Semantics 2

Simple sentences, ~~copula~~

Manfred Sailer

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Literary scenario for the class: Back to the Future

Characters:

Marty McFly

Loraine Baines-McFly

George McFly

Dr. Emmett "Doc" Brown

Biff Tannen

Jennifer Parker

....

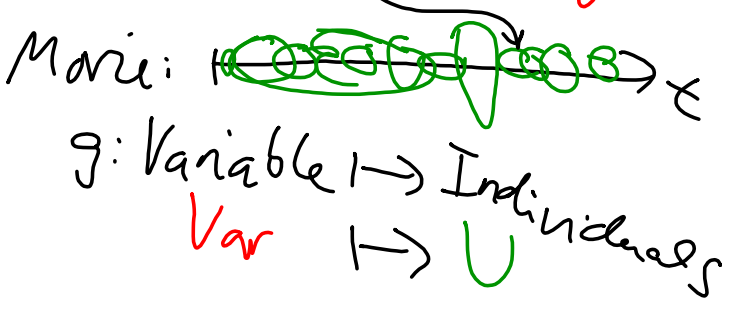
Homework for today

- Read Chapter 3 of the textbook, p.79-104
- Provide the logical form of the sentence: Marty travelled.
- Compute the truth conditions of the sentence in your model.
- Provide the lexical entries and the syntactic analysis of the sentence (indicate the features PHON, HEAD, and SUBCAT)

Marty travelled.

$travel_1(marty)$ (without "event")

$travel_2(u, marty)$



$[\![\text{travel}_2(u, \text{marty})]\!]^{M,g} = \text{true}$

iff $\langle [\![u]\!]^{M,g}, [\![\text{marty}]\!]^{M,g} \rangle$ is in $[\![\text{travel}_2]\!]^{M,g}$

iff $\langle g(u), I(\text{marty}) \rangle$ is in $I(\text{travel}_2)$

iff $\langle$

, $\rangle$ is in

$\{\langle e, x \rangle \mid e$ is a travel$_2$ event with x as the traveller$\}$

∴ Since this is the case,

$[\![\text{travel}_2(u, \text{marty})]\!]^{M,g}$

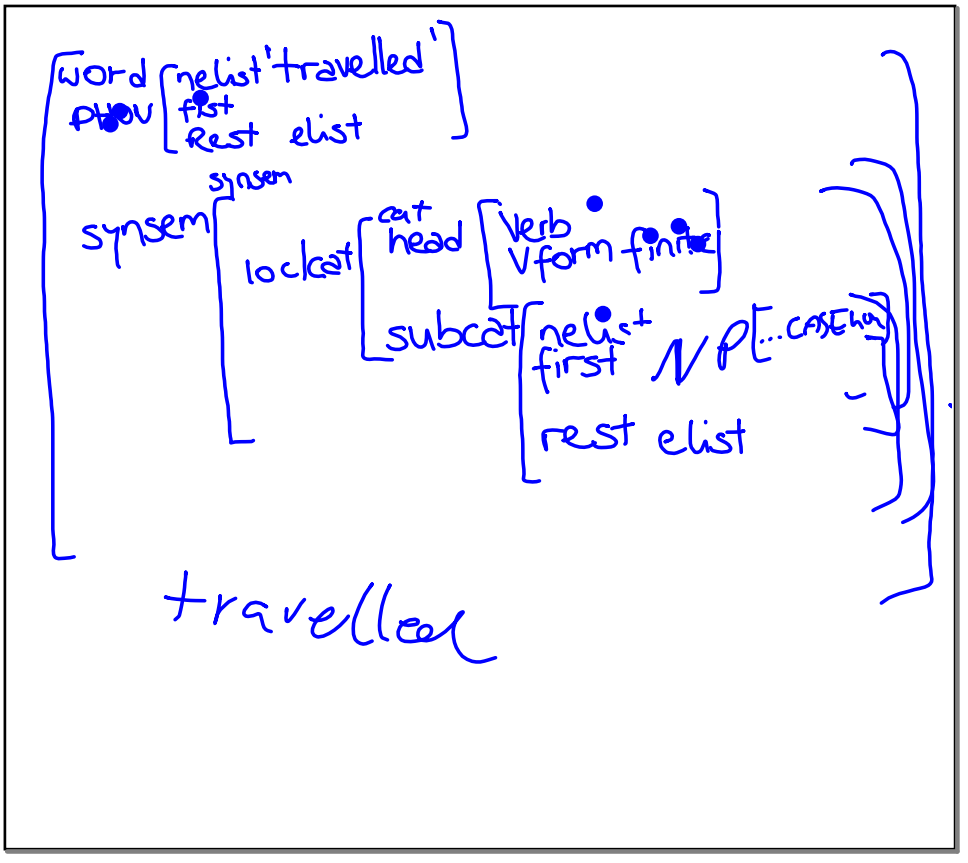
$= \text{true}$.

