

The Generative Lexicon Theory

Course

Semantics: The Structure of Concepts

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The Generative Lexicon (GL) theory

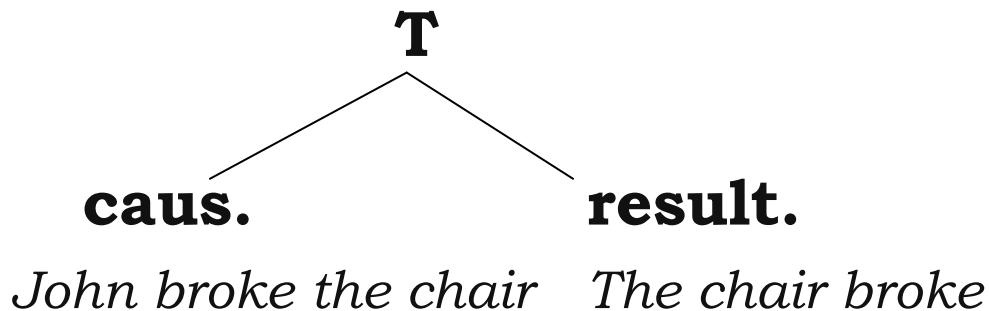
- The main premise assumed within the GL is that the lexicon is the **creative, genuinely generative element** of the language.
- The lexicon is constituted by a set of **levels of representation** and **mechanisms** which allow
 - to describe a good deal of the richness of the lexicon
 - to account for its relation with other linguistic levels, syntax and morphology

The levels of representation within GL:

Argument structure: number and type of arguments in a predicate

Event structure: aspectual characteristics of the predicate in terms of subevents, which can be focused depending on the context and thus made visible for syntax and semantics:

break ES



The levels of representation within GL: *qualia*

Qualia Structure: is the “most lexical” part of GL. It contains **prototypical information** associated with entities, events and properties denoted by the words. This information can be defined as the basic syntax of lexical meaning (structural indications allowing to interpret it), parameters that define and constrain lexical semantics.

Aristotelian modes of explanation or *aitia*

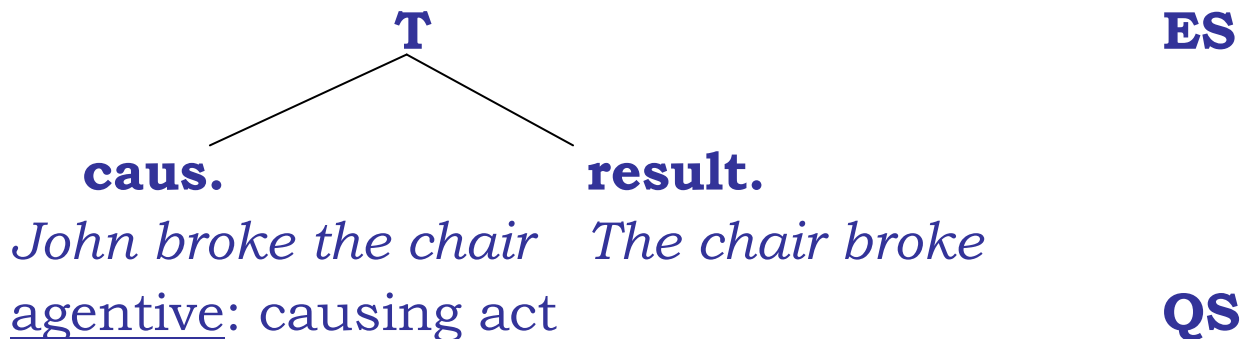
The levels of representation in GL: *qualia*

4 roles:

Agentive: encodes the factors involved in the origin or creation of the entity or the event (creator, artifact, natural class, causal chain, etc.)

house [entity]: QS { ...
...
agentive: build

break [event]



The levels of representation in GL: *qualia*

Constitutive: encodes information about the internal constituency of

-entities:

house: QS $\left\{ \begin{array}{l} \dots \\ \dots \\ \text{constit.: roof, windows, basement...} \end{array} \right.$

-events: number and type of subevents

break: [e1, e2]

The levels of representation in GL: *qualia*

Formal: encodes distinctive features of entities (spatial orientation, size, form, dimensionality, color) and their relation with other elements within the same domain (taxonomic relation ISA, 'is a kind of', a house *is a kind of* building):

house: QS { ...
...
formal: building of size x, of ... shape...

-events: resulting subevent

break

T

ES

caus.

result.

