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**Power corrupts, but control doesn't: What stands behind the effects of holding high positions**

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### Abstract

People seek high positions not to gain influence over others, but to satisfy their need for personal control. Personal control tends to have positive interpersonal consequences. If this is the case, does power indeed corrupt? We argue that holding a high position is associated both with perceptions of power (influence over others) and personal control (influence over one's life). Three studies showed that these two aspects might have opposite consequences: power over others positively predicted aggressiveness (Study 1, N = 793) and exploitativeness (Study 2, N = 445), while personal control predicted these outcomes negatively. In Study 3 (N = 557), conducted among employees at various organizational positions, the effects of holding a high position on exploitativeness and aggressiveness were differentially mediated by power over others and personal control. We discuss these findings in light of contradicting evidence on the corruptive effects of power.

Keywords: social power, personal control, aggression, exploitativeness, anti-social tendencies

### **Power corrupts, but control doesn't: What stands behind the effects of holding high positions**

The observation that “power tends to corrupt” is no longer newsworthy. Vast empirical literature in the field of social psychology speaks to the anti-social effects of power. Power undermines social relations by reducing the propensity to take the perspective of others (Galinsky, Magee, Inesi, & Gruenfeld, 2006), compassion (van Kleef et al., 2008), and the willingness to maintain close relationships (Kipnis, 1972). Powerful people are more cynical (Inesi, Gruenfeld, & Galinsky, 2012), and tend to undervalue (Georgesesen & Harris, 1998) and objectify others (Cislak, 2013; Gruenfeld, Inesi, Magee, & Galinsky, 2008). Yet, power can also be seen from a more positive perspective—as “the glue that coordinates social life and moves shared goals forward” (Guinote & Vescio, 2010, p. 3). Groups follow leaders for coordinative purposes, providing the structure and organization of group efforts (Van Vugt, Hogan, & Kaiser, 2008). In fact, power was demonstrated to enhance goal attainment, reduce procrastination (Guinote, 2007), enhance creativity and reduce conformity (Galinsky, Magee, Gruenfeld, Whitson, & Liljenquist, 2008).

What psychological processes stand behind the corruptive, versus ennobling, effects of holding high positions? We believe that the key to this question lies in the understanding of different aspects of holding such positions. A high position is associated with two spheres of control. The first is control over others—more traditionally associated with the concept of power (Lammers, Stoker, Rink, & Galinsky, 2016). The second is the ability to influence the course of one's own life, which is usually referred to as personal control (Kay, Whitson, Gaucher, & Galinsky, 2009). In his famous observation on the corruptive effects of power Lord Acton (1887/1906) attributed the anti-social effects of high positions to the influence over others exercised by the powerholders. But Kipnis (1972), inspired by Lord Acton's theorizing to pioneer social psychological research into the corruptive effects of power,

suggested that power brings about negative effects exactly because of the internal locus of control of the powerful. Yet, recent psychological literature suggests that these two aspects of holding high positions should have different outcomes: while power corrupts, personal control has been linked to beneficial outcomes both for individuals and their social environment (e.g., Ryan & Deci, 2000; Weinstein & Ryan, 2010). In this work, we examine which of these two intertwined aspects of holding high positions stands behind the only too frequently observed corruptive effects. To this end, we disentangle the relationships between holding high positions, power over others, personal control, and anti-social tendencies.

### **The Anti-Social Effects of Power**

The idea of a “corruptive power” was introduced by Hobbes (1651/2002), who claimed that modern societies emerged in order to limit the otherwise exploitative and corruptive effects of unconstrained power. It was perhaps most famously formulated in the 19th century by John Emerich Edward Dalberg-Acton in a correspondence with Archbishop Creighton regarding the First Vatican Council’s introduction of the dogma of infallibility. While Archbishop Creighton suggested that people in high positions should be treated with less moral rigor, Lord Acton observed that “Great men are almost always bad men, even when they exercise influence and not authority: still more when you superadd the tendency or the certainty of corruption by authority. There is no worse heresy than that the office sanctifies the holder of it” (Acton, 1887/1906, p. 364). Lord Acton suggested that not only merely exercising authority, but also gaining influence over others stands behind the corruptive effects of holding high positions. Inspired by his idea—that “power corrupts”—classic psychological studies on the metamorphic effects of power delivered the first systematic evidence that, indeed, powerful people distance themselves from others, objectify them, and devalue their performance (Kipnis, 1972; Kipnis, Castell, Gergen, & Mauch, 1976).

