Abstract

From Compulsivity to Compulsion — The Neural Basis of Compulsive Behaviour

Compulsive behaviour, the perseveration in often maladaptive acts, is a potential transdiagnostic symptom of several mental health disorders, including obsessive-compulsive disorder and addiction, and may reflect a dimensional trait termed compulsivity.

This lecture examines the psychological basis of compulsions and compulsivity and their mediation by neural circuitry using evidence from human neuroimaging and animal models. Several main elements of this circuitry are identified, focused on fronto-striatal systems implicated in goal-directed behaviour and habit. Implications are considered for future classification of impulsive-compulsive disorders, and their treatment.

References

T.W. Robbins, P. Banca, & D. Belin (2024) Nature Reviews Neuroscience, in press.

T.W. Robbins, M. Vaghi, & P.Banca (2019) Obsessive-Compulsive Disorder: Puzzles and Prospects, Neuron 102(1), 27-47.

Everitt, B.J. & Robbins, T.W. (2016) Drug Addiction: Updating Actions to Habits to Compulsions Ten Years On. Annual Review of Psychology, 67, 23-50