Research Article

Lacking Power Impairs Executive Functions

Pamela K. Smith,[1] Nils B. Jostmann,[2] Adam D. Galinsky,[3] and Wilco W. van Dijk[1]

[1]Radboud University Nijmegen, [2]VU University Amsterdam, and [3]Northwestern University

ABSTRACT—*Four experiments explored whether lacking power impairs executive functioning, testing the hypothesis that the cognitive presses of powerlessness increase vulnerability to performance decrements during complex executive tasks. In the first three experiments, low power impaired performance on executive-function tasks: The powerless were less effective than the powerful at updating (Experiment 1), inhibiting (Experiment 2), and planning (Experiment 3). Existing research suggests that the powerless have difficulty distinguishing between what is goal relevant and what is goal irrelevant in the environment. A fourth experiment established that the executive-function impairment associated with low power is driven by goal neglect. The current research implies that the cognitive alterations arising from powerlessness may help foster stable social hierarchies and that empowering employees may reduce costly organizational errors.*

Societies are structured around social hierarchies, with some individuals and groups achieving positions of power and dominance over others (cf. Pratto, Sidanius, & Levin, 2006). These social orders are often rooted in immutable characteristics such as race and sex, a situation that is unfair and ineffective because talented members of disadvantaged groups are often prevented from moving into positions of power. Many contemporary societies, in response to this injustice, have shifted from hierarchies based on aristocracy to hierarchies based on meritocracy, with high achievers filling more powerful positions than low achievers.

An implication of meritocracies is that individuals who lack power are low achievers because they are less capable or less motivated than those who acquire power. In this article, we challenge this assumption. We propose that powerless people often achieve less than powerful people because lacking power itself fundamentally alters cognitive functioning and increases vulnerability to performance decrements during complex executive tasks.

POWER AND EXECUTIVE FUNCTIONS

The powerless face a world of threats and uncertainty (Keltner, Gruenfeld, & Anderson, 2003). They must wait for instructions before they can act (Galinsky, Gruenfeld, & Magee, 2003) and must also attempt to discern the goals of the powerful. Even when the powerless can act, they often cannot fully commit to action, but must be prepared to change course if their superiors' goals change. As a result, the powerless must constantly engage in perspective taking (Galinsky, Magee, Inesi, & Gruenfeld, 2006) and be especially attentive to their environment.

Existing research provides tentative evidence that low power fundamentally alters an individual's mental world. Low-power individuals focus on the details at the expense of the "bigger picture" (Smith & Trope, 2006). They are less cognitively flexible than the powerful (Guinote, 2007a), attending to both peripheral and central attributes in the environment, and they fail to distinguish between goal-relevant and goal-irrelevant features of a stimulus (Overbeck & Park, 2001, 2006). In addition, low-power individuals from both human (Keltner et al., 2003) and animal (Shepherd, Deaner, & Platt, 2006) populations tend to be more vigilant than high-power individuals. Such heightened self- and other-monitoring impairs executive functions, as demonstrated in research on the cognitive stress of interracial interactions (Richeson & Shelton, 2003).

Because of these cognitive changes, the powerless may be less successful than the powerful in performing difficult tasks, a hypothesis that is consistent with research on stereotype threat (Steele, Spencer, & Aronson, 2002). Members of stigmatized groups display worse self-control (Inzlicht, McKay, & Aronson, 2006) and decreased performance when their low status is made salient, compared with when it is not, partially because of impaired working memory (Beilock, Rydell, & McConnell, 2007; Schmader & Johns, 2003). Indeed, a neurophysiological correlate of low power (i.e., low levels of serotonin; Moskowitz, Pin-

Address correspondence to Pamela K. Smith, Department of Social Psychology, Behavioural Science Institute, Radboud University Nijmegen, P.O. Box 9104, 6500 HE Nijmegen, The Netherlands, e-mail: p.smith@psych.ru.nl.

ard, Zuroff, Annable, & Young, 2001; Raleigh, McGuire, Brammer, & Yuwiler, 1984) also correlates with worse performance during complex tasks (Park et al., 1994).

