

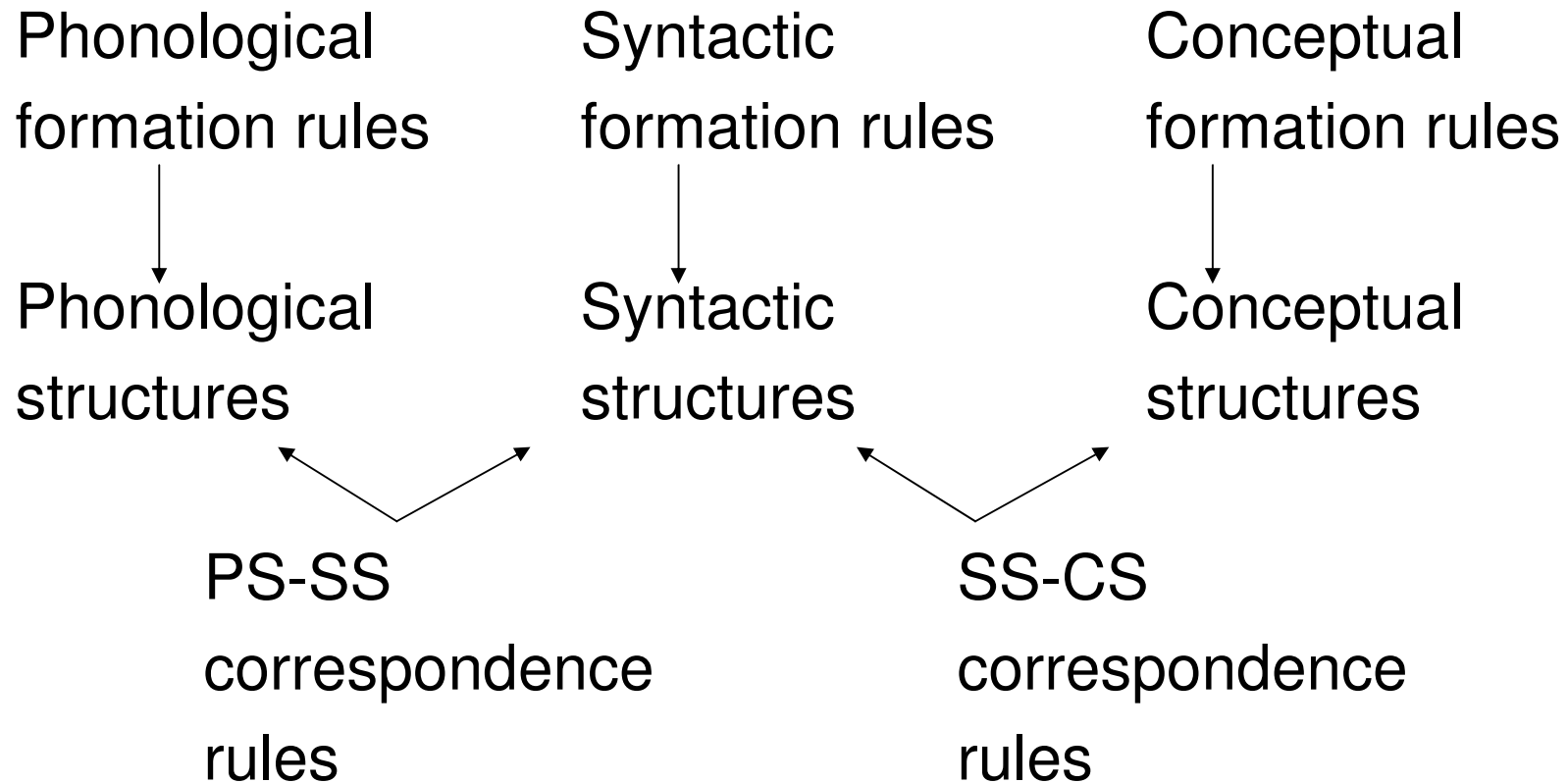
Lexical-conceptual structure (Ray Jackendoff)

Course

Semantics: The Structure of Concepts

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General architecture of the language faculty



The conceptual structure

- Jackendoff (2002): “Conceptual structure is not a part of language per se – it is a part of thought. It is the locus for the understanding of linguistic utterances in context, incorporating pragmatic considerations and “world knowledge”; it is cognitive structure in terms of which reasoning and planning take place”.
- Syntactically transparent semantic composition

All elements of content in the meaning of a sentence are found in the **lexical conceptual structures (LCSs)** of the lexical items composing the sentence.

