

Emily Bender

The Grammar Matrix: A Crosslinguistic Resource to Promote Grammar Engineering for Linguistic Hypothesis Testing

Computerized implementations of their grammars allow linguists to more efficiently and effectively test hypotheses, for two reasons: First, languages are made up of many subsystems with complex interactions. Linguists generally focus on just one subsystem at a time, yet the predictions of any particular analysis cannot be calculated independently of the interacting subsystems. With implemented grammars, the computer can track the effects of all aspects of the implementation while the linguist focuses on developing just one. Second, automated application of grammars to test suites and naturally occurring data allows for much more thorough testing of linguistic analyses---against thousands as opposed to tens of examples and including examples not anticipated by the linguist. In this talk, I explore the implications of grammar implementation for linguistic hypothesis testing and language documentation more generally, and describe how current work on the Grammar Matrix reduces the start-up cost of developing new grammars on the one hand and opens the door to large-scale validation of crosslinguistic hypotheses on the other.