The purported debate: Statistical learning vs. innate knowledge

But what are the limits on these capacities and do infants have similar capacities?

But over what types of information are statistics learned? Are all information types created equal?

Colorless green ideas sleep furiously
Was this a trivialization of statistical learning? What would be an alternative hypothesis?

Idea: rules over variables aren’t learnable with statistics? Are there other options that could work in these cases? Keeping in mind the limits of human statistical abilities?

Or at least not by transitional probabilities alone… are there other options that could work in these cases?

...keeping in mind the limits of human statistical abilities?

Summary: Seidenberg et al. vs. Marcus & Berent

Cognition is more than simple statistical learning like transitional probabilities and correlation.

Cognition requires the ability to abstract rules.

It isn’t clear what level of information humans can statistically track.

Seidenberg & friends: Statistical learning will be able to track the things traditionally perceived as rules. That is, statistical information will be over abstract relations as well as basic level things like words and syllables.

Marcus & Berent: No, it won’t. Rule learning is about symbolic manipulation. And if you say statistical learning can be over abstract symbolic units, then it’s not just simple statistical learning.

...and the jury is still out.

Discussion Questions

Statistical learning vs. rules: what’s the difference? Can these be combined? How would/could these interact?

Does statistical learning ever stop, per se? Is it always going on, even if rules are being learned? Is it equivalent to simply finding the dominant pattern, however that pattern is defined?

How would statistical learning work in cases where children are learning more than one language? What needs to happen for learning to be successful in this situation?