

# **A study lays the foundations to distinguish the different human ways for paying attention**

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Is it possible to compensate attention problems through other attention ways? Does it produce the same effects to direct someone's attention in a voluntary (endogenous) or in an involuntary way (exogenous)? These are the questions answered by a research work of the Department of Experimental Psychology and Behaviour Physiology of the University of Granada carried out by doctor Ana Belén Chica Martínez, and supervised by Professor Juan Lupiáñez Castillo.

The study of attentional orientation carried out by the UGR researchers is especially relevant for the rehabilitation of patients with attention disorders, as well as for attention training in healthy children, children who suffer attention deficits (hyperactivity), and in anyone normal aging. In the case of attention-deficit hyperactivity disorder, different recent studies point out that it affects more than 4% of the schoolchildren, which proves the importance of the work carried out by the UGR.

## **How does our attention orientate?**

Our attention can orientate to such relevant information according to the person's goals or purposes, which we know as endogenous or voluntary attentional orientation. However, stimuli can also attract our attention due to their potential danger, which we know as exogenous or involuntary attentional orientation. The work carried out at the [UGR](#) has

proved for the first time that both systems can produce effects in an independent way, without any interaction. This is: Even when we are paying attention voluntarily to a specific question, there can be typical effects of attention involuntary capture. These data support other hypothesis such as that the two types of attentional orientation are two differentiated attentional systems.

The [UGR](#) Professors have observed that endogenous attention can increase the effect caused by exogenous attention, even producing effects that endogenous attention would not produce by itself. The results of this research have been published in different journals such as Psicothema, Journal of Cognitive Neuroscience, Cognitive Neuropsychology or Experimental Brain Research.

Source: Universidad de Granada

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