

# PROPOSITIONAL CONTENT OF EVENTS AND INDIVIDUALS\*

Patrick D. Elliott

University College London, p.elliott@ucl.ac.uk

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## EMBEDDED NOMINALS AND CLAUSES

Many verbs may embed both DPs and *that*-clauses, often giving rise to systematic meaning alternations. Example here: *explain* (Pietroski 2000).

- (1) a. Amanda explained [<sub>CP</sub> that Nigel resigned].  
*explanans*  
 b. Amanda explained [<sub>DP</sub> the fact that Nigel resigned].  
*explanandum*

**Generalization:** an embedded *that*-clause specifies the content of the eventuality introduced by the verb, whereas an embedded DP is interpreted in a potentially idiosyncratic way.

- (2) a. Bogdan fears [<sub>CP</sub> that he is balding].  
 b. Bogdan fears [<sub>DP</sub> the rumour that he is balding].  
 (3) a. Clark imagined [<sub>CP</sub> that his sister got married].  
 b. Clark imagined [<sub>DP</sub> the rumour that his sister got married].

**Pietroski's (2000) analysis:** *explain* assigns THEME an embedded DP, and CONTENT to an embedded CP. Generalization in terms of syntactic category – can be extended to other verbs (see Kastner 2015).

$$\llbracket(1a)\rrbracket = \lambda w. \exists e[\text{AGENT}_w(e) = a \wedge \text{explaining}_w(e) \wedge \text{CONT}_w(e) = \lambda w'. \text{resigned}_{w'}(n)]$$

$$\llbracket(1b)\rrbracket = \lambda w. \exists e[\text{AGENT}_w(e) = a \wedge \text{explaining}_w(e) \wedge \text{CONT}_w(e) = \lambda w'. \text{resigned}_{w'}(n)]$$

**Question here:** *why* are *that*-clauses always interpreted as content-providers, whereas DPs are interpreted more idiosyncratically? Surprising if both are full-fledged arguments.