Extensive contemporary empirical research strongly confirms this early evidence. Powerholders are egocentric (Galinsky et al., 2006), not compassionate (van Kleef et al., 2008), overconfident (Fast, Sivanathan, Mayer, & Galinsky, 2012), unrealistically self-assured, and prone to ignore others (See, Wolfe Morrison, Rothman, & Soll, 2011). They tend to cheat (Lammers, Stapel, & Galinsky, 2010), even on their life partners (Lammers, Stoker, Jordan, Pollmann, & Stapel, 2011). Powerful people stereotype others (Goodwin, Gubin, Fiske, & Yzerbyt, 2000), treat others instrumentally (Gruenfeld et al., 2008), and undervalue the performance of their subordinates (Georgeson & Harris, 1998). They tend also to harm others by various forms of aggression (Zimbardo, 1973) in family (Howard, Blumstein, & Schwartz, 1986), peer (Faris & Felmlee, 2011), and workplace contexts (Anderson & Brion, 2014; Workplace Bullying Institute, 2014). In fact, a majority of workplace bullying comes from those who occupy a higher rank in the organizational hierarchy than their victims (Workplace Bullying Institute, 2014). Different operationalizations of high positions and various methods brought converging results. For example, social class (Piff, Kraus, Côté, Cheng, & Keltner, 2010) and status (Guinote, Cotzia, Sandhu, & Siwa, 2015) were found to be negatively related to prosociality.

Still, several classic theories and programs of empirical research speak to the contrary. Early on, Rogow and Lasswell (1963) suggested that power neither leads to corruption, nor to ennoblement. In the field of social psychology Cartwright and Zander (1968) even suggested that power has positive consequences, leading to empathy rather than exploitation. In a similar vein, Anderson, John, and Keltner (2012) showed that “individuals with an extremely high personal sense of power did not have more anti-social tendencies” (p. 336). In their studies, a high personal sense of power was not associated with the tendency to exploit. In fact, it was negatively related to Machiavellianism, and positively related to generosity and the belief in one’s duty to care for the weak. Furthermore, the results of research using big data sets and

representative samples revealed positive effects of higher social class on prosocial behavior, such as helping, volunteering, donating, as well as being trustworthy and trusting in economic games (Korndörfer, Egloff, & Schmukle, 2015).

One possible explanation for the inconsistent results regarding high positions and anti-social tendencies was suggested by Overbeck & Park (2001) and further developed by Lammers, Stoker, & Stapel (2009). These authors postulated that there are different types of power which either emphasize interdependence or independence. These in turn affect the tendency to stereotype others. When interdependence is salient, the tendency to stereotype others is diminished (although this effect may reflect a decrease in reliance on schematic information, rather than a positive interpersonal attitude). Another approach was proposed by Fast & Chen (2009), who demonstrated that anti-social effects of power (such as defensive aggressiveness) weaken after a self-boost. While these authors highlighted factors moderating the effects of power, we propose that the diverging effects of power may stem from two concurrent, yet opposing, psychological processes associated with climbing the social ladder: gaining both personal control and power over others.

### **Two Core Aspects of Holding High Positions**

Although the concept of power is claimed to be ‘the fundamental concept in social science, in the same sense in which energy is the fundamental concept in physics’ (Russell, 1938, p.10), it lacks theoretical clarity and has been occasionally described as ‘slippery’ (Overbeck, Tiedens, & Brion, 2006). Social power has been defined as the potential for social influence (French & Raven, 1959; Raven, 2008), the degree of asymmetry of control over resources or other people (Georgeson & Harris, 1998), empowerment with greater autonomy and discretion (Spreitzer, 1995), or as the opposite of dependence (Magee, Galinsky, & Gruenfeld, 2007). Recently Lammers, Stoker, Rink, & Galinsky (2016) carried out an extensive review of the definitions of power prevalent in the field of social psychology and



found that these definitions often mask the multidimensionality of power, leading to a lack of conceptual clarity. According to these authors, power covers two aspects of control: control over others, (which they consider influence), and independence of others (which they consider autonomy). In line with their theorizing, Lammers and colleagues (2016) found that people do not seek high positions in order to gain influence over others. They do so to satisfy their need for autonomy and to gain control of their own lives. In fact, power can satisfy the personal control motive (Inesi, Botti, Dubois, Rucker, & Galinsky, 2011). Although sometimes used interchangeably, or even to define one another (Fiske, 1993), power over others and control should not be equated.

