NOTA EDITORIAL

A Revista Portuguesa de Pedagogia e a Psychologica quiseram, com esta edição especial conjunta, associar-se às comemorações dos 30 anos da Faculdade de Psicologia e de Ciências da Educação da Universidade de Coimbra, enquanto parceiras neste caminho de excelência na investigação, no ensino e no serviço. Em breve estas revistas iniciarão novos rumos estratégicos de afirmação, um dos quais será a sua internacionalização. Esta edição espelha já o reconhecimento que a Psicologia, as Ciências da Educação e o Serviço Social da nossa Faculdade colhe nas mais amplas latitudes.

Isabel Festas, Editora Revista Portuguesa de Pedagogia

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Motor programming disrupts verbal maintenance

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Cognitive control is a crucial aspect of our mental functioning. It constitutes the interface between thought and action by linking our perceptions, knowledge and goals to produce right behaviors (e.g., Badre, 2008). Thereby, its functioning is one of the fundamental issues for psychological researchers both in behavioral and neurophysiological approaches. Neurophysiological studies have proposed converging theories of cognitive control in relation with the architecture of the prefrontal cortex (PFC) suggesting the existence of a functional gradient along the antero-posterior axis of the PFC whereby progressively anterior subregions are associated with higher-order processing requirement (e.g., Koechlin, Ody, & Kouneiher, 2003; O’Reilly & Frank, 2006). These anterior regions organize processes in posterior regions (Koechlin, et al. 2003). They underlie the processing of information from multiple domains, such as object and spatial (Badre, 2008) and are also dedicated to domain-general monitoring of working memory (WM) (Petride, 2006). In the hierarchical cascade model of cognitive control, the ‘branching control’ level, located in the frontopolar cortex, is considered as the basis of all behaviors requiring simultaneous engagement in multiple tasks (Koechlin & Summerfield, 2007). This uppermost sub-division allows human to overcome the serial constraint of behavior (O’Reilly & Frank, 2006) by enabling a task to be interrupted while another is being performed. It allows switching among the more specific controlled signals at lower levels located in more posterior PFC regions. Accordingly, the posterior PFC regions are devoted to the selection of actions on the basis of content-specific conditions (Petride, 2006) and comprise additional ventro-dorsal segregations based on specialized domains (e.g., spatial vs. verbal) (e.g., Badre, 2008; Petride, 2006). This hierarchical functioning of cognitive control leads to a prediction at the behavioral

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