Computational Semantics

Assignment 4: Compositional Semantics

1. Spatial relations

See images directory in .zip file.

2. Exercise 2.3.1

Vincent: λu.(u@VINCENT)

Mia: λy.(y@MIA)

Loves: λw.λz.([w@λx.LOVE](mailto:w@xn--x-jmb.love)(z,x))

—> Functional application LOVES, MIA

λw.λz.([w@λx.LOVE](mailto:w@xn--x-jmb.love)(z,x))@λy.(y@MIA)

—> β-conversion λw

λz.(λy.(y@MIA)@λx.LOVE(z,x))

—> β-conversion λy

λz.(λx.LOVE(z,x)@MIA))

—> β-conversion λx

λz.(LOVE(z,MIA))

—> Function application LOVES MIA, VINCENT

λz.(LOVE(z,MIA))@λu.(u@VINCENT)

—> β-conversion λu

λz.(LOVE(z,MIA)@VINCENT)

—> β-conversion λz

LOVE(VINCENT,MIA)

3. Compositional semantics DCG grammar