Language and thought

Day 5: How do we decide between linguistic theories?

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Short Courses 2024
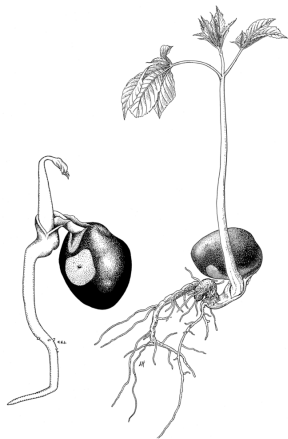
29 Nov 2024

taywenkai.com
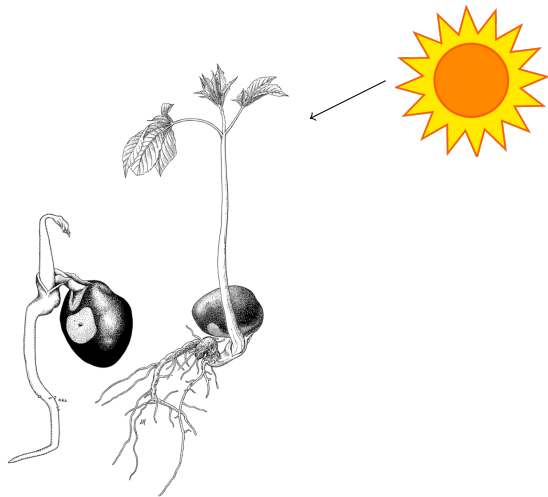
Outline

1 Recap

2 Resultatives

3 Puzzle

4 Decompositional vs projectionist approaches
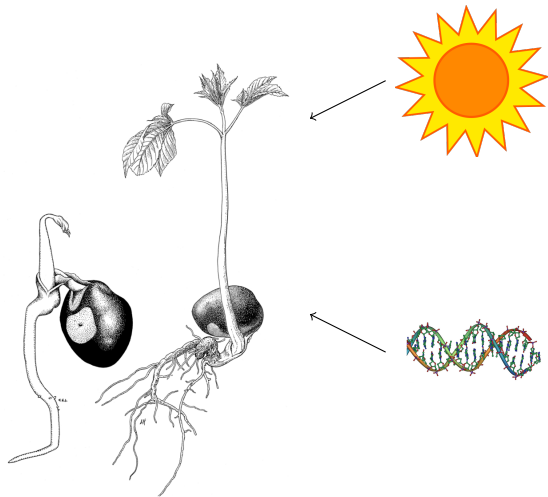
Two approaches to argument structure

Two approaches to argument structure

decompositional
configurational

Two approaches to argument structure
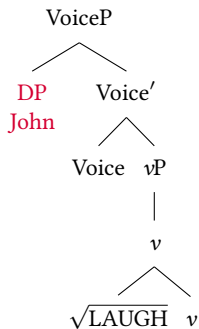

decompositional
configurational

projectionist
lexicalist

Decompositional approach: intransitive verbs

(1) John **laughed** .

subject=agent

```
        VoiceP
        /    \
      DP    Voice′
     John    /   \
         Voice   vP
                  |
                  v
                 / \
           √LAUGH  v
```

(2) The vase **broke** .

subject=theme

```
          vP
         /  \
      DP_i   vP
    The vase  / \
            v   t_i
           / \
      √BREAK  v
```
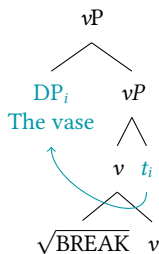
Projectionist approach: intransitive verbs

(3) John **laughed** .

subject=agent

VP [θ✓]

DP   V

John   laughed [θ]
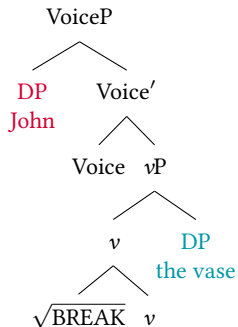
(4) The vase **broke** .

subject=theme

VP [θ✓]

DP   V
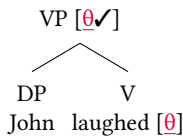
The vase   broke$_{unacc}$ [θ]
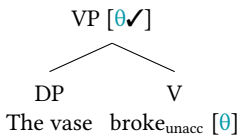
Decompositional approach: causative alternation

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

VoiceP
- DP — Voice′
  - John
  - Voice — vP
    - v — DP
      - √BREAK v — the vase

