A dual-process model of visual perspective taking: the role of others' directional features.

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People's attention is influenced by what others are looking at. To study this phenomenon, Samson et al (2010) devised the Dot Perspective Paradigm (DPP), in which participants are presented with a scene and a cue directs attention towards some targets. This task shows an interference: participants record slower RTs and more errors when the cue is facing away from the targets. To explain this phenomenon, the mentalizing account emphasizes the social relevance of the cue; whereas the domain-general account focuses on its directional features. We proposed a dual-process model which integrates the two accounts consisting of i) an orienting process, sensitive to directional features – such as the posture - and assessed by RTs; and ii) a decisional process sensitive to social features - such as the viewpoint - and assessed by both RTs and errors (Pesimena & Soranzo, in press). To test this model, we used a modified version of the DPP in which a devil shaped cue had an arrowed shape tail that pointed either to the same or the opposite direction of the face, thus manipulating both directional and social features separately. Results show that the interference persists when the tail is pointed to the same direction of the face, whilst it disappears (only in the RTs) when the tail pointed to the opposite direction. This result is consistent with the dual-process model: the orienting process is affected by the devil's posture and direction of its tail, whilst the decisional process is affected by the devil's viewpoint.