative verbs

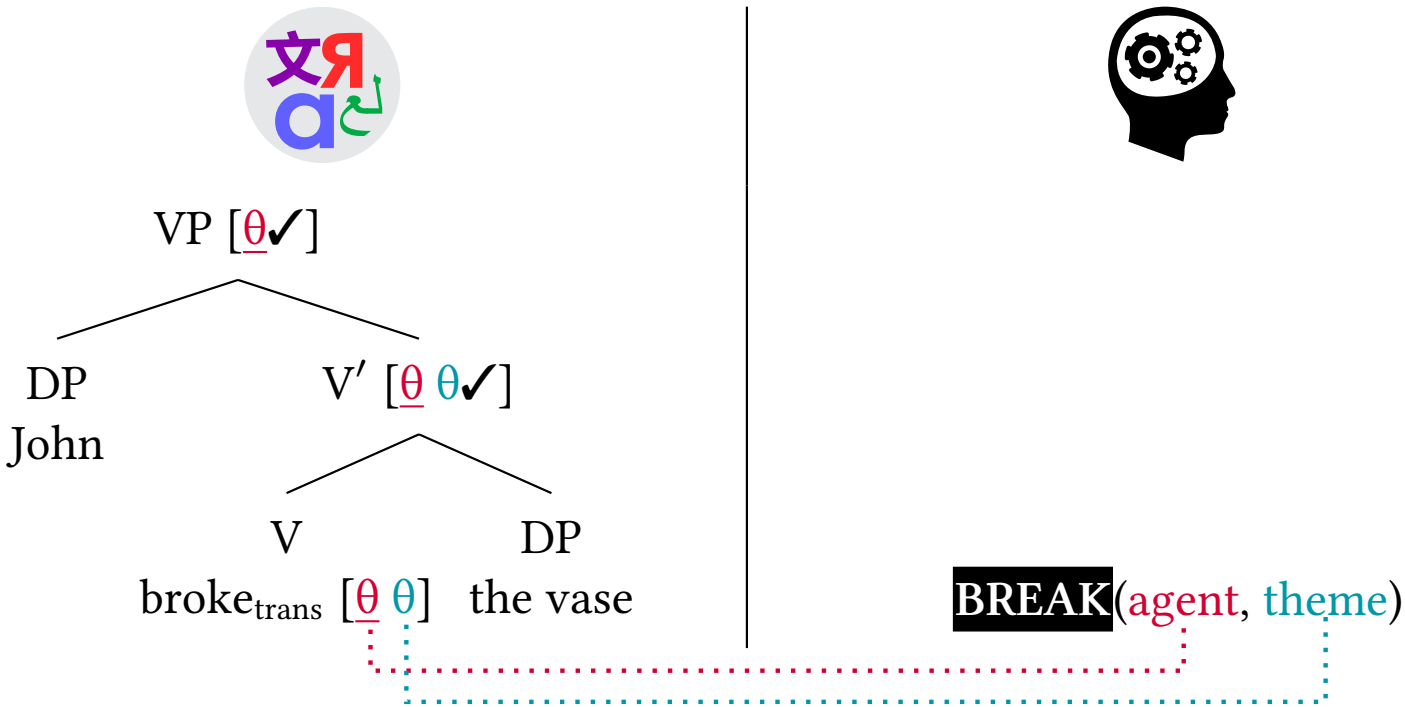
intransitive verb (unergative)	John **laughed** . subject=agent
intransitive verb (unaccusative)	The vase **broke** . subject=theme
transitive verb	John **broke** the vase . subject=agent object=theme

Unaccusative verbs

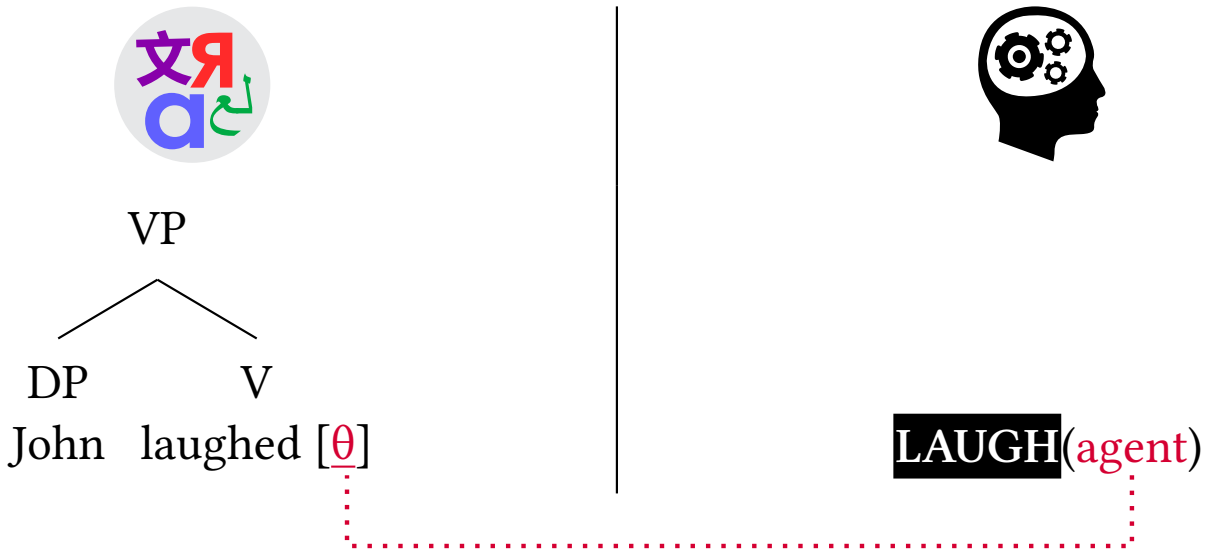
intransitive verb (unergative)	John **laughed** . subject=agent
intransitive verb (unaccusative)	The vase **broke** . subject=theme
transitive verb	John **broke** the vase . subject=agent object=theme

