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Power Increases the Self-Serving Bias

in the Attribution of Collective Successes and Failures

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Abstract

Three studies test the effect of power on the self-serving bias in attributing collective outcomes. The first two studies measure (Experiment 1) and manipulate (Experiment 2) power and then measure the internal (vs. external) attribution of past successes and failures. Consistently, those who feel powerful show a stronger self-serving tendency to selectively attribute successes internally and failures externally than those who feel powerless. Experiment 3 compares the effects of power (control over others) and personal control (over oneself). We find that power increases the self-serving bias, but a lack of control can limit this effect by reducing the external attribution of failures. Presumably, people who lack control are disinclined to attribute outcomes – including failures – externally because doing so would further aggravate their lack of control. Together, these results suggest that power increases a bias in the attribution of success and failure and thus presents a fundamental challenge to good leadership.

Key-words: power, control, attribution, collective performance, self-serving bias.

Donald Trump often takes pride in the growing job numbers in the United States, tweeting “Excellent Jobs Numbers just released - and I have only just begun” (Trump, 2017), even though by claiming to be the architect of the current economic growth, he takes more credit than he should (Economist, 2017). At the same time, Trump often blames problems that are caused by his policies on others, for example attributing the problems associated with the detention of underage migrants on the Democrats (Trump, 2018). Why is Trump so shameless in attributing success to his own achievements while shifting responsibility for failures to others? We believe that one relevant factor here may be power. Of course, anecdote is not science. Trump was not exactly the paragon of modesty before gaining the power of his presidency and other presidents have been more modest. Therefore, to gain more solid evidence, we perform a systematic test of the effect of power on the attribution of past outcomes.

The Self-Serving Bias

In doing so, we base ourselves on a large literature that shows that people demonstrate an asymmetry in attributing outcomes, being more likely to take credit for successes, while blaming failures on others. Various names have been given to this phenomenon, including egotistical attributions (Stephan, Rosenfield, & Stephan, 1976), benefactance (Greenwald, 1980), and scapegoating (Rothschild, Landau, Sullivan, & Keefer, 2012), but the most commonly used name is the self-serving bias (Bradley, 1978; Heider, 1958; Miller & Ross, 1975; Shepperd, Malone, & Sweeny, 2008; Zuckerman, 1979). This self-serving bias is robust and occurs even if outcomes are determined randomly and are unrelated to actual abilities (Campbell & Sedikides, 1999).

In the current research we propose that people who feel powerful show a stronger self-serving bias than those who feel less powerful. A first reason is that

power brings freedom to act as one pleases, while those who lack power are more likely to face constraints (Keltner, Gruenfeld, & Anderson, 2003). Therefore, the powerful demonstrate a more flexible form of cognition, while those who lack power are more restrained in their judgment (Galinsky, Magee, Gruenfeld, Whitson, & Liljenquist, 2008; Guinote, 2007a, 2007b; Overbeck & Park, 2006; Whitson, Liljenquist, Galinsky, Magee, Gruenfeld, & Cadena, 2013). For example, power increases flexibility in morality (Lammers et al., 2010) and leads people to prioritize goals more flexibly (Maner & Mead, 2010). We predict that this power-induced flexibility also extends to the self-serving bias, a form of flexibility in the attribution of successes and failures (Alicke & Sedikides, 2009; Greenberg, Pyszczynski, & Solomon, 1982; Sedikides & Strube, 1995).

A second reason why power can increase the self-serving bias is that powerful people often hold important positions that put them in the spotlight (Emory, 1988). This can lead to an inflated perception of the self, a vainglorious self-concept, and disdain for others (De Cremer & Van Dijk, 2005; DeWall, Baumeister, Mead, & Vohs, 2011; Kipnis, 1972; Wojciszke & Struzynska-Kujalowicz, 2007). This connects to the self-serving bias, which is often seen as a motivated attempt to present the self in a more positive light than others (Arkin, Appelman, & Burger, 1980; Campbell & Sedikides, 1999).

Third, positions of power bring safety and freedom from threats, while the powerless often need to remain vigilant (Keltner et al., 2003). As a result, the powerful rely more unconditionally on the content of their thoughts, while the powerless think twice (DeMarree, Loersch, Briñol, Petty, Payne, & Rucker, 2012; Erber & Fiske, 1984; Galinsky, Gruenfeld, & Magee, 2003; Guinote, 2008; Guinote, Weick, & Cai, 2012). As a result, those who feel powerful are more affected by

common cognitive biases and heuristics (Lammers & Burgmer, 2017; Weick & Guinote, 2008, 2010). This connects to the self-serving bias, which can also result from a reliance on the heuristic that most people are objectively more often successful than unsuccessful (Brown, 1990; Miller & Ross, 1975; Kelley, 1971; Pyszczynski & Greenberg, 1987).

