

A compositional account of contrastive topic in terms of non-cooperativity

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Questions in Discourse, Amsterdam, December 16th 2013

Goal of this talk

Main goal: a compositional account of (1):

- (1) Who had what for lunch?
 - a. $[\text{John}]_{CT}$ had $[\text{the beans}]_F$.
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- ▶ In the literature: $CT \approx L^*+H$, or $L^*H\%$ or $L^*+H\ H\%$
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 2. H^* vs. L^* : new vs. given
 3. $H+L^*$: hearer thinks new, but in fact given;
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 4. $+H / H\%$: **open-endedness**.
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- ▶ In the literature: $CT \approx L^*+H$, or $L^*H\%$ or $L^*+H\%H\%$
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Main obstacle for a formal account

How should 'important' and 'open-ended' be formalized?

Outline

1. The final rise

Open-endedness = non-cooperativity

A compositional account

2. Generalizing to the internal rise

Local contexts

The compositional account

3. Some predictions

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(Westera, 2013a)

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(see my AC/Semodial talk, Wednesday afternoon)

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3. Satisfied *non-at-issue content*.

1.5. Derivation: that damn John!

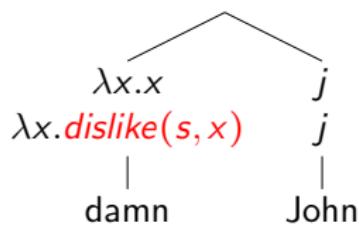
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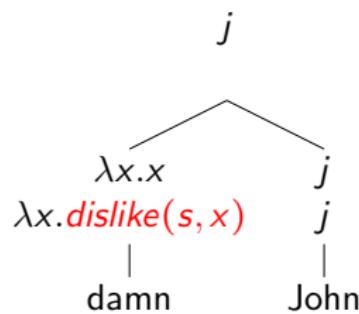
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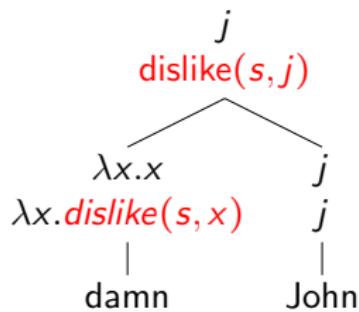
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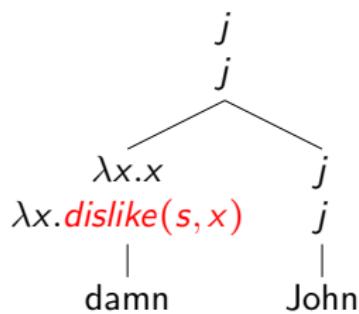
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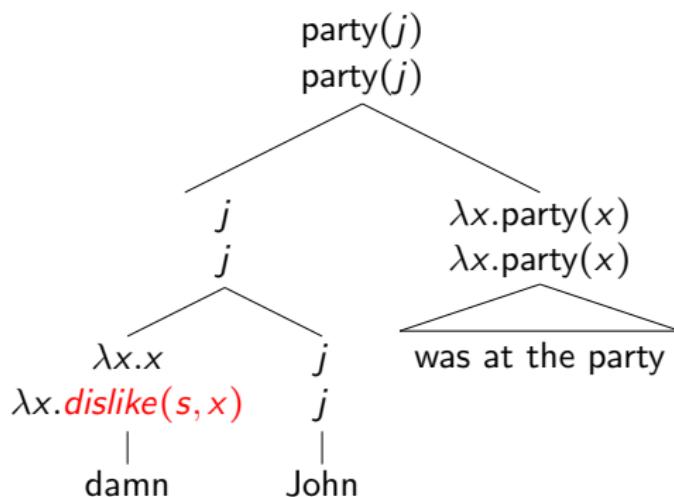
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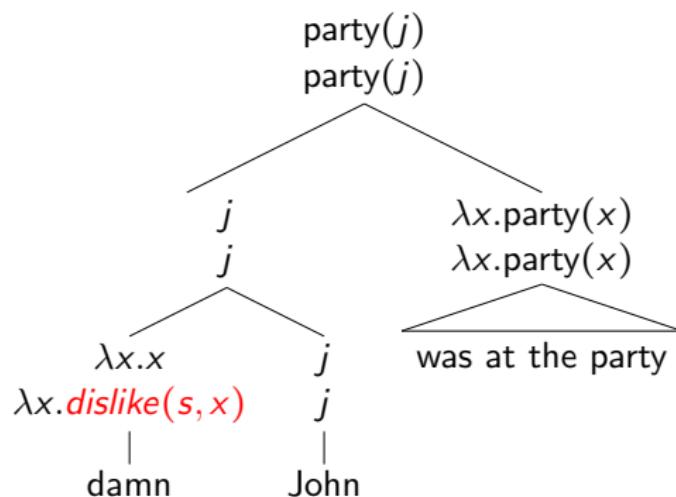
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- ▶ \mathfrak{I} fetches an *issue* from the context (for now, \mathfrak{Q}).
- ▶ In the second dimension:
 - ◀:: $\lambda p_{stt}.\textcolor{red}{\smiley(\mathfrak{I}, p)}$; and
 - ↗:: $\lambda p_{stt}.\textcolor{red}{\frown(\mathfrak{I}, p)}$

