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C O M M E N T A R Y

SILVER LINING THEORIES OF CREATIVITY: COMMENTARY ON “WHY BEING BORED MIGHT NOT BE A BAD THING AFTER ALL” BY G. PARK, B. LIM, AND H. OH

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A famous saying of Dutch soccer player and coach Johan Crujff (1947–2016) is “Elk nadeel heb z’n voordeel” (“every disadvantage has an advantage”). As the article by Park, Lim, and Oh demonstrates, even boredom may have positive consequences, and Crujff’s insight may well stretch beyond the limits of professional soccer. The counterintuitive finding that boredom stimulates creativity is interesting from a scientific as well as applied perspective. For example, scientists will wonder why boredom would have such an unexpected effect, whereas parents will wonder whether they should do fewer fun things with their children.

The finding that boredom stimulates creativity resonates with other findings in which a particular trait or (psychological) state that is normally perceived as negative has a positive relation with creativity. Thus, creativity has been connected to various antisocial tendencies, including deviance, impulsivity, and dishonesty (Gino & Ariely, 2012; Mainemelis, 2010; Schuldborg, 2000; Spreitzer & Sonenshein, 2004; Vadera, Pratt, & Mishra, 2013). It has also been related to different psychopathologies, such as schizophrenia, hypomania, ADHD, and depression (Baas, Nijstad, Boot, & De Dreu, 2016; Boot, Nevicka, & Baas, 2017; Post, 1994). Finally, and potentially more relevant to the article by Park and colleagues, research has connected creativity to psychological states that are associated with a lack of concentration or weak cognitive control, such as mind wandering, defocused attention, and distraction (Baird,

Smallwood, Mrazek, Kam, Franklin, & Schooler, 2013; Dietrich & Kanso, 2010; Dijksterhuis & Meurs, 2006; Smallwood & Schooler, 2015).

It thus appears that creativity has often been studied as the “silver lining” of something that may normally be seen as negative (see also Wesnousky, Oettingen, & Gollwitzer, 2015). One reason that “silver lining theories”—theories that propose that there is a positive side to something negative (Wesnousky et al., 2015)—often involve creativity may be that creativity is perceived as something out of the ordinary. According to this view, a defining feature of creativity is novelty or originality; therefore, creativity by definition is not “normal” but deviant. By extension, it may be presumed that creativity is not predicted by traits or states that are normally associated with good (cognitive) performance, such as conscientiousness (see also George & Zhou, 2001), but rather by disorder, chaos, and deviance (see also Kim & Zhong, 2017; Vohs, Redden, & Rahinel, 2013). Moreover, and closely linked to people’s lay theories of creativity (Baas, Koch, Nijstad, & De Dreu, 2015; Lucas & Nordgren, 2015), most people associate getting creative ideas with sudden insights. According to this perspective, ideas do not rise out of deliberate and conscious thought or hard work, but rather out of random associations that occur during mind wandering or distraction (Baas et al., 2015). In sum, because creativity is seen as special, it cannot result from typical cognitive processes, but comes when least expected—perhaps even when bored.

It is important to note, however, that these underlying ideas about creativity as “special” and “unexpected” are incomplete. On the one hand, there is truth to the idea that creative ideas or insights appear spontaneously. For example, there is much evidence for the existence of incubation effects, occurring when a solution suddenly appears (“out of nowhere”) after a period in which one is not thinking about the problem

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(Sio & Ormerod, 2009). On the other hand, research indicates that people tend to overestimate the importance of sudden insights and underestimate that creativity often requires effort, concentration, and focused attention, especially in the stage of preparations (Baas et al., 2015; Cropley, 2006; Lucas & Nordgren, 2015). Furthermore, the evidence is not always conclusive. For example, whereas Baird, Smallwood, Mrazek, Kam, Franklin, and Schooler (2012) found positive effects of mind wandering on creativity, other researchers did not replicate this or found negative effects (Hao, Wu, Runco, & Pina, 2015; Smeekens & Kane, 2016).

Unfortunately, Park and colleagues are not very specific about the mechanism that would cause boredom to lead to creativity. In fact, the positive relation between boredom and creativity is surprising because research in general has suggested that mood states low in activation, such as relaxation and sadness, do not relate to creativity (Baas, De Dreu, & Nijstad, 2008, for a meta-analysis). Let us therefore consider the findings of Park et al. on the relation between boredom and creativity more closely. Their findings show that people—especially those high in epistemic motivation—who performed a relatively boring task were more creative on a subsequent task than those who first performed a task that is perceived as less boring. Can we conclude from these findings that boredom stimulates creativity? And can we conclude that boredom at work will have a silver lining and make employees more creative? We are afraid that this conclusion may be premature.

First, for any causal conclusion to be drawn from an experiment, it must be established that there are no confounding variables. This is problematic in the present case because we do not know for sure that the manipulation (performing a certain task) had no other effects except creating variation in boredom. Although the article showed that the manipulation did not affect mood states or specific emotions, we cannot exclude a number of states intertwined with boredom, such as fatigue or mental depletion, decreased agency, or cognitive overload. Because these states may plausibly relate to creativity and act as a mechanism responsible for the effect, we cannot conclude that the experience of boredom stimulates creativity. Second, the authors have exclusively looked at effects on creativity. Is creativity special, or would one also obtain effects on analytical tasks, simple motor tasks, or on learning a new language? Perhaps, performing a boring task for half an hour increases motivation to work on anything, as long as it is a different task.

This may imply that one would not expect people who are bored at work to become more creative employees. To become creative, they first need to

engage in a creative activity. Participants in Park et al.'s study had no choice and were given only a creative task, but in the real world, employees may do anything after being bored. They may not necessarily engage in an activity that is demanding and requires energy, such as is usually the case for creative tasks. Our hunch would be that they will crave for something more exciting, anything, and would rather play a video game, check their Facebook page, or gossip with colleagues.

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