## AGAINST A SYNTACTIC ACCOUNT

**Propositional DPs (Moltmann 2003, 2013):**

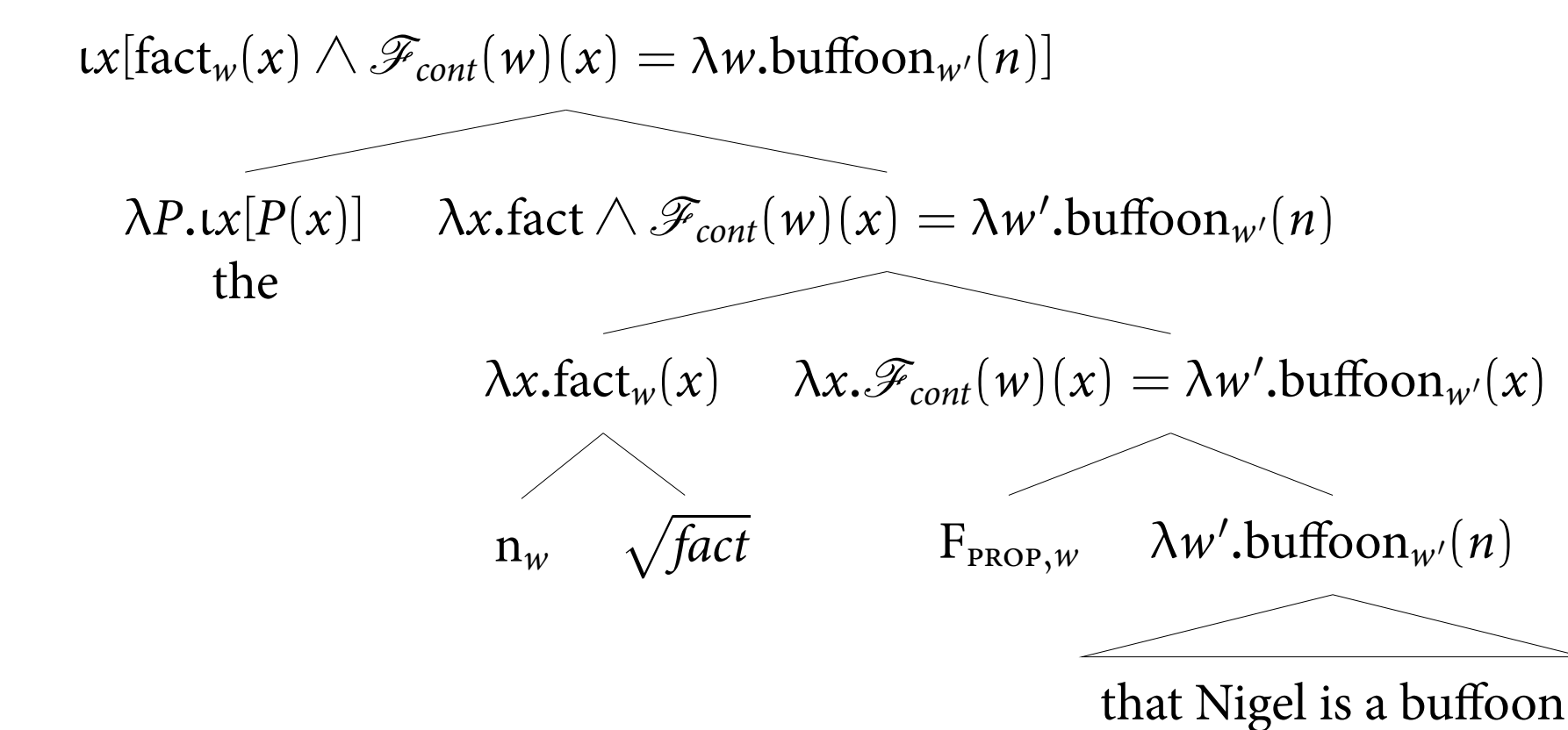
- ▶ DPs headed by *thing*: *the same thing, a different thing, most things, two things, something, everything*, etc.
- ▶ The simplex *wh*-phrase *what*.
- ▶ Anaphoric expressions such as *it* and *that*.
- ▶ Null operators in comparatives (Kennedy & Merchant 2000)

**Pietroski's prediction (false):** *explain* assigns propDPs the THEME  $\theta$ -role.

- (4) a. Amanda explained something – namely, that Nigel resigned.  
 b. Amanda explained something – namely, the fact that Nigel resigned.

