

Detecção de informação emocional e sua interferência no processamento neurocognitivo: um estudo em criminosos reincidentes

Results:

The interference of a secondary visual emotional task on the P3 component elicited by an auditory odd-ball paradigm was studied in recidivist inmates and controls. The main ERP study was preceded by a SDT based paradigm in order to assess the sensitivity of both groups for emotional arousal and valence.

For this phase, controls reported lower values, were less liberal and obtained higher sensitivity scores for emotional arousal, whereas no differences were found for valence except for criteria where groups did not differ for lower cut-points but did so for higher response categories (from 5-6 on). These results suggested that to obtain the same pattern of emotional responses for both groups, different stimuli ought to be used. Based on this, the visual stimuli for the ERP paradigm were selected so that both groups would be paired concerning their sensitivity values.

The ERP results showed that controls presented higher amplitudes for P3 under the Pure (absence of visual stimulation) condition than for Positive, Neutral or Negative conditions. There were no effects for the recidivist criminals. P3 peak latency was significantly earlier for the Pure condition.

Thus, for the control group, we obtained a reduction of auditory P3 peak amplitude when subjects were stimulated by pictures, regardless of its valence, suggesting a shift of attentional resources to such stimuli. This was not found for inmates.

This suggests that, besides a basic impairment on the detection and discrimination of emotional information, antisocials may further be affected by anomalous neurocognitive processing, translated by deficits in the efficient allocation of processing resources on peripheral tasks, even if they contain emotional significance.

Published Work:

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- Almeida, P., Marques-Teixeira, J., & Barbosa, F. Sensibilidade à estimulação emocional em reclusos reincidentes: Uma abordagem à luz da Teoria de Detecção de Sinal [Sensitivity to emotional stimulation in recidivist inmates: a Signal Detection Theory approach]. Abstract in the proceedings of the 2º Encontro Nacional da Associação Portuguesa de Psicologia Experimental, FPCEUP/APPE, Porto, Portugal. 2007.
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- Marques-Teixeira, J., Barbosa, F., & Almeida, P. Detection of Emotional Information and Interference in Neurocognitive Processing: a study of recidivist offenders (project abstract). Poster presented at the 6º Simpósio Aquém e Além do Cérebro, Fundação BIAL, Porto, Portugal. 2006, March.
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