A system-level computational model of decision-making and learning in the lateral and medial sub-regions of Orbitofrontal Cortex

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Orbitofrontal Cortex
Flexible and adaptive animal behavior through value-based decision making and learning

Pavlovian valuation with basolateral amygdala (BLA)
Instrumental valuation with Anterior Cingulate Cortex (ACC) and Ventral Striatum (VS)
Closed-loop dynamics with the Basal Ganglia (BG) and the Thalamus - Limbic (CtxBG) Loops

Abstract

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Lateral  Medial
Projections from Sensory areas and Amygdala  Projections from visceral areas like Lateral Hypothalamus
External features [1] Internal motivation[1]
After feedback[1] Before feedback[1]

Hypotheses : Medial vs Lateral OFC
Value prediction vs State prediction
Task beginning vs Task ending
Model-Free vs Model-Based

References
[1] Bouret et al., 2010
[2] Walton et al., 2010
[3] Noonan et al., 2010