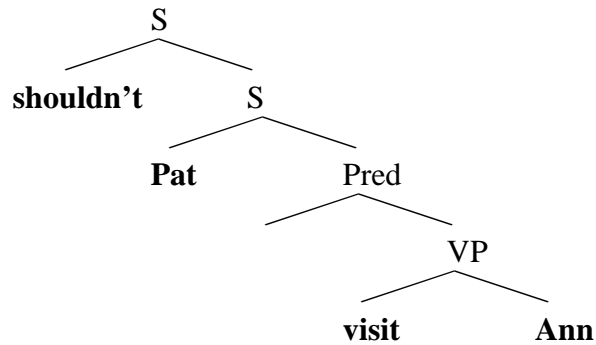


## Sample Semantic Computations in Intensionality

■ Sample 1: **Pat shouldn't visit Ann.**

[= (35d) from page 65]

(1)



(2) Semantic rule for **shouldn't**:

$$\begin{aligned}
 \llbracket \text{shouldn't}_{\text{Deo}} \text{ S} \rrbracket^{w,g} = 1 \\
 \text{iff } |\{w':w\text{Deow}'\} \cap \{w':\llbracket \text{S} \rrbracket^{w',g} = 0\}| > 2/3 |\{w':w\text{Deow}'\}|
 \end{aligned}$$

$$\llbracket \text{Ann} \rrbracket^{w,g} = a$$

$$\llbracket \text{visit} \rrbracket^{w,g} = \{ \langle x,y \rangle : x \text{ visits } y \text{ in } w \}$$

$$\begin{aligned}
 \llbracket \text{visit Ann} \rrbracket^{w,g} &= \{ z : \langle z, \llbracket \text{Ann} \rrbracket^{w,g} \rangle \in \llbracket \text{visit} \rrbracket^{w,g} \} \\
 &= \{ z : \langle z, a \rangle \in \{ \langle x,y \rangle : x \text{ visits } y \text{ in } w \} \} \\
 &= \{ z : z \text{ visits } a \text{ in } w \}
 \end{aligned}$$

$$\llbracket \text{Pat} \rrbracket^{w,g} = p$$

$$\begin{aligned}
 \llbracket \text{Pat visit Ann} \rrbracket^{w,g} &= 1 \text{ iff } \llbracket \text{Pat} \rrbracket^{w,g} \in \llbracket \text{visit Ann} \rrbracket^{w,g} \\
 &= 1 \text{ iff } p \in \{ z : z \text{ visits } a \text{ in } w \} \\
 &= 1 \text{ iff } p \text{ visits } a \text{ in } w \\
 &= \text{i.e. } 0 \text{ iff } p \text{ does not visit } a \text{ in } w
 \end{aligned}$$

$$\llbracket \text{shouldn't}_{\text{Deo}} [\text{Pat visit Ann}]_S \rrbracket^{w,g} = 1$$

$$\text{iff } |\{w':w\text{Deow}'\} \cap \{w':\llbracket \text{Pat visit Ann} \rrbracket^{w',g} = 0\}| > 2/3 |\{w':w\text{Deow}'\}|$$

$$\text{iff } |\{w':w\text{Deow}'\} \cap \{w': p \text{ does not visit } a \text{ in } w'\}| > 2/3 |\{w':w\text{Deow}'\}|$$

■ Sample 2: **Pat can't visit Ann.**

(3) Semantic rule for **can't**:

$$\llbracket \text{can't}_{\text{Deo}} \text{S} \rrbracket^{w,g} = 1 \quad \text{iff} \quad \{w': w\text{Deow}'\} \cap \{w': \llbracket \text{S} \rrbracket^{w',g} = 1\} = \emptyset$$

... [Same as in Sample 1]

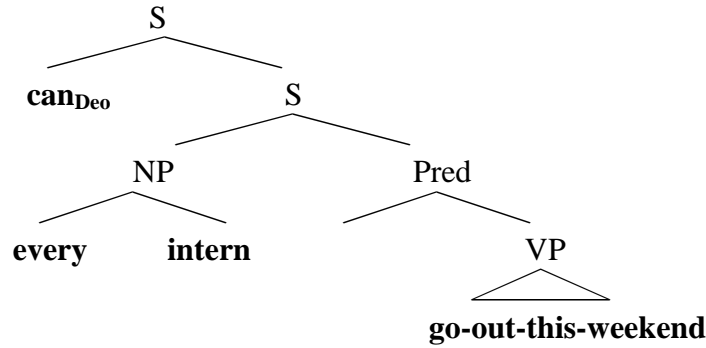
$$\llbracket \text{can't}_{\text{Deo}} [\text{Pat visit Ann}]_{\text{S}} \rrbracket^{w,g} = 1$$

$$\text{iff} \quad \{w': w\text{Deow}'\} \cap \{w': \llbracket \text{Pat visit Ann} \rrbracket^{w',g} = 1\} = \emptyset$$

$$\text{iff} \quad \{w': w\text{Deow}'\} \cap \{w': p \text{ visits } a \text{ in } w'\} = \emptyset$$

■ Sample 3: reading **can** >> **every** of sentence **Every intern can go-out-this-weekend.**

