Automatic and controlled mechanisms in temporal preparation

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Abstract

In this talk I will present evidence from electroencephalography and neuropsychology dissociating automatic and controlled temporal preparation. Controlled temporal preparation (temporal orienting of attention) requires a functional right prefrontal cortex and competes for central resources when performed concurrently with a working memory task. Automatic temporal preparation (regular rhythms and foreperiod sequential effects) does not involve the right prefrontal cortex, it survives from dual task interference, and it suppresses rather than enhances brain electrophysiological activity related to early auditory processing.

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