

Orientating and decisional processes are both involved in the reflexive shift of attention (Abstract only)

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Orientating and decisional processes are both involved in the reflexive shift of attention.

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People's attention cannot help being affected by what others are looking at. The dot-perspective task has been devised to investigate this "Reflective Shift of Attention" phenomenon. It consists of a virtual scene in which an avatar is facing a direction. Participants are asked to judge as quick as possible how many targets can be seen from their perspective or the perspective of the avatar. Typically, this task shows an interference pattern with participants recording slower RTs and more errors when the avatar and the participants are seeing different targets. Two accounts have been advanced to explain this interference. The mentalizing account focuses on the "social relevance" of the avatar; whilst the domain-general account focuses on the directional features of the avatar. To investigate the relative contribution of these two accounts, we developed an avatar which social features were isolated from its directional features. Specifically, a dragon with an arrowed-shaped tail pointing opposite to the muzzle was used and a dragon without tail served as control. RTs analysis showed interference only in the control condition whilst it disappeared in the dragon with tail condition. However, error's analysis showed interference in both conditions, suggesting that RTs and errors may measure different cognitive processes. We suggest that two processes are involved in the dot perspective task: an orientating process - affected by the directional features of the avatar, measured by the RTs – and a decisional process - affected by both the social and directional features and measured by the error rate.