

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

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## 1 Favourite topics in linguistics

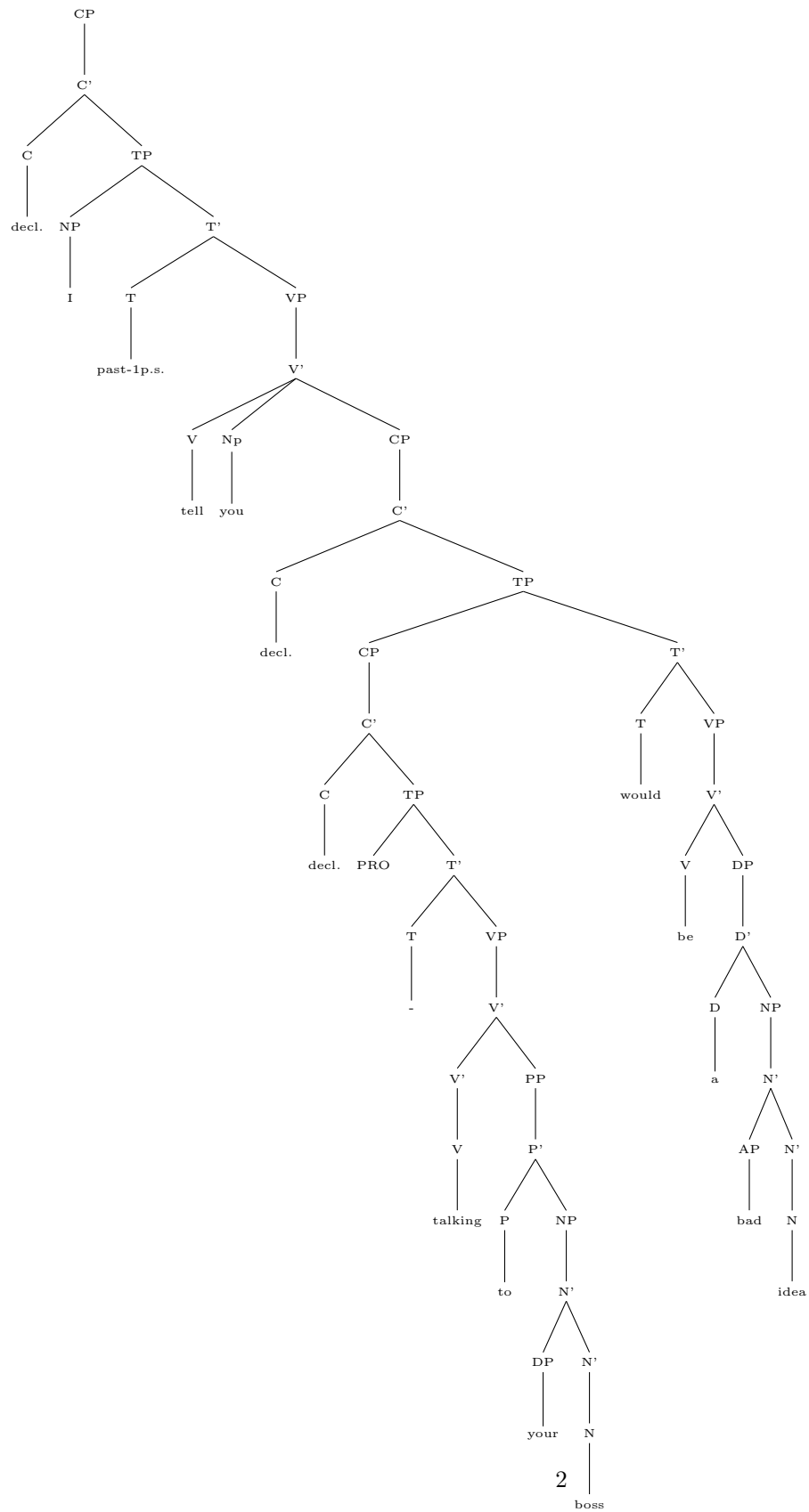
1. neurolinguistics
2. sociolinguistics
3. sentiment analysis
4. phonetics

## 2 Something about me

/ˈmai ˈneim ɪz ˈselinə|| ˈaɪm ə ˈstʃuːdənt əv ˈnætʃrəl ˈlæŋgwədʒ ˈprəʊsesɪŋ ət ðə juːnɪˈvɜːsəti əv ˈɡdɑːnsk || aɪm ˈɔːlsev ən ˈɪŋɡlɪʃ ˈtɪːtʃər ət ˈɑːksfərd ˈlæŋgwədʒ ˈsentə|| m ˈmai ˈfriː ˈtaɪm aɪ ˈlaɪk tu ˈlɪsən tu ˈmjuːzɪk ənd ˈwɔːtʃ ˈnetfɪks||/

/ˈlubʲjɐ pɐˈdruʒɐɐɐz ɡɐˈtɔvɐɐ||mɔʲjɐ uluˈbʲj ɔnɐ pɐˈtravɨ tɔ ˈkluski| rɔˈlada i kɐˈpusta||/

### 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:

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

## 5 NLP equation

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

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

## 6 Drawing Pie Charts with pgf-pie