We suggest that low power causes performance deficits because being powerless impairs executive functions. Executive functions are general control mechanisms that coordinate cognitive subprocesses. Executive functions include updating goal-relevant information and inhibiting goal-irrelevant information (cf. Miyake, Friedman, Emerson, Witzki, & Howerter, 2000). These separate executive functions share an underlying commonality: the maintenance of goal-related information in working memory despite interference and distraction (cf. Engle, 2002). Thus, executive functions are necessary for the planning and execution of goal-directed behavior, and executive-function deficits can cause individuals to lose their goal focus, a situation referred to as *goal neglect* (Duncan, Emslie, Williams, Johnson, & Freer, 1996; cf. Jostmann & Koole, 2007; Kane & Engle, 2003).

In the current research, we sought to test the hypothesis that lack of power impairs executive functions. Two of the most commonly proposed executive functions are updating and inhibiting, which, in turn, are necessary to perform more complex cognitive tasks, like planning (Miyake et al., 2000). Thus, we explored whether the powerless are less effective than the powerful at updating (Experiment 1, which used a two-back task) and inhibiting (Experiment 2, which used a Stroop task). We also tested whether the powerless are less effective than the powerful at planning (Experiment 3, which used a Tower of Hanoi task). Finally, in Experiment 4, we examined goal neglect among the powerless. Using variations of an inhibition task (i.e., Stroop) that have previously been employed to demonstrate goal neglect (Jostmann & Koole, 2007; Kane & Engle, 2003), we tested whether lacking power leads individuals to have difficulty maintaining focus on their current goal.

EXPERIMENT 1

Experiment 1 examined the effect of power on the executive function of updating. Updating involves monitoring whether information is relevant for a present goal: New information is monitored for relevance, and relevant information replaces old, irrelevant information in working memory. We used a two-back task (Braver et al., 1997) because it requires participants to update working memory constantly in order to respond accurately. We predicted that low-power participants would make more errors than high-power participants.

Method

Participants were 101 students from a Dutch university. They received €3 for participating. Six participants were dropped from analyses: 4 for having suspicions that the role manipulation (see the next paragraph) was not real and 2 for extreme performance (more than 3 standard deviations from the mean). Thus, data from 95 participants (65 females, 30 males) were analyzed.

Using a procedure adapted from Richeson and Ambady (2003), we assigned each participant to be either a superior or a subordinate in a computer-based task. Participants were told that the superior would direct and evaluate the subordinate. This evaluation would purportedly determine the subordinate's payment for the experiment, whereas the superior would be paid a fixed amount. After hearing about their role assignments, participants completed the Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988).

The computer-based task was the two-back task. Participants were told they would first complete the task separately to provide an accurate baseline measure of team performance and would then work on the task interactively with their partner. In reality, they completed the two-back task only once, and their performance served as our dependent measure.

In the two-back task, participants viewed a series of black letters presented in the center of a white screen. Each letter was presented for 500 ms and followed by a blank screen for 2,000 ms before the next letter appeared automatically. Participants were instructed to indicate, as quickly and accurately as possible, whether each letter matched the letter shown two trials previously (target trials) or did not match that letter (nontarget trials).

Participants first completed 20 practice trials (7 target and 13 nontarget trials) with accuracy feedback. The actual task consisted of 120 trials without feedback and was divided into four blocks of 10 target and 20 nontarget trials.

After completing the task, participants answered questions about how powerful they were relative to their partner during the experiment, how much effort they put into the two-back task, and how they perceived their performance. Finally, participants were probed for suspicion and debriefed.

Results

Low-power participants perceived that they had less relative power ($M = -1.02$, $SD = 1.98$) than high-power participants did ($M = 2.30$, $SD = 1.49$), $F(1, 93) = 84.48$, $p < .001$, $p_{rep} > .99$, $\eta_p^2 = .48$.[1] Low- and high-power participants did not differ in affect, effort, or perceived performance on the two-back task, ps $> .22$, p_{rep}s $< .70$.[2]

Our measures of accuracy[3] in the two-back task were error rate (e.g., Friedman & Förster, 2005) and d' (e.g., Gray & Braver, 2002). The latter was calculated using the log-linear approach

[1]No effects of gender were found either in this experiment or in the other two experiments (3 and 4) in which the number of males per cell was sufficient for analyses to assess gender effects.

[2]Affect, effort, and perceived performance did not explain the effect of power on executive functioning in any of the experiments.

[3]In all four experiments, power condition did not affect response latencies for executive-function tasks. Furthermore, the significant effects on the main dependent variables remained when analyses controlled for response latencies.

