

Big Think

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Ego Depletion, Motivation and Attention: A New Model of Self-Control

[Sam Mc Nerney](#) on September 18, 2012, 11:41 AM

The human brain is fickle when it comes to commitments. Between 60 and 80 percent of people don't use their gym memberships. Most diets work at first but backfire in the long run. According to a 2007 survey conducted by the British psychologist Richard Wiseman, about 88 percent of New Year's resolutions end in failure.

Given how widespread our broken pledges are, it's no surprise that psychologists study human willpower. Florida State University Professor of Psychology Roy Baumeister is one of the main figures in this area of study. His research on willpower began in the late 1990s with a few papers demonstrating that when people exert willpower, self-control, persistence and rationality founder. Willpower, he discovered, was a limited resource easily drained by everyday activity.

For example, in one [study](#) Baumeister and three colleagues deprived participants of food for several hours and then exposed them to the delectable smell and sight of chocolate chip cookies and chocolate candies. The sweet tease mattered. Participants not allowed to indulge (they ate radishes instead) quit faster on unsolvable puzzles than participants who devoured the tasty treats.

More recently, Baumeister teamed with Kathleen Vohs and other colleagues to investigate how decision-making impairs self-control. In a clever [experiment](#) they presented one group of participants with a table full of products - colored pens, scented candles, popular magazines, and colored t-shirts - and asked them to “indicate the extent to which they had used each product in the past.” The second group had their work cut out for them. The researchers gave them the same list of products but instructed them to carefully choose between two different versions of each product: a white t-shirt vs. a black t-shirt, a red pen vs. a purple pen, etc. Would all the choices deplete their willpower?

When both groups dipped their hands in frigid ice water Baumeister, Vohs and their research team found that the second group gave up sooner than the first. “Making all those choices,” Baumeister concludes in *Willpower: Rediscovering the Greatest Human Strength*, a recent book he co-authored with John Tierney that brings together over a decade of his research, “had apparently sapped their willpower, and the effect showed up again in other decision-making exercises.”

In other words, human willpower is exhaustible. Under this paradigm, exercising willpower in one instance reduces our ability to decide optimally, exert self-control or perform well on tasks in proceeding instances. Willpower is like a muscle, when it’s depleted – what Baumeister termed “ego depletion” – we suffer the consequences.

This might not be the whole picture, however. A brand new [paper](#) by [Michael Inzlicht](#) (University of Toronto) and [Brandon J. Schmeichel](#) (Texas A&M University) propose that, “[ego depletion] is not some mysterious result of lost self-control resources but rather the result of shifts in motivation, attention, and emotion.”

Inzlicht and Schmeichel outline several studies that hint at their new framework. In [one](#) conducted by Mark Muraven participants performed tasks designed to induce ego-depletion (a thought suppression task, memory task or puzzles). Here was the key: Muraven told half of the participants that the study was designed to provide scientific evidence for new therapies for patients with Alzheimer’s disease. He told the other condition to just try their best at the task. With the health of Alzheimer patients on the line, participants in the first condition outperformed the control condition. A simple motivational incentive eliminated ego depletion.

There are other reasons to believe that ego-depletion might not be about “resource depletion.” A few studies provide evidence that participants who work hard on an initial task feel justified in slacking off during subsequent tasks. [Research](#) from Veronika Job, Carol Dweck and Gregory Walton even found that participants who believed that willpower is unlimited showed fewer signs of ego depletion compared to participants who thought willpower is limited, suggesting that reduced self-control is a function of people’s folk psychological beliefs. Taken together, our struggles with willpower might be a struggle with motivation and perception.

Inzlicht and Schmeichel also theorize that previous models of depletion result from shifting attention. They explain it this way. We exert self-control when there is a gap between what we want (desired states) and what we are engaged in (current states). For instance, self-control kicks in when we want to keep drinking but realize that we have to drive home; this monitoring system is especially active when there are severe consequences between pursuing a desired state over a current state.

Since initial acts of control lead attention to wonder, participants in the lab who solve puzzles, decide between products or try not to think of white elephants will pay less attention to the need to control and more on what’s gratifying. It’s not that they cannot control themselves; it’s that they temporarily “forget” that they ought to focus their attention on self-control.

Motivation and attention are, of course, interdependent, “[The] shift in motivation away from restraint and towards gratification is accompanied by a parallel shift in attention away from cues signaling the need to control and towards cues signaling the possibility of reward.” However, it is unclear which way the casual arrows points.

What is apparent is that a decade worth of research on willpower is incomplete. Inzlicht and Schmeichel aren’t in the business of destroying paradigms. They emphasize that previous research by Baumeister and colleagues is valuable and state that they’ve contributed to it. But they advise psychologists to understand self-control and its depletion at a more mechanical level. “That self-control exertion at Time 1 affects self-control at Time 2 has been replicated over 100 separate times,” they affirm. “Now we need to gain a more precise understanding of why that is.”

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rondawitt

It is important to recognize personality traits when considering ego depletion. The perfectionist will have a much harder time making choices than other test participants. To the point of motivation, the altruistic person or the classic helper/fixer will be much more motivated in certain circumstances as will the narcissistic personality type depending on the incentive.

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Joking... I would be interested to find out how the depletion of ego and motivation affects introverts and extroverts differently.

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Tags: [attention](#), [Brandon J. Schmeichel](#), [ego-depletion](#), [Kathleen Vohs](#), [mark muraven](#), [Michael Inzlicht](#), [motivation](#), [psychology](#), [Roy Baumeister](#), [Willpower](#)



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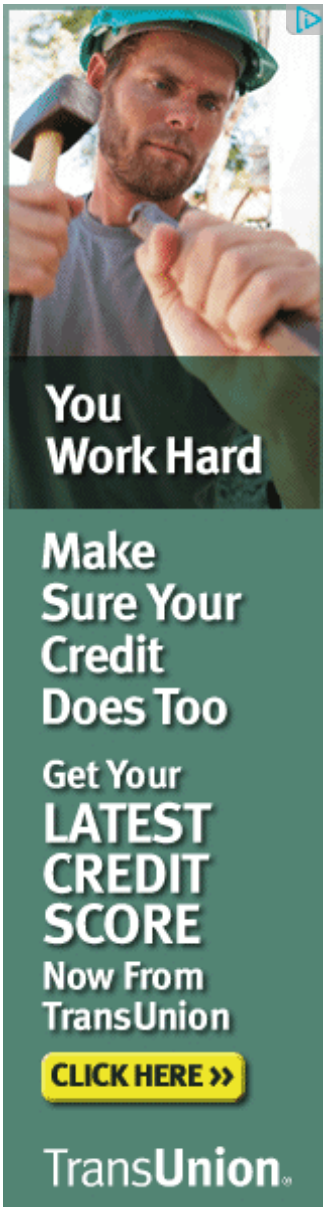
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