## PROPOSITION-TO-PROPERTY SHIFT

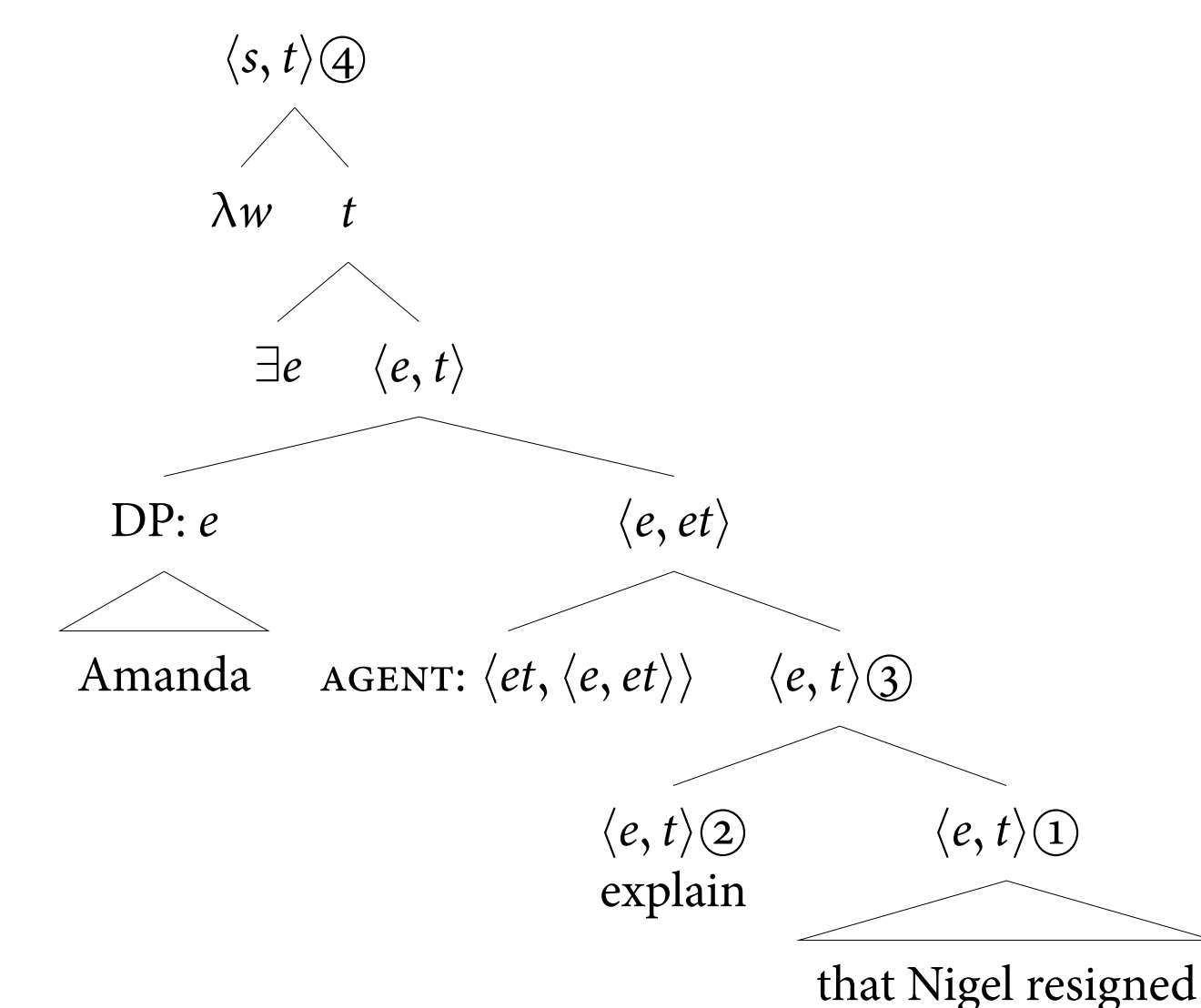
Kratzer (2006) and Moulton (2009, 2015) propose that *that*-clauses denote properties of individuals with propositional content. I implement this idea via the covert functional head  $F_{\text{PROP}}$ , which I take to denote  $\mathcal{F}_{\text{cont}}$ : a (partial) function in the metalanguage that maps a world of evaluation  $w$  and an individual  $x$  to  $x$ 's propositional content (a set of worlds) in  $w$ .



## SEMANTICS OF EMBEDDING

- ▶ Logical Forms are *neo-Davidsonian* (Parsons 1990, Lasnik 1995)
- ▶ No type distinction between *individuals* and *eventualities* (Lasnik 1995)

**Core claim:** *that*-clauses are semantically modifiers. They compose with verbs via *Predicate Modification* (Heim & Kratzer 1998).



$$\llbracket \textcircled{1} \rrbracket = \lambda x. \mathcal{F}_{\text{cont}}(w)(x) = \lambda w'. \text{resigned}_{w'}(n)$$