What are the structures for each of these verb classes?

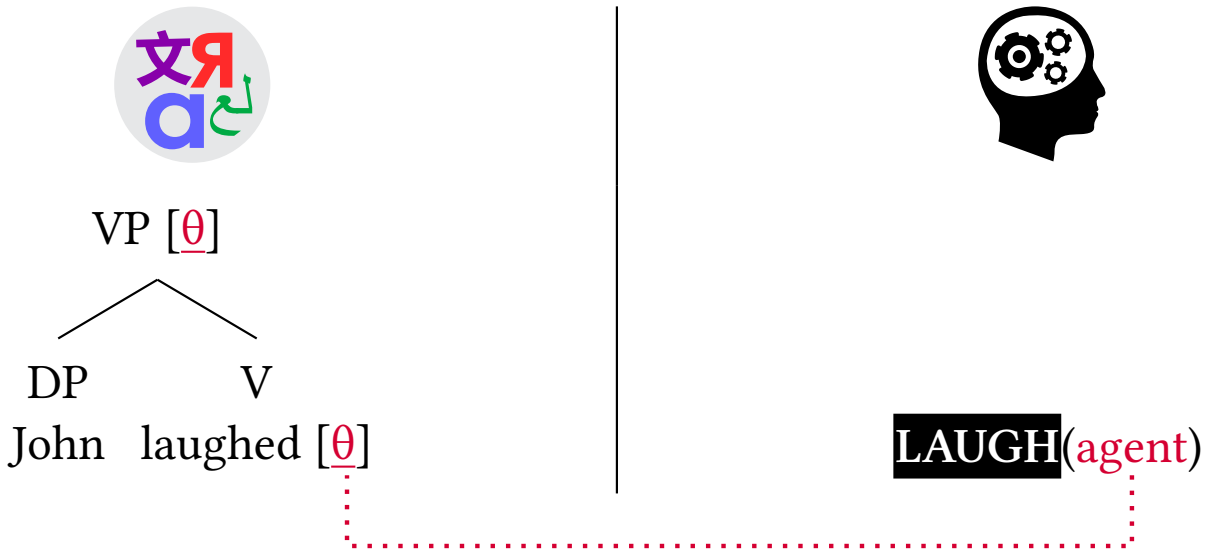
Transitive verbs



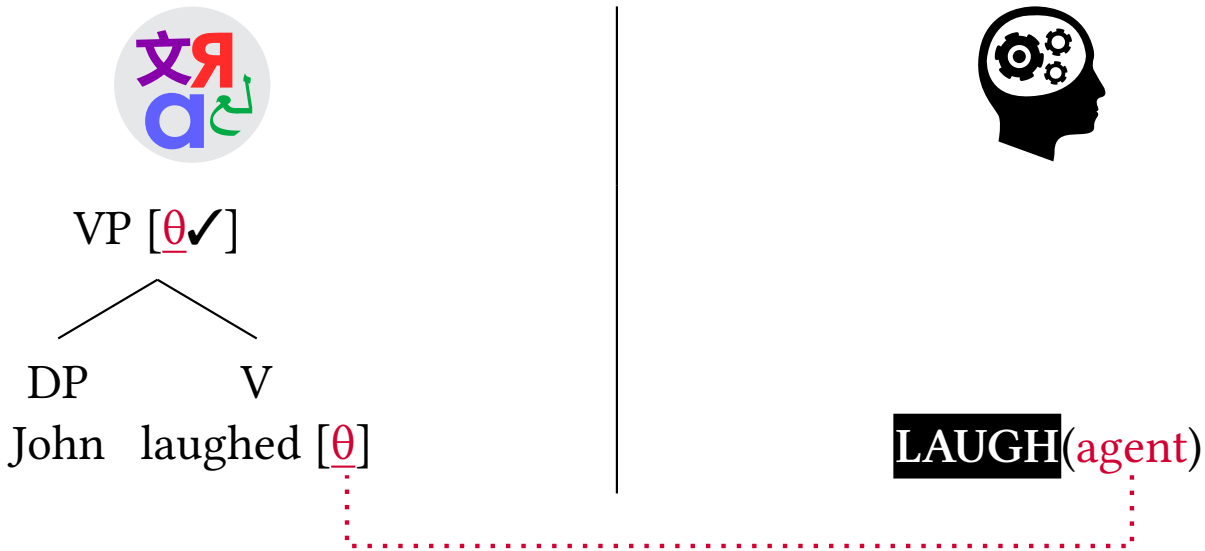
Unergative verbs



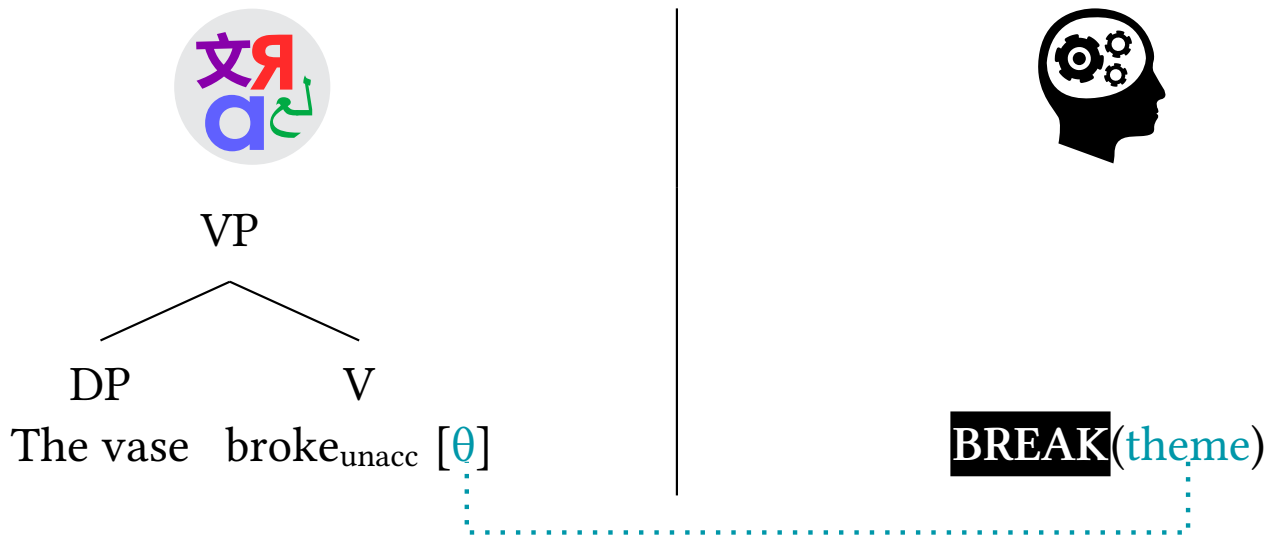
Unergative verbs



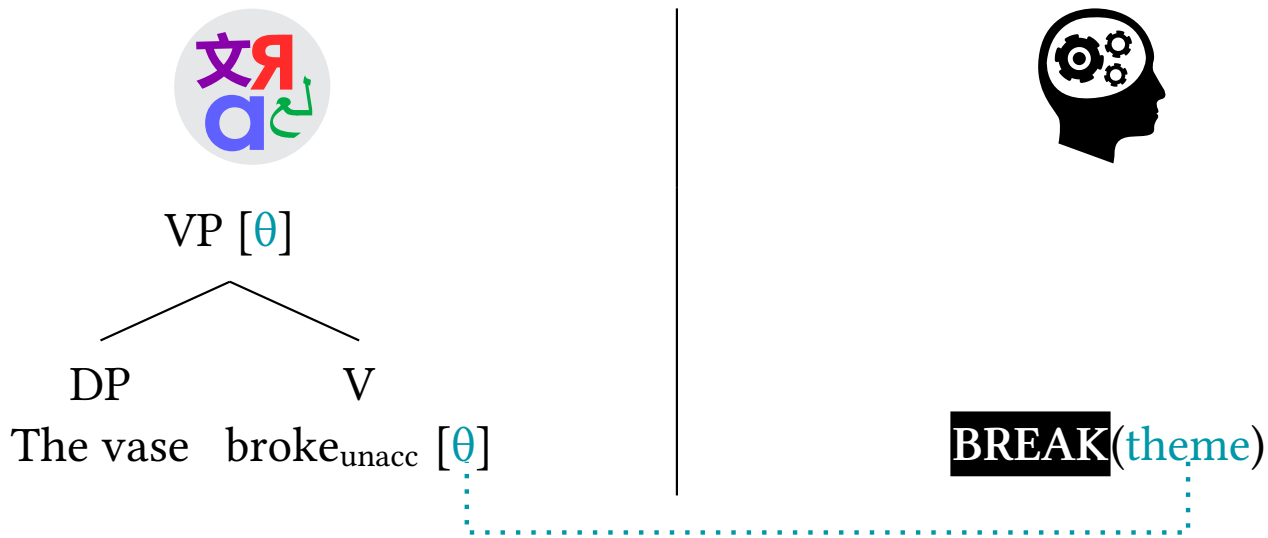
Unergative verbs



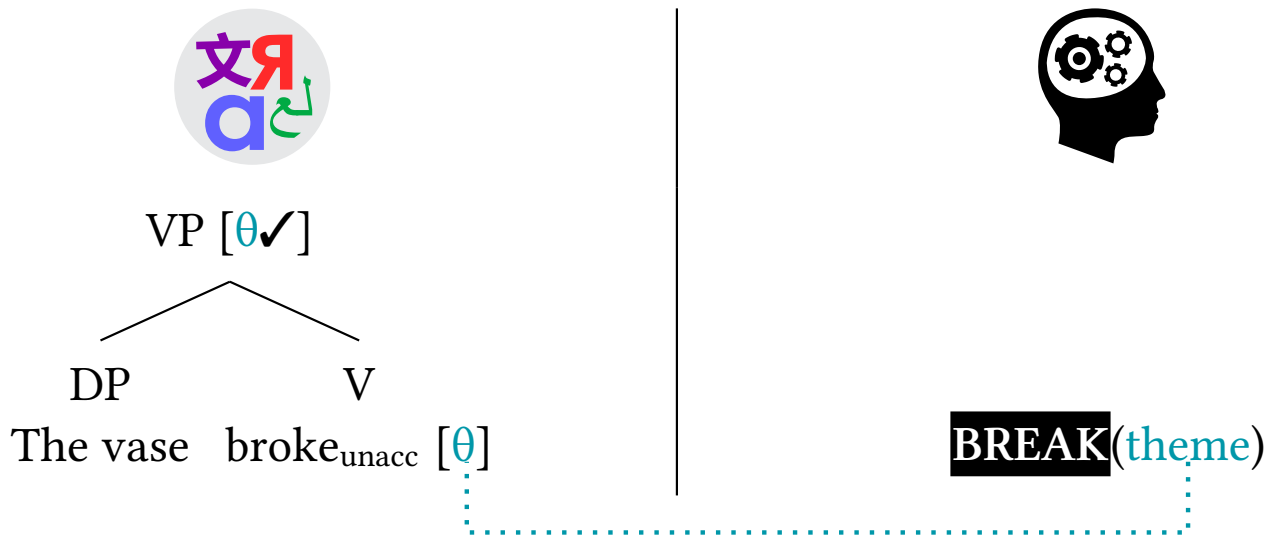
Unaccusative verbs



Unaccusative verbs



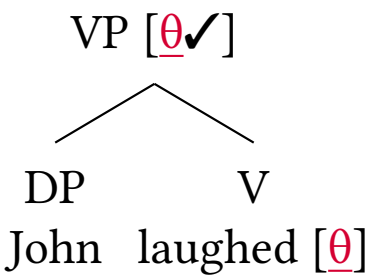
Unaccusative verbs



Two types of intransitive verbs

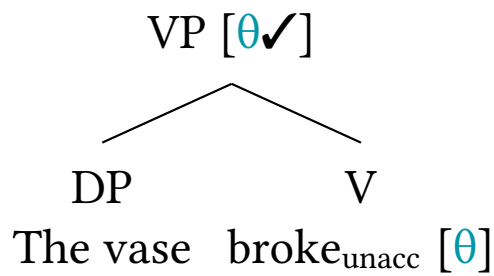
(2) John laughed .

subject=agent



(3) The vase broke .

subject=theme



Outline

1 Theta grids

2 Unaccusative verbs

3 Thematic hierarchy

4 Morphological operations

5 Decompositional vs projectionist approaches

Thematic hierarchy

(4) John **broke** the vase.
agent

(5) The hammer **broke** the vase.
cause

Thematic hierarchy

(4) John **broke** the vase.
agent

(5) The hammer **broke** the vase.
cause

(6) John **hit** the table.
theme

(7) John **hit** Bill .
patient

Thematic hierarchy

(4) John **broke** the vase.
agent

(5) The hammer **broke** the vase.
cause

(6) John **hit** the table.
theme

(7) John **hit** Bill .
patient

Agent > theme

Thematic hierarchy

(4) John **broke** the vase.
agent

(5) The hammer **broke** the vase.
cause

(6) John **hit** the table.
theme

(7) John **hit** Bill .
patient

Agent > theme → Agent/cause > theme/patient

Thematic hierarchy

(8) John **gave** the book to Bill.

agent — theme — goal

Thematic hierarchy

(8) John **gave** the book to Bill.

