French parenthetical adverbs in HPSG

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Overview

- Parenthetical adverbs: *heureusement* ‘fortunately’, *honnêtement* ‘honestly’, etc.
- Intuitively: they are not part of “what is said”, “the main semantic content”, “the asserted proposition”, etc.
- Four issues:
  - Relation between parentheticality and intonation
  - Pragmatic status of parentheticals
  - Semantic types for parentheticals
  - Parentheticals at the syntax-semantics interface

1.1 Parentheticals vs. incidentals

Incidentality and parentheticality are independent properties :

(2) a. **Malheureusement**, Paul s' est comporté comme un idiot.
unfortunately Paul SE is behaved like an idiot
'Unfortunately, Paul behaved like an idiot.'

b. Paul s' est malheureusement comporté comme un idiot.

(3) a. **Lentement**, la rivère amorçait sa décrue.
slowly the river started its decrease
'Slowly, the river was dropping in level.'

b. La rivière amorçait lentement sa décrue.

1.2 Varieties of parentheticals

- Speech act adverbs: honnêtement ‘honestly’, etc.
  - Provide a comment on the manner in which the main speech act was executed.
- Connectives: donc ‘therefore, so’, etc.
  - Specify how the current speech act (and/or its content) relates with the current discourse.
- Agentives (a.k.a. ‘subject-oriented’): gentiment ‘kindly’, etc.
  - Comment on an agent’s attitude in bringing about a certain state of affairs.
- Evaluatives: heureusement ‘fortunately’, etc.
  - Provide a comment on the speaker’s appreciation of the semantic content.

2 The pragmatic status of evaluative adverbs

- Evaluative adverbs…
  - are not part of the ‘main content’ (2.1)
  - are not presupposed (2.2)
  - differ from evaluative adjectives (2.3)
  - have a special status in dialogue (2.4)
  - can be assumed by the speaker or another agent (2.5)

2.1 Not part of the main content

(13) Si Paul va, malheureusement, voir Marie, elle sera furieuse.
'If, unfortunately, Paul goes and sees Marie, she will be furious.'

⇔

Si Paul va voir Marie, elle sera furieuse.
'If Paul goes and sees Marie, she will be furious.'

(15) Qui est bizarrement arrivé à l'heure ?
asks: who arrived on time?
commits the speaker to: if somebody arrived on time, that's weird.

2.2 Not presupposed

- Not contested in the same way as presuppositions

(20) *A*: Paul a malheureusement perdu l'élection.
'Paul unfortunately lost the election.'

B: # C'est faux, je trouve que c'est une très bonne nouvelle.
'That's not true, I think it is very good news'.

B: C'est vrai, mais moi, je trouve que c'est une très bonne nouvelle !
'Yes, but I personally think it is great news!'

(21) *A*: Paul regrette d'être venu.
'Paul regrets that he came.'

B: # Oui, mais Paul n'est pas venu !
'Yes (he would have regretted that), but Paul did not come!'

2.3 Evaluative adverbs vs. adjectives

- Adjectives, but not adverbs, presuppose their arg.

(23) a. S'il est malheureux que Paul ait vu Marie, il est tragique qu'il l'ait insultée.
'If, it is unfortunate that Paul met Marie, it is tragic that he insulted her.'
⇒ 'Paul met Marie.'

(18) a. Si Paul va, malheureusement, voir Marie, elle sera furieuse.
'If, unfortunately, Paul meets Marie, she will be furious.'
⇏ 'Paul meets Marie.'

Proposed relationship between adverb and adjective:

(24) unfortunately $\equiv \lambda p.[p \rightarrow \text{unfortunate}(p)]$

2.4 Status in dialogue

- See Ginzburg (to appear):
  - When *A* asserts *p*:
    - *A* adds *p* to his own commitments.
    - *A* puts the question *whether p* 'in discussion'
  - When *B* considers *A*'s assertion:
    - *B* accepts to put the question '*whether p*' in discussion
  - When *B* accepts *A*'s assetion:
    - *B* removes '*whether p*' from the list of questions under discussion
    - *B* adds *p* to his own commitments

2.4 Status in dialogue

- Our proposal:
  - When *A* says '*malheureusement p*':
    - *A* adds *p* to his own commitments.
- Evaluatives are "solitary commitments": the adressee's assessment is not solicited.
- Proposal for grammar integration:

(49) a. Paul viendra malheureusement.
'Unfortunately, Paul will come.'

(50)
$$\left[\begin{array}{l} \textit{assertive-utterance} \\ \textsc{context} \quad \left[\textsc{c-indices} \quad \left[\textsc{speaker} \quad \boxed{1}\right]\right] \\ \textsc{content} \quad \text{“assert}\left(\boxed{1}, \text{come(p)}, \left\{\text{unfortunately(come(p))}\right\}\right)\text{”} \end{array}\right]$$

3 The syntax-semantics interface

- It might seem to be a non-problem: since evaluatives are “outside” the main content, nothing interesting to say (not embedded)
- Interesting issue: what is *in the scope* of the parenthetical?
- Overview:
  - Presenting the issue (3.1)
  - Background on MRS and adverbs (3.2)
  - Proposal: a simple extension of MRS (3.3)

3.1 The puzzle

- The scope of the evaluative depends on its position

(33) a. Malheureusement, Paul a soumis son résumé le 20 janvier.
asserts: Paul submitted his abstract on January 20.
commits the speaker to: It is unfortunate that Paul submitted his abstract on January 20.

b. Le 20 janvier, Paul a malheureusement soumis son résumé.
asserts: Paul submitted his abstract on January 20.
commits the speaker to: It is unfortunate that Paul submitted his abstract (whatever the date).

3.1 The puzzle

(34) a. Probablement, Marie est malheureusement venue.
asserts: Marie probably came.
commits the speaker to: If Marie came indeed,
it is unfortunate that she did.

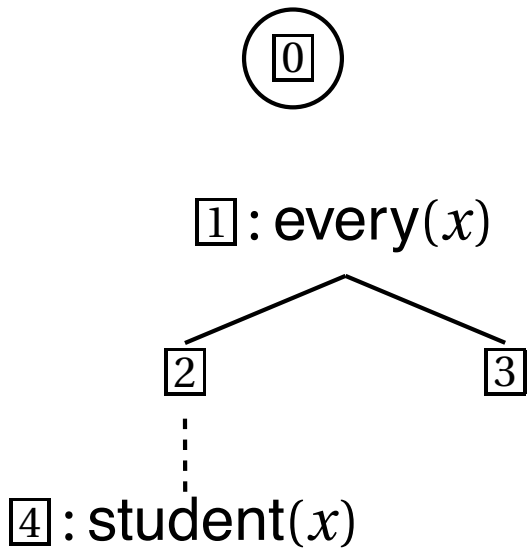
b. Malheureusement, Marie est probablement venue.
asserts: Marie probably came.
commits the speaker to: it is unfortunate that Marie probably came.