(Stanislaw & Todorov, 1999) so that participants with hit or false alarm rates of 0 or 1 could be included in analyses. Analyses were based on trials in which participants responded (Wacker, Chavanon, & Stemmler, 2006). Low-power participants had a higher error rate ($M = 0.09$, $SD = 0.05$) than high-power participants ($M = 0.07$, $SD = 0.04$), $F(1, 93) = 4.90$, $p = .03$, $p_{rep} = .91$, $\eta_p^2 = .05$. Also, low-power participants' sensitivity (i.e., d' scores; $M = 2.68$, $SD = 0.59$) was less than high-power participants' ($M = 3.02$, $SD = 0.71$), $F(1, 93) = 6.50$, $p = .01$, $p_{rep} = .945$, $\eta_p^2 = .07$.

Thus, participants in a low-power role performed worse on a two-back task, a standard measure of updating, than participants in a high-power role. Although these results support our hypothesis, the power manipulation allows for an alternative explanation: Low-power participants may have been preoccupied with their impending evaluation, and this concern might have driven our results. To address this potential confound, we manipulated power via priming in the remainder of our experiments. Priming power has been shown to evoke a sense of power and has produced results similar to those obtained with actual role assignments (Galinsky et al., 2003).

Additionally, it may have been the case that the high-power role improved participants' executive function (Smith & Trope, 2006), rather than that the low-power role impaired participants' executive function. Because Experiment 1 used only low- and high-power conditions, we could not be certain of the direction of the effects. The remaining experiments included a control condition to resolve this ambiguity.

EXPERIMENT 2

Experiment 2 examined the effect of power on the executive function of inhibition. Inhibition involves suppressing unwanted or irrelevant responses that may interfere with a present goal. We used a Stroop task (Stroop, 1935) to assess inhibition because this task requires that one maintain the goal of naming the colors of words while inhibiting the prepotent tendency to read the words (MacLeod, 1991). We predicted that low-power-primed (LPP) participants would show more Stroop interference than both high-power-primed (HPP) participants and control participants.

Method

Participants were 77 students from a Dutch university. They received course credit or €3 for participating. Five participants were dropped from analyses: 4 for extreme performance (more than 3 standard deviations from the mean) and 1 for not following directions. Thus, data from 72 participants (65 females, 7 males) were analyzed.

Participants first completed a 17-item scrambled-sentences priming task (Smith & Trope, 2006). Each item consisted of a list of five words, and participants had to use four of the words to make a grammatically correct sentence. For LPP participants, 9 items contained a word related to a lack of power (e.g., *subordinate*, *obey*). For HPP participants, those same 9 items contained a word related to having power (e.g., *authority*, *dominate*). In the control condition, all 17 items contained only power-irrelevant words. After the priming task, all participants completed a single-item mood measure.

In the Stroop task that followed, participants were instructed to indicate, as quickly and accurately as possible, whether each of a series of letter strings was written in red or blue ink. Participants were instructed to ignore the meaning of the words and to focus on the ink colors only. Each trial started with a 1-s fixation asterisk in the center of the screen; a colored letter string followed immediately. A 2-s blank screen appeared between trials.

Participants first completed 10 practice trials, with accuracy feedback after each trial. The actual task consisted of 120 trials without feedback: 40 congruent trials (i.e., "RED" in red or "BLUE" in blue), 40 neutral trials (i.e., "XXXX" in red or blue), and 40 incongruent trials (i.e., "RED" in blue or "BLUE" in red). The order of the trials was random.

At the end of the experiment, participants were probed for suspicion and debriefed.

Results

Stroop interference is typically assessed by contrasting performance on incongruent trials with performance on neutral trials. Error rates were entered into a 3 (power: low power, control, high power) × 2 (trial type: incongruent, neutral) mixed-model analysis of variance (ANOVA), with the second factor within subjects (see Table 1). There was a robust Stroop effect: Participants made more errors on incongruent trials than on neutral trials, $F(1, 69) = 20.82$, $p < .001$, $p_{rep} > .99$, $\eta_p^2 = .23$. This effect was moderated by a significant two-way interaction, $F(2, 69) = 3.63$, $p = .03$, $p_{rep} = .91$, $\eta_p^2 = .10$. Power did not affect performance on neutral trials, $F < 1$, but did affect performance on incongruent trials, $F(2, 69) = 4.01$, $p = .02$, $p_{rep} = .91$, $\eta_p^2 = .10$. LPP participants made more errors on incongruent trials than either control or HPP participants did, ps $< .04$, p_{rep}s $> .90$; the latter two groups did not differ, $p = .60$,

TABLE 1
Mean Error Rates as a Function of Priming Condition and Trial Type in Experiment 2

	Trial type			
	Incongruent		Neutral	
Priming condition	*M*	*SD*	*M*	*SD*
Low power	.05	.05	.01	.02
Control	.02	.04	.01	.02
High power	.03	.03	.01	.03

p_{rep} = .43. Thus, participants primed with low power showed more difficulty with inhibition than did both participants primed with high power and control participants.

