

# L<sup>A</sup>T<sub>E</sub>Xhomework

Celina Czyszczonek

May 2019

## 1 Favourite topics in linguistics

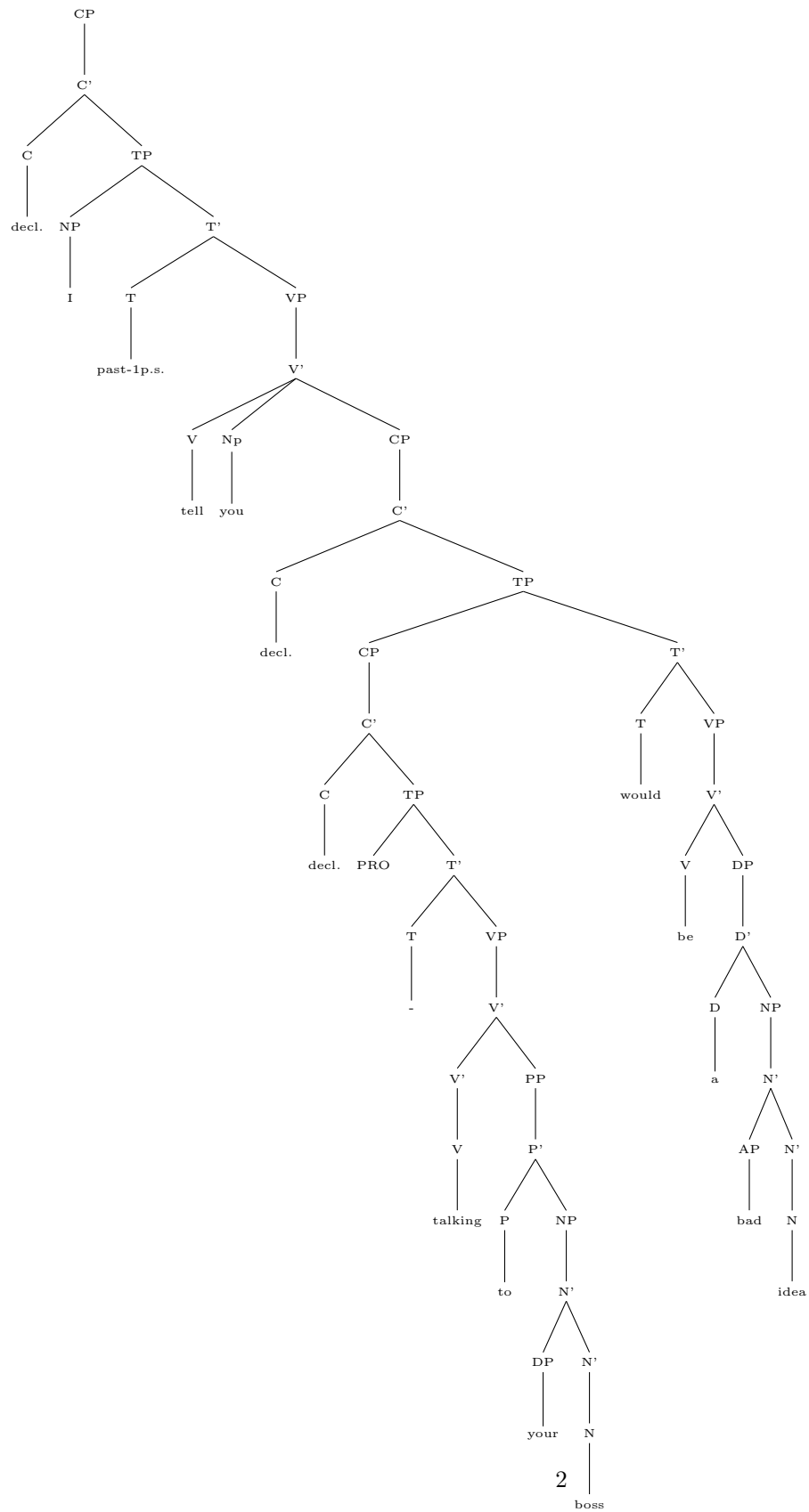
1. neurolinguistics
2. sociolinguistics
3. sentiment analysis
4. phonetics

## 2 Something about me

/ˈmaɪ ˈneɪm ɪz ˈsəliːnə|| ˈaɪm ə ˈstjuːdənt əv ˈnætʃrəl ˈlæŋgwədʒ ˈprəʊsesɪŋ ət ðə juːnɪˈvɜːsəti əv ɡdaŋsk || aɪm ˈɔːlsev ən ˈɪŋɡlɪʃ ˈtɪtʃər æt ˈæksfərd ˈlæŋgwədʒ ˈsentə|| ɪn ˈmaɪ ˈfriː ˈtaɪm aɪ ˈlaɪk tu ˈliːsən tu ˈmjuːzɪk ænd ˈwɔːtʃ ˈnetflɪks||/

/ˈlubie pɔˈdruʒɛɔraz ɡɔˈtɔwɔɲɛ||ˈmoʒɛ uluˈbɔɲɛ pɔˈtrɔvɪ to ˈkluski| rɔˈlɔda i kɔˈpusta||/

### 3 Syntax tree - I told you talking to your boss would be a bad idea.



## 4 Phonological rules

- Tapping:

$$/t/ \rightarrow [ɾ] / [ \text{+vowel} ] - \left[ \begin{array}{c} \text{+vowel} \\ \text{-stress} \end{array} \right]$$

- Spirantization:

$$\left[ \begin{array}{c} \text{+stop} \\ \text{-voice} \end{array} \right] \rightarrow \left[ \begin{array}{c} \text{+voice} \\ \text{-stop} \\ \text{+fricative} \end{array} \right] / [ \text{+vowel} ] - [ \text{+vowel} ]$$

- Dentalization:

$$[ \text{ } 1 \text{ } ] \rightarrow [ \overset{1}{\underset{1}{\text{ }}} ] / \_ \theta$$

## 5 NLP equation

Equation from the article *Sentiment Analysis and Subjectivity* by Bing Liu

$$oo(phrase) = \log_2 \left( \frac{hits(phrase NEAR' excellent') hits('poor')}{hits(phrase NEAR' poor') hits('excellent')}$$

## 6 Drawing Pie Charts with pgf-pie