The need for personal control is considered to be one of three basic innate psychological motives (Ryan & Deci, 2000; Whitson & Galinsky, 2008). Contrary to the suggestion of Kipnis (1972), vast empirical evidence on personal control and autonomy shows their positive consequences. Research conducted in the context of self-determination theory (Deci & Ryan, 1985) demonstrates that having personal control helps maintain an intrinsic motivation for action, enhances performance and leads to greater overall well-being (Deci & Ryan, 2001; Ryan & Deci, 2000). Moreover, personal control appears to have desirable effects on interpersonal relations. For example, personal autonomy is linked to prosociality, including the willingness to help others by volunteering or donating money to charities (Gagné, 2003; Weinstein & Ryan, 2010). Increased personal control also leads to more secure and constructive identification with significant social groups (Cichocka, 2016; Cichocka et al., in press). Others have argued that personal control mediates some effects of power. For example, Fast, Gruenfeld, Sivanathan, and Galinsky (2009) showed that high positions increased the illusion of personal control, which was further associated with optimism, higher self-esteem, and action orientation. As these authors themselves suggested, feelings of control

may result in overconfidence, but they are also “adaptive and, in some cases, can enhance performance” (Fast, et al., 2009; p. 507).

Thus, it seems that it is power over others, rather than personal control, that is the likely mechanism behind the anti-social effects of power. In fact, experimental studies often use manipulations which explicitly emphasize the influence aspect of power (Galinsky, Gruenfeld, & Magee, 2003). Furthermore, recent research suggests that personal control may have different psychological concomitants from those of power over others. Personal control was demonstrated to have opposite effects to power, both on approach tendencies (Greenaway et al., 2015) and stereotyping (Fritsche et al., 2013). While high power enhances both the behavioral approach system and the tendency to stereotype others (Goodwin et al., 2000; Keltner, Gruenfeld, & Anderson, 2003), it was low personal control that led to similar effects. Importantly, a personal sense of power, found to be positively related to prosociality, was also positively related to an internal locus of control (Anderson et al., 2012).

### **Current Research**

This research examines whether perceived personal control and power over others have opposite effects on anti-social tendencies. We predicted that power over others would be positively associated with anti-social tendencies, but personal control would be negatively associated with anti-social tendencies. Rather than expecting personal control to mediate the effect of power on anti-social tendencies (e.g., Fast et al., 2009; Guinote, 2007; Kipnis, 1972), we predicted a suppression effect (e.g., MacKinnon, Krull, & Lockwood, 2000; Paulhus, Robins, Trzesniewski, & Tracy, 2004) in which the opposing effects of power over others and personal control would become more pronounced when we accounted for their shared variance.

In Study 1 (N = 793), we examined whether power over others and personal control, though positively related, predicted self-reported verbal aggression in opposite directions. We

aimed to conceptually replicate previously observed patterns of results by showing that power over others is associated with higher levels of self-reported verbal aggression (cf. Faris & Felmlee, 2011; Workplace Bullying Institute, 2014). Crucially, we extended previous findings by verifying a potentially mitigating effect of personal control on aggression. In Study 2 (N=445), we tested our predictions using interpersonal exploitativeness as a different operationalization of anti-social tendencies. Both in Study 1 and 2 we tested mutual suppression effects of power over others and personal control. In Study 3, conducted among 557 employees at lower (N = 194), medium (N = 201) and higher (N = 162) levels within an organizational hierarchy, we examined the effects of power over others and personal control on both self-reported aggression and exploitativeness. Additionally, we tested estimated the indirect effects of position on self-reported aggression and exploitativeness via perceived power over others and perceived personal control.