EXPERIMENT 3

Experiment 3 extended the results of the previous two experiments by testing the more complex executive ability of planning. Planning involves continuously switching between the main goal and subgoals and thus requires regularly updating the current goal focus and inhibiting currently irrelevant goals and subgoals (cf. Miyake et al., 2000). We used the Tower of Hanoi task, which involves moving an arrangement of disks from a start position to a goal position in as few moves as possible (Goel & Grafman, 1995). In some cases, it is functional to move disks temporarily away from their final position; on such trials, optimal performance requires noticing and then resolving conflict between the goal (i.e., to move disks toward their final position) and the subgoal (i.e., to move disks temporarily away from their final position). We used a version of the Tower of Hanoi task in which trials vary in whether or not goal-subgoal conflict resolution is required (Morris, Miotto, Feigenbaum, Bullock, & Polkey, 1997). We predicted that LPP participants would have more difficulty in resolving goal-subgoal conflict than would HPP and control participants. That is, LPP participants were expected to require more moves to solve conflict trials than HPP and control participants.

Method

Participants were 85 students (47 females, 38 males) from a Dutch university. They received €5 for participating.

Participants started with a practice Tower of Hanoi trial. They subsequently engaged in a writing task used to prime the experience of power (Galinsky et al., 2003). LPP participants wrote about a time when someone had control over them, HPP participants wrote about a time when they had control over other people, and control participants wrote about what they had done the day before. Afterward, all participants completed a single-item mood measure, followed by the actual Tower of Hanoi task. Finally, they indicated how powerless and in control they felt in the situation described in the writing task,[4] were probed for suspicion, and were debriefed.

We used a computerized Tower of Hanoi task (Morris et al., 1997). In each trial, participants saw two sets of disks and rods, each consisting of three vertical rods and three different-sized disks placed on the rods. Participants had to rearrange the bottom set (the start position) so that it looked like the top set (the goal position). They could move only one disk at a time and could not place a larger disk on top of a smaller disk. Moving a disk required two clicks of the computer mouse: one to select the disk and one to indicate the rod to which it should be moved. Participants worked on each trial until the bottom set of disks and rods matched the top set.

In the actual Tower of Hanoi task, participants started with a warm-up trial and then continued with four experimental trials. For each trial, the computer counted the number of meaningful clicks (i.e., clicks leading to the selection or movement of a disk) and measured the time that passed before each click.

All trials could be solved in four moves, but the trials varied in complexity. The first two trials were *no-conflict* trials, in which a simple, effective strategy was to move the first disk immediately in the direction of its final goal position. Thus, the subgoal (i.e., the first movement) was congruent with the overall goal of moving the disk toward its final position. The last two trials were *conflict* trials, in which the best strategy was to move the first disk in the direction opposite to its final goal position, thus producing a goal-subgoal conflict. Adopting this complex strategy is particularly difficult after participants have become accustomed to the simple strategy, so the no-conflict trials always preceded the conflict trials (cf. Morris et al., 1997).

Results

Because each move required two clicks, we divided the number of clicks by 2 to obtain a measure of the number of moves per trial. We then subtracted 4, the minimum number of moves required. Thus, our dependent measure was the number of moves above the minimum. Scores were entered into a 3 (power: low power, control, high power) × 2 (trial type: conflict, no-conflict) mixed-model ANOVA, with the second factor within subjects (see Table 2). The number of moves above the minimum was higher for conflict trials (M = 1.83, SD = 3.20) than for no-conflict trials (M = 0.89, SD = 1.43), $F(1, 84) = 5.94$, $p = .02$, $p_{rep} = .93$, $\eta_p^2 = .07$. This effect was qualified by a significant two-way interaction, $F(2, 82) = 5.41$, $p = .006$, $p_{rep} = .96$, $\eta_p^2 = .12$. Power affected performance on conflict trials, $F(1, 82) = 3.10$, $p = .05$, $p_{rep} = .88$, $\eta_p^2 = .07$, with LPP participants taking more moves above the minimum than both HPP and control participants, $ps < .05$, $p_{rep}s > .89$; the latter two groups did not differ, $p = .89$, $p_{rep} = .19$. Unexpectedly, power also affected performance on no-conflict trials, $F(1, 82) = 5.12$, $p =$