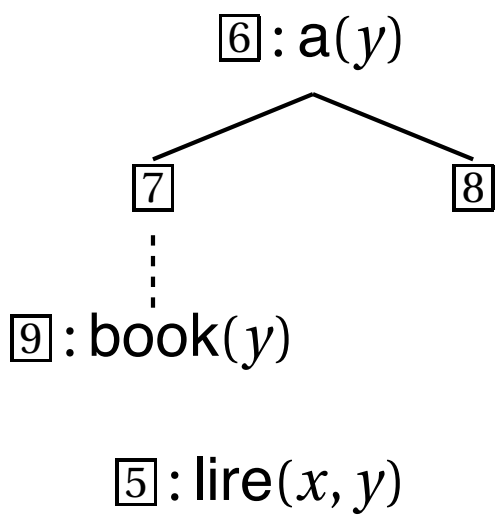
(35) a. Malheureusement, si Marie est en retard, Paul sera furieux.
asserts: If Marie is late, Paul will be furious.
commits the speaker to: it is unfortunate that if Marie is late, Paul will be furious.

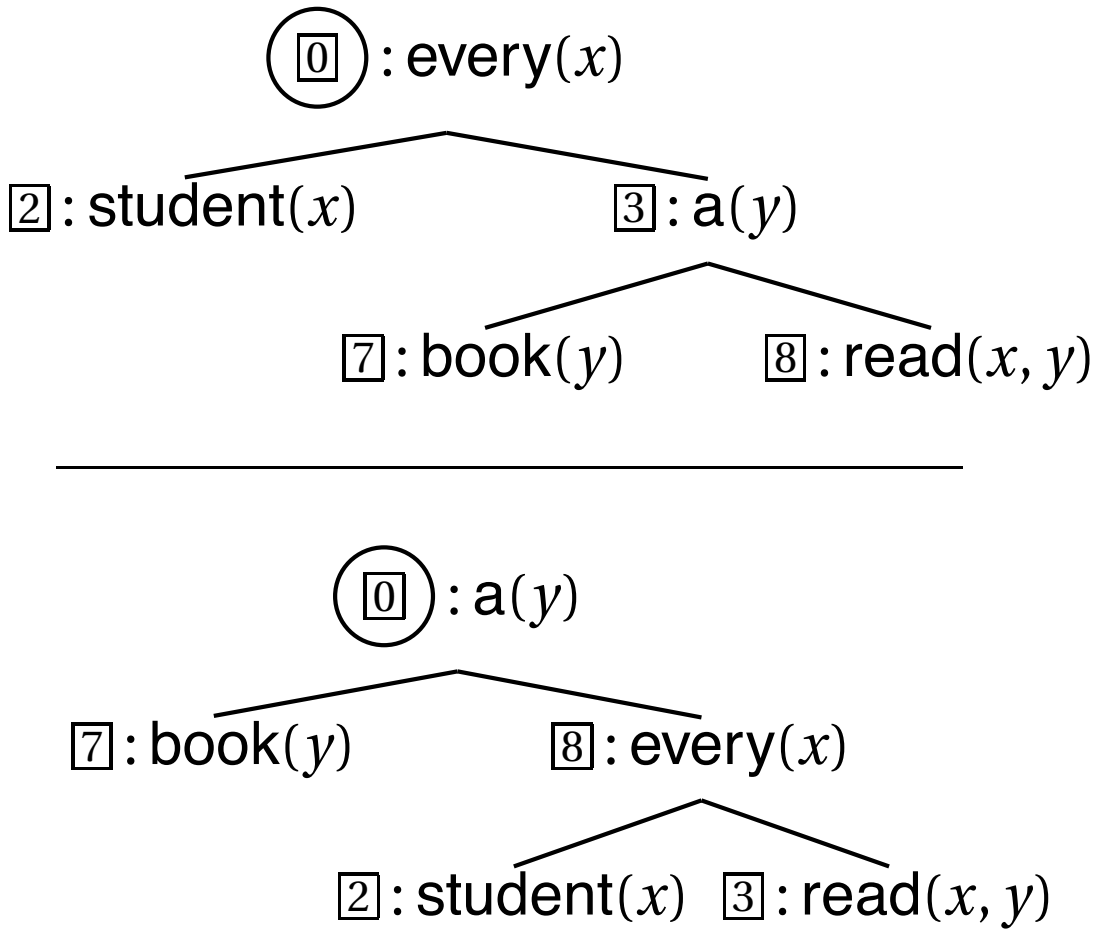
b. Si Marie est, malheureusement, en retard, Paul sera furieux.
asserts: If Marie is late, Paul will be furious.
commits the speaker to: If Mary is late, it is unfortunate that she is.

3.2.1 MRS

(37) Every student reads a book





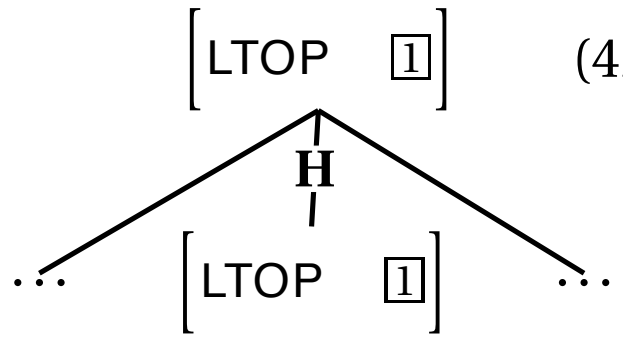


3.2.2 MRS in HPSG

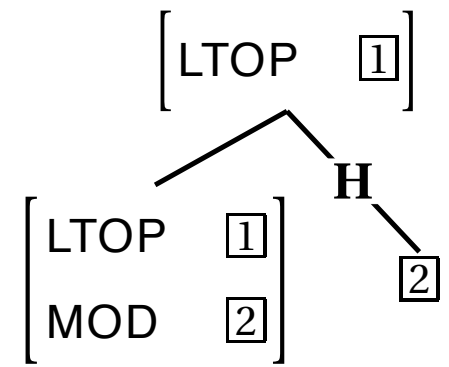
(38)

$$\begin{bmatrix} \text{GTOP} & \boxed{0} \\ \text{RELS} & \left\langle \begin{bmatrix} \textit{every} & \\ \text{LBL} & \boxed{1} \\ \text{ARG1} & \boxed{x} \\ \text{RSTR} & \boxed{2} \\ \text{BODY} & \boxed{3} \end{bmatrix}, \begin{bmatrix} \textit{student} & \\ \text{LBL} & \boxed{4} \\ \text{ARG1} & \boxed{x} \end{bmatrix}, \begin{bmatrix} \textit{read} & \\ \text{LBL} & \boxed{5} \\ \text{ARG1} & \boxed{x} \\ \text{ARG2} & \boxed{y} \end{bmatrix}, \begin{bmatrix} \textit{a} & \\ \text{LBL} & \boxed{6} \\ \text{ARG1} & \boxed{y} \\ \text{RSTR} & \boxed{7} \\ \text{BODY} & \boxed{8} \end{bmatrix}, \begin{bmatrix} \textit{book} & \\ \text{LBL} & \boxed{9} \\ \text{ARG1} & \boxed{y} \end{bmatrix} \right\rangle \\ \text{HCONS} & \left\langle \begin{bmatrix} \textit{outscope} & \\ \text{HARG} & \boxed{2} \\ \text{LARG} & \boxed{4} \end{bmatrix}, \begin{bmatrix} \textit{outscope} & \\ \text{HARG} & \boxed{7} \\ \text{LARG} & \boxed{9} \end{bmatrix} \right\rangle \end{bmatrix}$$

