

Poster presentation

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Functional connectivity patterns of ERPs activity during the generation of global and local imagery

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Introduction

Global and local visual processing are well established, but the literature on global and local imagery processing is sparse. To analyze the organization of functional connectivity of event-related potentials (ERPs) activity during the generation of global and local imagery, we evaluated the spatial patterns of ERPs correlation between all possible pairs of electrodes (60) placed over the scalp of 28 healthy young normal subjects participating in a global/local imagery generation task using two graph theoretical measures: the clustering coefficient and average path length [1-3].

Results and discussion

Results showed that the functional network of global imagery generation produced a shorter average path length, while that of local imagery generation got a larger clustering coefficient. Furthermore, the average distance between functional connected electrodes was longer in the generation of global imagery than in local imagery. We suggested that the difference of functional connectivity patterns might reflect the different processing modes of the generation of global and local imagery that global imagery emphasized particularly on global integration, while local imagery on local specialization.

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