$$\llbracket \textcircled{1} \rrbracket = \lambda x. \text{explaining}_w(x)$$

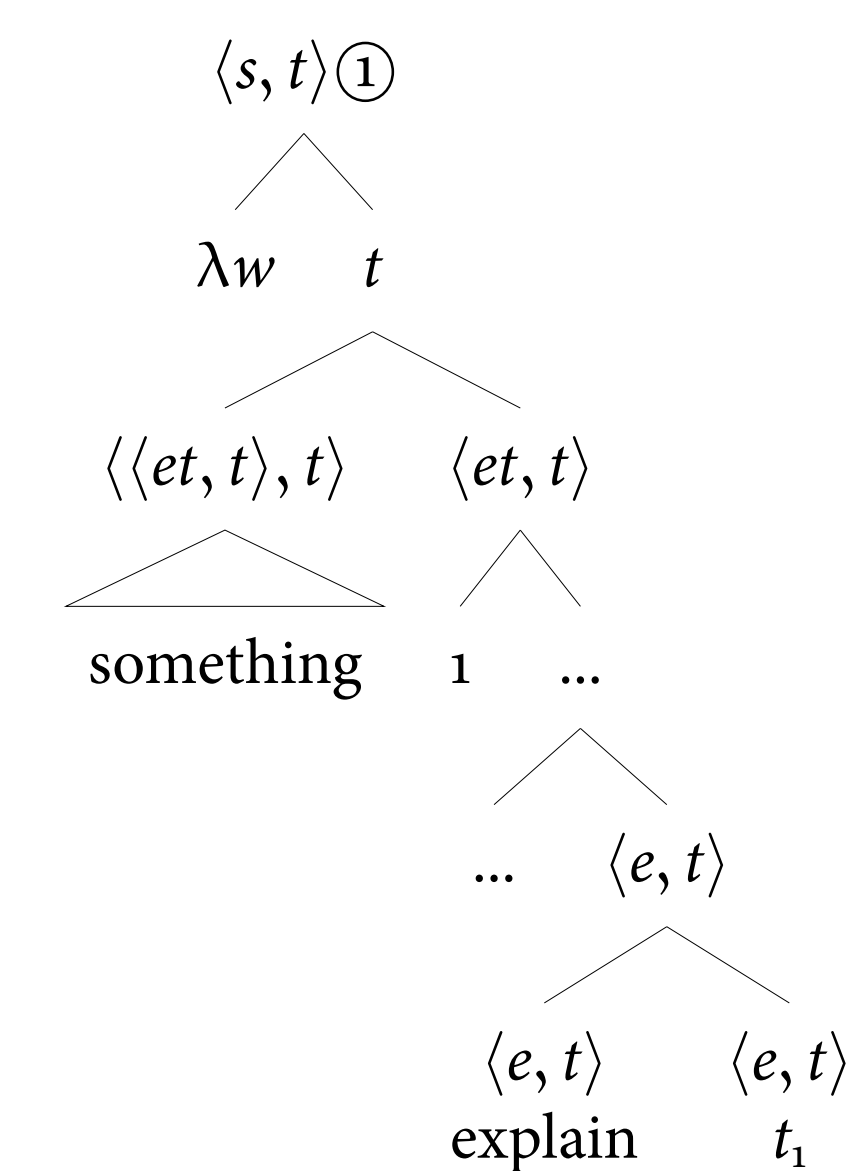
$$\llbracket \textcircled{3} \rrbracket = \text{PM}(\llbracket \textcircled{1} \rrbracket)(\llbracket \textcircled{2} \rrbracket) = \lambda x. \text{explaining}_w(x) \wedge \mathcal{F}_{\text{cont}}(w)(x) = \lambda w'. \text{resigned}_{w'}(n)$$