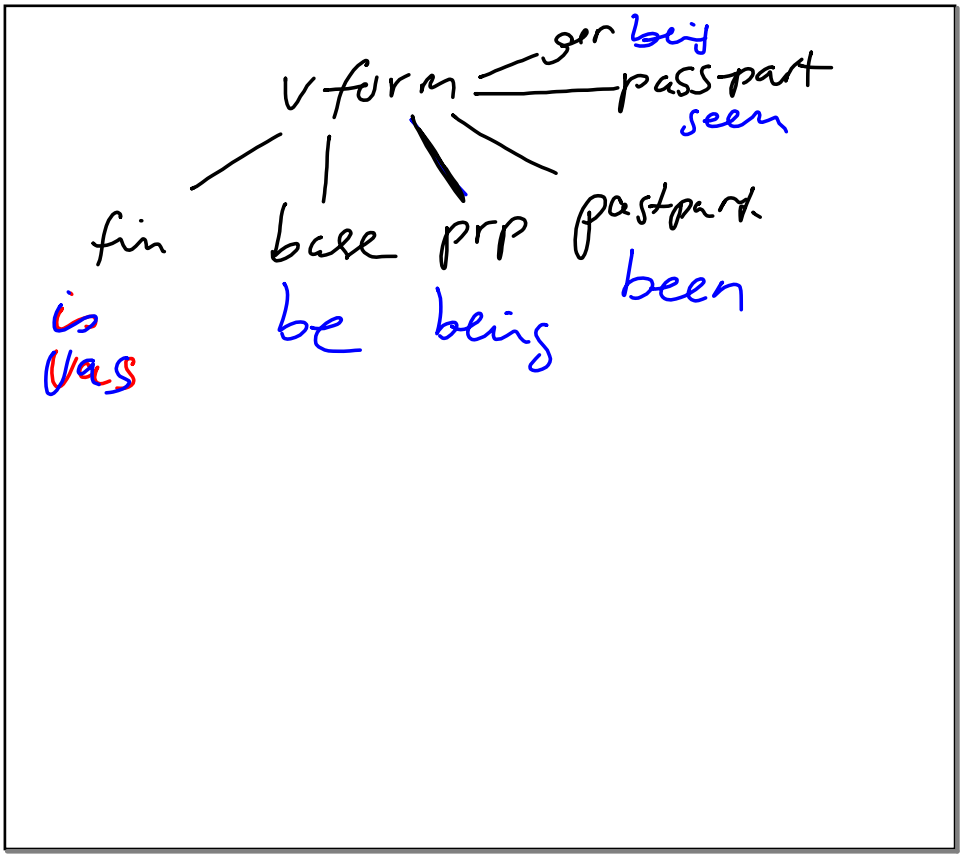
$g(u) =$

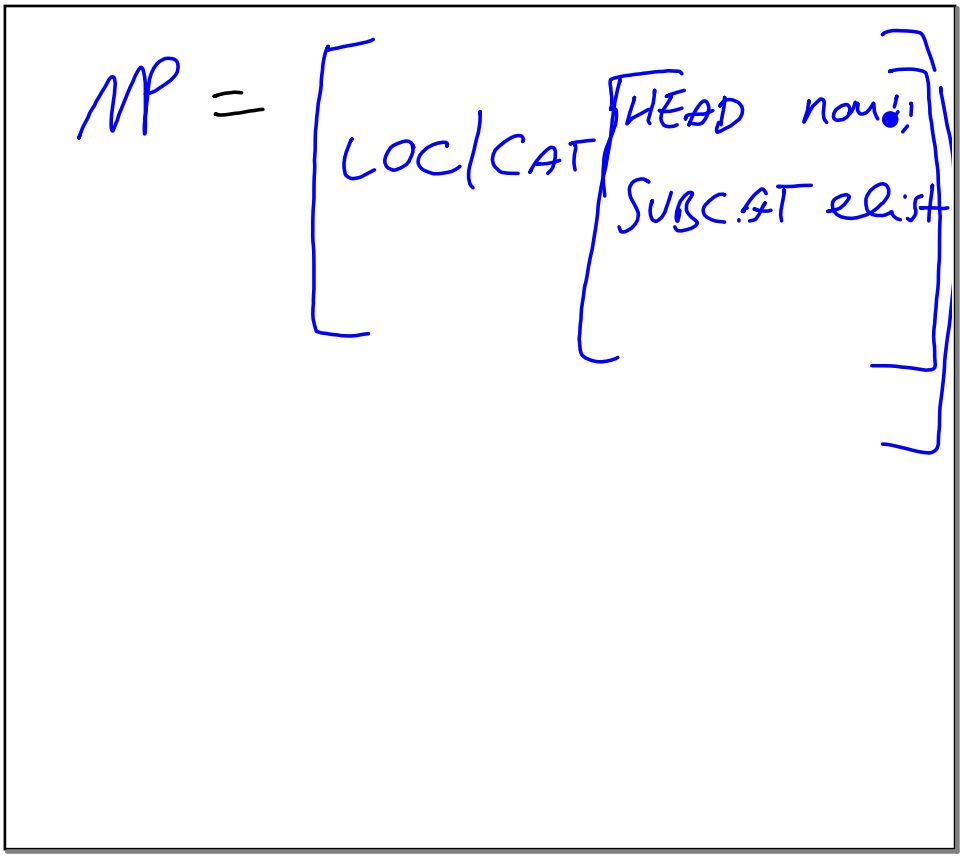
<'marty'>

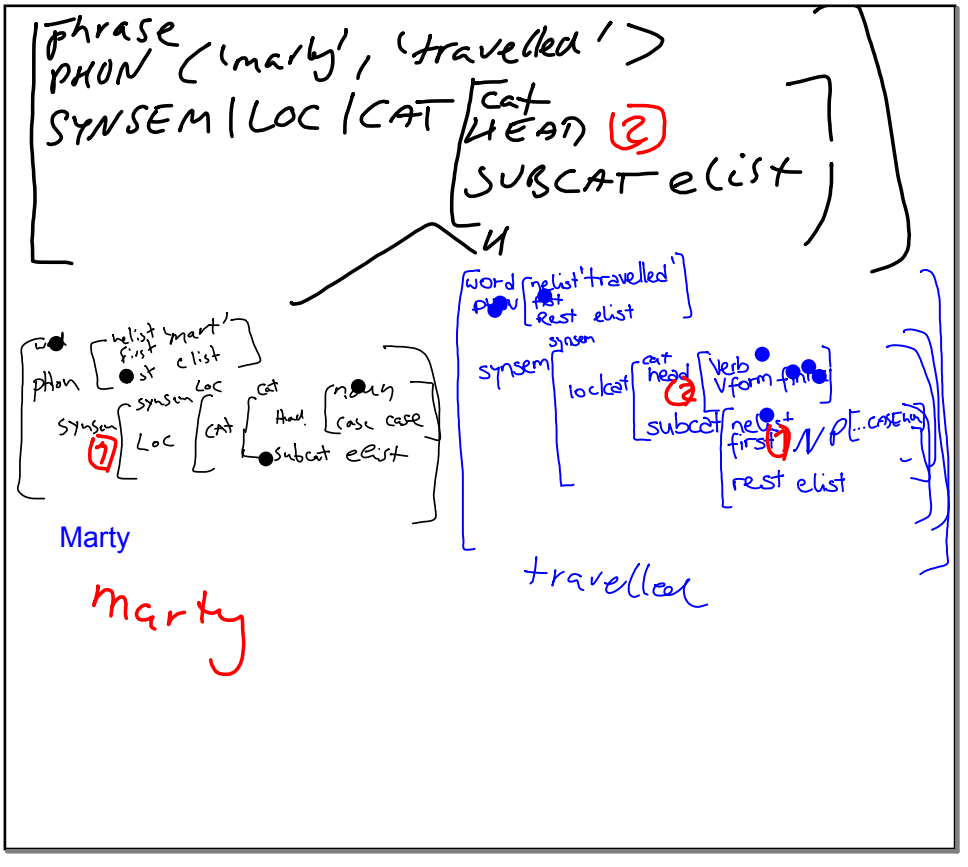
wood
pHon [helist 'mart' first elist]
synsem [synsem LOC [CAT [cat Head [noun case case] subcat elist]]

