Week 6

- Types and λ notation
- Basic composition

Next:

- ThF Sept 17–18: Test 1
- Lecture next week:
  - More on the syntax/semantics mapping
  - Modification, *the*

Exercise

Consider the following meanings:

Sarah	$\lambda x_e \,.\, \lambda y_e \,.\, x = y$	$\lambda z_e \,.\, \text{Cat}(z)$
$\lambda p_t \,.\, \neg p$	$\lambda P_{\langle e,t\rangle} \,.\, \lambda Q_{\langle e,t\rangle} \,.\, \forall z[P(z) \rightarrow Q(z)]$	$\lambda x_e \,.\, \lambda y_e \,.\, \text{Like}(y, x)$
$\lambda M_{\langle e,t\rangle} \,.\, \lambda x_e \,.\, M(x) \wedge \text{Gray}(x)$	Tama	$\lambda y_e \,.\, \text{Scratched}(y, \text{Bill})$

- What semantic types are these meanings?
- What expressions do these meanings correspond to?
- Compose some meanings by Functional Application. Draw little trees and make sure your types match at each step.

Exercise continued...

Try to build the following meanings from the ingredients above. (Ignore syntactic expectations! Just take the ingredients above and combine them with Functional Application as necessary.)

(1) Tama is a cat.

(2) Sarah is not Tama.

(3) Sarah likes Tama.

(4) Every cat scratched Bill.

(5) Every cat is a gray cat.