1.7. Derivation: The final rise

[That damn John was at the party] ↗

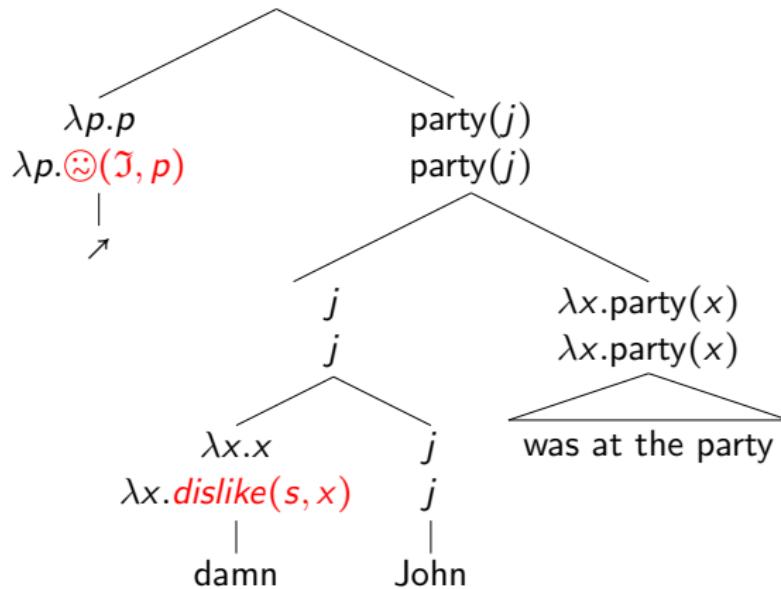
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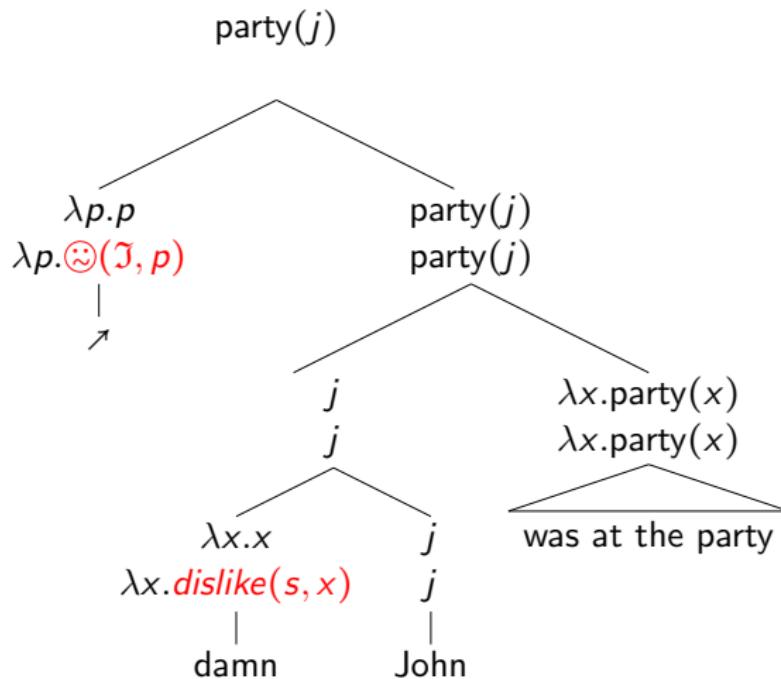
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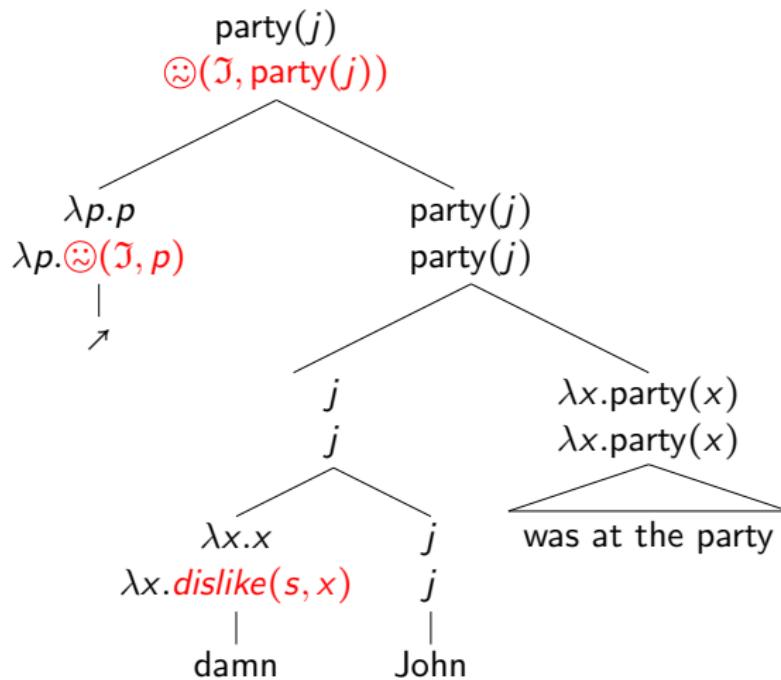
