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Threat of Stereotyping Contributes to Mind-Wandering, UCSB Researcher Finds

Mind-wandering -- or task-unrelated thought -- and the effects of negative stereotyping have long been areas of study for social and cognitive psychologists. Now, a team of researchers at UC Santa Barbara and the University of British Columbia has established a relationship between the two. The researchers have demonstrated that the threat of a negative stereotype increases mind-wandering, which in turn leads to a drop in performance. Their findings appear in the current issue of the *Journal of Experimental Social Psychology*.

"Our ongoing efforts are aimed at revealing the causes, characteristics, and consequences of mind-wandering," said Michael Mrazek, a doctoral student in the Department of Psychology at UCSB, and one of the paper's lead authors. "Our research shows that part of the reason stereotype threat can impair performance is because it leads to distraction by thoughts completely unrelated to the task. This provides us with not only a richer understanding of stereotype threat itself, but also new insight into how its effects might be avoided."

According to Jason Chin, a postdoctoral researcher at the University of British Columbia, stereotype threat occurs when members of a stereotyped group are overanxious about confirming the bias against them, and consequently underperform in tasks and activities ranging from athletic events to aptitude tests.

"While there have been many studies showing this effect, there are considerably fewer that demonstrate how exactly this ambiguous 'threat' affects complex behaviors, such as test-taking," Chin said.

The research also suggests that a strategy such as mindful breathing, which is known to reduce mind-wandering, could also relieve the burden of stereotype threat, even despite lingering prejudice, Mrazek noted. Researchers are studying another strategy that uses an algorithm to predict mind-wandering in real time, based on participants' reaction times, and alerts them accordingly.

While the role of mind-wandering in disrupting performance is strongly established, less is known about how social factors influence mind-wandering. The present findings help conceptualize which individuals may be most susceptible to it, and under what circumstances. "Stereotype threat may be particularly pernicious because not only are stereotyped individuals the victims, but there is also no specific perpetrator to hold accountable," Mrazek continued. "Stereotype threat works when prevalent attitudes lead someone to stand in his or her own way."

Until recently, little progress has been made in identifying strategies to reduce mind-wandering and its associated performance impairment, according to the researchers. It is known that brief mindfulness exercises aimed at cultivating non-distraction can reduce mind-wandering and improve performance. Researchers have launched a four-year study funded by the United States Department of Education to examine how mindfulness training and other strategies might remediate the effects of mind-wandering within educational contexts. The team includes Mrazek; Jonathan Schooler, professor of psychology; Jonathan Smallwood, a senior researcher at the Max Planck Institute in Leipzig, Germany; Michael Franklin, a postdoctoral student in psychology; and Dawa Tarchin Phillips, a visiting researcher from The Institute of Compassionate Awareness in Santa Barbara.

"The research program is examining a variety of strategies for reducing mind-wandering," Mrazek said. "We are currently teaching a mindfulness program in two local middle schools, with plans to begin teaching in high schools within a year. One hope is that by integrating these strategies into local schools, we will be able to assist underserved and at-risk students in overcoming the burden of stereotype threat."

Other authors of the Journal of Experimental Social Psychology article include Kimberly A. Hartson, a graduate student in the Department of Psychology at UCSB; Jonathan Smallwood, a senior researcher at the Max Planck Institute in Leipzig, Germany; and Toni Schmader of the University of British Columbia.

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