

Developmental Trends in Gaze Induced Orienting

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Gaze could induce automatic orienting and play a crucial role in social cognition. The goal of this study was to explore whether the effect of gaze induced orienting varies with age. Three groups of typical developed participants were recruited: 9-10 year-old children, 13-16 year-old adolescents, and 19-25 year-old adults. Each group had thirty-three participants. The participants located a target while a schematic face was presented on the center of the screen. Half of the trials were valid in which the face gazed at the target, while the other half trials were invalid in which the face gazed away from the target. The gaze cue was presented 200, 1,200, or 2,400ms before the onset of the target. Results showed that, at 200ms SOA, all three groups responded faster to valid targets than invalid targets, while the cuing effect for children was larger than that for the other two groups. In addition, children showed significant inhibition of return at 1,200ms. Thus, our data suggested that children are more sensitive to gaze cues; this finding can be supported by neural development of gaze related brain areas at this age. Furthermore, adolescents showed similar results with adults, suggesting that their attentional mechanisms to gaze cues are relatively more adult-like.

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