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(University of Tartu, Estonia)

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Prof. Claire Sergent (Université de Paris, France)

Prof. Axel Cleeremans

such as the possibility to engage in an explicit decision-making task or report. Here I will present the results of two approaches that we are currently using in my team to try and perform this experimental dissection, and I will discuss their potential for identifying neural signatures of conscious access independent of report.

Prof. Axel Cleeremans (Université libre de Bruxelles, Belgium)

Unconscious perception remains controversial. Its study involves substantial conceptual and methodological challenges. Here, I report on four ongoing lines of research that leverage a custom-built modern tachistoscope that enables the presentation of visual stimuli at very short durations (i.e., a few μsec). This in turn makes it possible to achieve invisibility with unmasked stimuli. We explored (1) unconscious priming, (2) emotion processing, (3) discrimination of complex images, and (4) 2-IFC discrimination of Vernier stimuli. Thus far, while we have found some evidence for unconscious discrimination, we have had no success achieving priming or emotional processing in the absence of awareness. These results are discussed in light of current debates about the extent of unconscious perception.

Prof. Miguel Nicolelis (Duke University, USA)

In this talk I will initially discuss how BMI experiments will continue to play a major role in basic research by showing how they have already allowed us to demonstrate the existence of a variety of