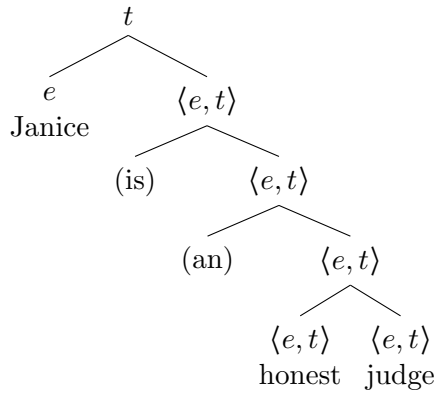


1 Practice

1. Are the underlined modifiers intersective or non-intersective?
 - (a) Tyra wore a blue dress **solution given in class**
 - (b) Fatima missed the main event **solution given in class**
 - (c) Twiggy is a former supermodel **solution given in class**
 - (d) Miss J imitated a dead horse **solution given in class**
2. Give a full lambda computation of the following sentences, including a tree annotated with types, the lexical entries , and a step-by-step computation. You can ignore tense, and you can treat *to*, *is*, and *of* as meaningless.
 - (a) The judge is not happy **solution given in class/video**
 - (b) Allison did not win the competition
 - (c) Janice is an honest judge

2. $\llbracket \text{Janice (is) (an) honest judge} \rrbracket$ 

$$\llbracket \text{Janice} \rrbracket = j$$

$$\llbracket \text{honest} \rrbracket = \lambda x[HONEST(x)]$$

$$\llbracket \text{judge} \rrbracket = \lambda y[JUDGE(y)]$$

$$\llbracket \text{honest judge} \rrbracket$$

$$= \lambda z[\llbracket \text{honest} \rrbracket(z) \ \& \ \llbracket \text{judge} \rrbracket(z)] \quad (\text{via PM rule})$$

$$= \lambda z[\lambda x[HONEST(x)](z) \ \& \ \llbracket JUDGE \rrbracket(z)]$$

$$= \lambda z[HONEST(z) \ \& \ \llbracket \text{judge} \rrbracket(z)]$$

$$= \lambda z[HONEST(z) \ \& \ \lambda y[JUDGE(y)](z)]$$

$$= \lambda z[HONEST(z) \ \& \ JUDGE(z)]$$

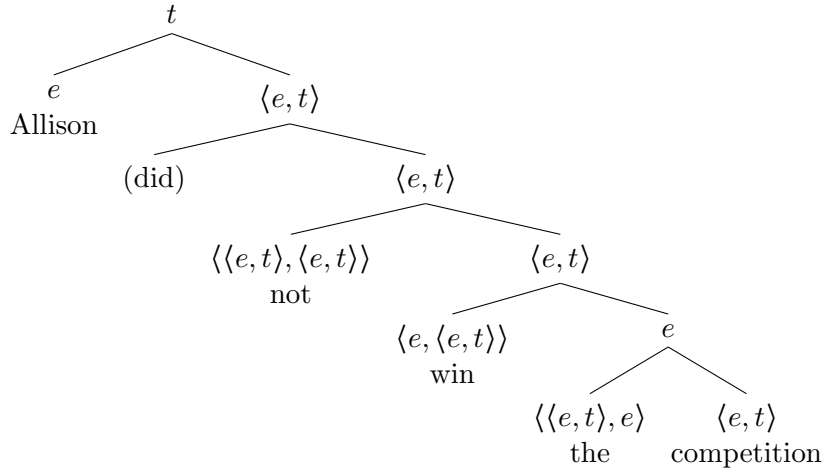
$$\llbracket \text{Janice (is) (an) honest judge} \rrbracket$$

$$= \llbracket \text{honest judge} \rrbracket(\llbracket \text{Janice} \rrbracket)$$

$$= \llbracket \text{honest judge} \rrbracket(j)$$

$$= \lambda z[HONEST(z) \ \& \ JUDGE(z)](j)$$

$$= \text{T iff } HONEST(j) \ \& \ JUDGE(j)$$

3. $\llbracket \text{Allison (did) not win the competition} \rrbracket$ 

$$\llbracket \text{the} \rrbracket = \lambda f_{\langle e, t \rangle} [\iota x [f(x)]]$$

$$\llbracket \text{competition} \rrbracket = \lambda y [COMPETITION(y)]$$

$$\llbracket \text{not} \rrbracket = \lambda f_{\langle e, t \rangle} [\lambda x [\neg f(x)]]$$

$$\llbracket \text{win} \rrbracket = \lambda y [\lambda z [WIN(z, y)]]$$

$$\llbracket \text{Allison} \rrbracket = a$$

[[Allison (did) not win the competition]]

1. [[the competition]]

$$\begin{aligned}
 &= \llbracket \text{the} \rrbracket (\llbracket \text{competition} \rrbracket) \\
 &= \lambda f_{\langle e,t \rangle} [\iota x [f(x)]] (\llbracket \text{competition} \rrbracket) \\
 &= \iota x [\llbracket \text{competition} \rrbracket (x)] \\
 &= \iota x [\lambda y [\text{COMPETITION}(y)](x)] \\
 &= \iota x [\text{COMPETITION}(x)] \\
 &= c
 \end{aligned}$$

2. [[win the competition]]

$$\begin{aligned}
 &= \llbracket \text{win} \rrbracket (\llbracket \text{the competition} \rrbracket) \\
 &= \llbracket \text{win} \rrbracket (c) \\
 &= \lambda y [\lambda z [\text{WIN}(z, y)]](c) \\
 &= \lambda z [\text{WIN}(z, c)]
 \end{aligned}$$

3. [[not win the competition]]

$$\begin{aligned}
 &= \llbracket \text{not} \rrbracket (\llbracket \text{win the competition} \rrbracket) \\
 &= \lambda f_{\langle e,t \rangle} [\lambda x [\neg f(x)]] (\llbracket \text{win the competition} \rrbracket) \\
 &= \lambda x [\neg \llbracket \text{win the competition} \rrbracket (x)] \\
 &= \lambda x [\neg [\lambda z [\text{WIN}(z, c)](x)]] \\
 &= \lambda x [\neg \text{WIN}(x, c)]
 \end{aligned}$$

Optionally before this: $= \lambda x [\neg [\text{WIN}(x, c)]]$

4. [[Allison (did) not win the competition]]

$$\begin{aligned}
 &= \llbracket \text{not win the competition} \rrbracket (\llbracket \text{Allison} \rrbracket) \\
 &= \llbracket \text{not win the competition} \rrbracket (a) \\
 &= \lambda x [\neg \text{WIN}(x, c)](a) \\
 &= \text{T iff } \neg \text{WIN}(a, c)
 \end{aligned}$$