agent: John
theme: the book
goal: Bill

→ agent > theme > goal

Thematic hierarchy

(8) John **gave** the book to Bill.

agent theme goal

→ agent > theme > goal

(9) John **gave** Bill the book.

agent goal theme

Thematic hierarchy

(8) John **gave** the book to Bill. → agent > theme > goal

agent — theme — goal

(9) John **gave** Bill the book. → agent > goal > theme

agent — goal — theme

Outline

1 Theta grids

2 Unaccusative verbs

3 Thematic hierarchy

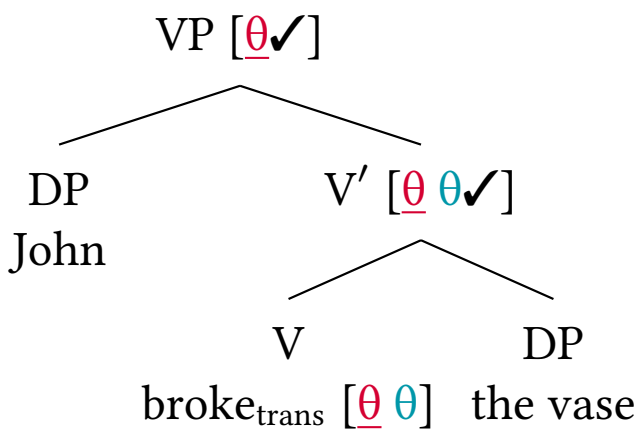
4 Morphological operations

5 Decompositional vs projectionist approaches

Causative alternation

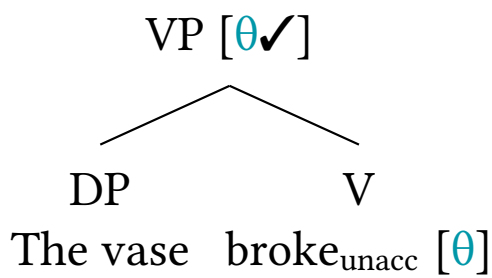
(10) John **broke** the vase.

subject=agent; object=theme

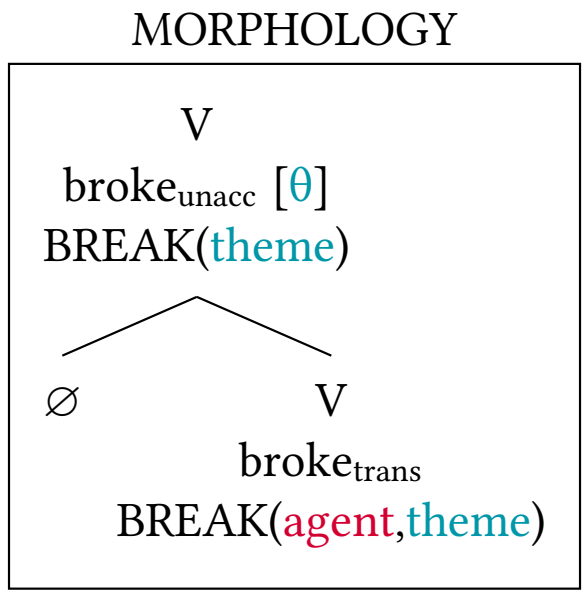


(11) The vase **broke**.

subject=theme



Morphological operations



Morphological operations

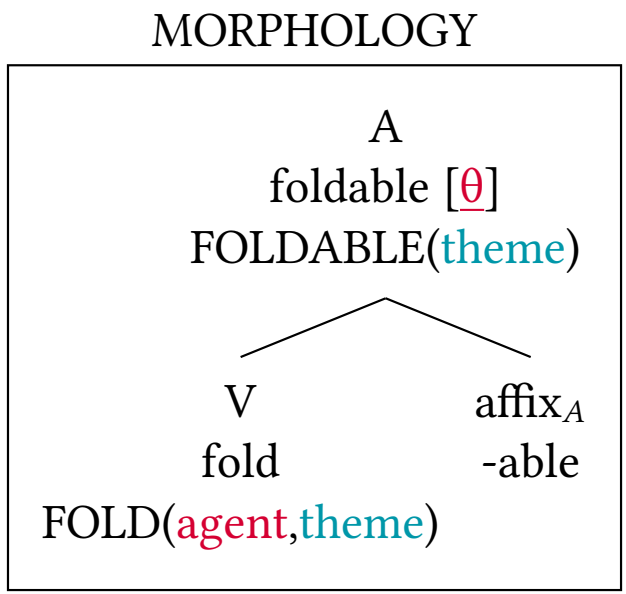
(12) I **folded** the chair.

(13) The chair is **foldable**.

Morphological operations

(12) I **folded** the chair.

(13) The chair is **foldable**.



