

Exploring Relationship between Attention and Consciousness

Authors : Aarushi Agarwal, Tara Singh, Anju Lata Singh, Trayambak Tiwari, Indramani Lal Singh

Abstract : The existing interdependent relationship between attention and consciousness has been put to debate since long. To testify the nature, dual-task paradigm has been used to simultaneously manipulate awareness and attention. With central discrimination task which is attentional demanding, participants also perform simple discrimination task in the periphery in near absence of attention. Individual-based analysis of performance accuracy in single and dual condition showed and above chance level performance i.e. more than 80%. In order to widen the understanding of extent of discrimination carried in near absence of attention, natural image and its geometric equivalent shape were presented in the periphery; synthetic objects accounted to lower level of performance than natural objects in dual condition. The gaze plot and heatmap indicate that peripheral performance do not necessarily involve saccade every time, verifying the discrimination in the periphery was in near absence of attention. Thus our studies show an interdependent nature of attention and awareness.

Keywords : attention, awareness, dual task paradigm, natural and geometric images

Conference Title : ICCC 2018 : International Conference on Consciousness and Cognition

Conference Location : Rome, Italy

Conference Dates : March 05-06, 2018