John broke the chair The chair broke

agentive: causing act formal: result 'be broken'

QS

The levels of representation in GL: *qualia*

squirrel:

QS { agentive (origin):
constitutive (constituency):
formal (ISA, size, color...):
telic: (purpose):

car:

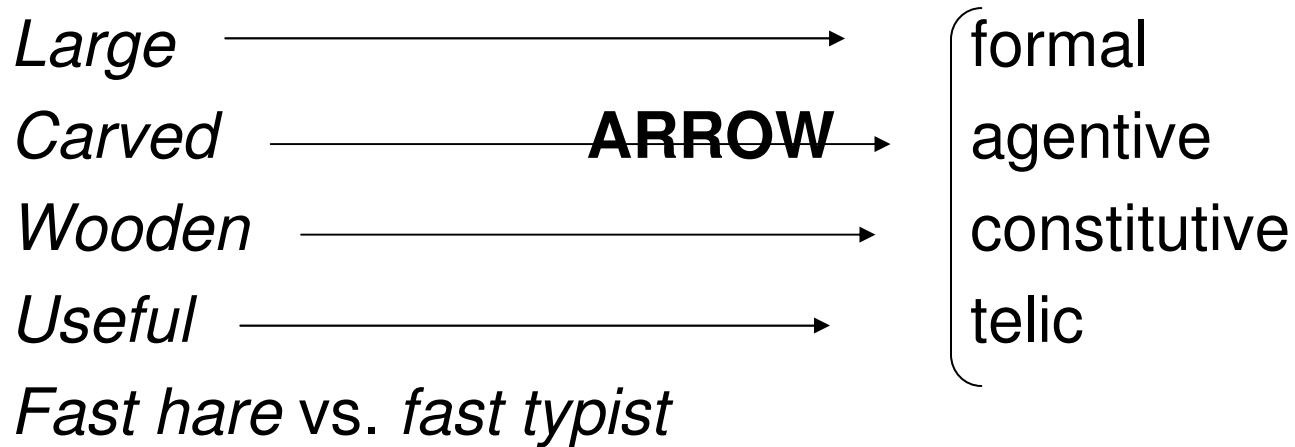
QS { agentive:
constitutive:
formal:
telic

build:

QS { agentive:
constitutive:
formal:
telic:

Qualia in different linguistic phenomena

- Adjectival modification (Pustejovsky, 2000):



- DO interpretation in a predicate
 - a. Can you shine the lamp over here? (TELIC)
 - b. Mary hung the lamp in the kitchen. (FORMAL)
 - c. John assembled the lamp. (AGENTIVE)

Qualia in different linguistic phenomena

- Phase verbs interpretation

begin/finish a beer

begin/finish the book

?begin/finish the squirrel

- 'Former x'

former president (telic)

old friend (formal and telic)

Generative mechanisms in GL

- Allow to explain how new word senses are generated when words are combined within a predicate.
- Two types of mechanisms:
 - those related with the constraints the predicate imposes on the arguments
 - those involved in cases when the arguments modify the predicate semantically

Generative mechanisms in GL: co-composition

2nd type: **co-composition**

It is triggered by partial identity of values of QS of the predicate and the argument:

Why paint a picture is a creation predicate unlike paint a wall?

wall QS

agentive: build
formal: part of a construction
telic: support the roof
constitutive: bricks, concrete, etc.

picture QS

agentive: paint
formal: piece of art
telic: aesthetic pleasure
constitutive: painting, canvas...

Paint is in the agentive role of *picture*, that is why
paint+picture=CREATION

Generative mechanisms in GL

- 1st type of mechanisms: when the predicate “rules”
- ✓ **Selection**: the type required by the predicate is fully satisfied by the argument: if *build* selects as direct objects nouns of the type ‘building’, then *John is building a hut* is a case of selection.

OR: it could be a case of **type accommodation**: the type required by the predicate is inherited by the argument (*hut* inherits the semantic type ‘construction’).

Generative mechanisms in GL

- ✓ **Type coercion:** the predicate imposes a certain type on its argument. 2 subtypes:
 - selective binding** (sub-selection or exploitation): one of the aspects of the meaning of the predicate satisfies the predicate: *build a hospital* is possible because its type is ‘building’ and ‘sanitary institution’

-**introduction:** when the argument is “wrapped” by the type required by the predicate:

The White House denied the attack

[human] *deny* [proposition]

White House [location→human]

attack [event →proposition]

Bibliography

- Pustejovsky, James (1995): *The Generative Lexicon*, MIT Press, Cambridge, Massachusetts.
- Pustejovsky, James (2000): “Events and the Semantics of Opposition”, in C. Tenny and J. Pustejovsky (eds.) 445-482.