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

vP
- DP$_i$ — vP
  - The vase
  - v — t$_i$
    - √BREAK v
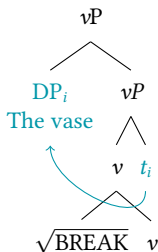
Projectionist approach: causative alternation

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

SYNTAX

VP [θ✓]

DP — John

V′ [θ θ✓]

V — broke_trans [θ θ]
BREAK(agent,theme)
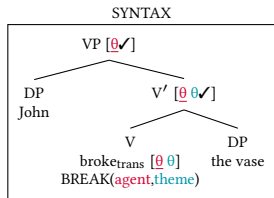
DP — the vase

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

SYNTAX

VP [θ✓]

DP — The vase

V — broke_unacc [θ]
BREAK(theme)

V

∅   V
broke_trans
BREAK(agent,theme)

MORPHOLOGY

Scientific method
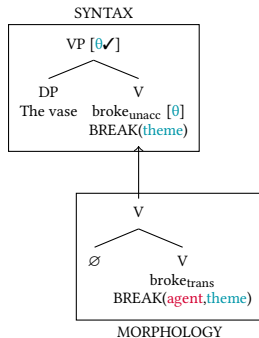
Question

↓

Hypothesis

↓

Prediction

↓

Experiment

Outline

Argument structure

(9) John **rode** the horse.

agent ← theme →

✓   ✗
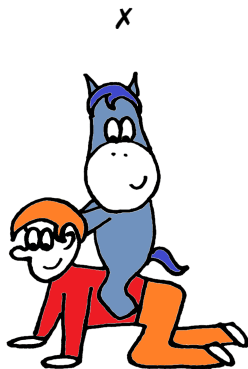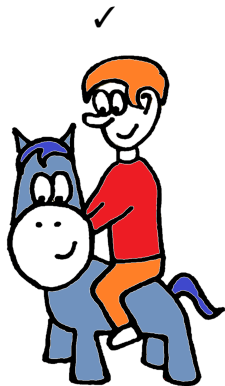
Argument structure of resultatives

(10) John **rode** the horse **tired** .

agent · theme
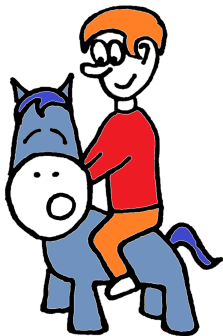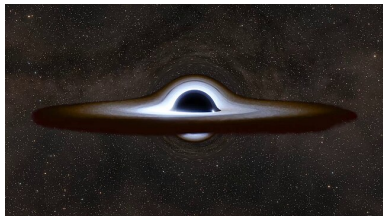
Theoretical linguistics

Resultatives

(11) John **rode** the horse.

Resultatives

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(12) John **rode** the horse **tired**.

Resultatives

(11) John **rode** the horse.

(12) John **rode** the horse **tired**.

  = John <u>caused</u> the horse to <u>become</u> tired by riding it.

Resultatives

(11) John **rode** the horse.

(12) John **rode** the horse **tired**. ≈ John $\underbrace{\textbf{rode-tired}}_{\text{complex predicate}}$ the horse.

= John <u>caused</u> the horse to <u>become</u> tired by riding it.

Resultatives

(11) John **rode** the horse.

(12) John **rode** the horse **tired**. ≈ John **rode-∅-tired** the horse.

  $\underbrace{\phantom{\text{rode-∅-tired}}}_{\text{complex predicate}}$

= John <u>caused</u> the horse to <u>become</u> tired by riding it.

Outline

Puzzle

In English, a verb projects the same obligatory arguments in simple sentences and in resultatives.

(13)   John **hammered** the metal.
agent · theme

(14)   John **hammered** the metal **flat**.
agent · theme

Puzzle

In English resultatives, a verb cannot omit an obligatory agent...

(15) *[The metal]$_i$ **hammered** t_i **flat**.

Puzzle

In English resultatives, a verb cannot omit an obligatory agent...

(15) *[The metal]$_i$ **hammered** t_i **flat**.

or an obligatory theme.

(16) *John **hammered** his back **sore**.

Puzzle

In Mandarin V-V resultatives, the first verb (V1) can omit its agent...

(17) *Yīfú_i*   **xǐ**-   **gānjìng**- *le*   *t_i*.
       clothes wash- clean- PFV

       'The clothes got clean from washing [i.e. being washed].'   (Williams 2005:161)

Puzzle

In Mandarin V-V resultatives, the first verb (V1) can omit its agent...

