

# Assignment 3 Tutorial

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(based on slides by Sean Robertson)

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# Infinitives

- Yelling “Run!” makes sense
- Yelling “To run!” likely doesn’t
  - There's no agent for run
- Nor does “Nadia to run!”
  - Just sounds incomplete
  - Is Nadia even running?

# Dependent clauses

- Do not parse on their own
  - “to go”, “that I LARP”
- Use semantics from independent (surrounding) clause
  - [Nadia wanted [to go]]
  - [Nadia knows [that I LARP]]
  - Prime candidate for NP gap features

# Verb control

- Occurs when an infinitive clause is a dependent clause
- The independent clause's verb decides whether the clause's subject or object, or a new NP will fill the gap
  - Nadia commanded Ross [to eat]
  - Nadia knew [Ross to wait]
  - Nadia wanted [to eat]
  - Subject control mostly when missing object NP

# Question 1

- NPs receive roles
- Verbs give roles
- Embedded clauses can take roles like NPs

# Question 2

- Part A
  - Straightforward application of heuristics mentioned in lecture 6 slides
- Part B
  - Determine counts first
  - Be explicit (so that you get marks for showing work even if Part A is wrong)
- Part C
  - You'll see the problem soon enough if you try to calculate the probabilities

## Question 2 Part B

- $\Pr(\text{true} | n)$  is better defined as  $\Pr(\text{Un}(a, n, v, p), a=N | n=x, v=y)$  where  $\text{Un}$  is a predicate which determines if an attachment is unambiguous given some attachment, noun, and a predicate
  - $p$  is not yet grounded
  - $Z$  marginalizes out variable  $a$  in the denominator
- $\Pr(p | \text{true}, n)$  is better defined as  $\Pr(p=w | a=N, \text{Un}(a, n, v, p), n=x, v=y)$