(41) *hd-val-ph*→



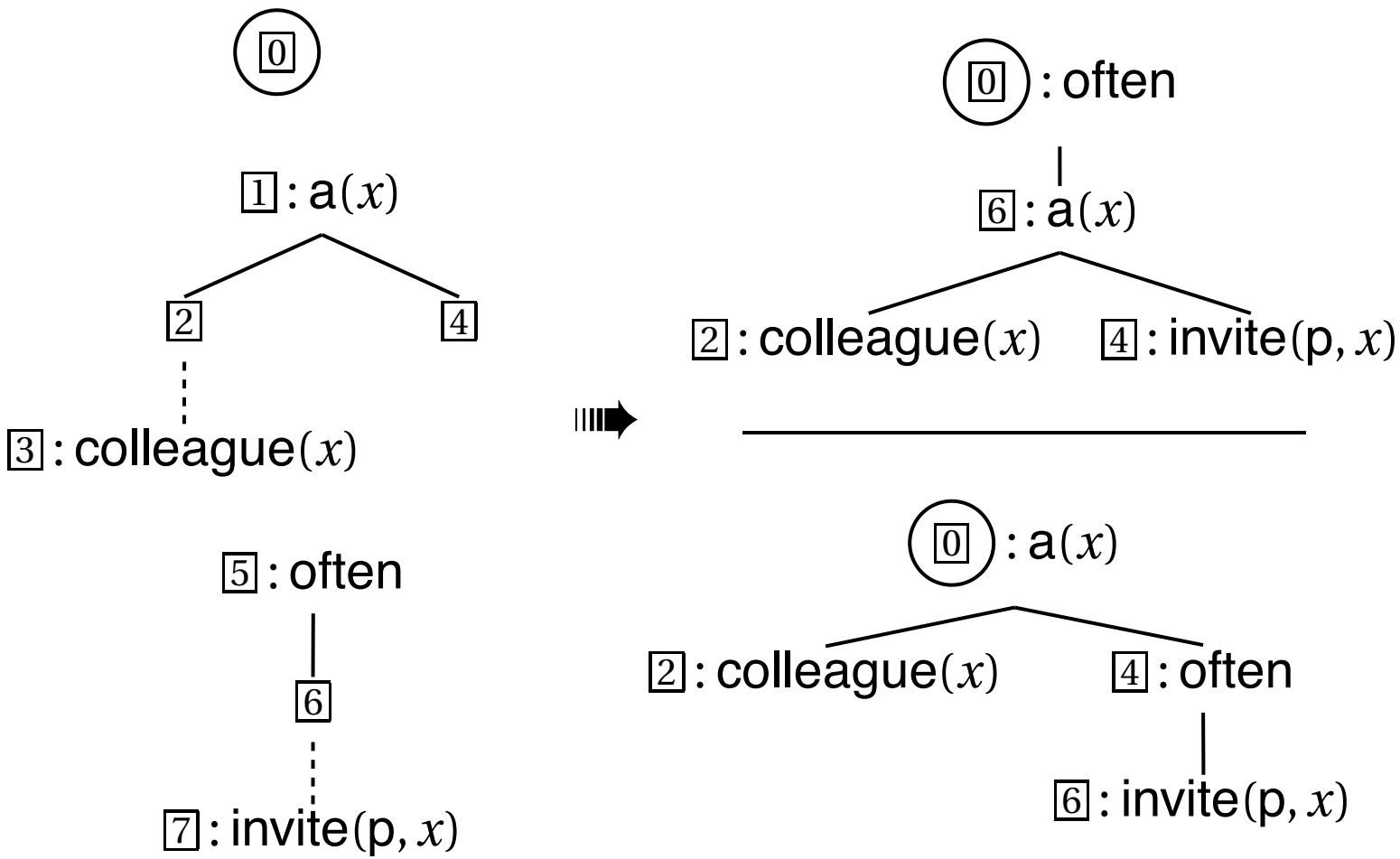
(42) *hd-adj-ph*→



3.2.2 MRS in HPSG: adverbs-as-adjuncts

- The adverb's argument is constrainted to outscope the head's LTOP

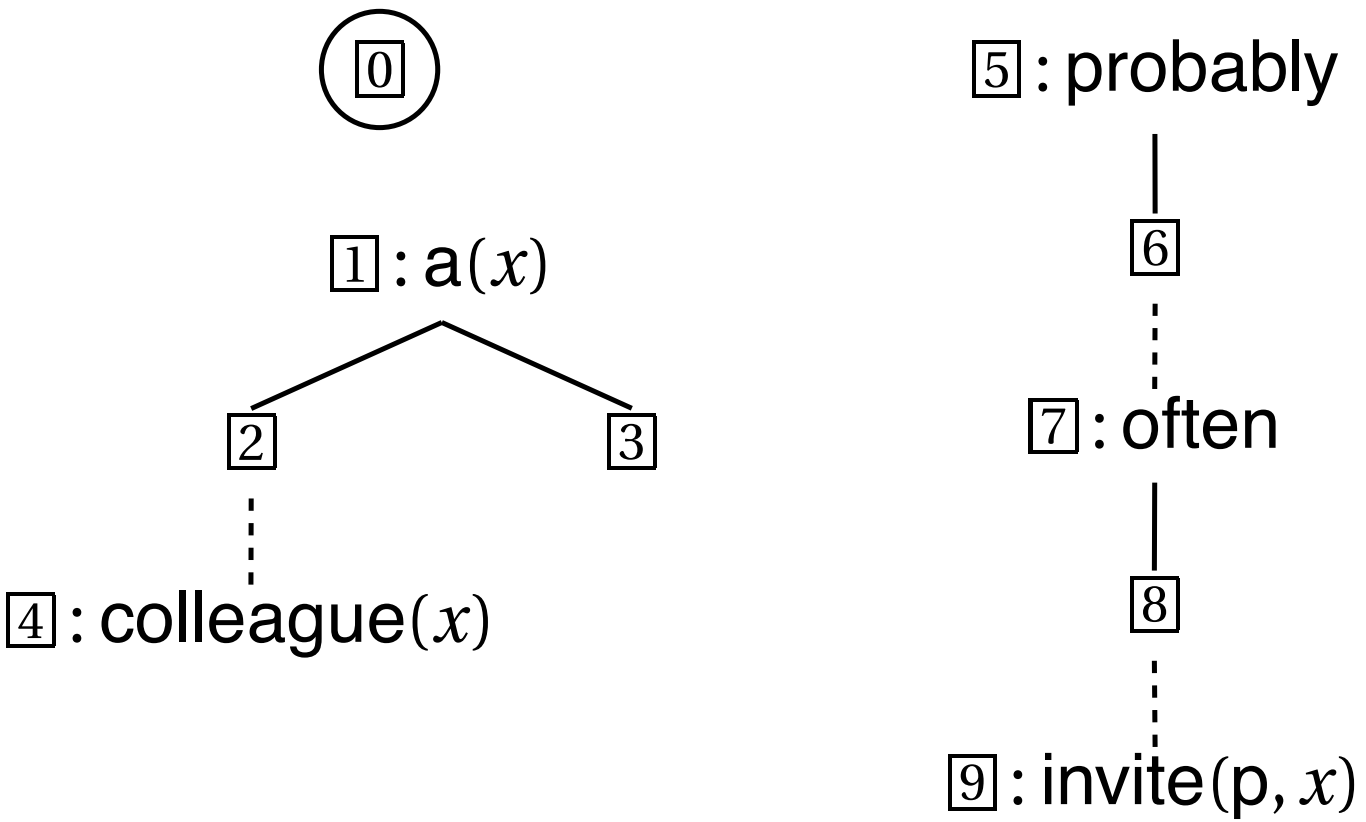
(44) Souvent, Paul invite un collègue.
'Paul often invites a colleague.'