## SEMANTICS OF PROPOSITIONAL DPS

**Claim:** PropDPs are special, because they can denote/quantify over higher-order objects.

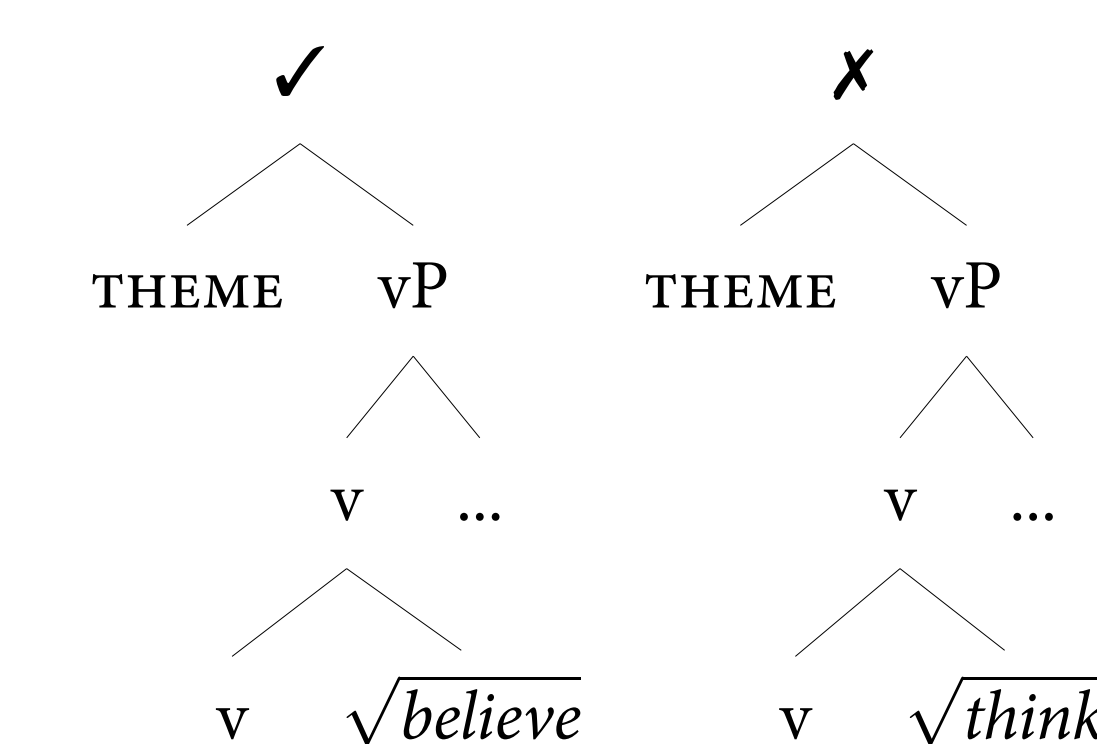
$$\llbracket \text{that}_i \rrbracket^g = g(1, \langle e, t \rangle)$$

$$\llbracket \text{something}_w \rrbracket = \lambda Q_{\langle et, t \rangle}. \exists P_{\langle e, t \rangle} [(\forall x, y [(P(x) \wedge P(y)) \rightarrow (\mathcal{F}_{\text{cont}}(w)(x) = \mathcal{F}_{\text{cont}}(w)(y))]) \wedge Q(P)]$$



$$\llbracket \textcircled{1} \rrbracket = \lambda w. \exists P_{\langle e, t \rangle} [(\forall x, y [(P(x) \wedge P(y)) \rightarrow (\mathcal{F}_{\text{cont}}(w)(x) = \mathcal{F}_{\text{cont}}(w)(y))]) \wedge \exists e_e[\text{explaining}_w(e) \wedge \text{AGENT}_w(e) = a \wedge P(e)]]$$

*Believe*-type verbs can embed *that*-clauses, contDPs and propDPs, whereas *think*-type verbs can only embed *that*-clauses and propDPs. This boils down to *argument structure*, as opposed to case/c-selection (cf. Grimshaw 1979, Pesetsky 1982).



