## The Role of Executive Functions and Emotional Intelligence in Leadership: A Neuropsychological Perspective

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Abstract : The overlap of leadership skills with personality traits, beliefs, values, and the integration of cognitive abilities, analytical and critical thinking skills into leadership competencies raises the need to segregate further and investigate them. Hence, the domains of cognitive functions that contribute to leadership effectiveness should also be identified. Organizational cognitive neuroscience and neuroleadership can shed light on the study of these critical leadership skills. As the first part of our research, this pilot study aims to explore the relationships between higher-order cognitive functions (executive functions), trait emotional intelligence (EI), personality, and general cognitive ability in leadership. Twenty-six graduate and postgraduate students were assessed on neuropsychological tests that measure important aspects of executive functions (EF) and completed self-reported questionnaires about trait EI, personality, leadership styles, and leadership effectiveness. Specifically, we examined four core EF-fluency (phonemic and semantic), information updating and monitoring, working memory, and inhibition of prepotent responses. Leadership effectiveness was positively associated with phonemic fluency (PF), which involves mental flexibility, in turn, an increasingly important ability for future leaders in this rapidly changing world. Transformational leadership was positively associated with trait EI, extraversion, and openness to experience, a result that is following previous findings. The relationship between specific EF constructs and leadership effectiveness emphasizes the role of higher-order cognitive functions in the field of leadership as an individual difference. EF brings a new perspective into leadership literature by providing a direct, non-invasive, scientifically-valid connection between brain function and leadership behavior.

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