

# New Facts and Puzzles About Embedded Tense in English



Petr Kusliy • University of Massachusetts Amherst

pkusliy@linguist.umass.edu | NELS 48 | University of Iceland | October 29, 2017

## OVERVIEW

Interactions between the simultaneous reading of an embedded tense and VP/CP-fronting in attitude reports reveal new facts about sequence of tense in English.

### Findings:

Present-under-Past can have a relative (non-indexical) interpretation in a fronted VP construction but not in a fronted CP construction.

The most deeply embedded Past in a Kamp-Abusch sentence does not have a relative interpretation in fronted VP or fronted CP constructions.

## Present-under-Past: the Standard View

*Standard View:* when interpreted, Present tense in English always overlaps the utterance time (UT) [Abusch 1988, Ogiwara 1989].

A Present-under-Past attitude report only has a *double-access* reading:

**(1) John said that Mary is smoking a cigar.**

In (1), Mary's alleged smoking must overlap the utterance time.

A Past-under-Past report can have a *simultaneous* reading:

**(2) John said that Mary was smoking a cigar.**

In (2), Mary's alleged smoking can be simultaneous with John's subjective "now" without overlapping the UT.

## NOVEL DATA: PRESENT TENSE IN FRONTED CPs AND FRONTED VPs

A fronted CP version of (1) also exhibits only *double-access*:

**(3) That Mary is smoking a cigar, John said.**

Surprisingly, a fronted VP version of (1) has two readings: a *double-access* and a *simultaneous*:

**(4) Say that Mary is smoking a cigar, John did.**

**Puzzle 1:** Why does VP-fronting license a simultaneous reading?

**Puzzle 2:** Why doesn't CP-fronting have the same effect?

## SOLUTION TO PUZZLE 1: ENGLISH PRESENT IS RELATIVE

English Present tense is relative (contra most current theories):

**(5)  $\| Pres^i_j \| = g(j)$ , defined iff  $g(j)$  overlaps  $g(i)$**

A locally bound embedded Present gives a simultaneous reading.

A globally bound embedded Present results in double-access.

English has a mechanism of feature transmission (FT) that requires c-command and local binding at a pre-PF level of syntactic representation different from LF (here, "PF" for short).

**(6) SOT-rule:** When Past and Present features are stacked, the temporal morphology is determined by the Past tense feature.

Sentences (4) and (2) can share an LF (fronted VP reconstructs):

**(7)  $[ \lambda t_0 [_{TP} Past^0_1 [_{VP} John [_{VP} say [ \lambda t_2 [_{CP} that Pres^2_3 Mary be smoking a cigar]]]]]]]$**

But (4) and (2) are different at PF!

In (4), Present is not c-commanded by Past at PF but is locally bound. Therefore, (4) exhibits a simultaneous reading *without* FT.

In (2), Present is c-commanded by Past at PF and is locally bound. Therefore, (2) exhibits a simultaneous reading *with* FT.

In (1), Present is c-commanded by Past at PF. But since FT has not applied, Present is not bound locally. Therefore, (1) has a double-access reading.

## SOLUTION TO PUZZLE 2: THE RELATIVE TENSE BINDER IS CP-EXTERNAL

*Assumptions:*

(i) Fronted CPs are base-generated high [Moulton 2013].

(ii) The temporal binder of the embedded tense is CP-external:

$[_{TP} T^0 [_{VP} V^0 [ \lambda t_k [_{CP} \dots ]]]]$

In (3), the CP is base-generated in the high position, by assumption (i), and does not contain the binder of the embedded tense, by assumption (ii).

The only binder that the embedded tense can be bound by is the matrix binder, which results in a *double-access* reading:

**(8)  $[ \lambda t_0 [_{TP} [_{CP} That Pres^0_2 Mary be smoking a cigar] \lambda P [_{TP} Past^0_1 [_{VP} John [_{VP} say P]]]]]$**

## FURTHER PREDICTIONS: PAST TENSE IN FRONTED CONSTRUCTIONS

The famous Kamp-Abusch example shows the existence of a vacuous (uninterpreted) Past-under-Past [Abusch 1994]:

**(9) A week ago, John decided that, in ten days at breakfast, he would tell his mother that they were having their last meal together.**

In (9), the most embedded Past can have a simultaneous reading only because of FT.

*Immediate prediction:* the CP/VP-fronted versions of the Breakfast example cannot have a simultaneous interpretation for the most embedded Past (because of no c-command at PF).

**(10) That they were having their last meal together, John decided a week ago that he would tell his mother in ten days.**

**(11) Tell his mother in ten days that they were having their last meal together, John decided a week ago that he would.**

Native speakers report that neither in (10), nor in (11), is it the case that having a meal is simultaneous with the telling time.

The prediction is borne out!