Building on these arguments, we predict that power increases the self-serving bias. To test this, we conduct three studies in which we measure or manipulate power and orthogonally ask participants to recall past successes or failures. Consistent with common operationalizations of the self-serving bias (Campbell & Sedikides, 1999; Miller & Ross, 1975), we test whether high-power participants attribute successes more to the self and failures to others, compared to low-power participants. In testing this link, we do not seek to distinguish between the three arguments presented above. Most likely, the effect is due to each of them in varying degrees. Also, we do not a priori distinguish between positive effects of power or negative effects of powerlessness on the self-serving bias. Neither do we distinguish between a power-induced increased attribution of success or decreased attribution of failure. We return to these issues in the Discussion.

Power and Control

In testing these effects, we distinguish power from a related construct: personal control. Whereas power is an intrinsically relational variable that concerns asymmetric control over others (Cartwright, 1959; Dépret & Fiske, 1993), personal control refers to the ability to control one's own life and is often considered of one of the basic human needs (Deci & Ryan, 2000; Ryan & Deci, 2000; Whitson & Galinsky, 2008). One reason why it is interesting to test effects of personal control is that although theoretically distinct, power and control are highly correlated (Cislak,

Cichocka, Wojcik, & Frankowska, 2018; Inesi, Botti, Dubois, Rucker, & Galinsky, 2011; Lammers et al., 2016). Therefore, one prediction is that power may produce its effects through increased feelings of control (Fast, Gruenfeld, Sivanathan, & Galinsky, 2009; Scholl & Sassenberg, 2014). Therefore, statistically partialling out effects of control allows us to better isolate effects of power. A different prediction – and one that we favored a priori – is that power and personal control would not work hand in hand, but that personal control would have opposite effects and would reduce the self-serving bias. This prediction was based on the notion that whereas power increases exploitative tendencies, personal control decreases those tendencies (Cislak et al., 2018). Furthermore where power increases the reliance on heuristics, control decreases it (Greenaway, Storrs, Philipp, Louis, Hornsey, & Vohs, 2015). We test these predictions in Experiment 3.

Summary and Overview

We test the link between power and the self-serving bias in three studies in which we measure (Experiments 1 and 3) and manipulate (Experiment 2) power. Throughout these studies, we report how we determined sample size, manipulations, and measures. No data were excluded.

Experiment 1 – Measured Power

Method

Participants and design. In return for \$0.30, 300 American Mechanical Turk users (153 women, 147 men, mean age 35.8 years) were randomly assigned to one of two experimental conditions (outcome: failure vs. success), with Sense of Power measured as a second independent variable. We set sample size first to 100 and then raised it to 300.¹ This provides us with enough power ($1-\beta=0.90$) to detect a medium effect of $R^2=.04$, in G*Power, fixed regression model with 1 of 3 tested predictors

(Faul, Erdfelder, Lang, & Buchner, 2007). To account for multiple testing, we apply a Bonferroni correction ($\alpha = .025$).

Sense of Power. Participants completed the well-validated eight-item Sense of Power scale (Anderson & Galinsky, 2006; Anderson, Keltner, & John, 2012), all between *strongly disagree* (1) and *strongly agree* (7), with higher values expressing stronger sense of power ($M = 4.64$, $SD = 1.14$; Cronbach's $\alpha = .93$).

Outcome manipulation. Participants then recalled an experience of collective success or failure, depending on condition. Participants were instructed to recall events involving multiple people.

Attribution. Two items were framed to fit condition: "Who contributed more to the (un)favorable outcome?" and "Who had more influence on the (un)favorable outcome?", both between *Others* (1) and *Me* (7). Items were averaged into one index ($M = 3.84$, $SD = 1.30$; Pearson's $r = .76$, $p < .0001$).

