A re-examination of the interrelationships between attention, eye behavior, and creative thought

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Abstract

Internally focused attention, characterized by reduced sensory input, is often correlated with memory retrieval and the ability to combine memories to generate new ideas. Accordingly, the attenuation of external distractors (e.g., via reduced visual input) may be expected to enhance idea generation. We conducted a study requiring participants to perform an alternative uses task, in either a well-lit or totally dark environment. We also measured eye movements, as they have been linked with idea generation and attention. Departing from prior studies, our participants were not presented with visual stimuli, but received auditory task instructions. Preliminary analyses replicated the eye behavior attributed to internal attention in previous research, including more and shorter fixations and greater saccade amplitude in the dark. While these results suggest a positive relationship between darkness and internal attention, task performance was not significantly influenced by darkness manipulation. The findings and suggestions for future studies will be discussed.