

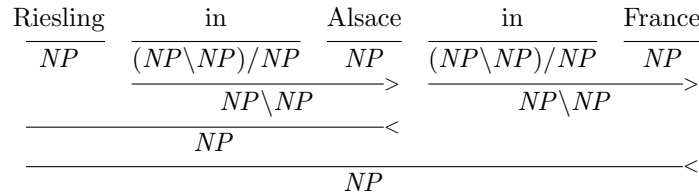
Assignments for Syntactic and semantic parsing for natural language understanding 2017

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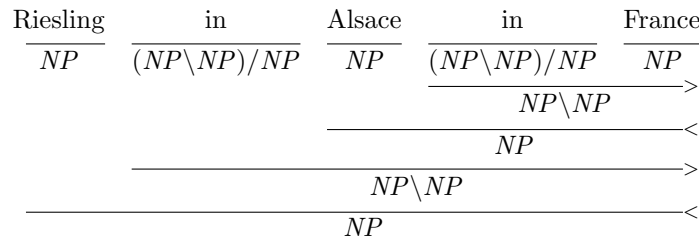
1 Submission

- Report due: January 31, 23:59 (JST)
- Format: Electronic file (pdf in A4 format)
- Language: English or Japanese
- Details: Send an e-mail attaching a pdf file to `noji@is.naist.jp`. The title should be “sempar-assignment-[STUDENT-NUMBER]” where [STUDENT-NUMBER] should be replaced with your number. The file may be generated either by scanning hand-written papers, or by some softwares such as LaTeX and Word. The last section shows some hint to produce a CCG derivation on LaTeX (Using LaTeX is **not** obligatory).
- Contact: If you have any questions, visit A705 **after** contacting me by an e-mail.

2 Problems



(a) One derivation.



(b) Another derivation.

As in the above figure, the phrase “Riesling in Alsace in France” can be analyzed in two different ways. Now answer the following questions.

- Q1.** Let us assume we have lexicon in Figure 1. Then, what is the logical form for the analysis of (b)? (Hint: The logical form of (a) becomes $in(in(R', A'), F')$.) (60 points)
- Q2.** There is another, third derivation on the supertag assignments of (a) and (b). Find and depict it. (Hint: use a composition rule) (20 points)

