

POSTER

BLINK RATE AS A MEASURE FOR THE VALENCE OF HIGH AROUSAL MOMENTS DURING A WALK IN THE CITY

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ABSTRACT

A walk in the city, particularly in green spaces, has been shown to benefit both physiological and psychological health. This includes effects on stress, anxiety and mood. While moments of high arousal can be detected precisely within time and space from individuals' immediate physiological reactions, the valence of these reactions remains an open question. This study addresses this question in two steps: In the first study, we recorded 32 participants as they walked along a predetermined urban route, using continuous geo-located recordings of electrodermal activity and simultaneous video recordings with a portable eye-tracker. Based on this data, we extracted twelve locations of interest along the route, all of which elicited a high arousal response. For the second study, we prepared a rating study to assess valence. For each location, a set of four images was presented to subjects who rated the locations with the PANAS-sf and the Affective Slider, so we could calculate an average valence per location. Combining the two studies allowed us to investigate the relationship between location valence and blink rate as measured by eye-tracking. Based on the principle that blink rate differs with valence, we aim to develop a physiological measure of valence. The result will allow future projects to not only assess arousal and visual behavior, but also to attribute valence to the visual stimuli in eye tracking studies. By continuously monitoring emotional responses to urban environments, we will be able to investigate the qualities of urban settings in a more meaningful manner.