Independent raters. A potential concern with our design is that high-power participants may recall situations that differ in objective content from those recalled by less-powerful participants. To rule this out, two independent raters, blind to predictions, coded all essays on the degree to which participants had objectively *much less* (1), *equal* (4), or *much more* (7) influence over the described outcome than others. We average these into one index ($M = 4.03$, $SD = 0.84$, $r = .73$, $p < .0001$). Mitigating these concerns, differences in sense of power did not predict the raters' coding of the essays' degree of influence, $r = .08$, $p = .172$.²

Results

We found a weak zero-order correlation between Sense of Power and attribution, $r = .187$, $p = .001$. A regression analysis on the effect of outcome (effect-coded: failure = -1, success = 1), Sense of Power (mean-centered), and their interaction

on attribution showed the predicted significant interaction, $b = 0.17$, $SE = .06$, $t(296) = 2.69$, $p = .008$, $95\%CI_b [0.04, 0.29]$, $\Delta R^2 = .02$, $\Delta F(1, 296) = 7.21$. See Table 1.

A simple slopes analysis, using Hayes' (2013) PROCESS macro (Model 1), showed that power significantly increased the attribution of successes, $b = .37$, $SE = .08$, $t(296) = 4.38$, $p < .0001$, $95\%CI_b [0.20, 0.53]$, but did not affect attribution of failures, $b = .04$, $SE = .09$, $t(296) = 0.40$, $p = .69$, $95\%CI_b [-0.14, 0.21]$. Analyzed differently, participants showed a significant self-serving bias at high levels of power ($M+1SD$), $b = .56$, $SE = .10$, $t(296) = 5.58$, $p < .0001$, $95\%CI_b [0.36, 0.75]$, and medium levels of power (M), $b = .37$, $SE = .07$, $t(296) = 5.20$, $p < .0001$, $95\%CI_b [0.23, 0.51]$, but non-significantly at low levels of power (at $M-1SD$), $b = .18$, $SE = .10$, $t(296) = 1.78$, $p = .076$, $95\%CI_b [-0.02, 0.37]$. See Figure 1.

Table 1. Experiment 1: Summary of regression analysis on the effect of outcome (effect-coded: failure= -1, success= 1), Sense of Power (mean-centered), and their interaction on attribution of outcome (higher is more internal).

Variable	B	SE	<i>t</i>	Sig. (<i>p</i>)	95% CI _b
Outcome	.368	.071	5.20	.0001	[.23; .51]
Sense of Power	.202	.062	3.28	.001	[.08; .32]
Interaction	.166	.062	2.68	.008	[.04; .29]
R^2	.14				
F	15.41				

