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Autore	Nicholas Morton
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Sommario/riassunto	There are several theories of executive function(s) that tend to share some theoretical overlap yet are also conceptually distinct, each bolstered by empirical data (Norman and Shallice, 1986; Shallice & Burgess, 1991; Stuss and Alexander, 2007; Burgess, Gilbert, & Dumentheil, 2007; Burgess & Shallice, 1996; Miyake et al., 2000). The

notion that executive processes are supervisory, and most in demand in novel situations was an early conceptualization of executive function that has been adapted and refined over time (Norman & Shallice, 1986; Shallice, 2001; Burgess, Gilbert & Dumentheil, 2007). Presently there is general consensus that executive functions are multi-componential (Shallice, 2001), and are supervisory only in the sense that attention in one form or another is key to the co-ordination of other hierarchically organized 'lower' cognitive processes. Attention in this sense is defined as (i) independent but interrelated attentional control processes (Stuss & Alexander, 2007); (ii) automatic orientation towards stimuli in the environment or internally-driven thought (Burgess, Gilbert & Dumontheil, 2007); (iii) the automatically generated interface between tacit processes and strategic conscious thought (Barker, Andrade, Romanowski, Morton and Wasti, 2006; Morton and Barker, 2010); and (iv) distinct but interrelated executive processes that maintain, update and switch across different sources of information (Miyake et al., 2000).

 One problem is that executive dysfunction or dysexecutive syndrome (Baddeley & Wilson, 1988) after brain injury typically produces a constellation of deficits across social, cognate, emotional and motivational domains that rarely map neatly onto theoretical frameworks (Barker, Andrade & Romanowski, 2004). As a consequence there is debate that conceptual theories of executive function do not always correspond well to the clinical picture (Manchester, Priestley & Jackson, 2004). Several studies have reported cases of individuals with frontal lobe pathology and impaired daily functioning despite having little detectable impairment on traditional tests of executive function (Shallice & Burgess, 1991; Eslinger & Damasio, 1985; Barker, Andrade & Romanowski, 2004; Andres & Van der Linden, 2002; Chevignard et al., 2000; Cripe, 1998; Fortin, Godbout & Braun, 2003). There is also some suggestion that weak ecological validity limits predictive and clinical utility of many traditional measures of executive function (Burgess et al, 2006; Lamberts, Evans & Spikman, 2010; Barker, Morton, Morrison, McGuire, 2011). Complete elimination of environmental confounds runs the risk of generating results that cannot be generalized beyond constrained circumstances of the test environment (Barker, Andrade & Romanowski, 2004). Several researchers have concluded that a new approach is needed that is mindful of the needs of the clinician yet also informed by the academic debate and progress within the discipline (McFarquhar & Barker, 2012; Burgess et al., 2006). Finally, translational issues also confound executive function research across different disciplines (psychiatry, cognitive science, and developmental psychology) and across typically developing and clinical populations (including Autism Spectrum Disorders, Head Injury and Schizophrenia - Blakemore & Choudhury, 2006; Taylor, Barker, Heavey & McHale, 2013). Consequently, there is a need for unification of executive function approaches across disciplines and populations and narrowing of the conceptual gap between theoretical positions, clinical symptoms and measurement.