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Parsing Selective Attention and Executive Function in Children

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Abstract: Selective attention is related to a range of cognitive abilities, including executive function (Lawson et al., 2014). Orienting attention to visual and auditory targets are component skills inherent in many cognitive assessments, making it often difficult to parse cognitive capacities from selective attention abilities. The fundamental, early-developing nature of somatosensory processing (Saby et al., 2015) make it a compelling sensory domain within which to study top-down attentional processes. This presentation describes the initial results of a study examining how the electrophysiological indicators of selective attention, specifically the ability to focus attention on tactile stimuli, relate to children's executive function. Results will parse the relations between a composite of executive function tasks and the EEG mu rhythm response of participants when anticipating tactile stimulation of the hand. The implications of individual differences in somatosensory selective attention are discussed in light of cognitive assessment design, SES-related discrepancies in attention, and bodily awareness.