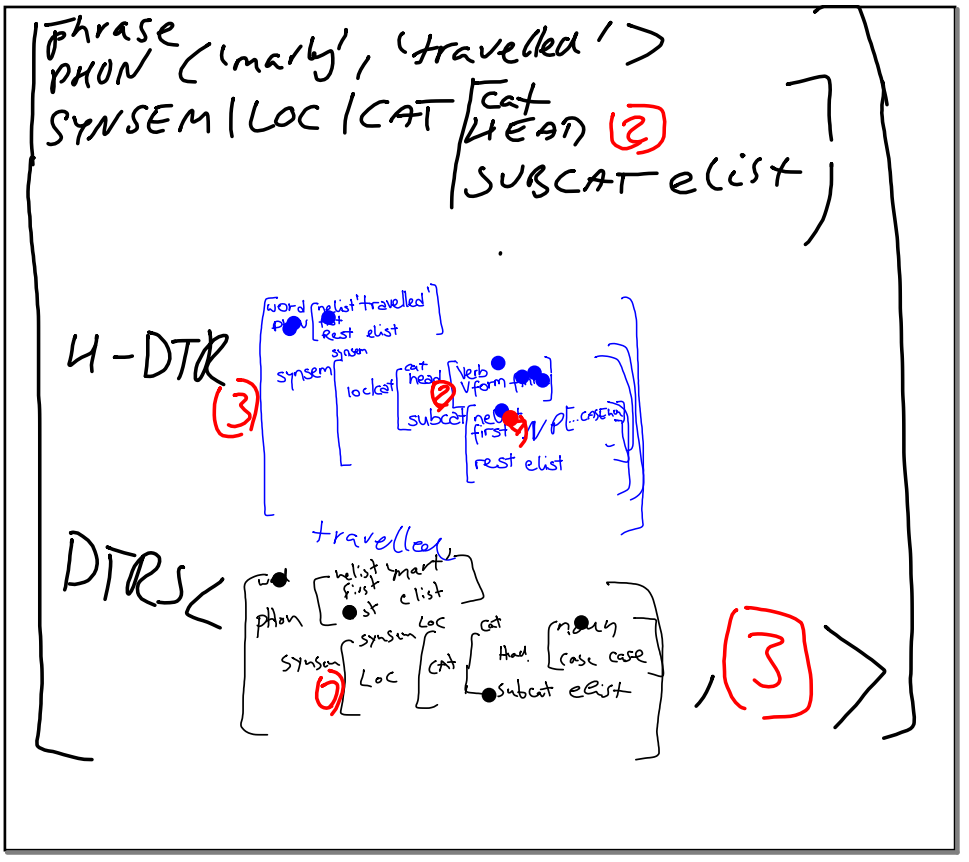
Marty travelled.