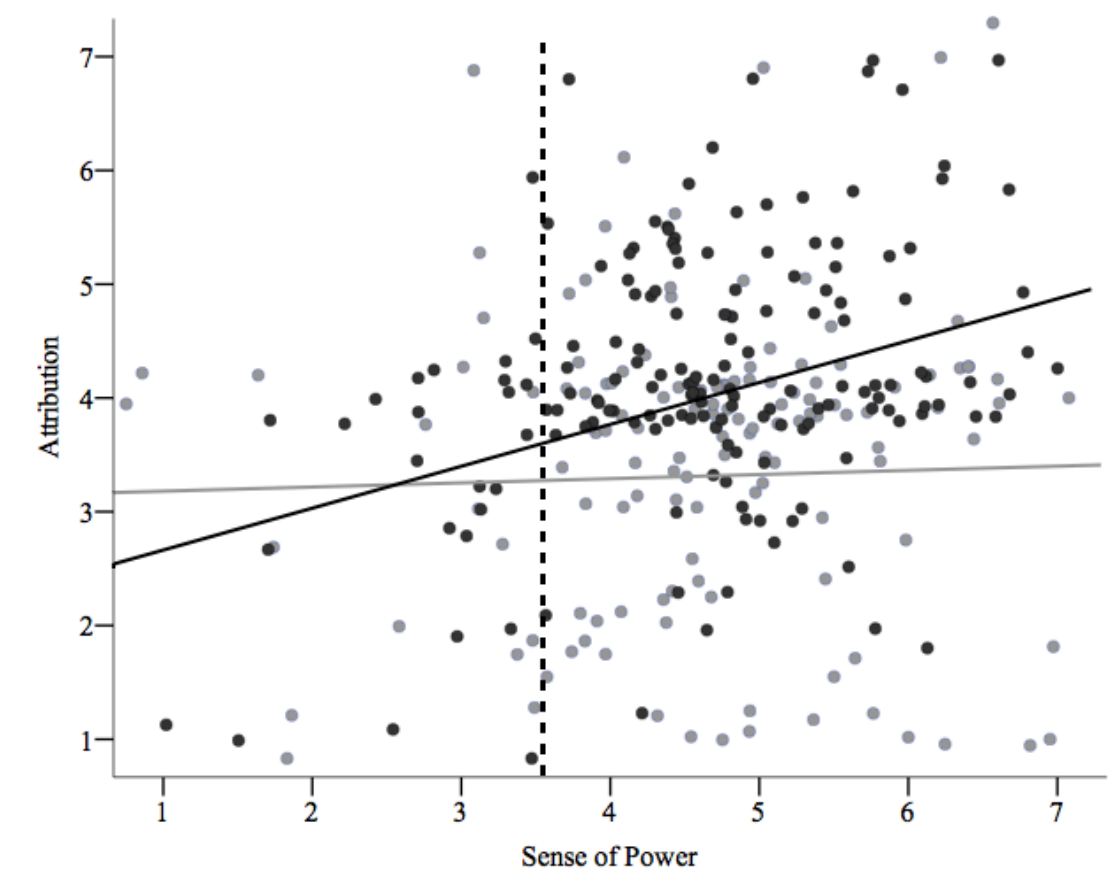


Figure 1. Experiment 1: Participants with a higher Sense of Power show a stronger self-serving bias, demonstrated by more internal attribution (scale 1-7) of success (dark) than of failure (grey). Difference is significant to the right of the dashed line indicating Johnson-Neyman (1936) region of significance, at $M= 3.57$ ($z= -0.93$). Lines show regression coefficients, points show observations. Data-points are jittered to avoid overplotting.

Experiment 2 – Manipulated Power

Method

Participants and design. In return for \$0.30, 199 American Mechanical Turk users participated (116 men, 83 women, mean age 34.9 years) and were randomly assigned to one of four conditions in a 2 (power: high vs. low) \times 2 (outcome: failure vs. success) between-subjects design. We set sample size to 200 a priori, providing us with enough power ($1-\beta=0.90$) to detect a medium effect of $\eta^2_p=.05$ in G*Power, ANOVA (Faul et al., 2007).

Procedure and measures. We used the same outcome manipulation as in Experiment 1. Next, participants recalled and described an experience of power over others (vs. others having power over them), a commonly-used and highly reliable manipulation of power (Galinsky et al., 2003). Attribution was measured using the same two items as in Experiment 1 ($M=3.87$, $SD=1.17$, $r=.79$, $p<.0001$).

Although participants provided their personal experiences *before* the power manipulation, two independent blind raters, $r=.53$, $p<.0001$, nonetheless coded all essays for differences in influence as before ($M=3.86$, $SD=0.67$), and confirmed there were no differences between conditions, $t(197)=-0.31$, $p=.76$.

Results

A 2 (power) \times 2 (outcome) ANOVA showed a main effect of outcome, $F(1, 195)=8.73$, $p=.004$, $\eta^2_p=.043$, qualified by a significant interaction with power, $F(1, 195)=3.92$, $p=.049$, $\eta^2_p=.020$. See Figure 2. The main effect of power was not significant, $F<.01$, $p=.93$. Contrast analyses showed a significant self-serving bias among high-power participants, who attributed successes more internally ($M=4.31$, $SD=1.05$) than failures ($M=3.50$, $SD=1.21$), $F(1, 195)=12.14$, $p<.001$, $\eta^2_p=.059$,

