

Everyday attention lapses and memory failures: The affective consequences of mindlessness

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Abstract

We examined the affective consequences of everyday attention lapses and memory failures. Significant associations were found between self-report measures of attention lapses (MAAS-LO), attention-related cognitive errors (ARCES), and memory failures (MFS), on the one hand, and boredom (BPS) and depression (BDI-II), on the other. Regression analyses confirmed previous findings that the ARCES partially mediates the relation between the MAAS-LO and MFS. Further regression analyses also indicated that the association between the ARCES and BPS was entirely accounted for by the MAAS-LO and MFS, as was that between the ARCES and BDI-II. Structural modeling revealed the associations to be optimally explained by the MAAS-LO and MFS influencing the BPS and BDI-II, contrary to current conceptions of attention and memory problems as consequences of affective dysfunction. A lack of conscious awareness of one's actions, signaled by the propensity to experience brief lapses of attention and related memory failures, is thus seen as having significant consequences in terms of long-term affective well-being.

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1. Introduction

Lapses of attention and memory failures, commonly known as absent-mindedness, are a familiar occurrence in our daily lives. Generally, these lapses result in only minor inconveniences, such as a brief loss of time while trying in vain to find an object in full view or failing to remember what one needed to pick up at the supermarket. These same lapses can, however, also have dramatic and life-threatening consequences, such as when a pilot fails to lower the plane's landing gear while approaching a runway (e.g., [Transportation Safety Board of Canada, 2004](#)) or a surgeon leaves forceps in a patient during surgery ([Gawande, Studdert, Orav, Brennan, & Zinner, 2003](#)). From these examples it is apparent that even minor disruptions in the basic cognitive processes of attention and memory can have numerous and potentially far reaching consequences.

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The present paper examines some of the potential long-term consequences of momentary everyday attention lapses. In particular, we examine the long-term effects of everyday lapses of attention and memory on two theoretically related affective dysfunctions: boredom and depression.

The relation between mind-wandering and affective dysfunction has been established for some time (e.g., Watts & Sharrock, 1985). Recent research has raised the possibility that relatively small everyday lapses of attention can have important consequences with regard to one's affective state, and may even lead to affective dysfunction. This conclusion is consistent with research conducted by Farrin, Hull, Unwin, Wykes, and David (2003), examining the extent to which cognitive failures are related to depression via a combination of the Sustained Attention to Response Task (Robertson, Manly, Andrade, Baddeley, & Yiend, 1997) and the Cognitive Failures Questionnaire (CFQ; Broadbent, Cooper, FitzGerald, & Parkes, 1982). This research reported a strong correlation between the CFQ and depression, and a significant correlation between performance on the SART and depression. That lapses of attention can have a significant effect on one's affective state is also consistent with research by Smallwood and colleagues showing a positive association between mind-wandering and dysphoria (Smallwood et al., 2003; Smallwood & Schooler, 2006). Finally, additional support for the role of attention in affective dysfunction comes from our previous work on everyday attention lapses (Cheyne, Carriere, & Smilek, 2006), in which we examined the relation between self-report measures of attention lapses, attention-related cognitive errors, and boredom proneness. One of the results of this research was the finding of a robust relation between the propensity to experience attention lapses and boredom proneness, again suggesting attention lapses can play a significant role in one's affective state.

We have hypothesized that attention plays a key role in many of the most common conceptions of boredom (Cheyne et al., 2006). Indeed, an examination of the research on boredom reveals that it is primarily an inability to engage and sustain attention (Berlyne, 1960; Damrad-Frye & Laird, 1989; Hebb, 1966) and is a typical outcome when we are either (a) prevented from taking a desirable action or (b) forced into an undesirable action (Fenichel, 1951). However, we were particularly struck by the subjective experience of boredom in which one is unable to maintain attention on any object, despite being free to do so, and by the possibility of substantial individual differences in boredom proneness as a result of one's tendency to be inattentive. Evidence in support of the idea that attention can have a direct causal influence on affective state comes from a recent study reporting that selective inhibition of distractor stimuli during visual search leads to affective devaluation of those stimuli (Fenske & Raymond, 2006). In this case the visual search task demands that one not pay attention to specific objects, however such research raises the possibility that one's tendency to be inattentive—and one's subsequent inability to maintain attention on any object or experience, despite being free to do so—may play a causal role in the general affective devaluation of one's experiences that is found in boredom. Consistent with this conceptual analysis we (Cheyne et al., 2006) found a significant association between the Boredom Proneness Scale (BPS; Farmer & Sundberg, 1986) and a direct measure of the propensity to experience attention lapses, the Mindful Attention Awareness Scale (MAAS; Brown & Ryan, 2003). The data were insufficient, however, for developing a causal model of the relation between attention lapses and affective dysfunction as reflected in boredom. Nonetheless, we proposed the hypothesis that a potential consequence of a chronic inability to engage and sustain attention is a lack of interest in everyday events, as is typically experienced in boredom, leading to a loss of meaning in everyday tasks, a lack of motivation, and persistent negative affect (O'Hanlon, 1981; Sommers & Vodanovich, 2000).

Feeling a loss of meaning in everyday tasks and a persistent negative affect are characteristic not only of boredom but also of more serious affective dysfunction; most notably, depression (Abramson, Metalsky, & Alloy, 1989). Thus, attention lapses may have implications for cognitive and affective aspects of depression as well. The relation between attention lapses and depression is supported by research conducted by Wagle, Berrios, and Ho (1999) and by Farrin et al. (2003) reporting significant correlations between a questionnaire assessing a variety of everyday cognitive failures (the Cognitive Failures Questionnaire), including attention and memory failures, and a questionnaire designed to assess depression (the Beck Depression Inventory). As well, clinical perspectives on depression often cite attentional problems as one of several cognitive outcomes and assert that they are resolved through treatment of the underlying depressive disorder (e.g., Christopher & MacDonald, 2005; Hasher & Zacks, 1979; Karasu, Gelenberg, Merriam, & Wang, 2000; Watts & Sharrock, 1985). Indeed, the importance of addressing attentional problems early on in Cognitive Behavioural

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