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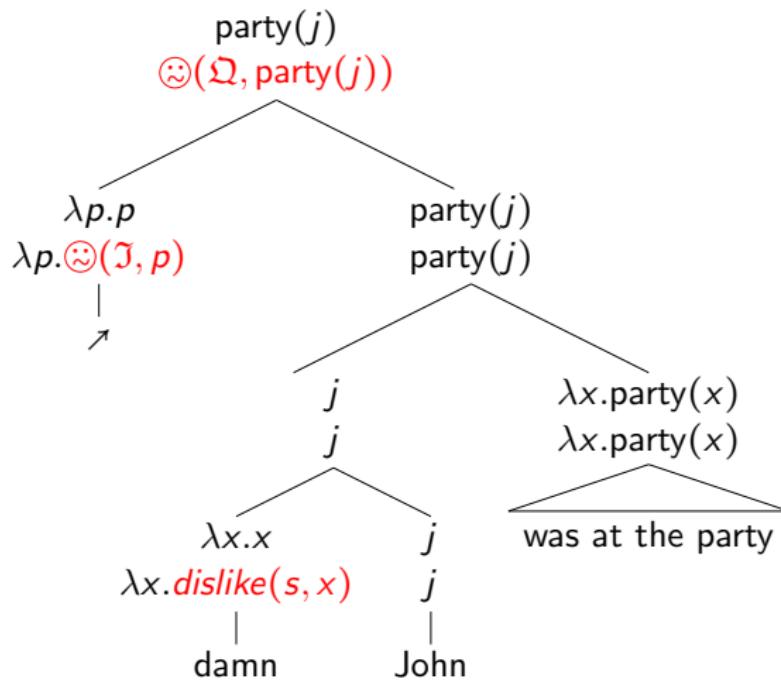
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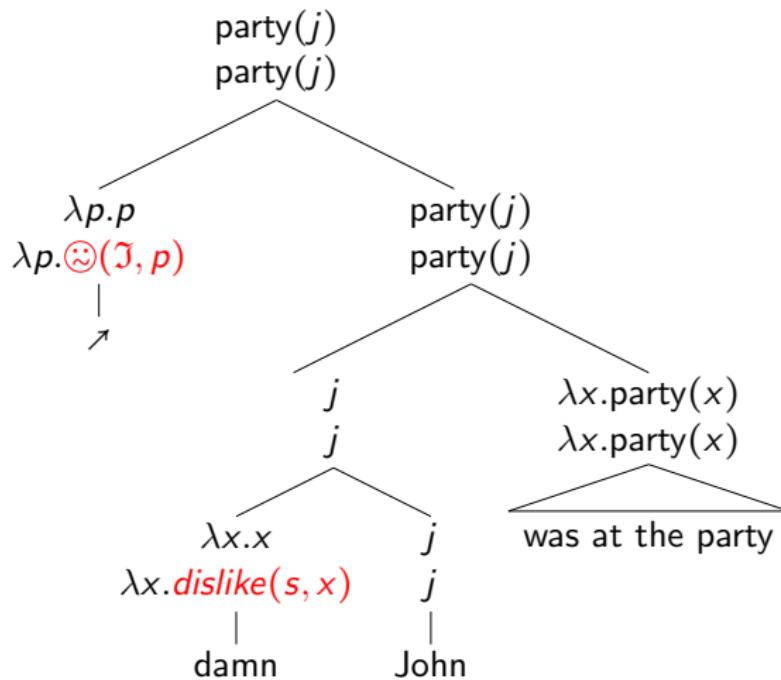
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Outline