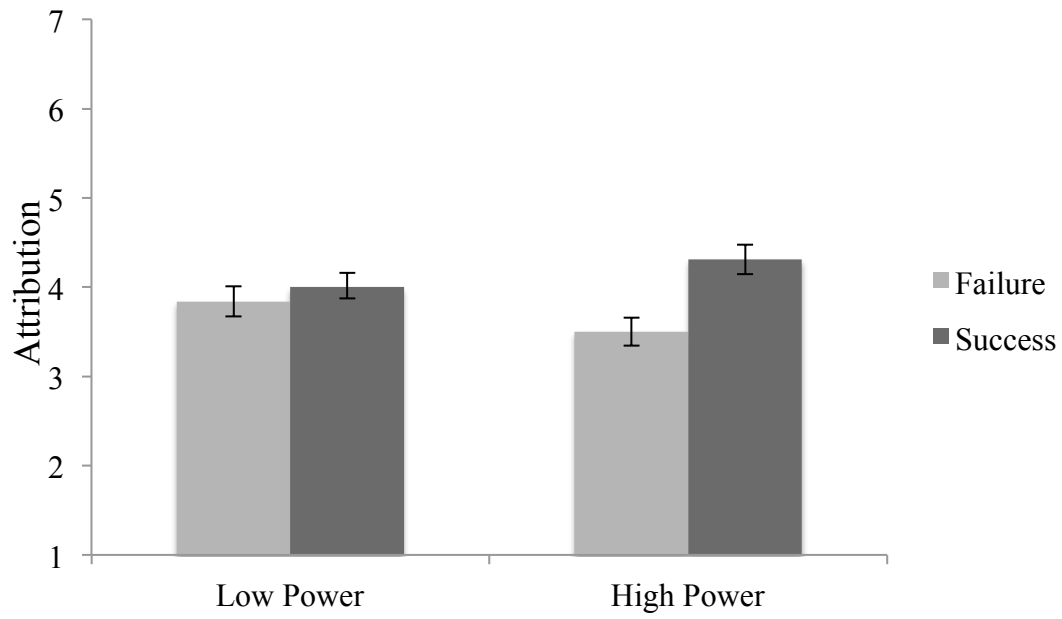


Figure 2. Experiment 2: High-power participants show a stronger self-serving bias, demonstrated by a more internal attribution (scale 1-7) of successes (dark) than of failures (grey), compared to low-power participants. Bars show means (and *SEs*).

95%CI_{dif} [0.35, 1.27], but not among low-power participants, who attributed successes ($M= 4.00$, $SD= 1.12$) and failures ($M= 3.84$, $SD= 1.16$) similarly, $F(1, 195)= 0.48$, $p= .491$, $\eta^2_p= .002$, 95%CI_{dif} [-0.30, 0.62]. Analyzed differently, failures were attributed non-significantly *less* internally by high-power than low-power participants, $F(1, 195)= 2.49$, $p= .116$, $\eta^2_p= .013$, 95%CI_{dif} [-0.76, 0.08], while successes were attributed non-significantly *more* internally by high-power than low-power participants, $F(1, 195)= 1.57$, $p= .21$, $\eta^2_p= .008$, 95%CI_{dif} [-0.16, 0.78].

Experiment 3 – Power and Control

Method

Participants and design. In return for \$0.50, 451 American Mechanical Turk users participated (201 women, 250 men, mean age 35.2 years) and were randomly assigned to one of two experimental conditions (outcome: failure vs. success). The design was identical to that of Experiment 1, with the exception that we measured differences in personal control. We set sample size to 450 a priori, to provide us with enough power ($1-\beta= 0.80$) to detect the effect observed in Experiment 1; $R^2= .021$, fixed regression model with 2 of 3 tested predictors (Faul et al, 2007).³

Design and measures. The design of Experiment 3 was identical to that of Experiment 1, including the same eight-item Sense of Power scale ($M= 4.70$, $SD= 1.16$) and the same two-item attribution measure ($M= 3.94$, $SD= 1.31$). Additionally, we included an eight-item measure of personal control ($M= 4.68$, $SD= 1.15$), adapted from Cichocka and colleagues (2018). To increase similarity with the Sense of Power scale, we adapted the original four-item bipolar scale used by Cichocka and colleagues to eight unipolar items and used the same anchors, between *strongly disagree* (1) and *strongly agree* (7). The order in which the two scales were

administered was counterbalanced and the order of items within each scale was randomized.

Finally, two independent blind raters coded all essays as before ($M= 4.03$, $SD= 0.58$). Consistent with expectations, sense of power and personal control were strongly correlated and mitigating concerns, neither sense of power nor personal control, predicted the raters' essay coding, suggesting that the objective content of the essays did not differ between participants with high and low power or control.

Results

See Table 2 for reliability and zero-order correlations.

Model 1: Power. We analyzed results using hierarchical regression. See Table 3. A first model only tested the effects of power (mean-centered), outcome (-1= failure, 1= success) and their interaction on attribution. This replicated the power \times outcome interaction observed before, $b= 0.119$, $SE= 0.041$, $\beta= .106$, $t(447)= 2.90$, $p= .004$, 95% CI_b [-0.25, -0.05], $\Delta R^2= .011$. Different than in Study 1, a simple slopes analysis using Hayes' (2013) PROCESS macro (Model 1), showed that power (versus powerless) did not significantly increase the attribution of success, $b= .04$, $SE= .06$, $t(447)= 0.64$, $p= .523$, 95%CI_b [-0.08, 0.15], but did significantly decrease the attribution of failure, $b= -.20$, $SE= .06$, $t(447)= -3.47$, $p< .001$, 95%CI_b [-0.31, -0.09]. Analyzed differently, participants attributed successes more internally than failures at high levels of power (at $M+1SD$), $b= .95$, $SE= .07$, $t(447)= 14.13$, $p< .0001$, 95%CI_b [0.82, 1.08], less so at medium levels of power (at M), $b= .81$, $SE= .05$, $t(447)= 17.08$, $p< .0001$, 95%CI_b [0.72, 0.91], and even less so at low levels of power (at $M-1SD$), $b= .67$, $SE= .07$, $t(447)= 10.02$, $p< .0001$, 95%CI_b [0.54, 0.81].