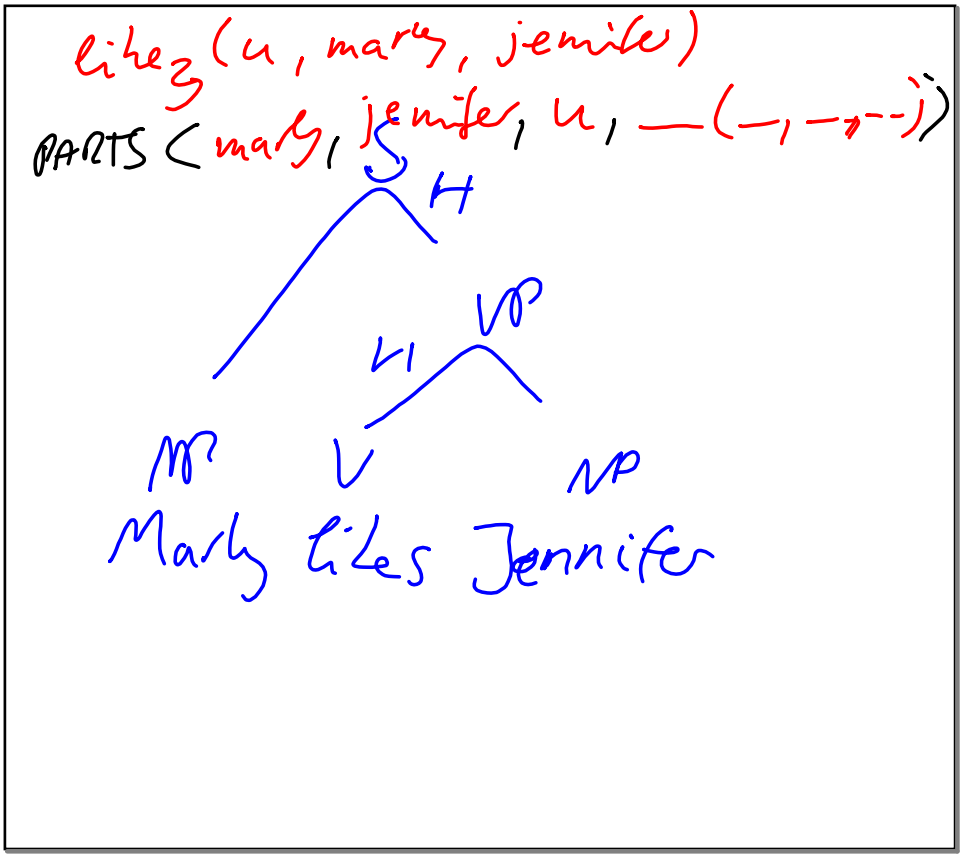

word
phon
nelist
first
Rest
'travelled'
elist
synsem
synsem
locat
cat
head
Verb
Vform
finite
subcat
nelist
first
NP[...case
rest
elist
travelled


vform
ger
being
passpart
seen
fin
base
prp
pastpart
been
is
was
be
being


NP =
LOC|CAT
HEAD noun
SUBCAT elist


phrase
PHON ⟨'marty', 'travelled'⟩
SYNSEM|LOC|CAT
cat
HEAD (2)
SUBCAT elist
4
Marty
marty
travelled


phrase
PHON ⟨'mary', 'travelled'⟩
SYNSEM|LOC|CAT [cat HEAD (2) SUBCAT elist]
H-DTR (3)
DTRS ⟨ , (3)⟩


likes(u, mary, jennifer)
PARTS ⟨mary, jennifer, u, —(—,—)⟩
S
H
VP
H
NP
V
NP
Mary likes Jennifer

Semantic combinatorics

Semantic contributions of the words:

Marty:

~~likes:~~ travelled

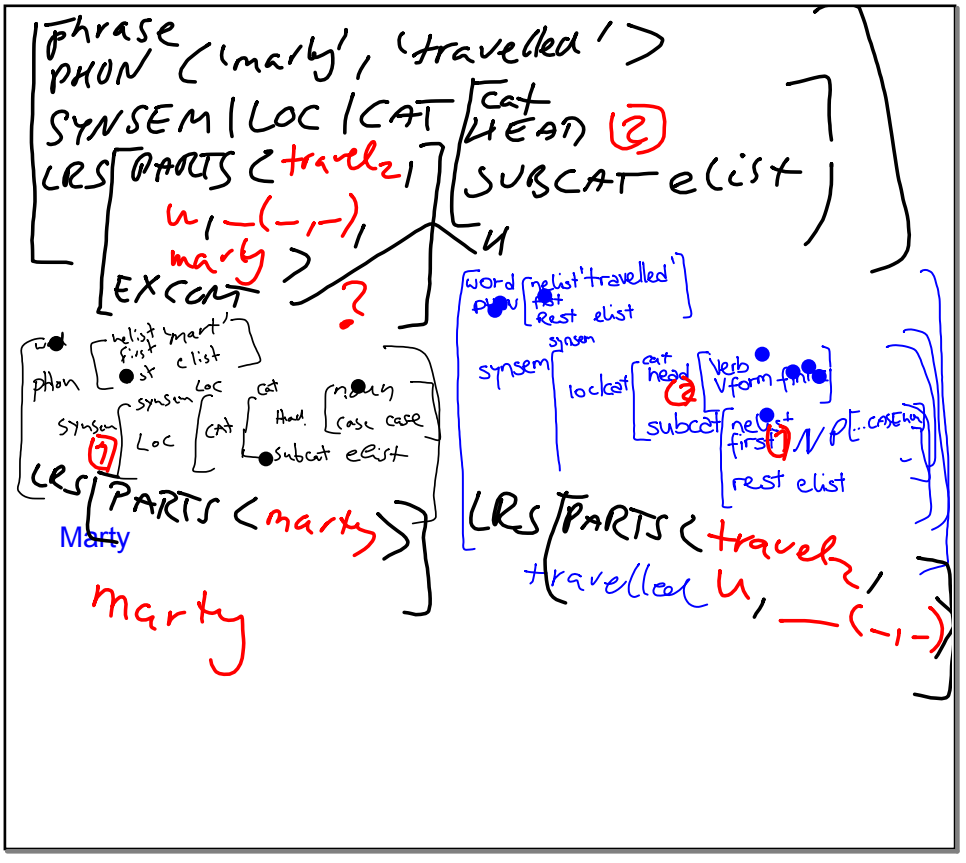
~~Jennifer:~~

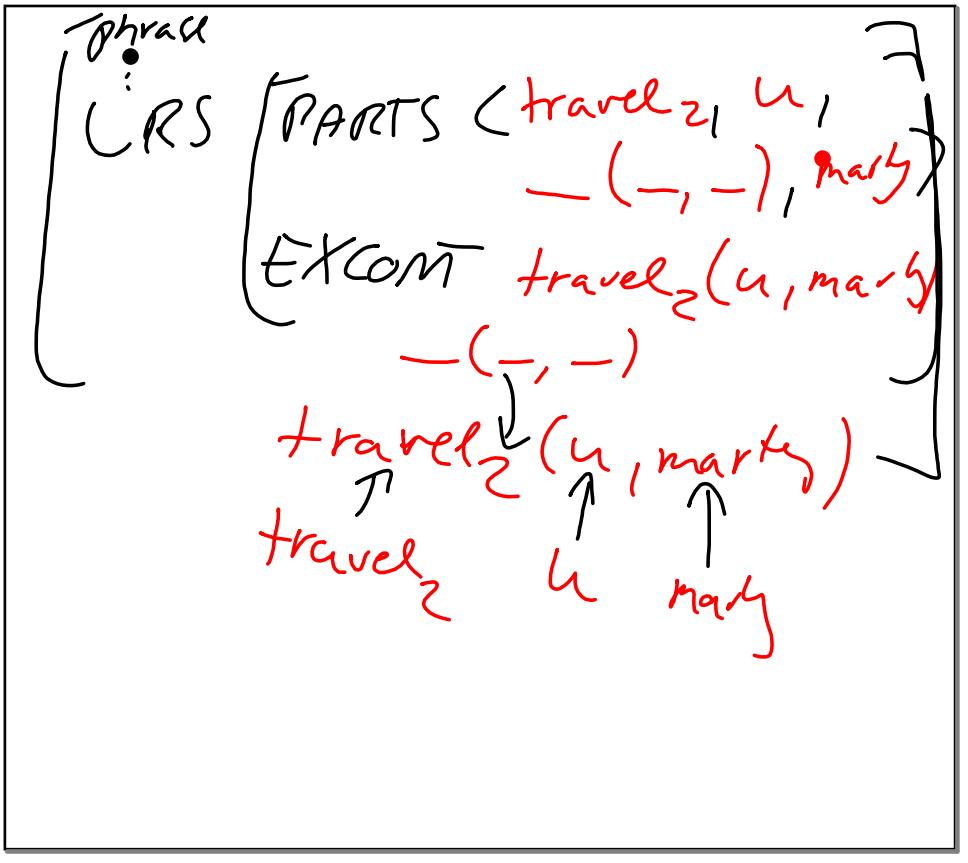
LRS Projection principle:

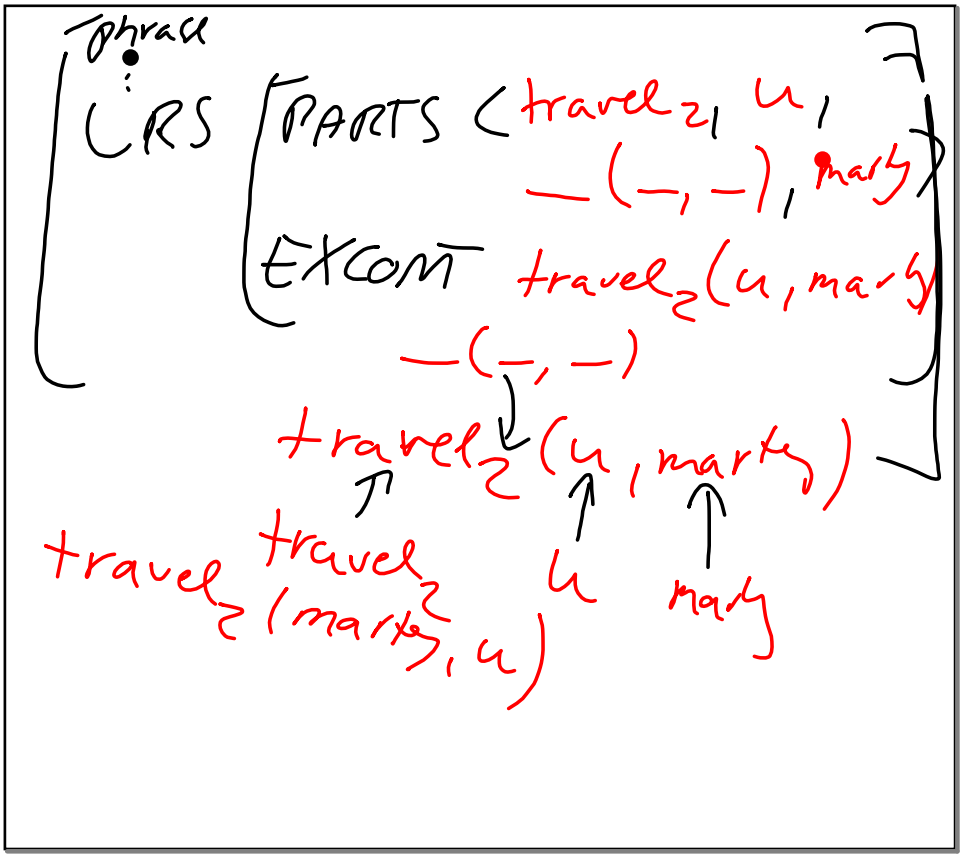
Mother's PARTS contains all of the daughters' PARTS elements and nothing else.