Semantic decomposition can be used to investigate the mapping between semantics and grammatical processes.

Conceptual structure elements: categories, functions, arguments

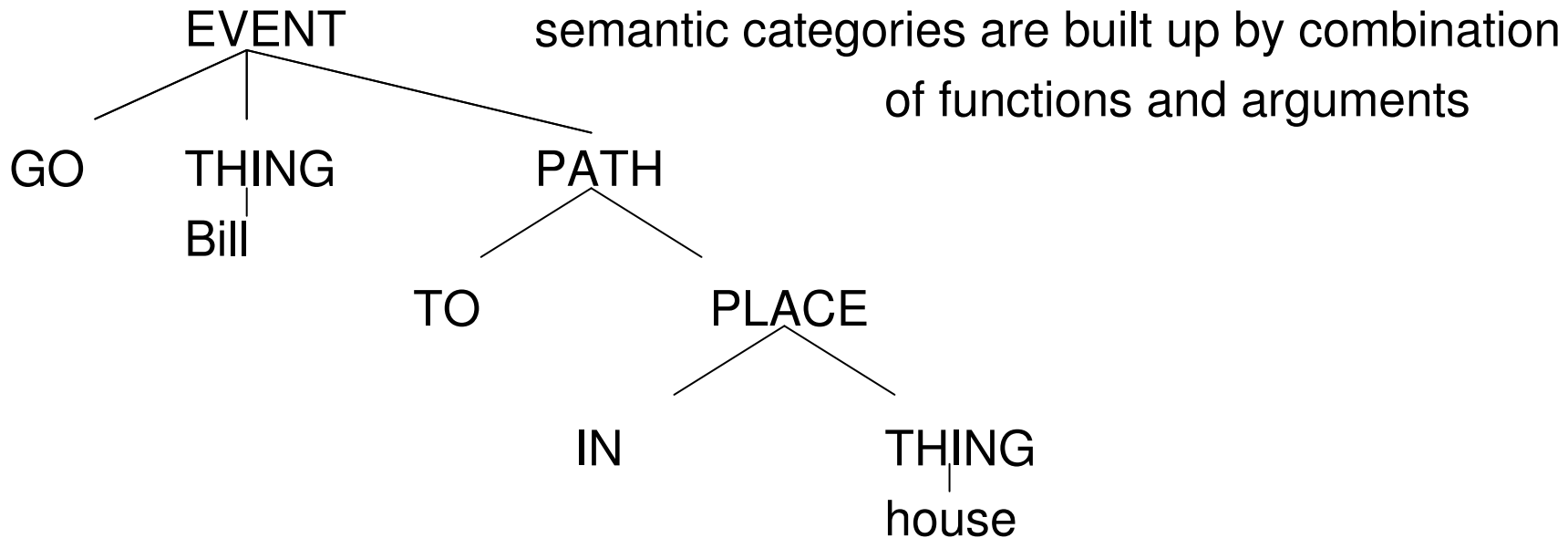
- Universal semantic categories: Event, State, Object (Thing), Path, Place, Property.

a. Syntax and phonology:

[John]_i went_j [into_k [the room]_m]

b. Conceptual structure:

[_{Event} GO (_{[Thing} JOHN]_i, _{]Path} TO (_{[Place} IN (_{[Thing} ROOM]_m))]]_k]_j



Localist approach to semantics

- Spatial terms are used to structure non-spatial domains: time, possession, property, etc.