Model 2: Control. A second model added personal control (mean-centered) and its interaction with outcome. We did not find the preregistered personal control \times

Table 2. Experiment 3: Zero-order correlations (below diagonal) and internal reliability (diagonal) for all measures. * $p < .05$, ** $p < .001$

Variable	1.	2.	3.	4.
1. Sense of Power	$\alpha = .91$			
2. Personal Control	.656**	$\alpha = .89$		
3. Blind Raters' Coding	.009	-.003	$r = .59$ **	
4. Attribution	-.084	-.107*	.382**	$r = .39$ **

outcome interaction, $b = 0.010$, $SE = 0.055$, $\beta = .009$, $t(445) = 0.18$, $p = .861$. Instead, we found a negative main effect of personal control on attribution, independent of outcome, $b = -0.103$, $SE = 0.055$, $\beta = -.103$, $t(445) = -2.13$, $p = .034$, 95% CI_b [-0.23, -0.01]. People who experience low personal control attribute *any* outcome internally, including failures. Finally, despite their strong correlation, controlling for personal control leaves the critical power \times outcome interaction significant, $b = 0.109$, $SE = 0.055$, $\beta = .097$, $t(445) = 1.99$, $p = .047$, 95% CI_b [0.001, 0.22], $\Delta R^2 = .011$.

Model 3: Power and Control. Finally, we added as an exploratory test the interaction between power, personal control, and outcome, which yielded a significant three-way interaction, $b = 0.070$, $SE = 0.025$, $\beta = .117$, $t(444) = 2.74$, $p = .006$, 95% CI_b [0.02, 0.12], $\Delta R^2 = .010$. See Table 3. We used Hayes' (2013) PROCESS Macro (Model 3) to test for the conditional two-way interaction effect of power and outcome at various power levels. See Figure 3.⁴ Among participants high in control ($M+1SD$), we found a significant power \times outcome interaction, $b = -0.46$, $F(1, 443) = 12.08$, $p < .001$. We found the same interaction for participants with average levels of control (at M), $b = 0.29$, $F(1, 443) = 7.03$, $p = .008$. The interaction was absent, however, among participants low in control (at $M-1SD$), $b = 0.12$, $F(1, 443) = 1.11$, $p = .29$.

Table 3. Experiment 3: Summary of hierarchical regression analysis on the effect of outcome (effect-coded: failure= -1, success= 1), Sense of Power (mean-centered), Personal control (mean-centered), and their interactions on attribution of outcome (higher is more internal).

Variable	Model 1				Model 2				Model 3			
	<i>B</i>	<i>SE B</i>	β	Sig. (<i>p</i>)	<i>B</i>	<i>SE B</i>	β	Sig. (<i>p</i>)	<i>B</i>	<i>SE B</i>	β	Sig. (<i>p</i>)
Outcome	.812	.048	.623	.0001	.815	.047	.625	.0001	.754	0.52	.578	.0001
Sense of Power	-.082	.041	-.073	.047	-.005	.055	-.005	.926	-.013	.054	-.011	.818
Outcome X SoP	.119	.041	.106	.004	.109	.055	.097	.047	.134	.055	.119	.015
Personal Control					-.118	.055	-.103	.034	-.111	.055	-.097	.045
Outcome X PC					.010	.055	.009	.861	.034	.056	.030	.543
Outcome X SoP x PC									.070	.025	.117	.006
R^2	.402				.406				.414			
<i>F</i> for change in R^2	$\Delta F(3, 447)= 101.891, p< .0001$				$\Delta F(2, 445)= 2.267, p= .105$				$\Delta F(1, 444)= 7.528, p= .006$			

