

## Fejlődéslélektani adalékok a központi feldolgozó elméleteihez

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**Abstract:** Different investigations of prefrontal damages (with Tower problems and Stroop-like tasks) and the observable typical experimental effects (e.g. consequences of overloading in attention switching tasks) have inevitably led to the development of different concepts about the central executive. In these theories the central executive is an instrument of higher-level cognitive control involved in error-detection, necessary in overloaded tasks, and in novelty and interference processing, linking this cognitive function to the prefrontal cortex and intelligence.

The development-centered views on executive functioning are providing data, which were not available from lesion-studies searching double dissociations, nor from the subtracting methods of imaging techniques involving adults. After the new imaging technologies appeared, a new trend of neuro-developmental researches was growing up. Studying the course of the emerging control processes, these studies allow us to reveal the age differences in control strategies and the background mechanisms of different developmental disorders by accentuating the role of inhibition and interference suppression.

**Keywords:** executive functions, cognitive development, inhibition, developmental fMRI