1.Abstract

Motion Induced Blindness (MIB) is a visual phenomenon characterized by perceptual disappearance of static or slow-moving targets which are superimposed in a moving component. Previous study shows that MIB is closely related to binocular rivalry and binocular rivalry is a way to test the existence of ocular dominance. Under this relationship and unknown on the effect of dominant eye, an experiment was done to find out the correlation between the MIB and dominant eye. Interestingly, the dominant eye will affect the sides of disappearance of the targets in MIB which is proved by the experimental data. Also, previous study had suggested that MIB could occur under driving scenario. I further conducted another experiment that using driving animations as a moving background and it suggested that MIB occurs under driving condition and more disappearance of targets at a higher speed.

2.Introduction

Motion induced blindness (MIB) is an illusionary disappearance when a static or slow-moving target disappeared spontaneously for a short period of time when superimposed on a moving background while we are focusing at a fixation point. (Bonneh, Cooperman & Sagi, 2001) This experience involves cognitive function of the brain which had been discussed by scientists for a long time. Until now, scientists do not have a mutual conclusion on the cause and physiological mechanism of MIB.