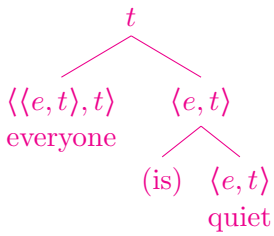
1 Extra practice

Provide a full lambda computation of the following sentences, including a tree annotated with types, the lexical entries, and a step-by-step computation. Ignore tense, and you can treat *is* and *was* as meaningless.

1. ⟦Everyone (is) quiet⟧

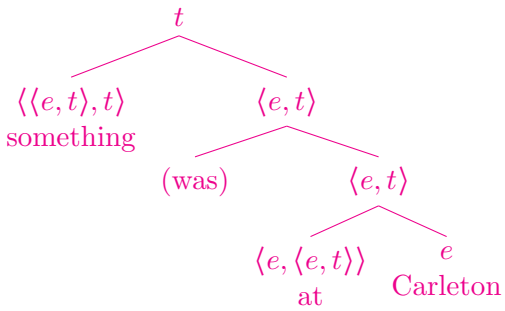


   Computation and lexical entries: Replace "scream" with "quiet" in Section 2.2 of handout

2. Everything amused Lance

   Solution given in class

3. ⟦Something (was) at Carleton⟧



   $[\![\text{Carleton}]\!] = c$

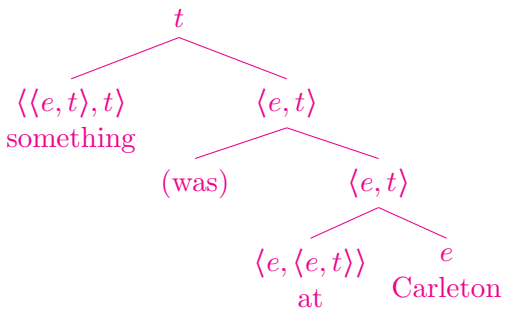
   $[\![\text{at}]\!] = \lambda x[\lambda y[AT(y,x)]]$

   $[\![\text{something}]\!] = \lambda f_{\langle e,t\rangle}[\exists z[f(z)]]$

   (a) ⟦at Carleton⟧
   - i. $= [\![\text{at}]\!]([\![\text{Carleton}]\!])$
   - ii. $= [\![\text{at}]\!](c)$
   - iii. $= \lambda x[\lambda y[AT(y,x)]](c)$
   - iv. $= \lambda y[AT(y,c)]$

   (b) ⟦something (was) at Carleton⟧
   - i. $= [\![\text{something}]\!]([\![\text{at Carleton}]\!])$
   - ii. $= \lambda f_{\langle e,t\rangle}[\exists z[f(z)]]([\![\text{at Carleton}]\!])$
   - iii. $= \exists z[[\![\text{at Carleton}]\!](z)]$
   - iv. $= \exists z[\lambda y[AT(y,c)](z)]$
   - v. $=$ T iff $\exists z[AT(z,c)]$

4. ⟦Everyone won Best Pop Album⟧



⟦Best Pop Album⟧ $= b$

⟦win⟧ $= \lambda x[\lambda y[AT(y,x)]]$

⟦everyone⟧ $= \lambda f_{\langle e,t\rangle}[\forall z[PERSON(z) \rightarrow f(z)]]$

(a) ⟦won Best Pop Album⟧
   i. = ⟦win Best Pop Album⟧
   ii. = ⟦win⟧(⟦Best Pop Album⟧)
   iii. = ⟦win⟧(b)
   iv. = $\lambda x[\lambda y[WIN(y,x)]](b)$
   v. = $\lambda y[WIN(y,b)]$

(b) ⟦everyone won Best Pop Album⟧
   i. = ⟦everyone win Best Pop Album⟧
   ii. = ⟦everyone⟧(⟦win Best Pop Album⟧)
   iii. = $\lambda f_{\langle e,t\rangle}[\forall z[PERSON(z) \rightarrow f(z)]]$(⟦win Best Pop Album⟧)
   iv. = $\forall z[PERSON(z) \rightarrow$ ⟦win Best Pop Album⟧$(z)]$
   v. = $\forall z[PERSON(z) \rightarrow \lambda y[WIN(y,b)](z)]$
   vi. = T iff $\forall z[PERSON(z) \rightarrow WIN(z,b)]$