# Orienting of Attention

## Neural Implementation, Underlying Mechanisms and Clinical Implications

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## 34 Visual attention in dual-task with central and peripheral stimuli

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An individual had to performing a visual search task by counting a specific letter from a 27° set of letters on white background in central visual field. This task was performed with no noise, small noise or big noise in peripheral visual field. Additional peripheral stimuli appeared 44°±2°either to the left or to the right from the center of a projection screen. Peripheral stimuli that had to be named by an individual – a circle or a square – appeared one at a time for 500 ms. Each stage of the experiment consisted from randomly repeated ten central tasks and only one peripheral stimulus size out of six was used at a time – from 0,5° to 3,5°.

As seen from the results, noticing peripheral stimulus is significantly affected by peripheral noise ($p<0.05$) due to a masking effect. For three out of five individuals central task with different peripheral noise and peripheral stimuli size was performed significantly differently ($p<0,05$). Four out of five individuals were able to accomplish central task faster with big peripheral noise comparing with no noise or small noise. All the individuals demonstrated that there were more errors in central task performance as the peripheral stimulus size increased on a background without noise or with small noise. As it was hard to notice and discriminate peripheral stimuli with big noise in periphery, central task performance was not significantly affected ($p<0.05$).