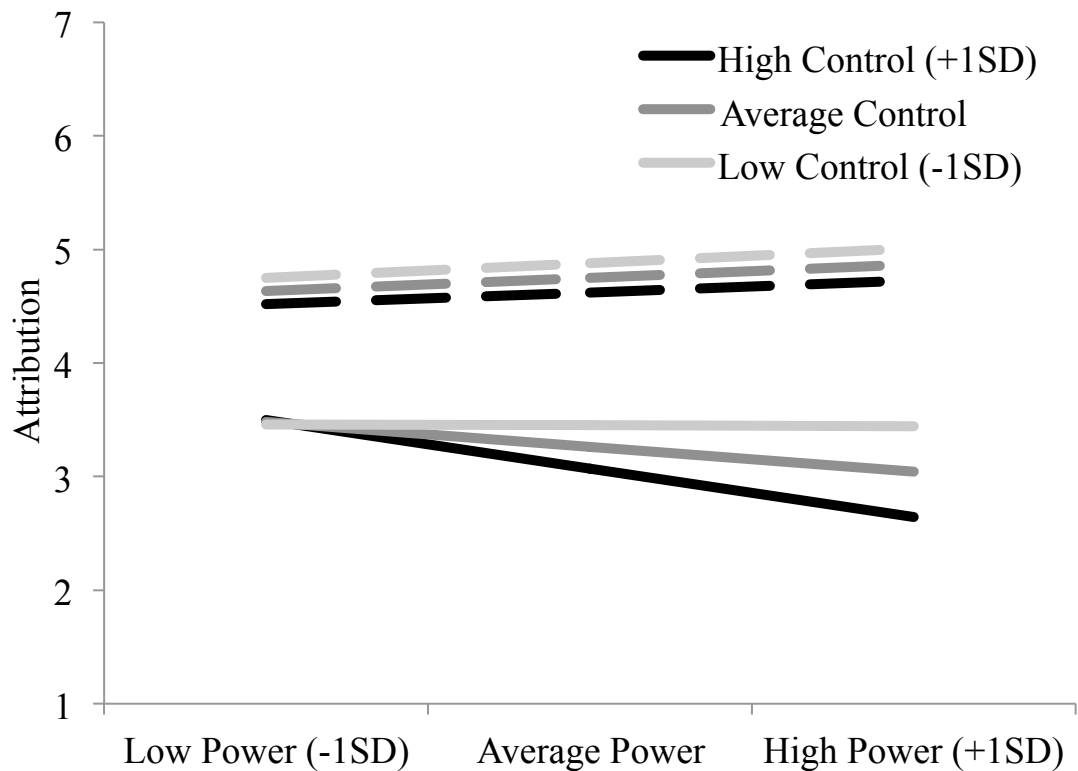


Figure 3. Participants with a higher sense of power show a stronger self-serving bias, demonstrated by more internal attribution (scale 1-7) of success (dashed lines) than of failure (solid lines). This effect is blocked among participants with a low sense of control, who are disinclined to attribute failure externally, even when feeling powerful (solid grey line).

General Discussion

Across three studies, participants who experienced elevated power showed a stronger self-serving bias than low-power participants. Independent of whether power was measured (Experiments 1 and 3) or manipulated (Experiment 2), feelings of power lead people to selectively attribute successes internally and failures externally and thus widen the strength of the observed self-serving bias.

Our findings add to a wide literature that shows that power can have corruptive effects and can lead people to prioritize the self and relegate others to a more peripheral role (Rucker, Dubois, & Galinsky, 2011; Guinote, 2010; Inesi, & Rios, 2013; Righetti, Luchies, van Gils, Slotter, Witcher, & Kumashiro, 2015). The current results show that this link between power and self-focus is not unconditional, but strategic. The powerful only place the self in a more central role when claiming success, but assign it a more peripheral role when assigning responsibility for failure.

Power and Control

Findings of Study 3 help to better understand the differences between the highly related experiences of power and personal control. Against predictions, we found that control deprivation (a lack of personal control) increased internal attribution of all outcomes (including failures), and that power and control interacted, so that power increased the self-serving bias more strongly among participants who did not feel deprived in personal control. Stated differently, power increases the self-serving bias, but a lack of control can limit this effect by reducing the external attribution of failures. Although not predicted, these findings connect with the notion that the experience of deprived control induces a strong motive to restore feelings of control – a motive that is so strong that it can trump others (Fritsche, Jonas, & Fankhänel, 2008; Rothbaum, Weisz, & Snyder, 1982; Thompson, Sobolew-Shubin,

Galbraith, Schwandovsky, & Cruzen, 1993). Reflecting this strength of the motive, we first of all found a main effect of control on attribution, meaning that people with a deprived sense of control tend to attribute all outcomes internally, including failures. Second, we found an interaction between personal control and power, meaning that any power-induced tendency to selectively attribute past failures externally, is attenuated if participants experience control deprivation. Both findings fit with the above literature, because they show that restoring feelings of control after control deprivation trumps other concerns and leads people to attribute failed outcomes internally, even if doing so can undermine the self-view. This finding is also consistent with Inesi and colleagues' (2011) observation that the desire for control is more basic and important than any desire for power.

