

An alternative view posits that the formal predicate (verb denotation) combines only with its event argument, while the theta roles are introduced as separate formal predicates relating the event to the relevant argument. This approach, called neo-Davidsonian, is exemplified in (12), where e is an event variable, which has a new type v . To achieve the truth conditions in (12), we will pursue the compositional approach in (13)-(14). [We will ignore the existential quantifier \exists in this exercise.]

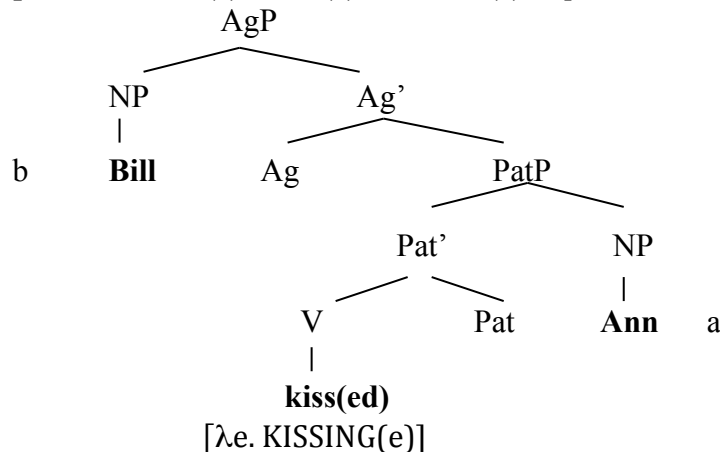
$$(12) \quad \llbracket \text{Bill kissed Ann} \rrbracket^w = 1 \quad \text{iff} \quad \exists e_v [\text{KISSING}(e) \wedge \text{AG}(e)=b \wedge \text{PAT}(e)=a]$$

\approx "There is an event e , which is a kissing-event, and the agent of e is b , and the patient of e is a ."

$$(13) \quad \llbracket \text{kiss(ed)} \rrbracket^w = [\lambda e_v. \text{KISSING}(e)]$$

(14) **Bill kissed Ann.**

$$[\lambda e. \text{KISSING}(e) \wedge \text{AG}(e)=b \wedge \text{PAT}(e)=a]$$



You can see the final denotation for the sentence (**AgP**) as well as the denotations for the individual words annotated in the tree.

Your tasks are:

- (i) spell out the denotations of the functional head **Ag** and **Pat** as λ -expressions of type $\langle\langle v, t \rangle, \langle e, \langle v, t \rangle \rangle\rangle$, and
- (ii) do the semantic computation of (14) step by step, in full detail.

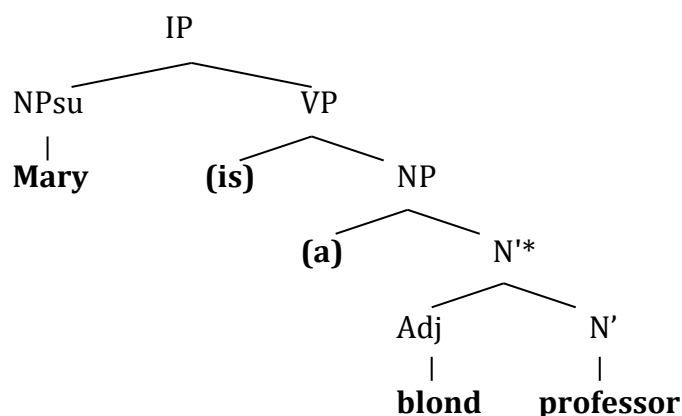
$$\llbracket \text{Ag}_{\langle\langle v, t \rangle, \langle e, \langle v, t \rangle \rangle} \rrbracket^w =$$

$$\llbracket \text{Pat}_{\langle\langle v, t \rangle, \langle e, \langle v, t \rangle \rangle} \rrbracket^w =$$

Exercise 3: Predicate modification.

Do QUESTION 8 from page 16 of the handout (repeated here).

(15)



QUESTION 8: Consider intersective adjectives. Assume that predicates such as adjectives and common nouns denote functions and define the new rule “predicate modification” we need in order to combine them. [HINT: Fill in the blank in “Mary is a blond professor” = “Mary is blond ___ Mary is a professor”]

(16) For any arbitrary N' , Adj and w ,

$$\left[\left[\begin{array}{c} N'^* \\ \swarrow \quad \searrow \\ \text{ADJ} \quad N' \end{array} \right] \right]^w = \dots$$

Or, more generally:

(17) Predicate Modification:

If α has the form α , then $[[\alpha]]^w =$

$$\begin{array}{c} \alpha \\ \swarrow \quad \searrow \\ \beta_{\langle e,t \rangle} \quad \gamma_{\langle e,t \rangle} \end{array}$$

Now, do the computation for (15) above for an arbitrary world w .