1. The final rise

Open-endedness = non-cooperativity

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2. Generalizing to the internal rise

Local contexts

The compositional account

3. Some predictions

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- ▶ The local context is the compositionally computed *theme*.

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Now, in the third dimension:

- ▶ ↴:: $\lambda B_{\langle \alpha, stt \rangle} \lambda A_\alpha. \textcolor{red}{\odot(\Im, B(A))}$
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Finally:

- ▶ When invoked in *IP*, \mathfrak{I} looks in the *global context*: \mathfrak{Q} .
- ▶ When invoked in *iP*, \mathfrak{I} looks in the *local context*: the theme.

2.4. Derivation

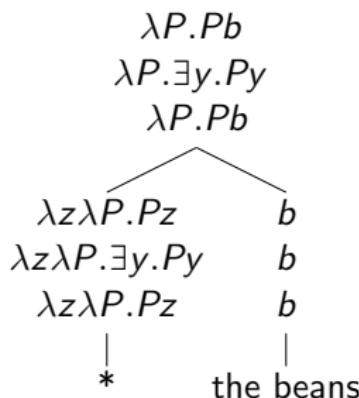
$[[[John]_*]_\nearrow [had [the beans]_*]_\searrow]_\nwarrow$

Satisfied non-at-issue content:

2.4. Derivation

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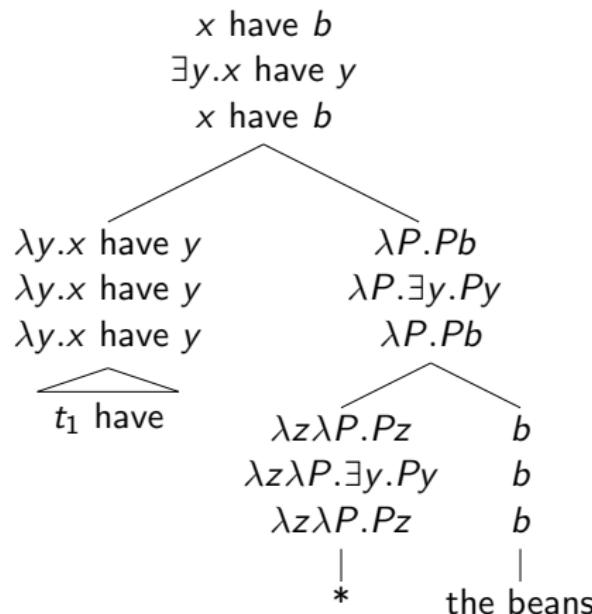
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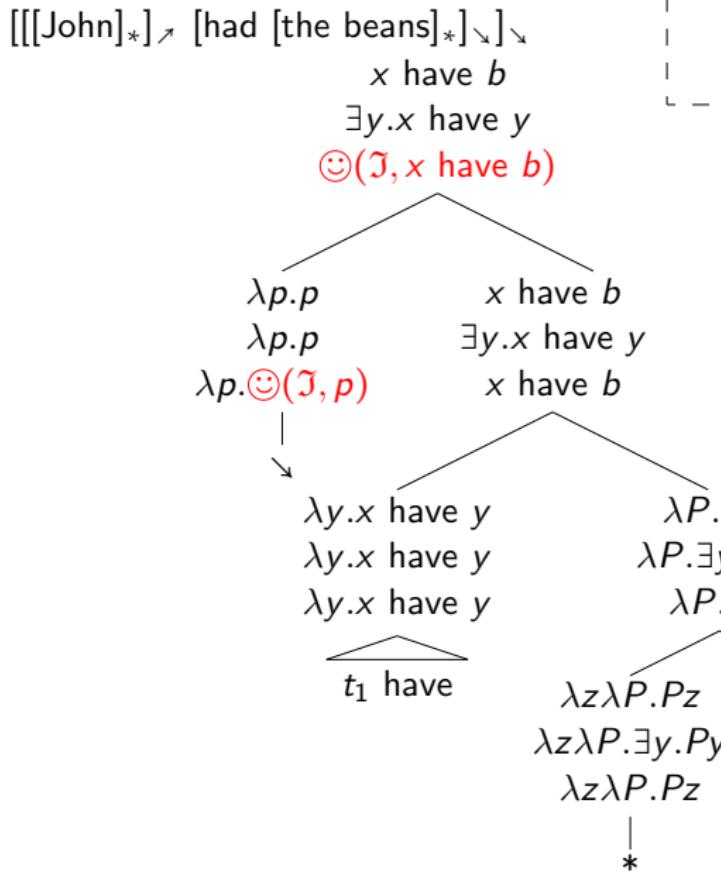
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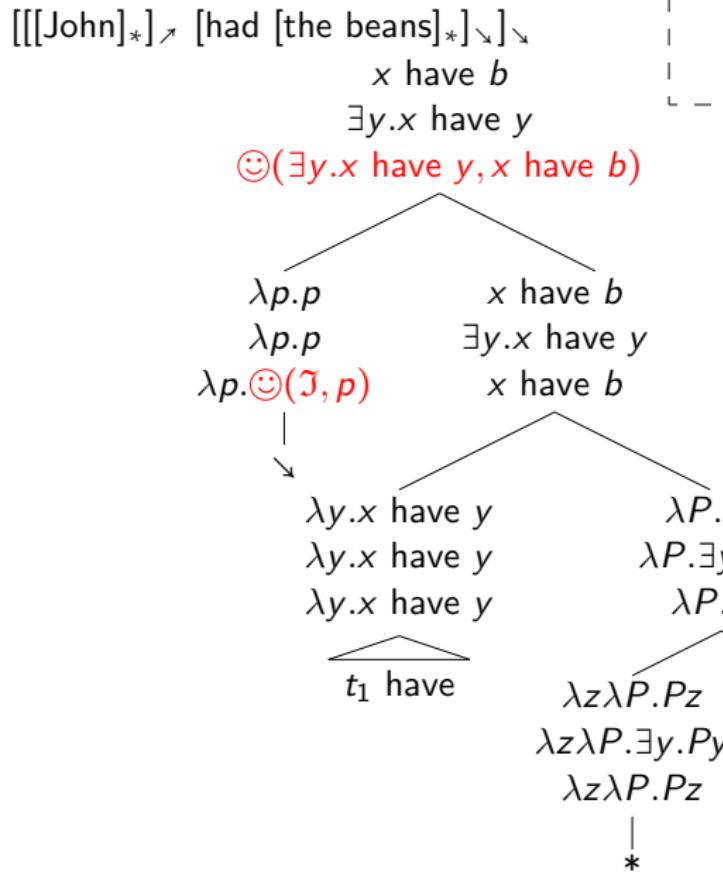
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Satisfied non-at-issue content:

[[[John]_{*}] ↗ [had [the beans]_{*}] ↘] ↘
x have b
 $\exists y. x \text{ have } y$
 $\odot(\exists y. x \text{ have } y, x \text{ have } b)$
|
[t₁ have [the beans]_{*}] ↘

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$\text{[[[John]*]_\nearrow \text{[had [the beans]*]}_\searrow]_\searrow}$

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 $[t_1 \text{ have [the beans}*]_\searrow$

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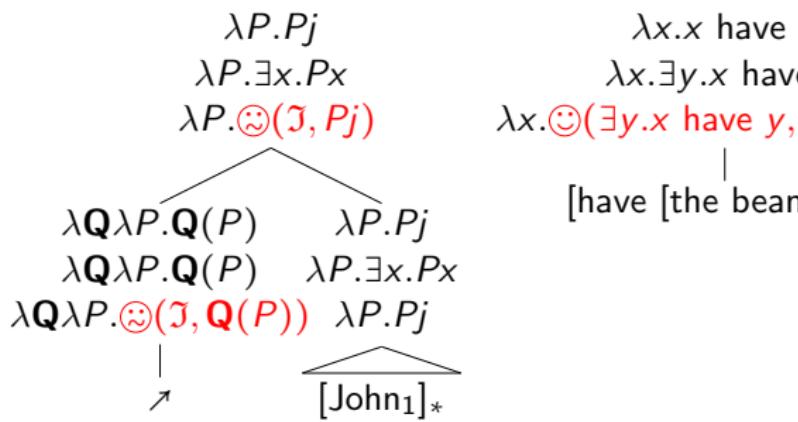
|
|
|
|

$$\begin{array}{c} \lambda x.x \text{ have } b \\ \lambda x.\exists y.x \text{ have } y \\ \lambda x.(\textcolor{red}{\odot}(\exists y.x \text{ have } y, x \text{ have } b) \\ \qquad | \\ \qquad [\text{have [the beans}*}]_\nwarrow \end{array}$$

2.4. Derivation

$\{[[\text{John}]_*], \text{had } [\text{the beans}]_*\}_\nwarrow$

Satisfied non-at-issue content:

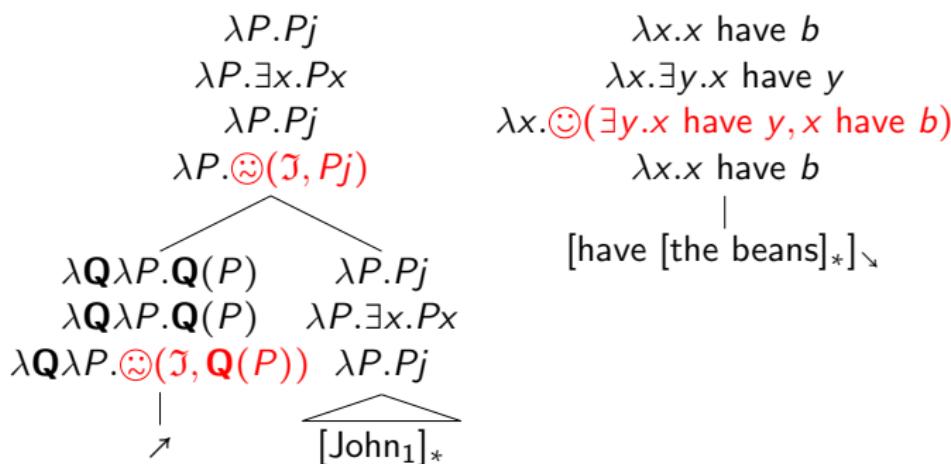


$\lambda x.x \text{ have } b$
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 $\qquad \qquad \qquad |$
 $\qquad \qquad \qquad [\text{have } [\text{the beans}]_*]_\nwarrow$

2.4. Derivation

[[[[John]_{*}] ↗ [had [the beans]_{*}] ↘] ↘]

Satisfied non-at-issue content:



2.4. Derivation

Satisfied non-at-issue content:

$\text{[[[John]*, had [the beans]*]]}$

j have *b*

$\exists x \exists y. x \text{ have } y$

$\text{☺}(\exists y.j \text{ have } y, j \text{ have } b)$

$\approx(\mathfrak{I}, j \text{ have } b)$

$\lambda P.Pi$

$$\lambda P. \exists x. Px$$

$\lambda P.Pj$

$$\lambda P. \textcolor{red}{\textcircled{\text{~}}}(J, Pj)$$

$\lambda x.x$ have b

$\lambda x. \exists y. x \text{ have } y$

$\lambda x. \text{☺}(\exists y. x \text{ have } y, x \text{ have } b)$

$\lambda x.x$ have b

$$\lambda Q \lambda P. \overline{Q}(P)$$

$$\lambda Q \lambda P. Q(P)$$

$$\lambda \mathbf{Q} \lambda P. \textcolor{red}{\circlearrowleft}(\mathfrak{I}, \mathbf{Q}(P))$$

