

Executive control of (impulsive) action

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Cognitive control theories attribute action control and goal-directed decision-making to executive processes that inhibit responses and adjust behavior online. In the last two decades, cognitive control and response inhibition have received much attention across research domains. Cognitive psychologists and neuroscientists have explored the cognitive and neural mechanisms of action control, developmental scientists have studied the 'rise and fall' of control capacities across the life span, and clinical researchers have examined correlations between individual differences in action control and behaviors such as substance abuse, overeating, and risk taking. In the first part of my presentation, I will provide a selective review of my recent behavioral and computational work on response inhibition. In the second part, I will focus on the limitations of executive (action) control. My main aim is to demonstrate that response inhibition and other forms of action control rely on an interplay between many processes that take place on different time scales.