

Dip in brainpower may follow drop in real power

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Modern, open and democratic societies are supposed to reward brains and hard work with success—at least somewhat fairly.

But what failure erodes brainpower, creating a vicious loop in which success slips inexorably further away for an unlucky group that started out worse off?

A group of researchers claims their findings suggest this is exactly what happens, so rosy views on the benefits of advanced societies must be reappraised as simplistic.

“Powerless people often achieve less because lacking power itself fundamentally alters cognitive functioning,” wrote the scientists in a paper describing their research.

The findings highlight the importance of “empowering” employees to stimulate better work, especially in industries where errors can be fatal, they added. The findings, by Pamela Smith of Radboud University in The Netherlands and three colleagues, appear in the May issue of the research journal *Psychological Science*.

The researchers conducted three experiments with between 77 and 102 Dutch university students. They were put in different scenarios designed to make them feel either dominant or subordinate. This message of “rank” was conveyed either through subtle cues or direct statements, such as telling participants that they would be paired with a partner who would direct and evaluate their work.

The participants were then subjected to puzzles or other thinking tests. The “powerless” players consistently displayed impairments in thinking process key to performance, such as planning, updating a mental picture and inhibiting irrelevant information, they wrote.

The researchers argued that this dip in overall “executive function” among low-status people results from a loss of focus on overall goals. Consistent with this, they added, these players performed as well as others in a fourth experiment using a thinking game designed so that it would remain easy to focus on the task goal. The original performance deficits seemed not to result from a general loss of motivation—“low status” players reported putting in as much effort as others, the researchers said.

Ultimately, they argued, low status may drain performance by forcing people to devote part of their thoughts to the uncertainties and threats that can arise from their superiors’ changing whims. A result is that the powerless narrow their focus to small-picture goals and to “details” that might not be relevant to the task.



The findings “have direct implications for management and organizations,” Smith and colleagues wrote. In many industries such as healthcare and nuclear power, “errors can be costly, tipping the balance from life to death. Increasing employees’ sense of power could lead to improved executive functioning, decreasing the likelihood of catastrophic errors,” they continued.

“Such empowerment might be particularly vital in jobs where it is difficult to maintain goal focus because critical situations are infrequent,” such as airport security and product-defect detection.

In a larger sense, the findings suggest that differences in inherent ability, motivation, or discrimination aren’t the only factors separating the “haves and the have-nots,” Smith and colleagues wrote. “The cognitive impairments of being powerless may also be an important contributor, leading the powerless towards a destiny of dispossession.”

Image; Powerless people often achieve less because lack of power itself erodes cognitive functioning, researchers say.