TABLE 2

Mean Number of Moves Above the Minimum as a Function of Priming Condition and Trial Type in Experiment 3

	Trial type			
	Conflict		No-conflict	
Priming condition	M	SD	M	SD
Low power	3.00	4.21	0.48	0.69
Control	1.17	2.88	1.57	1.96
High power	1.28	1.77	0.66	1.18

[4]The power manipulation in the essay-writing task significantly affected how much power and control participants reported feeling, $ps < .03$, $p_{rep}s > .93$.

.03, p_{rep} = .95, η_p^2 = .11; however, this effect was driven by control participants, who took more moves above the minimum than both LPP participants, p = .003, p_{rep} = .97, and HPP participants, p = .01, p_{rep} = .94. Critically, LPP and HPP participants performed equally well on no-conflict trials, p = .63, p_{rep} = .41.

EXPERIMENT 4

The previous three experiments provide consistent evidence that powerlessness impairs executive functions (i.e., updating, inhibiting) and performance on a complex executive task that relies on those functions. Recent research suggests that executive dysfunctions often reflect a general problem with actively maintaining a goal in working memory (Duncan et al., 1996). During such goal neglect, individuals are unable to remain focused on and initiate their goals. This is most likely to occur when no external cues are available to maintain the goal within attentional focus (Jostmann & Koole, 2007; Kane & Engle, 2003).

Powerless individuals have been reported to show symptoms of goal neglect. Compared with the powerful, the powerless display less goal-directed information processing (Overbeck & Park, 2006) and behavior (Galinsky et al., 2003; Guinote, 2007b) and are less likely to view other individuals through the lens of current goals (Gruenfeld, Inesi, Magee, & Galinsky, in press). Thus, we hypothesized that lack of power impairs executive functioning because of goal neglect.

Experiment 4 tested this hypothesis using Kane and Engle's (2003) adaptation of the Stroop paradigm. Participants completed either a no-congruent or a majority-congruent Stroop task. During congruent trials in a Stroop task, participants can answer correctly by simply reading the word, and thus can neglect the goal of identifying the ink color. During incongruent trials, however, they must maintain the ink-color goal in order to answer correctly. That is, it is only in the incongruent trials that participants must perform an executive task because it is only in those trials that they must override a prepotent response. In the no-congruent Stroop task, almost all trials are incongruent; the high number of incongruent trials implies that participants must almost always inhibit their prepotent response to answer correctly. Thus, their own behavior continuously prompts and maintains the task goal. In contrast, the high number of congruent trials in the majority-congruent Stroop task means that the task goal is not regularly prompted, so participants must perform the executive tasks of remembering, initiating, and acting on that goal. Thus, performance on the majority-congruent Stroop task (in terms of interference scores) relies predominantly on the general executive ability of maintaining the task goal, whereas performance on the no-congruent Stroop task relies only on the specific executive function of inhibiting an unintended response. We predicted that LPP participants would show more Stroop interference than HPP and control participants in the majority-congruent Stroop task, but not in the no-congruent task, because the former version relies more heavily on attentional control.

Method

Participants

One hundred seventy-seven undergraduate students from a Dutch university participated for course credit or €2. Six participants were dropped from the analyses: 4 because of extreme performance (more than 3 standard deviations from the mean) and 2 because of computer problems. Thus, data from 171 participants (117 females, 54 males) were analyzed.

Procedure and Materials

Participants first completed a scrambled-sentences priming task, as in Experiment 2. Then they answered 12 items that assessed positive and negative approach- and avoidance-related affect (Smith & Trope, 2006). The mood measure was followed by the Stroop task, which consisted of 12 practice trials and then 144 actual trials. Participants completed one of two Stroop versions: *no-congruent* or *majority-congruent*. In the no-congruent Stroop task, 24 neutral and 120 incongruent trials were presented. In the majority-congruent Stroop task, 24 neutral, 24 incongruent, and 96 congruent trials were presented. To use the same number of trials from each Stroop version, we analyzed only 24 randomly selected incongruent trials from the no-congruent Stroop task (Kane & Engle, 2003). At the end of the experiment, participants were probed for suspicion and debriefed.

