

Exploring language in the brain using Large Language Models

vendredi 12 juillet 2024 11:30 (45 minutes)

Do representations proposed in linguistic theories, such as constituent trees, correspond to actual data structures constructed in real-time in the brain during language comprehension? And if so, what are the brain regions involved? This question was investigated in a series of functional magnetic resonance studies using various experimental paradigms, including repetition priming, syntactic complexity manipulation, and NLP models trained on limited corpora. I will argue that while many questions remain unanswered, progress has been made. For example, the results suggest that full syntactic parsing of sentences may not happen automatically, but that local syntactic operations (merge) do. The use of deep learning models to locate syntactic and semantic information in the brain will also be discussed

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Classification de Session: Neuroscience

Classification de thématique: Invited talks