$\lambda P.Pj$

$\Delta P. \exists x. Px$

11

[John₁]_{*}

[have [the beans]*]

2.4. Derivation

[[[John]*], [had [the beans]*]]]

Satisfied non-at-issue content:

$\text{☺}(\exists y.j \text{ have } y, j \text{ have } b)$

j have b

$\lambda P.Pj$	$\lambda x.x \text{ have } b$
$\lambda P.\exists x.Px$	$\lambda x.\exists y.x \text{ have } y$
$\lambda P.Pj$	$\lambda x.\text{☺}(\exists y.x \text{ have } y, x \text{ have } b)$
$\lambda P.\text{☺}(J, Pj)$	$\lambda x.x \text{ have } b$

$\lambda Q \lambda P. Q(P)$	$\lambda P. Pj$	[have [the beans] _*] ↴
$\lambda Q \lambda P. Q(P)$	$\lambda P. \exists x. Px$	
$\lambda Q \lambda P. \textcircled{S}(\mathfrak{I}, Q(P))$	$\lambda P. Pj$	

2.4. Derivation

$[[[John]_*], \nearrow [had [the beans]_*], \searrow]$

Satisfied non-at-issue content:

$\odot(\exists y.j \text{ have } y, j \text{ have } b)$

$j \text{ have } b$

$\exists x \exists y. x \text{ have } y$

$j \text{ have } b$

$\odot(\exists x \exists y. x \text{ have } y, j \text{ have } b)$

$\lambda P.Pj$

$\lambda P.\exists x.Px$

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$\lambda P.\odot(\mathcal{J}, Pj)$

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$[have [the beans]_*]$

$\lambda Q \lambda P.Q(P)$

$\lambda P.Pj$

$\lambda Q \lambda P.Q(P)$

$\lambda P.\exists x.Px$

$\lambda Q \lambda P.\odot(\mathcal{J}, Q(P))$

$\lambda P.Pj$



$[John_1]_*$

2.4. Derivation

[[[[John]_{*}]_↗ [had [the beans]_{*}]_↘]_↘

Satisfied non-at-issue content:

$\text{☺}(\exists y.j \text{ have } y, j \text{ have } b)$

$\textcircled{S}(\exists x \exists y. x \text{ have } y, j \text{ have } b)$

j have *b*

$\exists x \exists y. x \text{ have } y$

j have *b*

j have *b*

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$$\lambda P. \textcolor{red}{\textcircled{\text{~}}}(J, Pj)$$

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$\lambda x.x$ have b

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$$\lambda \overline{P}.Pj$$

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$\lambda P. \exists x. Px$

$$\lambda Q \lambda P. \textcolor{red}{\approx}(\mathfrak{I}, Q(P))$$

.Pj

[have [the beans]*.]



2.4. Derivation

$\text{[[[John]*, had [the beans]*]]}$

Satisfied non-at-issue content:

$\text{☺}(\exists y.j \text{ have } y, j \text{ have } b)$

$\neg(\exists x \exists y. x \text{ have } y, j \text{ have } b)$

j have *b*

$\exists x \exists y. x \text{ have } y$

j have *b*

$\lambda\bar{P},Pi$

$$\lambda P. \exists x. Px$$

$\lambda P.Pj$

$$\lambda P. \textcolor{red}{\approx}(\mathfrak{I}, Pj)$$

$\lambda x.x$ have b

$\lambda x. \exists v. x \text{ have } v$

$\lambda x. \text{☺}(\exists y. x \text{ have } y, x \text{ have } b)$

$\lambda x.x$ have b

$$\lambda Q \lambda P. Q(P)$$

$$\lambda Q \lambda P. Q(P)$$

$$\lambda \mathbf{Q} \lambda P. \textcolor{red}{\circlearrowleft}(\mathfrak{I}, \mathbf{Q}(P))$$

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[have [the beans]*]



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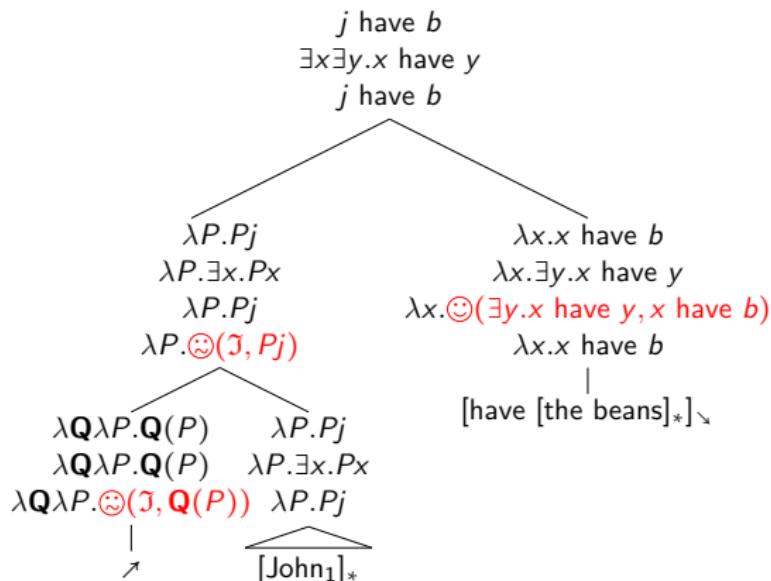
[[[[John]_{*}]_↗ [had [the beans]_{*}]_↘]_↘

