

Executive control refers to a set of high-level cognitive processes that enable individuals to regulate their thoughts, emotions, and behaviors to achieve specific goals. These processes are crucial for planning, decision-making, and adapting to novel or complex situations.

Key Components of Executive Control:

- Inhibition:** The ability to suppress automatic, impulsive, or inappropriate responses.
- Cognitive flexibility:** The capacity to shift attention, adapt to changing circumstances, or transition between tasks or perspectives.
- Working memory:** Holding and manipulating information temporarily to perform complex tasks.
- Planning:** Setting goals, anticipating outcomes, and organizing steps to achieve desired objectives.
- Decision-making:** Evaluating options and making choices aligned with personal goals and values.
- Monitoring:** Continuously assessing progress and adjusting strategies as needed to stay on track.

These functions are often associated with the prefrontal cortex of the brain and are fundamental for tasks ranging from everyday problem-solving to long-term strategic planning.

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