Morphological operations

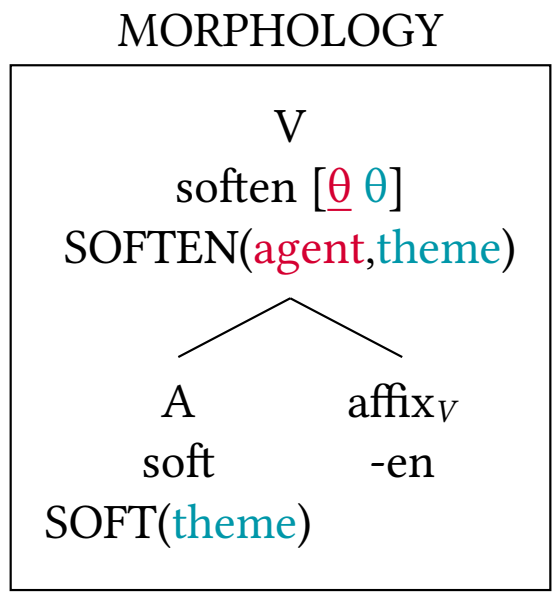
(14) The wax is **soft**.

(15) I **softened** the wax.

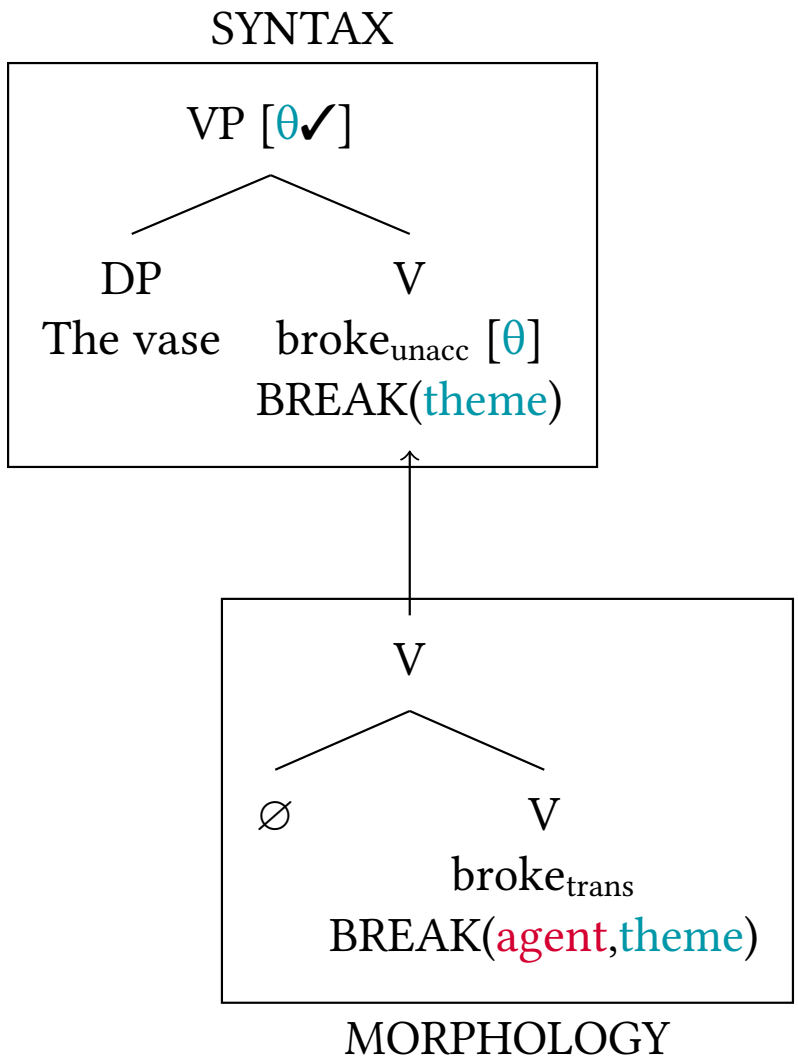
Morphological operations

(14) The wax is **soft**.

(15) I **softened** the wax.