(1) a. Carl is in the pub. (Loc)

b. [State BE_{Loc} ([Thing CARL], [Place IN ([Thing PUB]])])]

(2) a. The party is on Saturday. (Temp)

b. [State BE_{Temp} ([Thing PARTY], [Place AT ([Time SATURDAY]])])]

(3) a. The theatre is full. (Property)

b. [State BE_{Ident} ([THEATRE], [Place AT ([Property FULL]])])]

(4) a. This book belongs to John. (Poss)

b. [State BE_{Poss} ([Thing BOOK], [Place AT ([Thing JOHN]])])]

Types of events

a. [EVENT] → [Event GO ([THING], [PATH])]

[Event STAY ([THING], [PLACE])]

b. [EVENT] → $\left[\begin{array}{c} \text{CAUSE} \\ \text{Event} \end{array} \left(\left\{ \begin{array}{c} \text{THING} \\ \text{EVENT} \end{array} \right\}, [\text{EVENT}] \right) \right]$

c. [STATE] → $\left\{ \begin{array}{l} [\text{State BE ([THING], [PLACE])}] \\ [\text{State ORIENT ([THING], [PATH])}] \\ [\text{State EXT ([THING], [PATH])}] \end{array} \right\}$

a. *John ran into the room.*

Bill stayed in the kitchen

b. *Harry prevented Sam from going away.*

The crash caused hundreds of victims.

c. *Bill is in the kitchen.*

The sign points towards New York.

The road goes from New York to San Francisco.

Aspectual functions

- CAUSE, INCH (state→event), PERF (resultant phase)

a. [Event INC ([State])]

Snow covered the hills.

b. [State PERF ([Event])]

Sue has eaten lunch.

Transcategorial semantic features

Allow to describe entities and events.

[±bounded] [±internal structure]

- a. +b, -i: individuals (*a pig*)
delimited events with duration (*John ran to the shop*);
- b. +b, +i: groups (*committee, government*)
delimited iterative events (*The light flashed until dawn*);
- c. -b, -i: substances (*pork, sand*)
homogeneous non-delimited events (*John slept*);
- d. -b, +i: aggregates (*cars, cattle*)
iterative non-delimited events (*The light was flashing*).

Semantic functions

- PL (plural) – ELT (element of)

$[+b] \rightarrow [-b,+i]; [-b, +i] \rightarrow [+b, -i]$

chair \leftrightarrow *chairs*; *rice* \leftrightarrow *grain of rice*

The light flashed (once) \rightarrow *The light flashed (continuously)*

- COMP (composed of) - (GR) universal grinder

$[-b, -i] \rightarrow [+b, -i], [+b, -i] \rightarrow [-b, -i]$

a pig \leftrightarrow *pig*, *a coffee* \leftrightarrow *coffee*

John ran to the store \leftrightarrow *John was running to the store*

- (CONT) containing – (PART) partitive

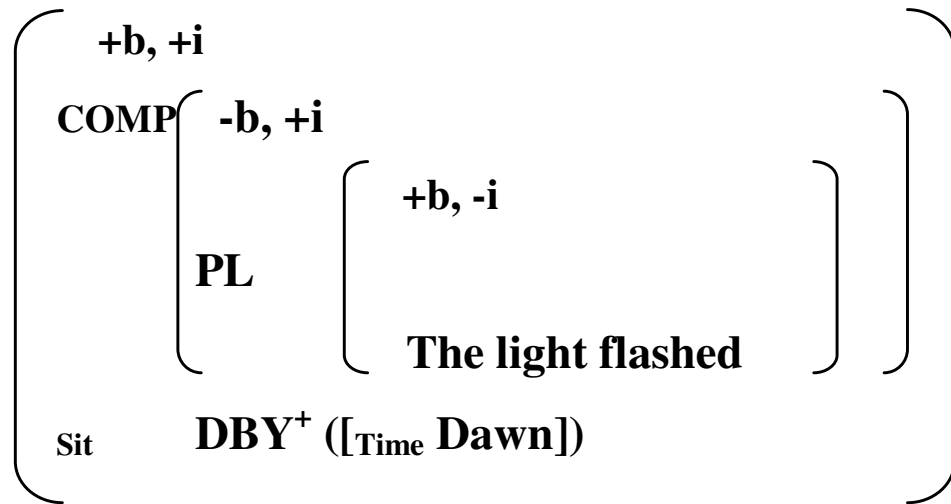
$[+b, -i] \rightarrow [+b, -i], [-b, -i] \rightarrow [-b, -i]$

table \leftrightarrow *leg of the table*, *stew* \leftrightarrow *beef stew*

John broke the chair \leftrightarrow *The chair broke*

Semantic algebra: putting it all together

- *The light flashed until dawn*



Bibliography

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