

# Assignment

## Logic and Pragmatics

### Problem 1

Questions:

- What are the limitations of logic when applied to natural language?
- What is the difference between semantics and pragmatics?
- What is a presupposition?
- What is a generalized conversational implicature?
- What are the four Gricean maxims?
- What is the maxim of quality?
- What is the maxim of quantity?
- What is the maxim of relevance?
- What is the maxim of manner?

### Problem 2

Give examples for the following.

- Deixis
- Scope ambiguity

### Problem 3

Translate the following logical expressions into English or German.

- $\text{sleep}(\text{John}) \wedge \neg \text{eat}(\text{John})$
- $\forall x : \text{run}(x) \Rightarrow \neg \text{sleep}(x)$
- $\neg \exists x : \text{mountain}(x) \wedge \text{taller\_than}(x, \text{Himalaya})$

#### **Problem 4**

For the following three sentences, state a presupposition for one sentence, a generalized conversational implicature for a second sentence and a logical inference for the third sentence. Explain.

- He did not know that Munich is in Germany.
- Peter left Birmingham two hours ago and is now on the train to Paris.
- He praised Mary for winning the competition.

#### **Problem 5**

“Kannst Du mir mal die Butter reichen?”

What are the locutionary, illocutionary and perlocutionary speech acts performed in this case?

#### **Problem 6**

“Look at my new car. Don’t you love the design?” “My uncle owns the same model.”

Which Gricean maxim is violated/flouted here? Why is the maxim violated/flouted?

#### **Problem 7**

Are the following four “inferences” examples of deduction, induction or abduction. Why?

- “The city councilmen refused the demonstrators a permit because they feared violence.” → “The councilmen feared violence.”
- “The city councilmen refused the demonstrators a permit because they advocated violence.” → “The demonstrators advocated violence.”
- “All men are mortal.” → “Barack Obama is mortal.”
- “The oaks lost their leaves in 2012. The oaks lost their leaves in 2013. The oaks lost their leaves in 2014. The oaks lost their leaves in 2015.” → “The oaks lose their leaves every year.”