In all studies, we aimed to include at least around 460 participants, to allow us to detect even small indirect (suppressing or mediating) effects with bias-corrected bootstrapping<sup>1</sup> (assuming a power of .80; Fritz & MacKinnon, 2007). Because using regression analyses may produce a Type I error, especially at moderate levels of reliability and with larger samples (Westfall & Yarkoni, 2016), we used structural equation modeling to examine the indirect effects. These analyses were conducted in MPlus 8.00 (Muthén & Muthén, 2017), with the use of the maximum-likelihood estimation. Because gender is correlated with a wide array of anti-social tendencies (such as verbal aggression; Anderson & Bushman, 2002; Buss & Perry, 1992; Gerevich, Bácskai, & Czobor, 2007), in all studies we examined the models with gender as a covariate. Unless noted otherwise, the pattern of results

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<sup>1</sup> Throughout the article square brackets represent 95% bootstrapped confidence intervals with 50,000 resamples.

remained the same without the inclusion of gender in the models (see the Supplementary Materials for details).

## Study 1

### Method

**Participants and procedure.** Study 1 was part of a larger survey conducted in Poland by the Centre of Research on Prejudice among 926 adults<sup>2</sup>. The survey included measures of power over others, personal control, and verbal aggression. Our final sample consisted of 793 participants, who reported being Polish (or mixed Polish) and responded to the items measuring our three focal variables. There were 625 women (coded as 1), and 153 men (coded as 2); one participant declared other gender and 14 declined to answer (all coded as missing), aged between 17 and 62 ( $M = 25.02$ ,  $SD = 5.04$ ).

### Measures.

**Power over others** was measured with a single item. Participants were asked to report on a 7-point scale how much power over others they felt they had (from 0 = no power to 6 = a lot of power).

**Personal control** was measured with the three items (e.g. -3= “I feel I have little control over my life” to 3= “I feel I have great control over my life”; Cichocka et al., in press). In order to facilitate the interpretation of the results, participants' responses were then recoded from 1 to 7, with higher scores indicating greater personal control ( $\alpha = .79$ ).

**Verbal aggression** was measured with the 5-item subscale of verbal aggression from the Buss and Perry (1992) aggression questionnaire. Participants rated to what extent they

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<sup>2</sup> This survey was also used by Cichocka, Dhont, & Makwana (2017; Study 4) but these authors focused on a different set of variables.

agreed with statements such as “I can't help getting into arguments when people disagree with me” on a 7-point scale from 1 = strongly disagree to 7 = strongly agree ( $\alpha = .77$ ).

## Results

**Bivariate relations.** Zero-order correlations and descriptive statistics can be found in Table 1. In line with our expectations, power over others and personal control were positively correlated. Power over others was significantly positively correlated with aggressiveness, while personal control was negatively and non-significantly correlated with aggressiveness. Gender was significantly related only to personal control, with men scoring higher than women.

Table 1

Descriptive statistics and correlations between variables with confidence intervals (Study 1)

Variable	1	2	3
1. Power over others	-		
2. Personal control	.44*** [0.37, 0.49]	-	
3. Verbal aggression	.18*** [0.10, 0.26]	.01 [-0.07, 0.08]	-
4. Gender	.01 [-0.06, 0.08]	.08* [0.001, 0.15]	.05 [-0.02, 0.12]
M	3.07	4.67	4.10
SD	1.39	1.47	1.25

\*  $p < .05$ . \*\*\* $p < .001$ .

**Power over others and personal control as predictors of verbal aggression.** We then used structural equation modeling to examine whether power over others and personal control predicted verbal aggression in opposite directions. The measurement model for the predictors included power over others and gender as manifest variables and personal control

as a latent variable with three indices. The measurement model for the outcome included aggression as a latent variable with five indices. As illustrated in Figure 1<sup>3</sup>, while power over others predicted verbal aggression significantly and positively,  $b = 0.21$  [0.14, 0.29],  $p < .001$ , personal control predicted it significantly and negatively,  $b = -0.17$  [-0.26, -0.08],  $p < .001$ . The effect of gender was not significant,  $b = 0.15$ , [-0.08, 0.37],  $p = .20$ .

