

2. SOME THINGS THAT ARE NOT RIGHT

- $([\lambda x: x \in D_e . x \text{ is dead}] \cap [\lambda x: x \in D_e . x \text{ is a man}])(\text{Lincoln})$
= (TRUE iff Lincoln is dead) \cap (TRUE iff Lincoln is a man)

First, note that “Lincoln” isn’t being given as an argument to either function; it’s being given as an argument to...the intersection of something, which is perhaps a set.

Second, recall that “ \cap ” is really only defined for sets. So you can’t take the intersection of two functions; and you really can’t take the intersection of two truth values.

- $[[\mathbf{dead}]] = [\lambda x : x \in D_{\langle e, t \rangle} . x \text{ is dead}]$

This is a function that takes an $\langle e, t \rangle$ function and returns TRUE iff that function is dead. Ah, no.

- $[[\mathbf{dead man}]] = \lambda x \in D_e . [[\mathbf{dead}]]([[\mathbf{man}]](x)) = \text{TRUE}$

Some of y’all were way too interested in “function composition”, which was suggested (and rejected) at one point. $f(g(x))$ is the correct way to write function composition; here, it means that $[[\mathbf{man}]]$ takes (x) as its argument—giving, presumably, a truth value—and then $[[\mathbf{dead}]]$ takes that truth value as its argument and...well, I’m not sure what’s supposed to happen next. Suffice to say that it doesn’t.