

**HOW SALIENT EVENTS IMPROVE PERFORMANCE DURING PROLONGED  
TASKS**

by

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## **ABSTRACT**

Sustaining attention in monotonous tasks is crucial in many areas of the workplace and in school. Knowing which stimuli are capable of attracting and sustaining attention and improving performance in tasks that require sustained attention is critical in domains such as airport security screening, driving, and learning in a classroom. The goal of my current research is to demonstrate that making subtle unexpected changes in the task environment will result in improved performance on a prolonged vigilance task. In addition, an attempt will be made to quantify the change in performance in terms of the relative salience of the stimuli presented to participants over the course of the task. The studies conducted used a simple monotonous vigilance task in order to demonstrate the decline in performance witnessed in prolonged tasks. The main manipulation was whether or not a salient event occurred 30-40 minutes into the task. The salient event was in the form of an unexpected color change of the task stimuli. Previewing the results, it was found that for low scoring participants in the task, the presentation of a salient event well into the task had an impact on deterring the decrement in performance seen in prolonged tasks. A second study investigated whether we could predict the degree to which this deterrence could be achieved using a relative salience measure of the salient event. We found that relative salience was not a good predictor of the salient event's effect on performance.