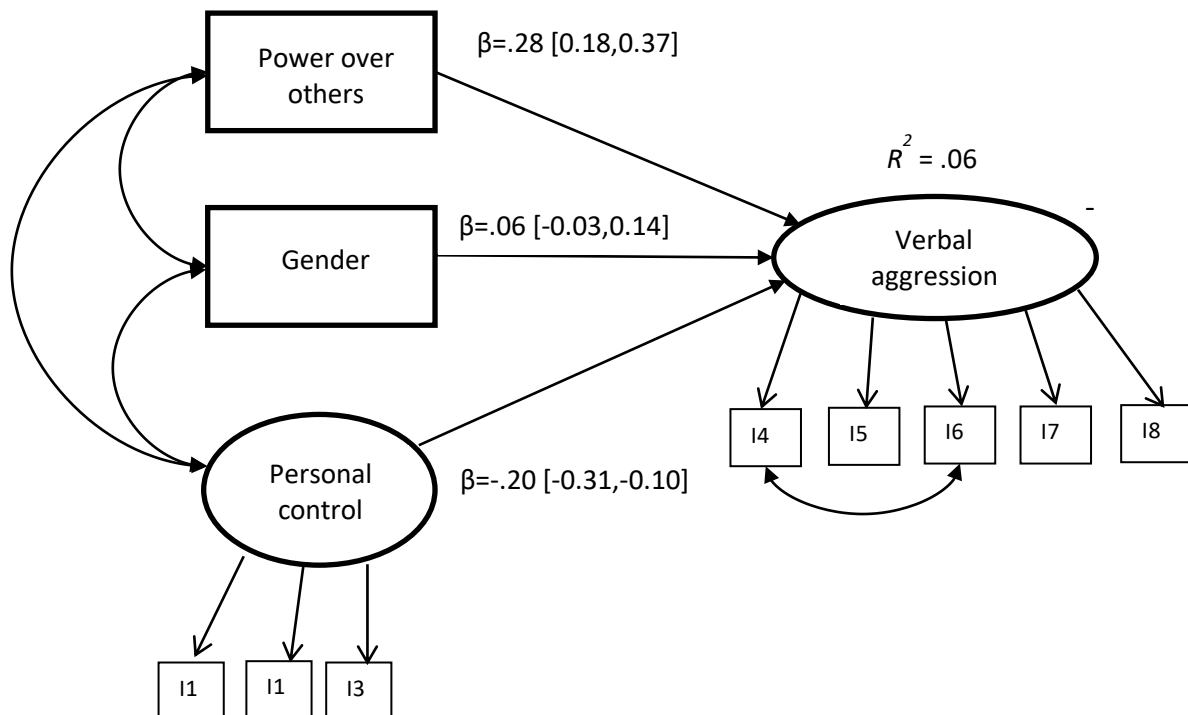


Figure 1. Power over others and personal control as predictors of verbal aggression (Study 1). The simplified measurement model with standardized coefficients. Goodness-of-fit indices:  $\chi^2(30)=116.18$ ,  $p < .001$ ,  $\chi^2/df=3.87$ , CFI=.96, RMSEA=.06 [.05, .07], SRMR=.04.

<sup>3</sup> In all studies standardized coefficients are presented in Figures to facilitate comparisons of relative effect sizes. Unstandardized coefficients are reported in text to facilitate interpretation of relations between nominal predictor variables (gender in all studies and position in Study 3) and the dependent variables.

We also examined whether the increase in strength of the effects of power over others and personal control were significant after we accounted for their overlap. To this end, we tested for suppression effects, in which the inclusion of both predictors in the same model increases their predictive validity (e.g., MacKinnon et al., 2000). In both models, gender was included as a covariate. We found a significant suppressing effect of personal control, unstandardized estimate = -0.08 [-0.13, -0.04], indicating that the effect of power over others strengthened when personal control was included in the model, and a significant suppressing effect of power over others, unstandardized estimate = 0.11 [0.07, 0.17], indicating that the effect of personal control strengthened when power over others was included in the model.

## **Discussion**

Study 1 demonstrated that personal control and power over others were positively correlated, yet associated with anti-social tendencies in opposite ways. In line with previous results, the higher the power participants reported having over others, the more verbal aggression they reported (Anderson & Brion, 2014; Faris & Felmlee, 2011; Workplace Bullying Institute, 2014). Yet, this study extended previous findings by demonstrating a mitigating effect of control over one's life on anti-social tendencies: the higher the personal control participants reported having, the lower was their tendency to be verbally aggressive. Furthermore, these effects were strongest when the overlap between power over others and personal control was adjusted for, indicating mutual suppressing effects of power and control on anti-social tendencies. Our findings indicate that the desirable effects of personal control are most pronounced after we account for its overlap with power over others. They also suggest that in fact the corruptive role of power could have been underestimated in past research that did not take into account the suppressing role of personal control: once we take it into account, the effects of power over others become even stronger.