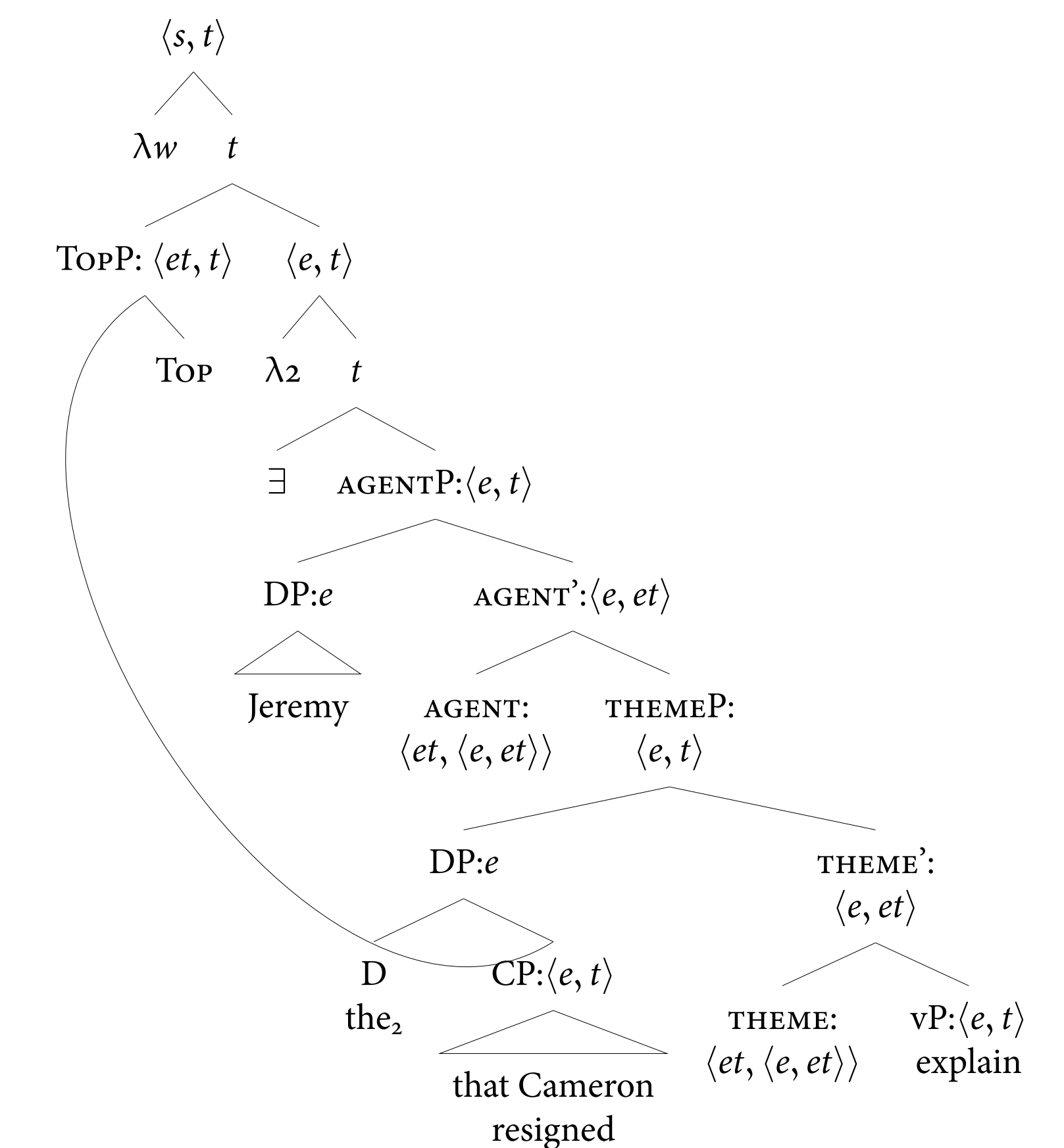
**(Putative) generalization:** there are no verbs which obligatorily embed a *that*-clause, but disallow a DP. This is mysterious if *that*-clauses are arguments.

## THE DP REQUIREMENT REVISITED

**The type  $e$  requirement:** the gap of a fronted CP (sentential subject or topic) must be a DP of type  $e$  (cf. e.g., Moulton 2015).

- (5) a. ?\* that John will leave, Mary hopes  $t$ .  
 b. That John will leave, Mary believes  $t$ .  
 (6) That Shirley is upset, Abed explained  $t$ .  
 $\times$  *explanans*;  $\checkmark$  *explanandum*

This follows if the general algorithm for interpreting movement (including CP fronting) is *trace conversion* (or something like it) (Sauerland 1998). A Fox & Johnson (2016) style multi-dominance implementation:



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