

Natural Language Processing Homework 5

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README

1 Simplify (Q2, no need to turn in)

Mostly just notes for myself

check out d) $(\lambda a a)(\lambda b f(b))$

f), simplifying $(\lambda x \text{green}(x))(y) = \text{green}(y)$. Since the result holds for any y , what can you conclude about the relation between $\lambda x \text{green}(x)$ and green ?

Same? $\lambda x \text{green}(x)$ applied to anything y means that that something y is green. Similarly, green as a function can be applied to anything z that is green. In any case, they refer to the same set of things??

wait i don't get o)

2 (Q3) Simplify

2.1 John and Mary**

Given $f(\text{John} = \text{loves}(\text{Mary}, \text{John}))$

- $(\lambda x \text{loves}(\text{Mary}, x))(\text{John})$
- $\text{loves}(\text{Mary}, \text{John})$ or alternatively, depending on semantics, "Mary loves John" or "John loves Mary". . . .

2.2 John loves Mary***

2.3 ***

- $(\lambda j \forall x \text{woman}(x) \Rightarrow \text{loves}(x, j))$
- Assuming that we will continue with the given semantic that $\text{loves}(\text{Mary}, \text{John})$ means that John loves Mary. f : for all x , if x is a woman, then j loves x . $f(\text{John})$: for all x , if x is a woman, then John loves x

2.4 ***

$f = \lambda y \text{ Obviously}(y)$
how to construct? use push/pop thing

2.5 part e

$f = \lambda m (\lambda j (\lambda e \text{ act}(e, \text{loving}), \text{lovee}(e, m), \text{lover}(e, j)))$

2.6 part f

2.7 part g

3

I altered the `parseattrs` file to call `pythonparse` instead of `./parse` In order

4 english-fullquant.gra

4.1 attr

For *two*, we are ensuring that the two things that we are quantifying are not the same thing, with the *first* and *second* variables. Otherwise, we can end up counting a given something twice, which in reality then doesn't mean that we have two, but rather that we just counted one thing twice.

The singular *the* idek "the book"
exhaustive "the books"

4.2 ???

Used overleaf.com to generate LaTeX document.