3.2.3 French adverbs in HPSG

- French postverbal adverbs scope left to right.

(45) a. Paul invitera probablement souvent un collègue.
'Paul will probably often invite a colleague.'



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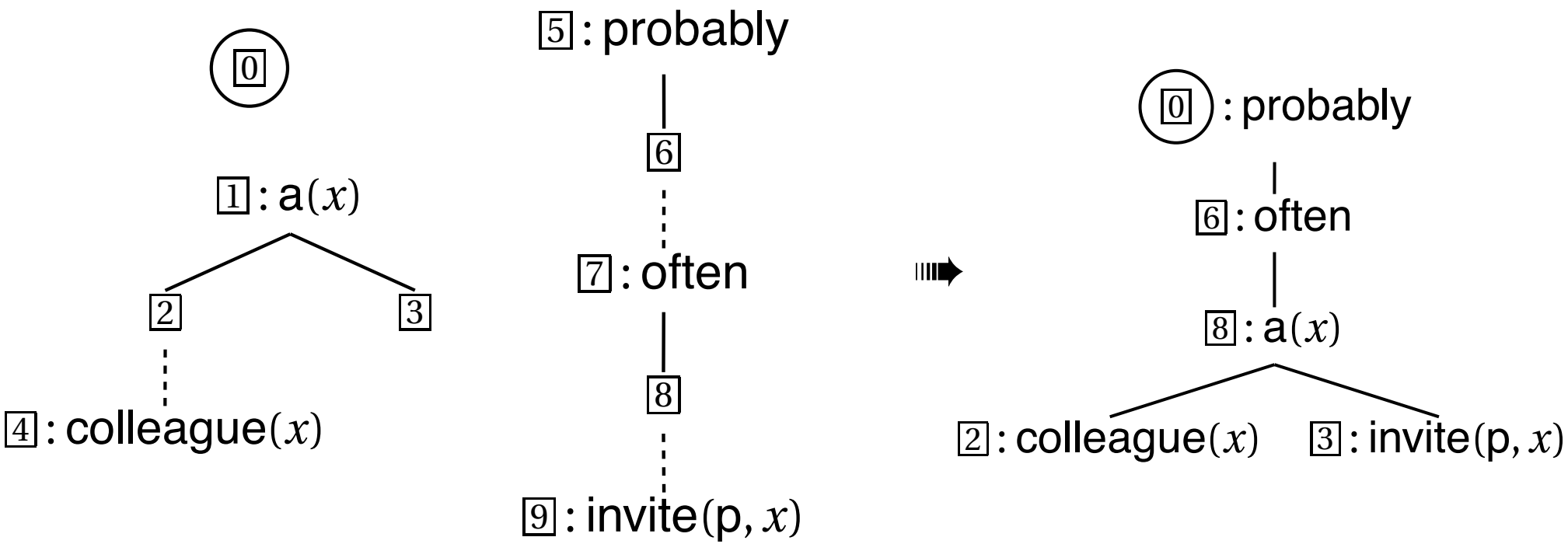
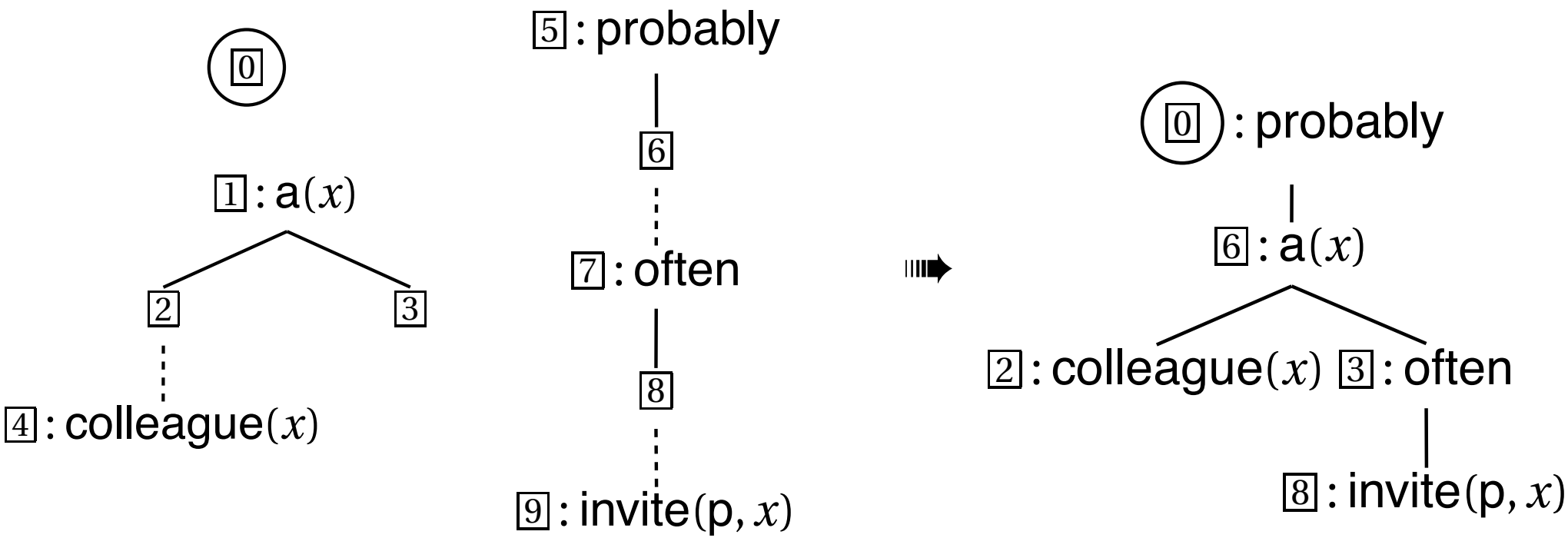


3.2.3 French adverbs in HPSG

- French postverbal adverbs scope left to right.

