



Colloque - June 24<sup>th</sup> - 25<sup>th</sup>, 2021

## The representation of language in brains and machines

Convenors: Stanislas Dehaene, Stéphane Mallat, Luigi Rizzi

### Program

9h30 > 18h - Amphithéâtre Marguerite de Navarre

Open to the public, within space limits, subject to availability  
Ouvert au public, en demi-jauge, dans la limite des places disponibles

The colloquium is also accessible through the following webinar link (registration is required):  
[https://zoom.us/webinar/register/WN\\_UEYZIAx-TEGQsjqb8KqDCg](https://zoom.us/webinar/register/WN_UEYZIAx-TEGQsjqb8KqDCg)

### June 24<sup>th</sup>

**9.30 Introduction**, Stanislas Dehaene, Stéphane Mallat, Luigi Rizzi,  
Collège de France

Semantics and Pragmatics: New Challenges for Machines? (1)

**10.00 Philippe SCHLENKER**, ENS, Paris, NYU  
Grammatical inferences without words

**10.40 Emmanuel CHEMLA**, ENS, Paris  
A linguistic learning bias found in humans, animals, and artificial learners

**11.20 Break**

The Acquisition of Language

**11.40 Anne CHRISTOPHE**, ENS, Paris  
Bootstrapping the syntactic bootstrapper

**12.20 Naama FRIEDMANN\***, Tel Aviv University  
Developmental syntactic disorders and what they say about the critical period

**13.00 Break**

Natural Languages and Machine Learning Approaches

**15.00 Kyunghyun CHO\***, New York University  
Few-shot learning is still difficult with large-scale language models

**15.40 Tomas MIKOLOV\***, CIIRC, Czech Technical University  
Neural language models: the successes, and the challenges

**16.20 Break**

**16.40 Charles YANG**, University of Pennsylvania  
Why children and machines learn differently

**17.20 Roger LEVY\***, MIT  
Grammatical generalization and language processing in humans and machines

**18.00 General discussion**

### June 25<sup>th</sup>

Cognitive Challenges for Computational Approaches

**09.30 Emmanuel DUPOUX\***, EHESS & FAIR, Paris  
Simulating the emergence of linguistic categories in infants

**10.10 Marco BARONI\***, ICREA, Barcelona; FAIR, Paris  
On the proper role of linguistically-oriented deep net analysis in linguistic theorizing

**10.50 Break**

Advances in Syntax and Parsing

**11.10 Andrea MORO & Cristiano CHESI\***, Scuola Universitaria IUSS, Pavia  
The limits of competence and processing: the case of copular sentences

**11.50 Paola MERLO\***, University of Geneva  
Beyond the Benchmarks: linguistically-informed notions of locality and similarity in distributed spaces

**12.30 Break**

Semantics and Pragmatics: New Challenges for Machines? (2)

**14.00 Gennaro CHIERCHIA\***, Harvard University  
Quantifiers in natural language: the interface between syntax and logic

**14.40 Benjamin SPECTOR**, ENS, Paris  
Logic, grammar and distribution: the case of polarity items

**15.20 Break**

Syntax and Parsing by Brains and Machines

**15.40 Christophe PALLIER**, CNRS, Paris  
Probing syntax and semantics in the brain

**16.20 William MATCHIN**, University of South Carolina  
The cortical organization of syntax: a minimalist perspective

**17.00 Break**

**17.20 Stanislas DEHAENE**, Collège de France  
Why humans still trump machines: the language of thought hypothesis

**18.00 General Discussion**

\* These talks will happen via zoom  
Ces interventions auront lieu via zoom



COLLÈGE  
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— 1530 —

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