

用稳态视觉诱发电位研究注意的选择机制

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众所周知,注意是一种心理活动,是对外界刺激的一种选择,对人的其它认知活动有一定的调节作用。关于注意的选择机制,有两种不同的理论,一种是早期选择机制,另一种是晚期选择机制。稳态视觉诱发电位是视觉通路对外界刺激的一种物理反应,它的产生过程处于认知的早期阶段,如果它能受到注意的调节,这就支持了注意的早期选择机制。在现有的利用闪光稳态诱发电位对注意的研究中,注意的对象是认知任务,而不是闪光。该实验用两种不同频率的闪光分别做诱发源,对在注意与不注意闪光两种情况下(都没有认知任务)的稳态视觉诱发电位进行研究,发现其明显地受注意调节,而且对不同频率光刺激的调节大小不一样。因此,该实验结果支持了注意的早期选择机制。

Study on the selection mechanism of attention by steady-state visually evoked potential

It is well known that attention can modulate the processing of cognitive task, and can be seen as a choice of the external stimulus. There exist two theories about the mechanism of the attention choice: early choice or late choice. The steady-state visually evoked potential is a direct influence by the flicker, and is generated in the early phase of a task. If it can be modulated by attention, it can prove that the mechanism of the attention choice is early choice. In this paper, two different frequency flickers were used as the stimulus of steady-state visually evoked potential, and it was found that under two situations (attending the flicker and un-attending the flicker), attention could modulate the amplitude of steady-state visually evoked potential, and for different frequency flicker, this modulation was different too.

关键词

稳态视觉诱发电位(Steady-state visually evoked potential); 注意(Attention); 基频(The fundamental frequency); 二次谐波(The second harmonic)