Satisfied non-at-issue content:

$\text{☺}(\exists y.j \text{ have } y, j \text{ have } b)$

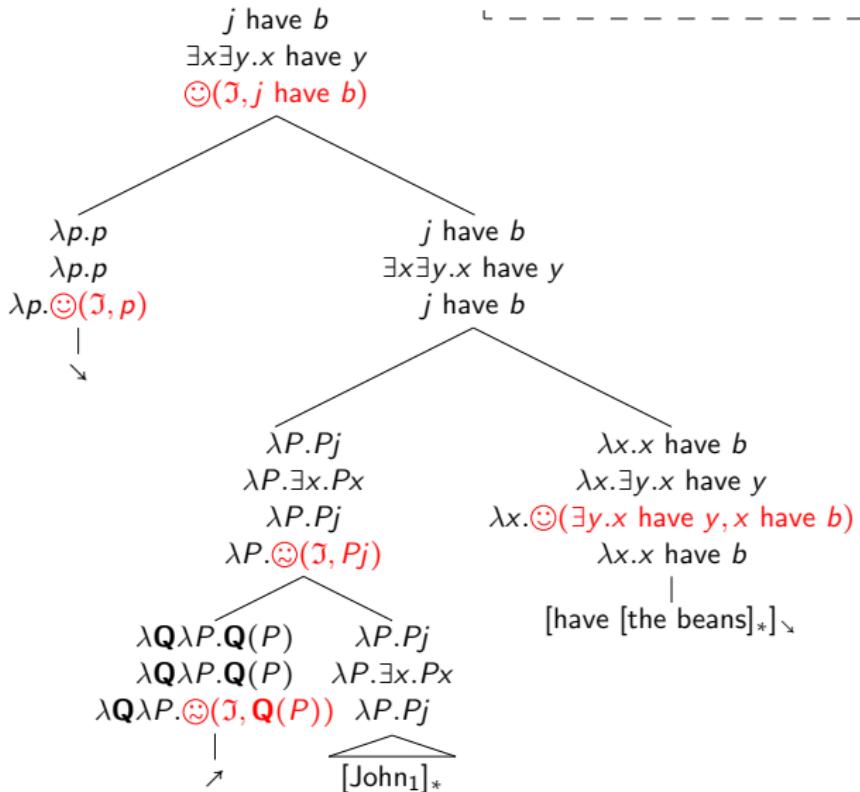
$\textcircled{3}(\exists x \exists y. x \text{ have } y, j \text{ have } b)$

10



2.4. Derivation

$[[[John]_*], \nearrow [had [the beans]_*], \searrow]$



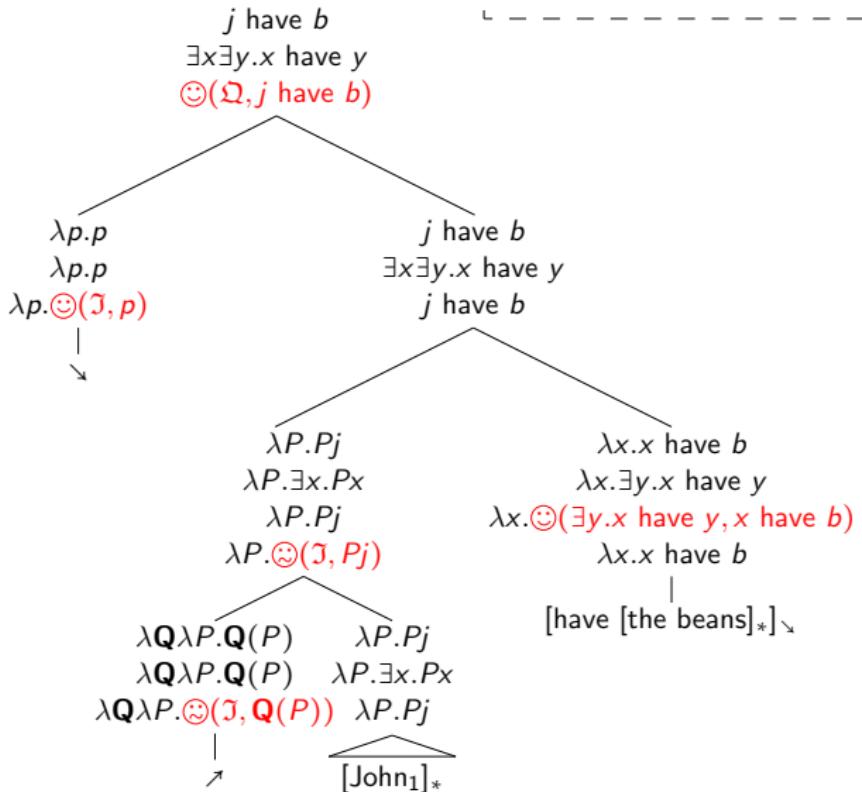
Satisfied non-at-issue content:

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$\odot(\exists x \exists y. x \text{ have } y, j \text{ have } b)$

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$[[[John]_*], \nearrow [had [the beans]_*], \searrow]$



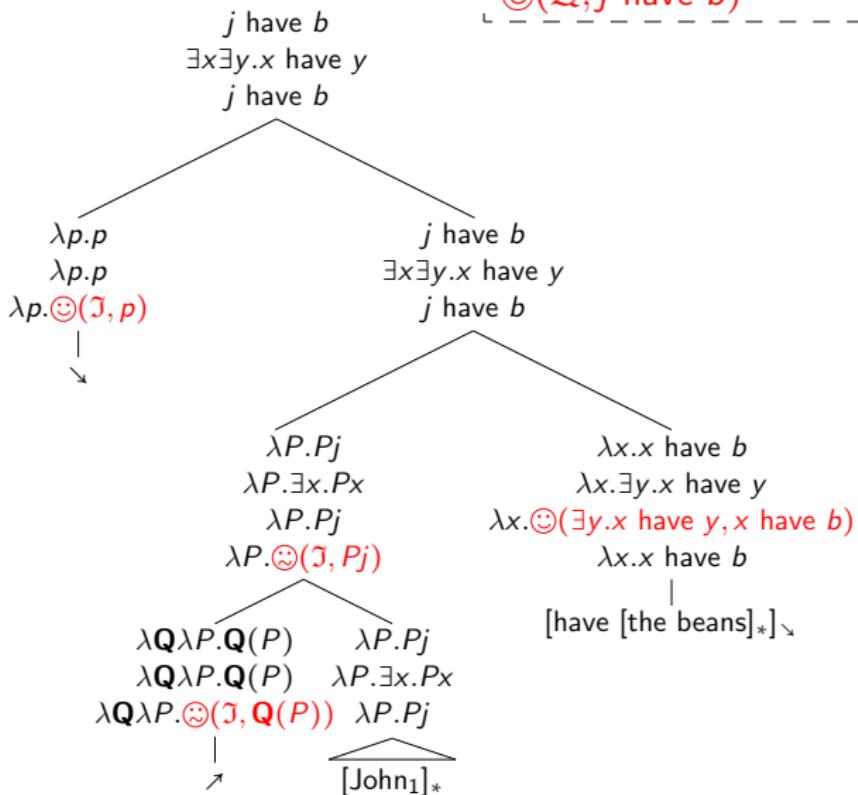
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2.4. Derivation

$[[[John]_*], \lambda [had [the beans]_*]]_*$



Satisfied non-at-issue content:

$\oplus(\exists y. j \text{ have } y, j \text{ have } b)$

$\oplus(\exists x \exists y. x \text{ have } y, j \text{ have } b)$

$\oplus(\mathcal{Q}, j \text{ have } b)$

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3.1. QUD vs. theme

(7) What did John have for lunch?

John ↗ had the beans ↘ ↘

- ▶ ☺(∃y.j have y,j have b)
- ▶ ☺(∃x∃y.x have y,j have b)
- ▶ ☺(Q,j have b)

3.1. QUD vs. theme

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John ↗ had the beans ↘ ↘

⇒ Others are also relevant

- ▶ ☺(∃y.j have y,j have b)
- ▶ ☺(∃x∃y.x have y,j have b)
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→ *Others are also relevant*

- ▶ ☺(∃y.j have y, j have b)
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Hence, (a) is non-standard on lists:

(9) a. ? John ↗ had the beans ↘ ↘. Sue ↗ had the pasta ↘ ↘ ...
b. John ↘ had the beans ↗ ↗. Sue ↘ had the pasta ↗ ↗ ...

3.2. Scope

Same as (8), but with inverse scope:

(10) Of John, Bill and Mary, who had what?

- a. John ↗ had the beans ↘ ↘ ('the beans' > 'John')
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3.3. ‘Fall-rise’

An indirect answer:

- (13) Was it raining?
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Under a plausible account of negation, we get:

(14) a. [[[All]_{*} my friends] ↘ didn't come.] ↗ ('not' > 'all')
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Hence, fall-rise can disambiguate.

(cf. Constant, 2012)

3.4. 'D-trees'? 'Strategies'?

(15) What did the stars wear?

- a. # The female stars wore [caftans]_{*} ↘ ↘
- b. The [female]_{*} stars ↗ wore [caftans]_{*} ↘ ↘

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- ▶ (Pitch accents reveal only what the speaker finds *important*)

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- ▶ No ‘D-trees’, ‘strategies’. (a mapping is work in progress)

Thank you!

Papers (see staff.science.uva.nl/~westera/)

- ▶ *Exhaustivity through the Maxim of Relation*
(LENLS proceedings)
- ▶ *'Attention, I'm violating a maxim!'*
(SemDial proceedings; talk on Wednesday)

Thanks to the *Netherlands Organisation for Scientific Research* (NWO) for financial support; to F. Roelofsen, J. Groenendijk for valuable comments.

Motivating the Maxim of Relation: exhaustivity

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(speaker says '*John*' because she doesn't consider '*Mary*' possible.)

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