Results and Discussion

Stroop error rates were entered into a 3 (power: low power, control, high power) × 2 (Stroop version: no-congruent, majority-congruent) × 2 (trial type: incongruent, neutral) mixed-model ANOVA, with the last factor within subjects (see Table 3). A number of lower-order effects were qualified by the predicted three-way interaction, $F(2, 165) = 3.14$, $p < .05$, p_{rep} = .88, η_p^2 = .04. There were no significant effects for the no-congruent Stroop task: Participants performed equally well on incongruent and neutral trials, $F < 1$, and this pattern was not moderated by power, $F < 1$. As predicted, for the majority-congruent Stroop task, there was a significant Trial Type × Power interaction, $F(2, 83) = 4.90$, p = .01, p_{rep} = .95, η_p^2 = .11. Power did not affect performance on neutral trials, $F < 1$, but did affect performance on incongruent trials, $F(2, 83) = 5.00$, p = .009, p_{rep} = .95, η_p^2 = .11. In the incongruent trials of the majority-congruent Stroop task, LPP participants made more mistakes than both control and HPP participants, ps < .05, p_{rep}s > .88; the latter two groups did not differ, p = .30, p_{rep} = .65.

TABLE 3

Mean Error Rates as a Function of Task Version, Priming Condition, and Trial Type in Experiment 4

Task version and priming condition	Incongruent *M*	Incongruent *SD*	Neutral *M*	Neutral *SD*
No-congruent				
Low power	.02	.03	.02	.03
Control	.02	.03	.03	.03
High power	.02	.03	.02	.03
Majority-congruent				
Low power	.08	.08	.02	.03
Control	.05	.05	.03	.03
High power	.03	.04	.03	.04

GENERAL DISCUSSION

Across four experiments, low power consistently impaired executive functions. The robustness of the link between powerlessness and impairment of executive functioning is demonstrated by the fact that these effects occurred on three different tasks, following three different manipulations of power. Participants who were placed in low-power roles or primed with the concept or experience of low power performed worse than other participants on various executive-function tasks. The powerless displayed impairments in the executive functions of inhibiting and updating, and in the more complex executive activity of planning. We proposed that these effects resulted from proneness to goal neglect, a deficit in maintaining a goal in working memory (Kane & Engle, 2003). Indeed, when the Stroop task contained no congruent trials, making it easy for individuals to maintain focus on the task goal, the effects of low power on executive functions vanished.

Our results are consistent with recent theorizing (Keltner et al., 2003) that individuals who lack power are guided by situational constraints and circumstances, rather than by their own goals and values, and view themselves as the means for other people's goals. Our finding that low power diminishes people's executive functions is consistent with the powerless having less goal focus than the powerful.

A lack of power is often said to reduce the efficacy of goal pursuit because the powerless have fewer resources or less motivation than the powerful. Instead, our research suggests that what looks like motivational losses may be indicative of executive-function impairment. Our results cannot be attributed to differences in motivation: Low-power, control, and high-power participants reported putting similar effort into the tasks. Because low-power participants performed as well as high-power participants in the no-congruent version of the Stroop task in Experiment 4, the current research demonstrates that a lack of power disrupts goal maintenance.

The current results have direct implications for management and organizations. In many industries (e.g., health care, electric 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. The performance deficits of the powerless in the majority-congruent version of the Stroop task suggest that such empowerment might be particularly vital when critical situations are infrequent, making it difficult to maintain goal focus (e.g., airport security screening, quality control in manufacturing).

The present research serves as a reminder that it is dangerous to use the poor performance of low-power individuals, relative to high-power individuals, as evidence that power has been allocated on the basis of merit. As our research has demonstrated, the social roles people inhabit can change their most basic cognitive processes. In addition, our research sheds light on the stability of social hierarchies. Because hierarchical rank fundamentally alters cognition, one's initial position can lead to behavior and performance that confirm one's standing (e.g., Smith, Wigboldus, & Dijksterhuis, 2008). It is not just differences in inherent ability, motivation, or discrimination that lead to separation between the haves and the have-nots; the cognitive impairments associated with being powerless may also be an important contributor, leading the powerless toward a destiny of dispossession.

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(Received 7/27/07; Revision accepted 10/3/07)