Binocular Heterogeneity in Saccadic Suppression

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Abstract : This work is focused on the study of the binocular characteristics of the phenomenon of perisaccadic suppression in humans when perceiving visual objects. This phenomenon manifests in a decrease in the subject's ability to perceive visual information during saccades, which play an important role in purpose-driven behavior and visual perception. It was shown that the impairment of perception of visual information in the post-saccadic time window is stronger (p < 0.05) in the ipsilateral eye (the eye towards which the saccade occurs). In addition, the observed heterogeneity of post-saccadic suppression in the contralateral and ipsilateral eyes may relate to depth perception. Taking the studied phenomenon into account is important when developing ergonomic control panels in modern operator systems.

Keywords : eye movement, natural vision, saccadic suppression, visual perception

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