## **Study 2**

In Study 2 we sought to examine our hypotheses in a different context and with a different operationalization of anti-social tendencies. This time, we conducted the study in the US and considered the role of power over others and personal control in predicting interpersonal exploitativeness—a tendency to use others for personal benefit (see Brunell et al., 2013). We expected that, although feelings of having power over others and personal control would be positively correlated, power over others would be associated with a higher tendency to exploit others, while personal control would be associated with a lower tendency to exploit others.

## Method

**Participants and procedure.** Study 2 was an online survey conducted using the Prolific Academic platform among American participants. We recruited 449 part-time or full-time employees at various levels in organizational hierarchies. Participants completed measures of power over others and personal control (counterbalanced), then reported their exploitative tendencies. The final sample consisted of 445 participants who reported US residency: 231 line employees (subordinate level), 105 low-level managers, 85 medium-level managers, and 24 high-level managers, aged from 18 to 70 ( $M = 32.53$ ;  $SD = 10.82$ ), of which 189 were women (coded as 1) and 248 men (coded as 2); 8 participants failed to indicate their gender<sup>4</sup>.

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<sup>4</sup> Contrary to our expectations, we were not able to enroll comparable groups at lower, medium and higher levels of organizational hierarchy via Prolific Academic. Sample size decreased with the increasing level in organizational hierarchy, and the sample of high-level managers was ten times smaller than the sample of line employees, limiting the possibility of testing the indirect effects of position. Therefore, in this study we tested the same model as in Study 1, and relied on Study 3 for a full test of the model.



### Measures.

**Power over others** was measured with three items: “To what extent do you have influence over people in your organization?”, “To what extent do you have influence over decisions taken in your organization?”, and “How much power do you have in your organization?”. Participants were asked to report on 7-point scales from -3 = very little to 3 = very much. In order to facilitate interpretation of results participants’ responses were then recoded from 1 to 7, with higher scores indicating greater power over others ( $\alpha = .96$ ).

**Personal control** was measured with the same three items as in Study 1, with responses recoded to a 1 to 7 scale ( $\alpha = .82$ ).

**Interpersonal exploitativeness** was measured with a 6-item scale developed by Brunell and colleagues (2013). Participants were asked to rate the extent of their agreement with the statements (e.g., “It doesn’t bother me to benefit at someone else’s expense”, “I’m perfectly willing to profit at the expense of others”) on a 7-point scale from 1 = strongly disagree to 7 = strongly agree ( $\alpha = .93$ ).

### Results

**Bivariate relations.** Zero-order correlations and descriptives are presented in Table 2. Power over others and personal control were significantly correlated. Exploitativeness was marginally positively associated with power over others, and negatively but not significantly with personal control. Men reported higher power over others, personal control (marginally) and exploitativeness than women.

Table 2

Descriptive statistics and correlations between variables with confidence intervals (Study 2)

Variable	1	2	3
1. Power over others	-		
2. Personal control	.29**	-	

		[0.20, 0.38]	
3. Interpersonal exploitativeness	.09 <sup>+</sup>	-.06	-
		[-0.01, 0.19]	[-0.16, 0.04]
4. Gender	.10*	.09 <sup>+</sup>	.13**
		[0.01, 0.19]	[0.000, 0.19]
			[0.03, 0.22]
M	3.39	4.75	3.68
SD	1.72	1.34	0.62

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<sup>+</sup> p < .10. \*p < .05. \*\*p < .01.

**Power over others and personal control as predictors of interpersonal exploitativeness.** As in Study 1, we tested a structural equation model. The measurement model for the predictors included power over others and personal control as latent variables with three indices each, and gender as a manifest variable. The measurement model for the outcome included exploitativeness as a latent variable with six indices. As illustrated in Figure 2, power over others predicted exploitativeness significantly and positively,  $b = 0.11$ ,  $[0.03, 0.19]$ ,  $p = .01$ . Personal control predicted exploitativeness negatively,  $b = -0.12$   $[-0.24, 0.001]$ ,  $p = .06$ , although this effect was only marginally significant. The effect of gender was significant,  $b = 0.66$ ,  $[0.43, 0.89]$ ,  $p < .001$ , indicating that men showed greater anti-social tendencies than women. The strength of the effects remained similar when gender was not adjusted for, although in this case the effect for personal control was non-significant (see details in the Supplemental Materials).

