

## Section 6

### **The Challenge of Animal Cognition: Rethinking Beliefs, Theory of Mind, Communication and Causal Cognition**

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**Participants:** Piera Filippi (Brain and Language Institute, Aix-Marseille Université France), Hans-Joachim Glock (Universität Zürich), Tobias Starzak (Ruhr-Universität Bochum)

#### **Abstract:**

Philosophers are interested in animals for various reasons. One reason is that they hope to learn something about human nature by comparing human minds with animal minds. Another reason is that thinking about animal minds promises to give us insight into the nature of thought and cognition. In this symposium we'll discuss questions concerning animal cognition from both perspectives, and show how they are interconnected. We propose to supplement the top-down approach usually found in comparative cognition research with a bottom-up perspective according to which we need to ground the notions of belief, theory of mind, causal cognition and communication in non-linguistic abilities to account for recent empirical observations and evolutionary considerations.

#### **Titles and Abstracts of the talks**

1.

Albert Newen: Theory of Mind in Animals

According to David Papineau, theoretical rationality is constituted by (i) causal understanding and (ii) a theory of mind-ability. Focussing on theory of mind, I will discuss to which extent animals develop an understanding of other minds. To do this, I will suggest different levels of understanding other species member (e.g. their goal-directed action, their plans involving several steps) which allows us to integrate and classify the understanding of non-linguistic animals.

2.

Piera Filippi: Animal Communication and the Concept of Meaning

Recent studies addressing animal vocal communication have challenged the traditional view of meaning in animal communication as the context-specific denotation of a call. These studies have identified a central aspect of animal vocal communication in the ability to recognize the emotional state of signalers, or to trigger appropriate behaviors in response to vocalizations. Based on the review of diverse studies across animal signaling systems, I will emphasize the functional and interactional aspects of animal communication. This perspective may provide crucial insights into the study of meaning across animal communication systems.

3.

Hans-Johann Glock: Determinacy of Content – The Really Hard Problem about Animal Thinking

Few arguments against intentional states in animals have stood the test of time. But one objection associated with Stich and Davidson has never been rebutted adequately. Properly reconstructed, it runs as follows:

P(1) Ascribing beliefs to animals is vacuous unless something counts as an animal believing one specific 'content' rather than another.

P(2) Nothing counts as an animal believing one specific content rather than another, because of their lack of language.

C(3) Ascribing beliefs to animals is vacuous.

My presentation defends P(1), but challenges P(2). There are non-linguistic equivalents of 'modes of presentation', and that these can be determined within acceptable limits on the basis of attributing to animals specific needs and behavioural capacities.

#### 4. Tobias Starzak: Breaking the Stalemate: A New Approach to Comparative Causal Cognition Research

Causal understanding is closely related to means-end-reasoning, and thus to rationality. The debate concerning animal causal understanding, however, is stuck between romantics and killjoys – those who claim that some animals understand causality to some extent and those who claim they do not. Rather than picking one side I suggest a new approach to the question. Combining ideas from James Woodward and Kim Sterelny, we can model a conceptual space of causal cognition onto which we can map empirical results. This approach promises to answer questions concerning the similarity or difference of animal and human causal cognition. At the same time, it sheds light on the question how we should think of understanding causality, and how we should continue to investigate causal cognition in animals.