(45) a. Paul invitera probablement souvent un collègue.
'Paul will probably often invite a colleague.'



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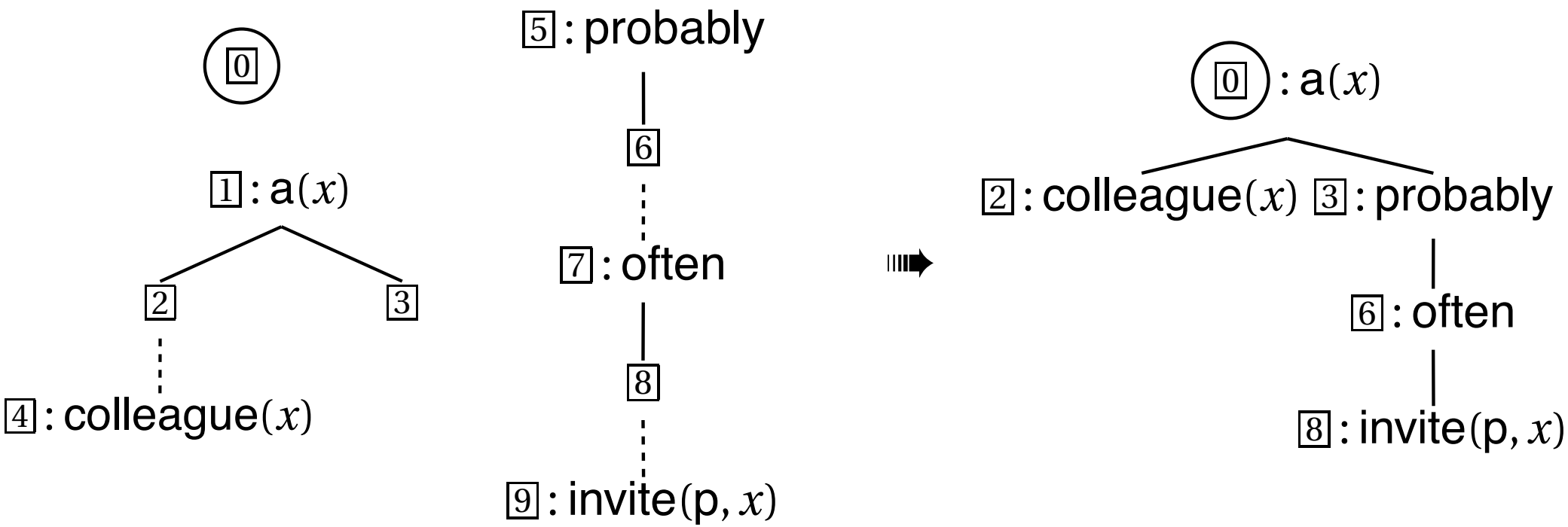


3.2.3 French adverbs in HPSG

- How we get there:
  - Post-verbal adverbs are complements

(48) **Argument structure extension** (from Bouma et al. (2001), with semantics added)

verb→

$$\begin{bmatrix}
\text{HEAD} & \boxed{1} \\
\text{ARG-ST} & \boxed{2} \\
\text{DEPS} & \boxed{2}\bigcirc\left\langle \begin{bmatrix}\text{LTOP} & \boxed{3} \\ \text{MOD} & \begin{bmatrix}\text{HEAD} & \boxed{1} \\ \text{LTOP} & \boxed{h_1}\end{bmatrix}\end{bmatrix}, \begin{bmatrix}\text{LTOP} & \boxed{h_1} \\ \text{MOD} & \begin{bmatrix}\text{HEAD} & \boxed{1} \\ \text{LTOP} & \boxed{h_2}\end{bmatrix}\end{bmatrix}, \ldots, \begin{bmatrix}\text{LTOP} & \boxed{h_{n-1}} \\ \text{MOD} & \begin{bmatrix}\text{HEAD} & \boxed{1} \\ \text{LTOP} & \boxed{4}\end{bmatrix}\end{bmatrix}\right\rangle \\
\text{CONT} & \begin{bmatrix}\text{LTOP} & \boxed{3} \\ \text{RELS} & \left\langle\begin{bmatrix}\text{LBL} & \boxed{4}\end{bmatrix}\right\rangle \\ \text{HCONS} & \langle\ \rangle\end{bmatrix}
\end{bmatrix}$$