Strengths and Limitations

Strength of our findings is that we used both correlational and experimental approaches. A particular advantage of the latter is that it allowed positioning the recall task before the power manipulation (Study 2), while this was not possible in Studies 1 and 3. Given random assignment to power condition, this rules out that any effects of power on the attribution of these outcomes were due to objective differences in recalled experiences—which was additionally confirmed by the independent raters across all studies.

A limitation is that we focused only on attributions of *collective* outcomes and measured these using bipolar scales, pitting own versus others' contributions. That is, we did not test how power influences the attribution of intrapersonal outcomes to any non-social factors, such as chance or the context. We did so mainly because of a priori reasoning that the effect would be larger in social situations, when weighing own versus others' contributions. First, in collective outcomes failure or success can

always be easily attributed to both the self and to others and thus allow easier testing of the self-serving bias (Schlenker & Miller, 1977). Second, power is primarily a social variable that shapes how people act and react toward other people and thus we expected effects on non-social attributions to be weaker (Emerson, 1962; Magee & Galinsky, 2008). Nonetheless, various findings suggest that power also amplifies a variety of intrapersonal biases and thus the present effects may also extend to intrapersonal self-serving biases (DeMarree et al., 2012; Lammers & Burgmer, 2017; Weick & Guinote, 2008, 2010). Future research may want to test such effects and in doing so may also use unipolar items, as this would allow testing more than two attributions simultaneously and independently. Finally, a suggestion for future research is to use a within-participant manipulation of outcomes, which may allow stronger inferences.

Although power consistently increased the self-serving bias, there was less consistency across studies when breaking that effect down into smaller effects. In Studies 1 and 2, the hypothesized interaction was mainly driven by a positive effect of power on the attribution of *success*. Furthermore, Study 2 showed a robust self-serving bias among high-power participants ($d = 0.72$) and virtually no effect among the powerless ($d = 0.12$), which – comparing to an average effect of $d = .467$ established in a meta-analysis (Campbell & Sedikides, 1999) – suggests a roughly equally strong positive effect of power and negative effect of powerlessness. The results of Study 1 were similar. However, in Study 3 the interaction was primarily driven by a negative effect of power on the attribution of *failure* and it showed a much stronger overall self-serving bias ($d = 1.59$). Given the only difference between Studies 1 and 2 was the addition of the personal control items, perhaps an increase in thoughts about control deprivation increases the self-serving bias. In any case, this

dissimilarity between studies impedes determining whether the observed effects are due to power or powerlessness, to attributions of success or failure, or to both. Future research may test this in more detail.

Practical Implications

What makes a good leader? Good leaders can formulate winning strategies that solve the problems facing their country, organization, or group. Yet, this is not enough. Truly good leaders must also be able to correctly attribute why strategies work or fail. If they take credit for success and heap blame on their underlings, then they cannot learn (Edmondson, 1996, 1999). Although more work is needed to apply current results, our findings suggest that feelings of power (which naturally accompany leadership positions) reduce this ability and thus present a fundamental challenge to good leadership.

Conclusion

Confirming anecdotal evidence about the current President of the United States, three studies show that feelings of power increase the self-serving bias. High-power people are more likely to attribute collective successes to own decisions and collective failures to others', compared to those who feel less powerful.

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Notes

¹ After the first wave, we found ambiguous results, with weak main effects of Outcome, $p = .037$, and Power, $p = .074$, and a weak interaction, $p = .067$. We therefore tripled sample size.

² The critical interaction-effect remained significant after adding the raters' coding, $t(295) = 2.53$, $p = .012$.

³ Preregistration: <http://aspredicted.org/blind.php?x=xg8cu8>. We reduced power from 90% (Experiments 1 and 2) to 80% because of budget restraints and because prior results provide protection against false negatives.

⁴ Sixteen participants did not describe a personal experience. Excluding these produced the same three-way interaction, $F(1,427) = 8.46$, $p = .004$, and data pattern. Adding raters' essay coding left significant both the power \times outcome interaction, $t(442) = 2.15$, $p = .032$, and the three-way interaction, $t(442) = 3.14$, $p = .002$.