LING 696G: Lecture 5

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Today's Topics

Exercises with the Free Merge Machine

- Submit a single PDF file for your work on Exercise 1.
- **Note**:
    - *I may update these slides with additional exercises. You should try them all, but no need to submit anything beyond Exercise 1.*

Exercise 1

- (*Exercise 1 has five sub-exercises, numbered 1.1 through 1.5.*)
- Let's compute with: *me 's friend*
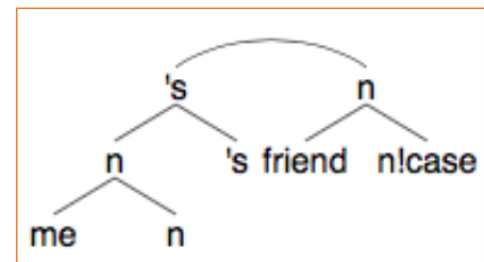- Lexicon:
  - *me*   nominal root
  - n3sg   functional head: categorizer
  - *friend*   nominal root
  - *'s*   functional head (a d: determiner)

    (**Note**: this is different from lecture 4's slides where *'s* was a determiner root that combined with functional head *d*, and required Object Shift (OS) for labeling.)

- We want to compute <{{me,n},'s},{friend,n!case}>
- **Spellout**: *my friend*
  - from *me* + n + *'s -> my*; *friend* + n -> *friend*

Exercise 1

Using the Free Merge Machine (FMM):

- 1.1 Try to derive the intended structure from the list of lexemes below:
  - `[me, n3sg, '\'s', [friend, n3sg]]`
- 1.2 Try to derive the same structure from:
  - `[friend, n3sg, [me, n3sg, '\'s']]`

Exercise 1

- Recall in the case of `<{the, d}, {book,n}>`, *the book,* the derivation tree contained 41 nodes, but there was only a single derivation.

- 1.3 Are there other derivations with *my friend* using 1.1 and 1.2?

- 1.4 Is the derivation space finite like in the case of *the book*?

Exercise 1

- 1.5 Can you describe and categorize any of the loops you found? Can you invent criteria for eliminating them (without blocking desired analyses)?