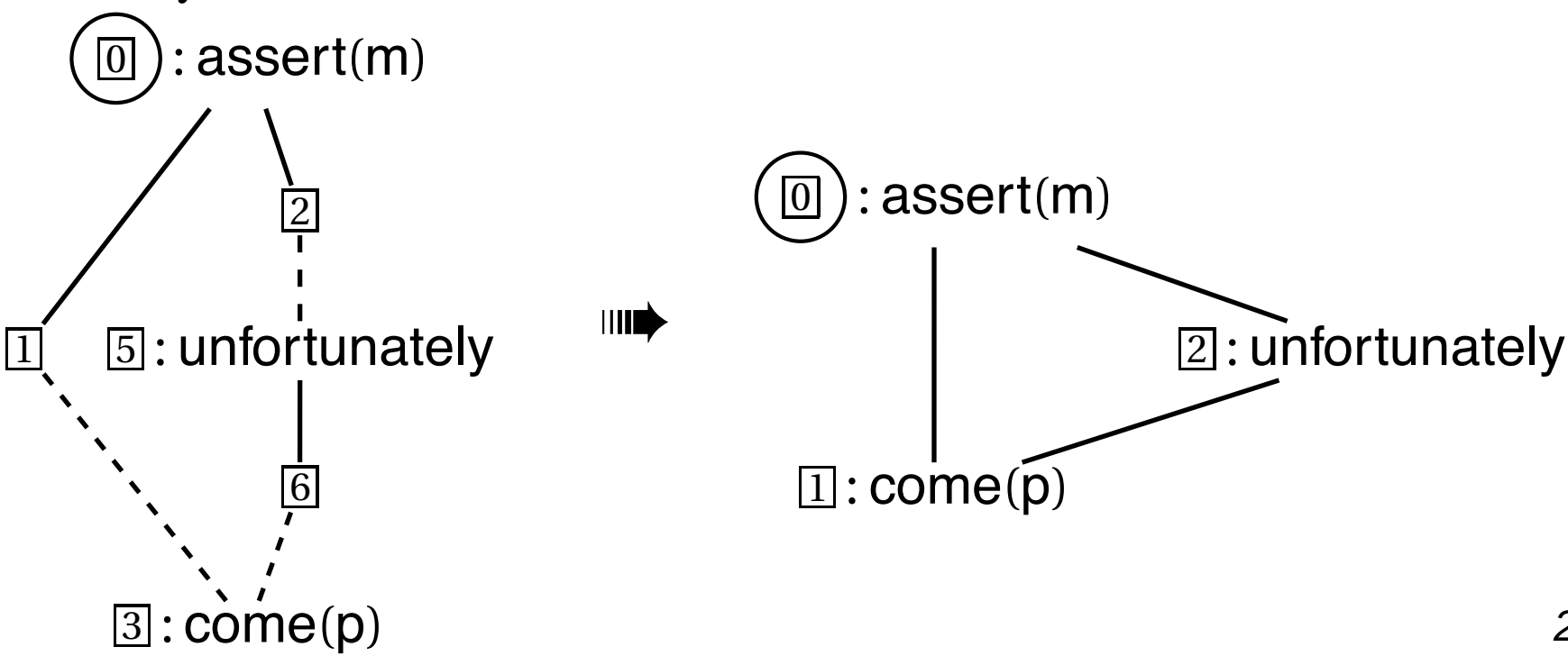
3.3.1 Parentheticals: the issue

- To say:

$$\begin{bmatrix} \textit{assertive-utterance} \\ \text{CONTEXT} \quad \begin{bmatrix} \text{C-INDICES} \quad \begin{bmatrix} \text{SPEAKER} \quad \boxed{1} \end{bmatrix} \end{bmatrix} \\ \text{CONTENT} \quad \text{“assert}\left(\boxed{1}, \text{come(p)}, \left\{ \text{unfortunately(come(p))} \right\}\right)\text{”} \end{bmatrix}$$

- We need MRSs to be DAGs, not trees.

(51) Marie says: *Malheureusement, Paul est venu.*

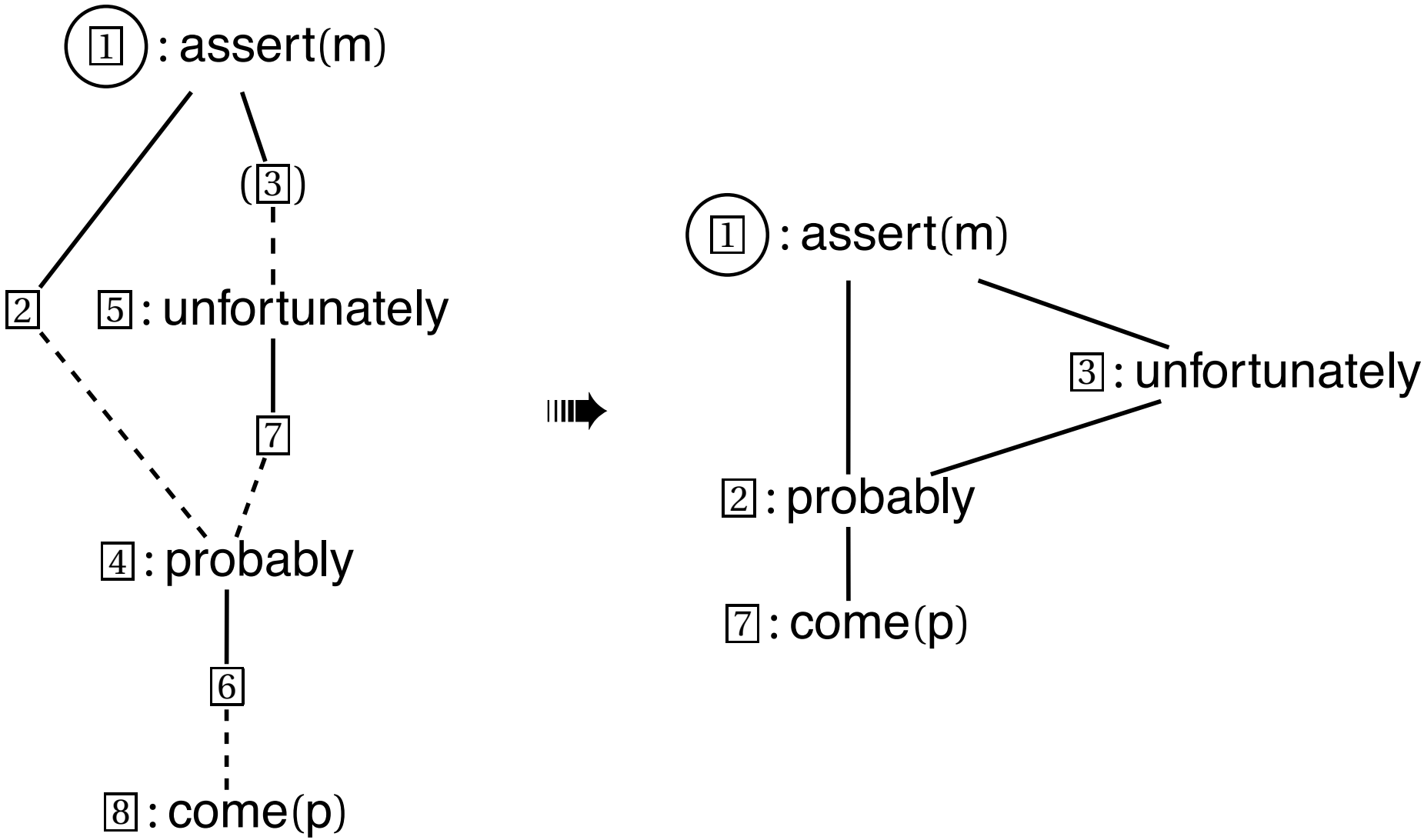


3.3.2 Specifying the interface

- Too long (and boring!) to tell in detail…
- Modifications to standard MRS:
  - Scope-resolved MRSs are rooted DAGs
  - Each relation has a distinct handle
  - Relations can have set-valued arguments
  - Handles have a [PAREN ±] feature
  - Unary rule to ‘set apart’ parentheticals

