

Symposium: *Format and structure of non-linguistic thought*

Jean-Rémy Hochmann: *Representations of abstract relations in development*

Early in life, infants are capable of structured and sophisticated representations of scenes and events, articulating representations of entities (objects and agents) and their relations. However, the format of these representations remains a matter of debates. I contrast two competing accounts: discrete, language-like representations of relations and iconic, map-like representations. Drawing on a taxonomy of experimental tasks, I argue that discrete, language-like representations of relations emerge only with the acquisition of relational vocabulary, whereas younger infants rely on representations that are more accurately characterized as iconic and map-like.

Nina Kazanina: *Format and structure of (non-linguistic) thought: neurobiological foundations*

Since its appearance in 1975, Fodor's Language of Thought (LoT) hypothesis has been influential in cognitive psychology and linguistics, but did not gain traction in cognitive neuroscience. The reason for the scepticism lies in the perception that neural implementation of a LoT is untenable. I disagree and demonstrate that critical ingredients needed for a neural implementation of a LoT have in fact been found in rodents and other animals (Kazanina & Poeppel, 2023). I argue that cell types identified in animals in cognitive domains such as spatial navigation and numerical cognition instantiate exactly the representations and computations that the Language of Thought (LoT) framework calls for.

Iwan Williams: *Breaking the Language Barrier: Conceptual Representation without a Language-like Format*

An important part of the explanatory role of concepts is that they enable us to combine a wide variety of objects, properties and relations in thought, with contents spanning diverse domains. I discuss an argument that appears to show that paradigmatic non-linguistic representational formats are unsuited to play this role, and thus conceptual representation could not occur in these formats. I show that this argument fails, because it overlooks the possibility of individual concepts being shared between a number of special purpose representational systems. Demonstrating this requires defending the possibility of cross-format redeployment of concepts.