(17)   *Yīfú*_i   **xǐ**-   **gānjìng**-   *le*   *t*_i.
      clothes   wash-   clean-   PFV

     'The clothes got clean from washing [i.e. being washed].'   (Williams 2005:161)

or its theme.

(18)   *Lǎo Wèi*   **qiē**-   **dùn**-   *le*   *càidāo.*
      Lao Wei   cut-   dull-   PFV   knife

     'Lao Wei made the knife dull by cutting something.' (adapted from Williams 2005:61)

Outline

Decompositional vs projectionist approaches

(19) *John cut the knife dull.

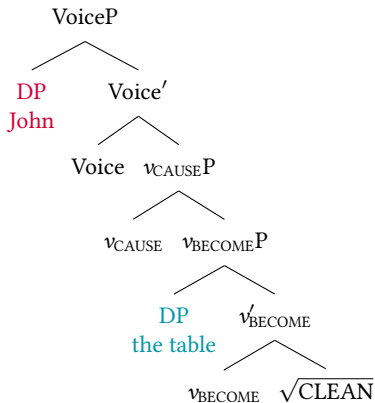(20) *Lǎo Wèi*   *qiē-dùn-le*   *càidāo.*
     Lao Wei   cut-dull-PFV   knife

'Lao Wei made the knife dull by cutting something.'

(adapted from Williams 2005:61)

Decompositional approach

(21) John cleaned the table.
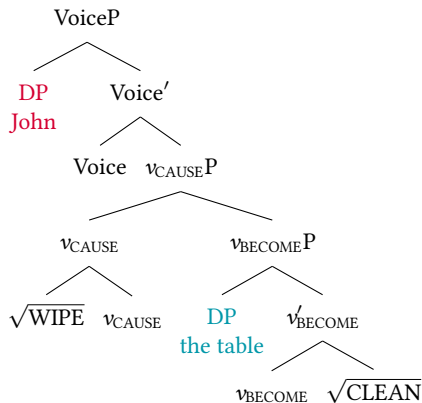
VoiceP
- DP **John**
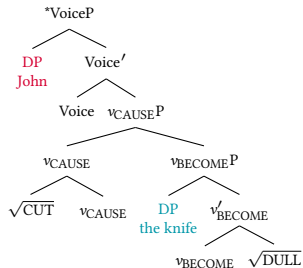- Voice′
  - Voice
  - v_{CAUSE}P
    - v_{CAUSE}
    - v_{BECOME}P
      - DP **the table**
      - $v′_{\text{BECOME}}$
        - v_{BECOME}
        - $\sqrt{\text{CLEAN}}$

Decompositional approach

(22) John wiped the table clean.

VoiceP
- DP: John
- Voice′
  - Voice
  - v_{CAUSE}P
    - v_{CAUSE}
      - $\sqrt{\text{WIPE}}$
      - v_{CAUSE}
    - v_{BECOME}P
      - DP: the table
      - $v′_{\text{BECOME}}$
        - v_{BECOME}
        - $\sqrt{\text{CLEAN}}$

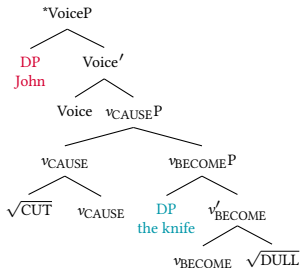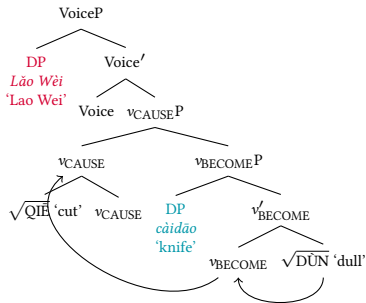# Decompositional approach

(23) *John cut the knife dull.

(24) *Lǎo Wèi qiē-dùn-le càidāo.*

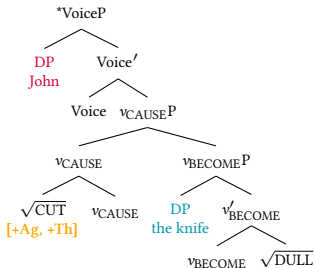# Decompositional approach

(23) *John cut the knife dull.
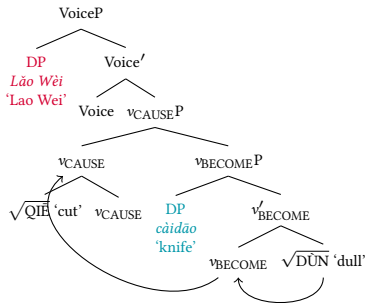
(24) *Lǎo Wèi qiē-dùn-le càidāo.*

Decompositional approach

(23) *John cut the knife dull.