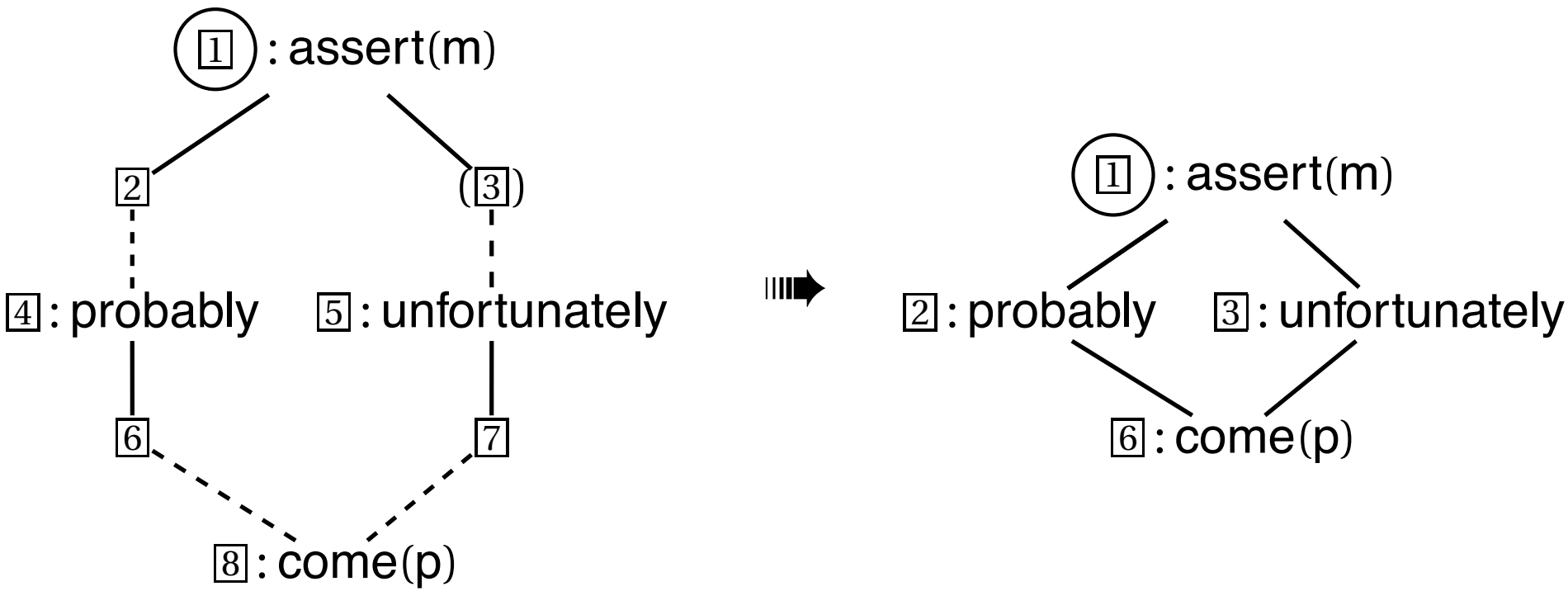
3.3.3 The ‘scope’ of parentheticals

(57) Marie says: *Malheureusement, Paul est probablement venu.*[4]