(4) [= (36) from page 65]



$$\llbracket [\text{go-out-this-weekend}]_{\text{VP}} \rrbracket^{w,g} = \{x: x \text{ goes in } w\}$$

$$\llbracket [\text{go-out-this-weekend}]_{\text{Pred}} \rrbracket^{w,g} = \{x: x \text{ goes in } w\}$$

$$\llbracket [\text{intern}] \rrbracket^{w,g} = \{y: y \text{ is an intern in } w\}$$

$$\llbracket \text{every intern}_{\text{N}} \text{ go-out-this-weekend}_{\text{Pred}} \rrbracket^w = 1$$

$$\text{iff} \quad \llbracket [\text{N}'] \rrbracket^w \subseteq \llbracket [\text{Pred}] \rrbracket^w \quad \text{[See (3) on page 37]}$$

$$\text{iff} \quad \llbracket [\text{intern}] \rrbracket^w \subseteq \llbracket [\text{go-out-this-weekend}] \rrbracket^w$$

$$\text{iff} \quad \{y: y \text{ is an intern in } w\} \subseteq \{x: x \text{ goes in } w\}$$

$$\llbracket \text{can}_{\text{Deo}} [\text{every intern go-out-this-weekend}]_{\text{S}} \rrbracket^w = 1$$

$$\text{iff} \quad \{w': w\text{Deow}'\} \cap \{w': \llbracket \text{every intern go-out-this-weekend} \rrbracket^{w',g} = 1\} \neq \emptyset$$

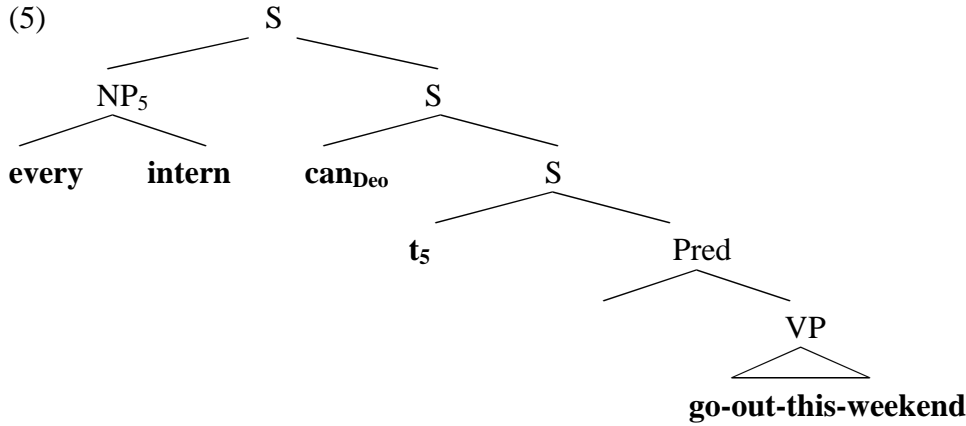
[From (32) on page 64]

$$\text{iff} \quad \{w': w\text{Deow}'\} \cap \{w': \{y: y \text{ is an intern in } w'\} \subseteq \{x: x \text{ goes in } w'\}\} \neq \emptyset$$

“This is allowed: that every intern goes out this weekend (all at the same time).”

■ Sample 4: reading **every**>>**can** of sentence **Every intern can go-out-this-weekend**.

[= (36) from page 65]



$$\llbracket [\text{go-out-this-weekend}]_{\text{VP}} \rrbracket^{w,g} = \{x: x \text{ goes in } w\}$$

$$\llbracket [\text{go-out-this-weekend}]_{\text{Pred}} \rrbracket^{w,g} = \{x: x \text{ goes in } w\}$$

$$\begin{aligned} \llbracket t_5 \text{ go-out-this-weekend} \rrbracket^{w,g} &= 1 \quad \text{iff} \quad \llbracket t_5 \rrbracket^{w,g} \in \llbracket \text{go-out-this-weekend} \rrbracket^{w,g} \\ &= 1 \quad \text{iff} \quad g(5) \in \{x: x \text{ goes in } w\} \\ &= 1 \quad \text{iff} \quad g(5) \text{ goes in } w \end{aligned}$$

$$\begin{aligned} \llbracket \text{can}_{\text{Deo}} [t_5 \text{ go-out-this-weekend}]_S \rrbracket^{w,g} &= 1 \\ \text{iff} \quad \{w': w\text{Deow}'\} \cap \{w': \llbracket t_5 \text{ go-out-this-weekend} \rrbracket^{w',g} = 1\} &\neq \emptyset \quad [\text{From (32) p.64}] \\ \text{iff} \quad \{w': w\text{Deow}'\} \cap \{w': g(5) \text{ goes in } w'\} &\neq \emptyset \end{aligned}$$

$$\llbracket \text{intern} \rrbracket^{w,g} = \{y: y \text{ is an intern in } w\}$$

$$\begin{aligned} \llbracket [\text{every intern}_{\text{N}'}]_5 [\text{can go-out-this-weekend}]_S \rrbracket^{w,g} &= 1 \\ \text{iff} \quad \llbracket \text{N}' \rrbracket^{w,g} &\subseteq \{x: \llbracket \text{S} \rrbracket^{w,gx/5} = 1\} && [\text{From (39) p.42}] \\ \text{iff} \quad \llbracket \text{intern} \rrbracket^{w,g} &\subseteq \{x: \llbracket \text{can } t_5 \text{ go-out-this-weekend} \rrbracket^{w,gx/5} = 1\} \\ \text{iff} \quad \{y: y \text{ is an intern in } w\} &\subseteq \{x: \underline{\{w': w\text{Deow}'\} \cap \{w': g^{x/5}(5) \text{ goes in } w'\}} \neq \emptyset \} \\ \text{iff} \quad \{y: y \text{ is an intern in } w\} &\subseteq \{x: \{w': w\text{Deow}'\} \cap \{w': \underline{x} \text{ goes in } w'\} \neq \emptyset \} \end{aligned}$$

“Every intern  $y$  is individually allowed to go out this weekend (though maybe there is a suprule that allows only a maximum of half the interns to be out at the same time).”