

# The Bayesian model for German personal and demonstrative pronouns

Clare Patterson (Universität zu Köln)

When faced with an ambiguous pronoun, an addressee must (in most cases) interpret it by identifying a suitable referent. It has been proposed that the interpretation of pronouns can be captured using Bayes' Rule:  $P(\text{referent} \mid \text{pronoun}) \propto P(\text{pronoun} \mid \text{referent})P(\text{referent})$  (Kehler et al., 2008; Kehler & Rohde, 2013). In my talk, I will present a study which furthers the cross-linguistic evidence for the Bayesian model by applying it to German personal and demonstrative pronouns. Novel quantitative support for the model is provided by assessing model performance in a Bayesian statistical framework. I will present data from two story-continuation experiments which show that the Bayesian model overall makes more accurate predictions for pronoun interpretation than two competing models. Furthermore, the model accounts for the demonstrative pronoun *dieser* as well as the personal pronoun, despite the demonstrative having different, and more rigid, resolution preferences.