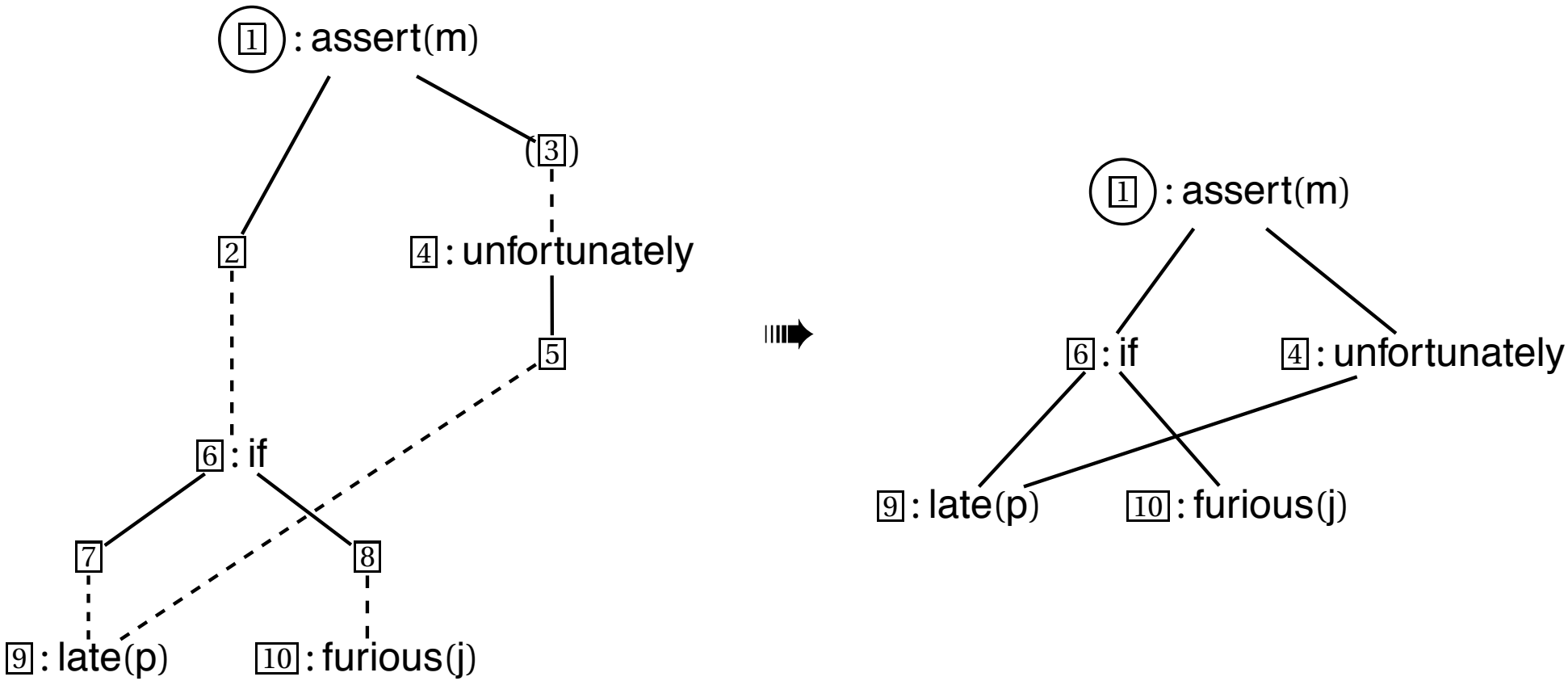
3.3.3 The ‘scope’ of parentheticals

(58) Marie says: *Probablement, Paul est malheureusement venu.*



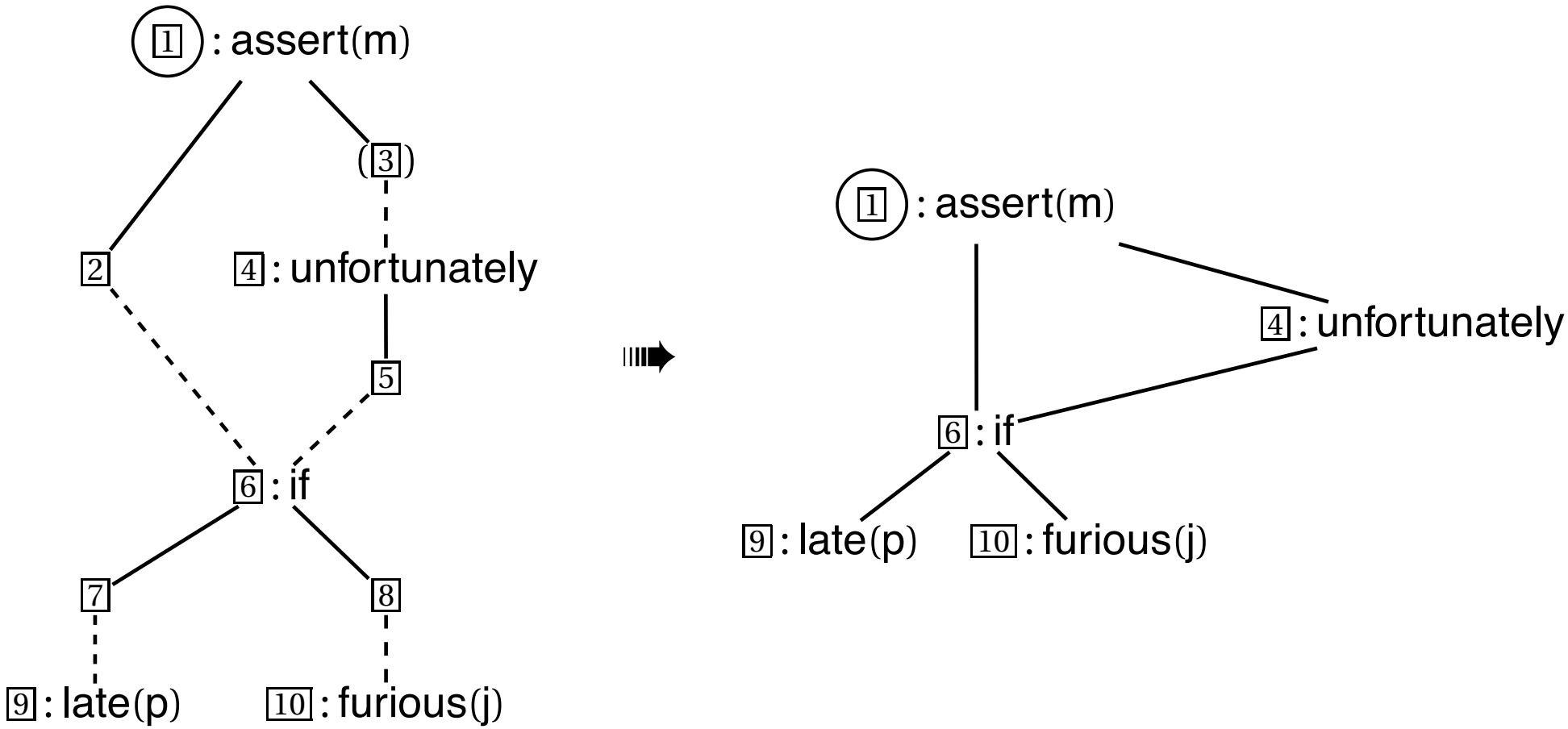
3.3.3 The ‘scope’ of parentheticals

(59) Marie says: *Si, malheureusement, Paul est en retard, Jean sera furieux.*



3.3.3 The ‘scope’ of parentheticals

(60) Marie says: *Malheureusement, si Paul est en retard, Jean sera furieux.*



3.3.3 The ‘scope’ of parentheticals

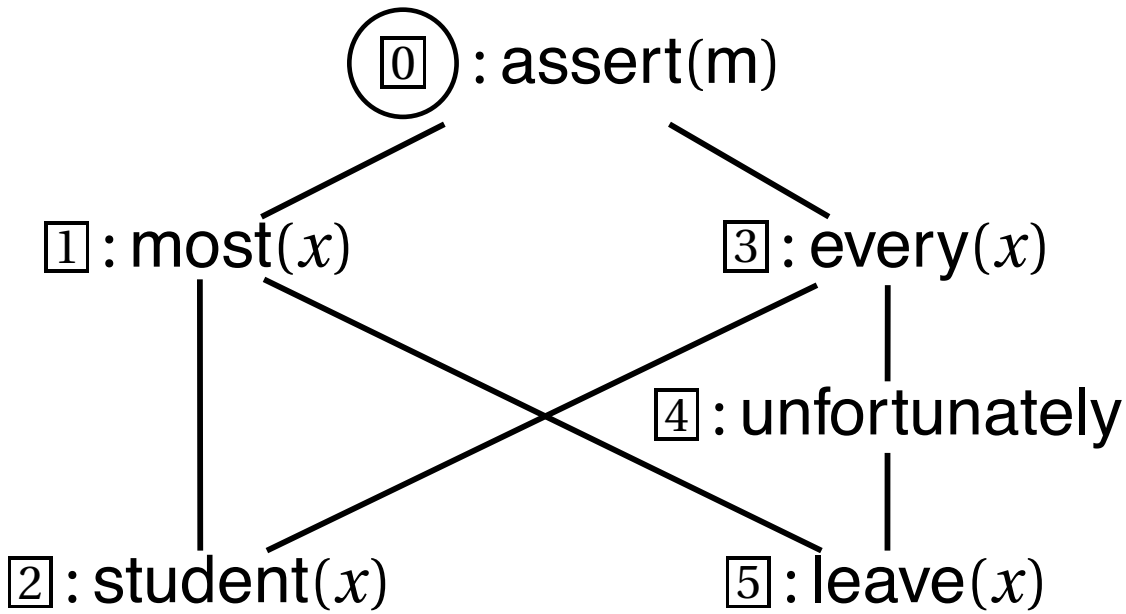
- Other things that work:
  - Other kinds of parenthetical adverbs (at least agentives)
  - Sentences with multiple parentheticals
  - Parentheticals embedded within parentheticals
  - Quantifiers inside parentheticals
  - Quantifiers scoping below parentheticals
- One thing that does *not* work:
  - Quantifiers scoping “above” parentheticals

3.3.4 Unsolved issue

(64) Marie says: *La plupart des étudiants sont malheureusement partis.*

a. Content: $\mathsf{assert}(\mathsf{m}, \mathsf{most}(x, \mathsf{student}(x), \mathsf{leave}(x)))$
Comment: $\forall x[[\mathsf{student}(x) \wedge \mathsf{leave}(x)] \rightarrow \mathsf{unfortunate}(\mathsf{leave}(x))]$

b. Resolved MRS:[5]



- How do we know we must insert *every* ?
- How do we know what its restrictor is ?

Summing up

- Description of evaluatives:
  - Not phonologically (nor syntactically) unusual.
  - Not presupposed
  - Status in dialogue: solitary commitments
  - They have normal scope
- HPSG Analysis:
  - Direct extension of a general analysis of adverbs at the syntax-semantics interface
  - Semantic representations as DAGs
  - Extends easily to (some) other parentheticals