

How the Structure of the Constraint Space Enables Learning

Jon Rawski (Stony Brook University)

LingLunch du jeudi 21 mars 2019

When acquiring grammars from sparse and impoverished data, learners often rely on linguistically posited representations like features. Often these features pose a learning problem, by exponentially increasing the number of possible constraints a learner may hypothesize. However, features also give the learner an advantage, by structuring the space of hypotheses in a particular way. This structure enables certain entailments between grammars, which I show using examples from phonotactics, orthography, and syntactic adjunction. I discuss how learners can exploit this structure to make inferences, and introduce a non-statistical learning algorithm that provably identifies the responsible constraints. Integration and comparison of these insights to statistical learning is ongoing research.

Jon Rawski
Dept. of Linguistics
Institute for Advanced Computational Science
Stony Brook University
jrawski.jimdo.com/