Introduction to Computational Linguistics SS16 - Homework Assignment 5
Due: Before the beginning of the lecture on **30.06.2016**

- Must not be handed in individually but **by workgroup**. Each submission must contain the names of all workgroup participants.
- Identical solutions from different workgroups will not receive credit (so don't copy the solutions from other workgroups and don't allow others to copy your solution).
- Pls. hand in in the form of a PDF document sent to your tutor by email.

1. Entailment, presupposition, implicature
For each of the following pairs of sentences, determine whether the relation between them is one of entailment, presupposition, or implicature, or if none of these relations hold. Give your reasons for making your choice.

A i. Steven knows that the Red Sox won the World Series.
ii. The Red Sox won the World Series.

B i. Maude believes that IBM built telephones.
ii. IBM built telephones.

C i. Parker proved that the defendant was related to the victim.
ii. The defendant was related to the victim.

D i. Maren didn't tell many of her friends that she was pregnant.
ii. Some of Maren's friends were told about her pregnancy.

E i. We forgot to inform the fire inspector in our town about the party.
ii. Our town has a fire inspector.

F i. Maren told some of her friends about her pregnancy.
ii. Maren didn't tell all of her friends about her pregnancy.

2. Conversational implicatures (1)
Give three examples of your own of conversational implicatures that are defeated by a coherent continuation of the discourse, as, e.g. in

> Some of the students passed the exam [implicature: Not all of the students passed], in fact all of them did [implicature defeated].

3. Conversational implicatures (2)
Suppose someone A says "Fred brought two bottles of wine". Show how the implicature that Fred brought no more than two bottles of wine can be derived logically from (a) what is said, (b) Gricean maxims, plus, if needed, (c) further assumptions about the conversational context.

4. Definite Reference

Consider the following two sentences:
(i) The German President met the King of France yesterday.
(ii) The King of France met the German President yesterday.

(a) Compute a complete derivation of the denotations for each sentence on the assumption that each constituent has a denotation. Assuming further that "German President" and "King of France" are complex predicates of type <e,t>, as assumed in the lecture; and that ⟦yesterday⟧=λP.yesterday(P), where P is of type <e,t> and the denotation of the adverb "yesterday" is of type <<e,t><e,t>>.
Note that these derivations are supposed to be derivations of the two sentences, not for any utterances of these sentences that are made at particular times!
These derivations should be as detailed as those given in the lectures for, e.g., "a man left".

(b) If uttered today, which truth value would result for any assertions made by uttering sentence (i) or (ii) ?

(c) Explain your answer to (b) in no more than 100 words. At which step(s) in the respective derivation is the derivation blocked, and why?

(d) Comment in no more than 100 words on how the result reported under (b) corresponds to your intuitions on the truth of utterances of (i) or (ii) , as made today.