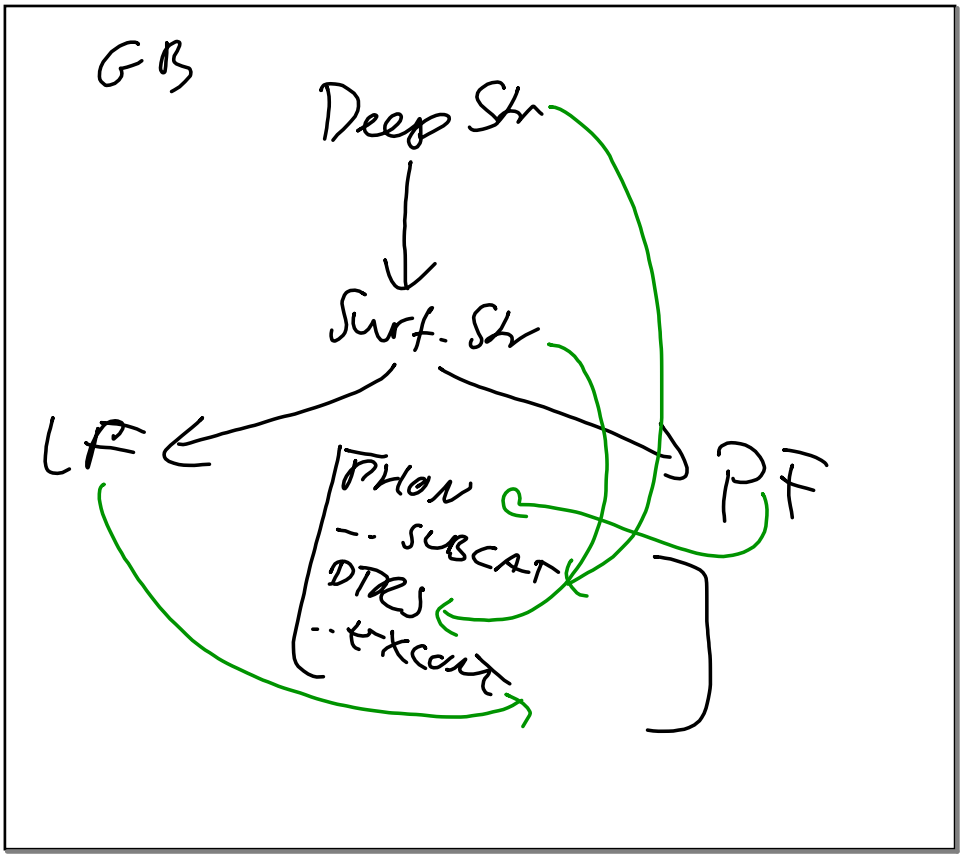
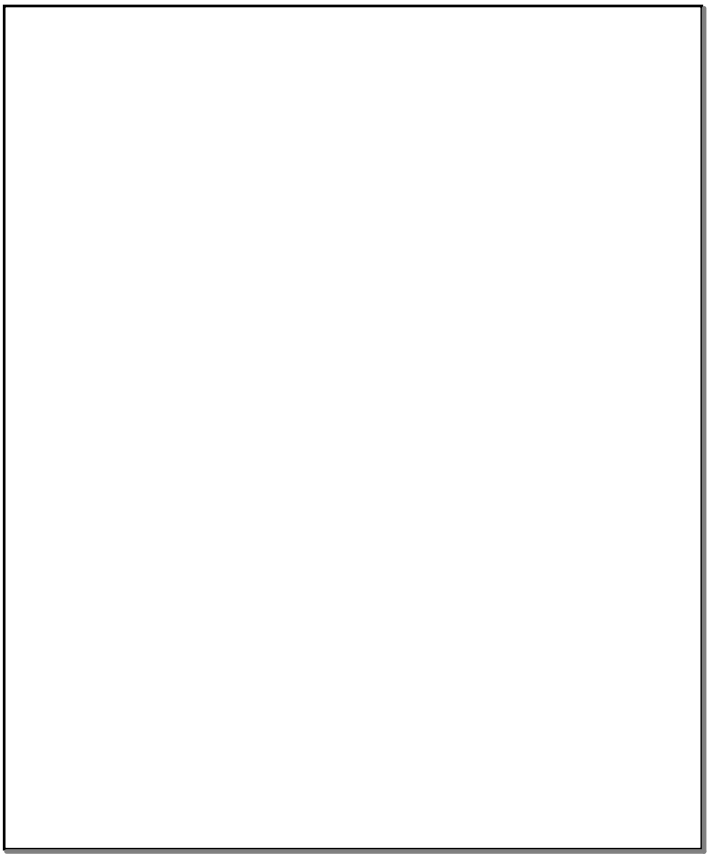
EXCONT Principle:

An utterance's EXCONT is a formula that consists exactly of the elements of its PARTS list.




phrase
LRS
PARTS <travel2, u, _(_, _), marty>
EXCONT travel2(u, marty)
_(_, _)
travel2(u, marty)
travel2
u
marty


phrase
LRS
PARTS <travel2, u, _(_, _), marty>
EXCONT travel2(u, marty)
_(_, _)
travel2(u, marty)
travel2
u
marty
travel2(marty, u)



For next week