(24) *Lǎo Wèi qiē-dùn-le càidāo.*

Projectionist approach

(25) John **rode** the horse.

(26) John **rode** the horse **tired**. ≈ John **rode-∅-tired** the horse.
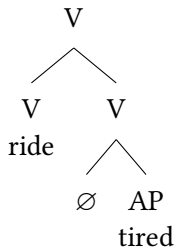
   complex predicate

   = John <u>caused</u> the horse to <u>become</u> tired by riding it.

Projectionist approach

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(26) John **rode** the horse **tired**. ≈ John **rode-∅-tired** the horse.

<u>complex predicate</u>

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Projectionist approach

(27) *John cut the knife dull.

(28) *Lǎo Wèi qiē-dùn-le càidāo.*

SYNTAX

```
        V
       / \
      V   V
    cut   / \
         ∅   AP
            dull
```

Projectionist approach

(27) *John cut the knife dull.

SYNTAX
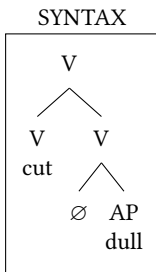
(28) *Lǎo Wèi qiē-dùn-le càidāo.*
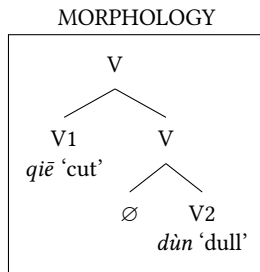
MORPHOLOGY

Projectionist approach

MORPHOLOGY

V
broke_{unacc} [θ]
BREAK(theme)

∅   V
broke_{trans}
BREAK(agent,theme)
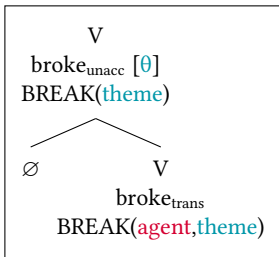
Projectionist approach

(29) *John cut the knife dull.
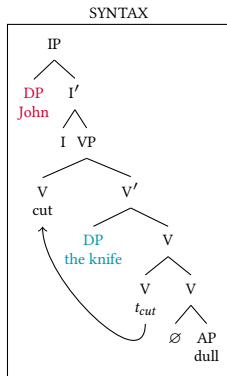
(30) *Lǎo Wèi qiē-dùn-le càidāo.*
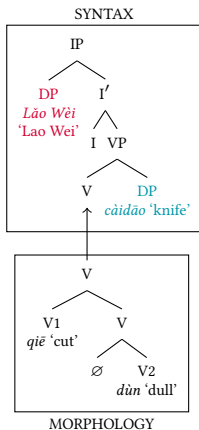
Decompositional vs projectionist approaches

(31) *John cut the knife dull.

(32) *Lǎo Wèi*   *qiē-dùn-le*   *càidāo.*
Lao Wei   cut-dull-PFV   knife

'Lao Wei made the knife dull by cutting something.'

(adapted from Williams 2005:61)

Choosing between theories

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- There are some theories that cannot be correct.

Choosing between theories

- There are some theories that cannot be correct.

- If there is no evidence against a theory, why not live as if it the theory is true?

Summary

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- Language reflects the way we think about the world – in terms of events, causation and participants.

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- Language reflects the way we think about the world –in terms of events, causation and participants.

- There must be a procedure to link event participants to syntactic arguments.

- Two competing theories: decompositional vs projectionist approach.

- Research into resultatives allows us to decide between these two theories.

Feedback

Next steps

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- I highly recommend Levin (2013), especially the articles listed in the section on "General Overviews".
    - Comrie (1993) and Andrews (1988) go over what we discussed in greater detail.
    - Chapter 5 of Butt (2006) provides overviews of various linking theories: Jackendoff's lexical decomposition, Dowty's proto-roles, Kiparsky's linking theory which developed into Wunderlich's lexical decomposition grammar, and lexical functional grammar (LFG).

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- Reinhart (2002) works out a set of linking rules: the Theta System. See Part 1 and the Appendix.

References I

Andrews, Avery D. 1988. Lexical structure. In *Linguistics: The Cambridge Survey*, ed. Frederick J. Newmeyer, volume 1, 60–88. Cambridge, UK: Cambridge University Press.

Butt, Miriam. 2006. *Theories of case.* Cambridge, UK: Cambridge University Press.

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