Language: word segmentation Cognition & Computation 2023–2024

Lab report

March 2024

1 Getting started

After having read the Aslin paper, it should be clear that transitional probabilities can be used by infants for word segmentation. Describe at least one other cue that infants can use for word segmentation.

2 Loading and inspecting your data

After loading your data, inspect it. What is the length of the input stream? And how many different syllables are there? Include the plot made for Assignment 1.2. Describe what you see in this plot.

3 Transitional probabilities

Give a high-level description of the function you implemented.

What data structure did you use to store the transitional probabilities? Why did you make that decision?

Given what you have learned in your Algorithms course, what is the (worst-case) time complexity of your transitional probability algorithm? Do you think it is plausible that infants use a similar algorithm? Why or why not?

Look at the transitional probabilities that your printed in Assignment 2.2. What do you see? What do these probabilities mean for word segmentation?

4 Word segmentation

In the example plot, the plot only starts at the second syllable in the input stream. Why is that? Insert your own plot in your lab report. Explain how you can interpret this plot to perform word segmentation.

How many unique words does the input contain? List the first 30 words of your input, after segmentation.

5 Evaluation

What parts of the assignment did you find particularly easy or difficult?