Implicit and Explicit Processing of Eye-Gaze in a Spatial Interference Task

ABSTRACT

Attention can be oriented to the location gaze and arrows point at, but the two stimuli can lead to opposite behavioural effects when they are targets instead of cues in the context of an interference task. Using variants of the spatial Stroop task, recent studies show that people make fast explicit judgments about other people's gaze direction when eye-gaze stimuli are presented on the opposite side of the gazed-at location (incongruent trials) as compared to conditions in which eye-gaze stimuli position and eye-gaze direction coincide (congruent trials). This reverse congruency effect found when direct gaze is relevant to the task, could be explained by eye contact or social approach that might occur on incongruent trials. Studies in social cognition reveled that social stimuli are usually processed implicitly or automatically. However, it is not known whether and how the implicit processing of eye-gaze direction can affect behavior without the intention to process eye-gaze direction. The aim of this study is to investigate the effect of the implicit processing of eye-gaze direction on a spatial interference task with eye-gaze stimuli as targets. The results showed contradictory data so that more research seems necessary to reach a firm conclusion. Although several explanations are possible to explain the reverse congruency effect, the current pattern of results seems to suggest that it is necessary to explicitly pay attention to the direction of eye-gaze and arrows for the congruency effect to occur. These findings contrast with the eye contact theory and rather favour a joint attention explanation for the reversed congruency effect observed with eye-gaze.

Keywords: eye-gaze, arrows, implicit processing, spatial Stroop task

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