Mystery's Effect on Attention: Examining the Function of Fascination

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Introduction

Research has shown that a person can obtain certain cognitive benefits from interacting with nature. In fact, much of the evidence garnered from this line of study has revealed that interactions with nature are particularly effective at supporting attention restoration. Explanations for this phenomenon have drawn on the assumption that natural settings can evoke a form of attention that is effortless or more bottom-up oriented. A person operating from this mode of attention could seemingly rest the more top-down or effortful attention, allowing that capacity to recover when fatigued.

One factor believed to be critical to the restorative process is fascination. Sources of fascination provide a basis for resting attention, as they tend to elicit a more stimulus-driven response. With the prospect of acquiring new information, settings that contain patterns of mystery (screening, distance of view) may offer a means by which to elicit a person's fascination, and rest directed attention. Thus, the purpose of this study was to examine the effect of mystery, mediated by fascination, on a person's capacity to direct attention.

Methods

Initial efforts involved an independent sample of subjects rating a series of images for the presence of mystery. Using a 2 x 4 within subject experimental design, 144 subjects took part in a recognition memory task (RMT) that examined the effect scene type (high vs. low mystery) and presentation duration had on a subject's capacity to direct attention. Recognition performance scores have frequently served as an indicator of the attentional resources required or devoted for the RMT. Presentation duration helped determine if the processing of certain images was more automatic (effortless) or controlled (effortful). Scores for fascination were obtained using a shortened version of the fascination subscale from the Perceived Restorativeness Scale.

Results

Data garnered from the RMT revealed a significant interaction effect, $F(3, 288) = 5.34$, $p < .05$. A closer examination of participants' performance on the RMT at each duration indicated that when given more time to study an image (5 sec and 10 sec), images perceived high in mystery offered the greatest advantages with regard to recognition performance. The results indicated that fascination was in fact an effective mediator both at the 5 sec ($B = .205$, $p < .001$) and 10 sec ($B = .215$, $p < .001$) durations.

Discussion

The findings not only affirmed the importance of fascination as a mediating variable, but also demonstrated that perceptions of fascination evoked a form of attention that was not purely effortless, but involved both top-down and bottom-up processing. That outcome may in fact contribute to a new understanding of fascination as attentional resonance; an experience of fascination that perhaps more appropriately characterizes the quality of rest that is so central to Attention Restoration Theory. With additional research, results could inform urban and park planners on how to more intentionally utilize mystery to maximize restoration.