Neural Grammar: Why the Brain Matters for Construction Grammar

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How does the physical brain characterize thought and language and what is it about the brain and body that makes language meaningful? This is a brief overview of my current understanding of how this works, based on the work of the NTL group over the past two decades.

It includes a hypothesis that Cogs, which are cross-modal, and the sensory motor system structured by Cogs, are inherently meaningful structures in the brain. A few kinds of simple, short, but massively parallel circuits characterize complex semantic concepts, as well as lexical items and grammatical constructions. Those circuits are meaningless in themselves, but "get their meaning" by what they are connected to. Cogs characterize the semantics of grammar, and also provide some of the structure for lexical items. Grammatical and lexical constructions are therefore importantly different in character.

Theoretically interesting examples will be given.

Neural Grammar is the theoretical complement to Embodied Construction Grammar, which is a computational analysis project using existing computer techniques.