

Stimulating the Frontopolar Cortex Can Modulate Decision Making Processes

Abstract:

The human brain contains a very unique frontopolar cortex (FPC), as it is greatly expanded when it is compared to other animals' brains. Intriguingly, this seemingly important FPC appears to be rather functionless in the lesion literature. Patients with a focal damage in this area can still perform well in many cognitive tests.

In this presentation, Dr Bolton Chau will argue that the lateral part of the FPC has a role in non-trivial processes during decision-making. Dr Chau's research showed that applying brain stimulation to disrupt the FPC can cause more suboptimal. By applying a combination of computational modelling and brain imaging, Dr Chau further revealed the precise computational processes in the FPC that was modulated by the brain stimulation.