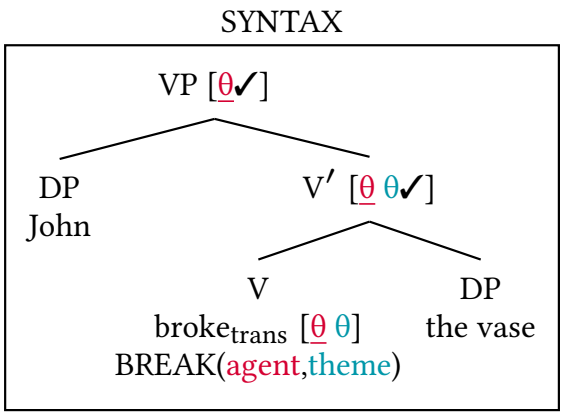


Morphological operations

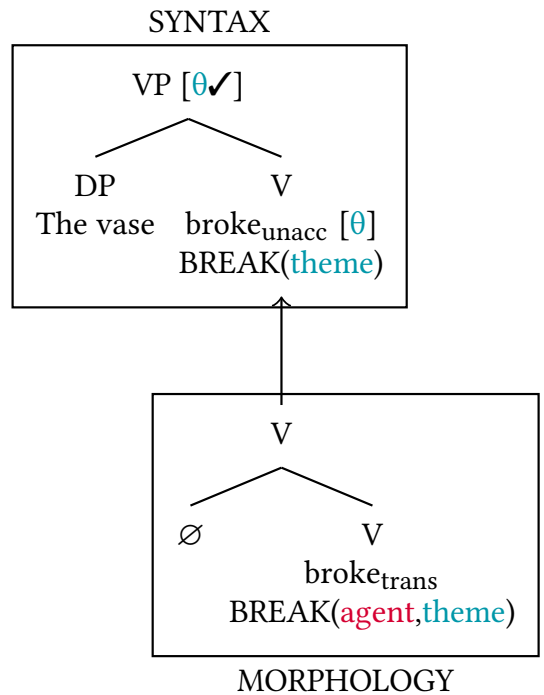


Causative alternation

(16) John **broke** the vase.
subject=agent object=theme



(17) The vase **broke**.
subject=theme



Outline

1 Theta grids

2 Unaccusative verbs

3 Thematic hierarchy

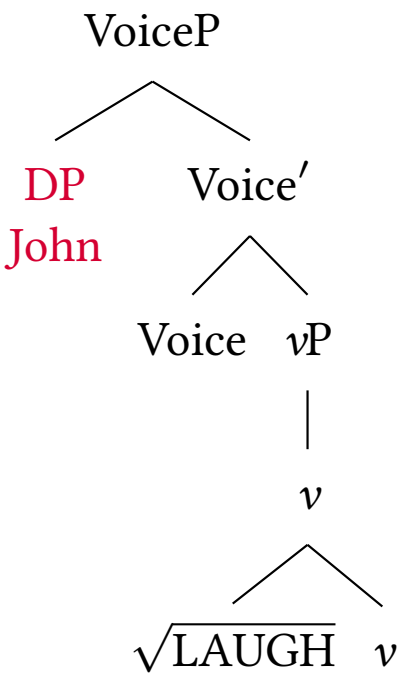
4 Morphological operations

5 Decompositional vs projectionist approaches

Decompositional approach: intransitive verbs

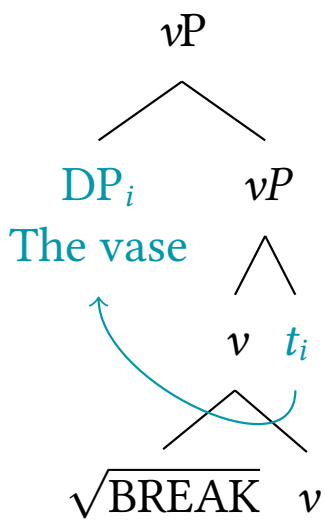
(18) John **laughed**.

subject=agent



(19) The vase **broke**.

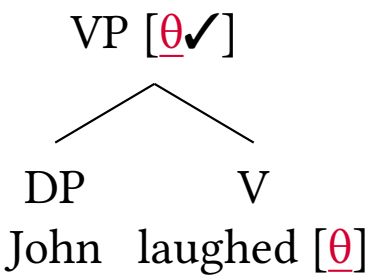
subject=theme



Projectionist approach: intransitive verbs

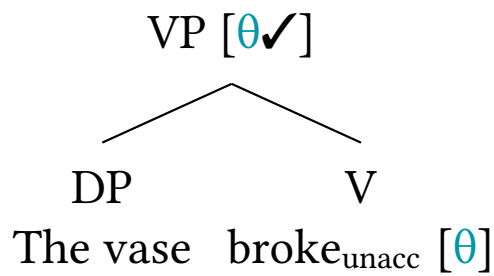
(20) John **laughed** .

subject=agent



(21) The vase **broke** .

