

rnn word order - Genitive Alternation (#11457)

Author(s)

Richard Futrell (MIT/UC Irvine) - rfutrell@uci.edu

Created: 06/01/2018 08:40 AM (PT)

Public: 10/26/2018 11:52 AM (PT)

1) Have any data been collected for this study already?

No, no data have been collected for this study yet.

2) What's the main question being asked or hypothesis being tested in this study?

RNNs show humanlike preferences in the genitive alternation: Animate, definite, short constituents go earlier.

3) Describe the key dependent variable(s) specifying how they will be measured.

Total surprisal assigned to sentences by RNN. Two RNNs: (1) Jozefowicz et al. (2016), and (2) Gulordava et al. (2018).

4) How many and which conditions will participants be assigned to?

2x2x2x2x2

- * Construction s-genitive or of-genitive
- * Possessor definite or indefinite
- * Possessor short or long
- * Possessor animate or inanimate (between items)
- * Possessum animate or inanimate (between items)

5) Specify exactly which analyses you will conduct to examine the main question/hypothesis.

We will predict total surprisal with linear regressions from the experimental conditions. We expect to find the s-genitive is preferred when the possessor is animate, definite, and short. We expect the of-genitive is preferred when the possessum is animate.

6) Describe exactly how outliers will be defined and handled, and your precise rule(s) for excluding observations.

We will remove all items that turn out to contain UNKs.

7) How many observations will be collected or what will determine sample size? No need to justify decision, but be precise about exactly how the number will be determined.

We have designed 16 items and we believe that will be enough.

8) Anything else you would like to pre-register? (e.g., secondary analyses, variables collected for exploratory purposes, unusual analyses planned?)

We may perform analyses controlling for the semantic relation involved in the genitive (possession, kinship, part-whole, etc.). We may perform analyses with n-gram surprisal.