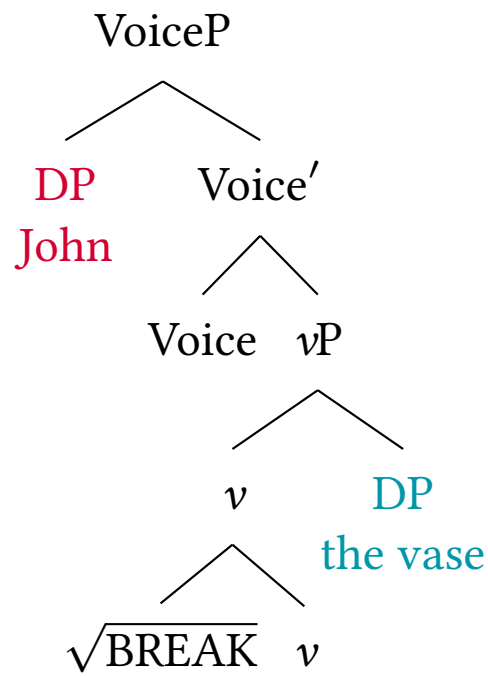
subject=theme



Decompositional approach: causative alternation

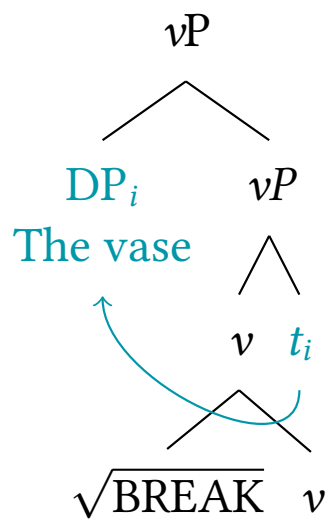
(22) John broke the vase.

subject=agent; object=theme



(23) The vase broke.

subject=theme

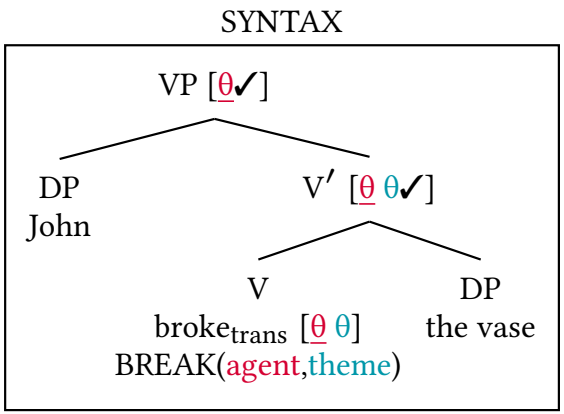


Projectionist approach: causative alternation

(24) John **broke** the vase.

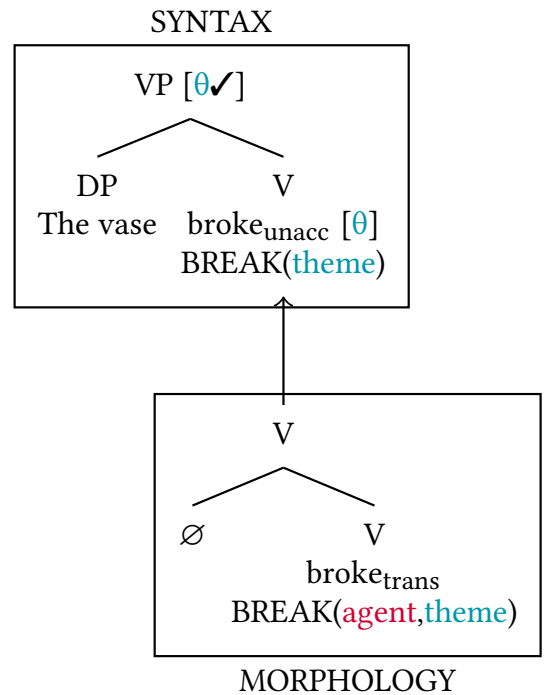
subject=agent

object=theme



(25) The vase **broke**.

subject=theme



Summary

1. What is one thing that you learned today?
2. What is one question that you have?

Bonus: unaccusative verbs in English

(26) The vase broke$_{\text{unacc}}$ [θ].

(27) John broke$_{\text{trans}}$ [θ θ]the vase.

Bonus: unaccusative verbs in Mandarin

Mandarin Chinese:

Unaccusative / anticausative alternant:

(28) *Huāpíng* *pò-le.*
vase break-PFV
'The vase broke.'

Transitive / causative alternant:

(29) **Zhāngsān* *pò-le* *huāpíng.*
Zhangsan break-PFV vase
'Zhangsan broke the vase.'

Bonus: unaccusative verbs in Mandarin

Mandarin Chinese (Beijing dialect):

Unaccusative / anticausative alternant:

(30) *Huāpíng* *cèi-le.*
vase break-PFV
'The vase broke.'

Transitive / causative alternant:

(31) *Zhāngsān* *cèi-le* *huāpíng.*
Zhangsan break-PFV vase
'Zhangsan broke the vase.'

Bonus: unaccusative verbs in English

(32) The vase broke$_{\text{unacc}}$ [θ].

(33) John broke$_{\text{trans}}$ [$\underline{\theta}$ θ]the vase.

Bonus: unaccusative verbs in English

(32) The vase broke$_{\text{unacc}}$ [θ].

(33) John broke$_{\text{trans}}$ [θ̲ θ]the vase.

(34) The package arrived$_{\text{unacc}}$ [θ].

(35) *John arrived$_{\text{trans}}$ [θ̲ θ]the package.

References I

Neeleman, Ad, and Hans van de Koot. 2002. The Configurational Matrix. *Linguistic Inquiry* 33:529–574.