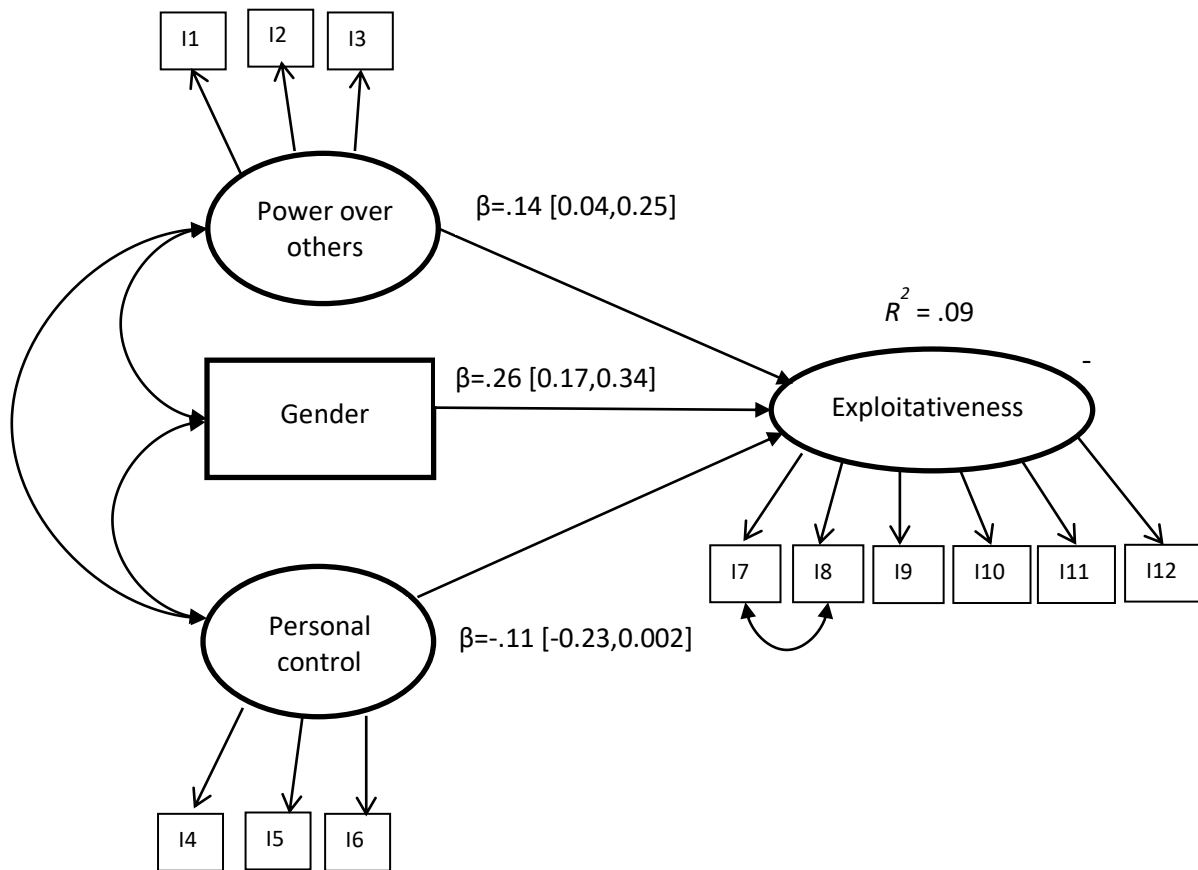


Figure 2. Power over others and personal control as predictors of exploitativeness (Study 2).

The simplified measurement model with standardized coefficients. Goodness-of-fit indices:  $\chi^2(59)=130.69$ ,  $p < .001$ ,  $\chi^2/df=2.22$ , CFI=.98, RMSEA=.05 [.04, .06], SRMR=.03.

Bootstrapping analyses with gender as a covariate yielded a significant suppressing effect of personal control, unstandardized estimate = -0.03 [-0.06, -0.001], indicating that the effect of power over others strengthened when personal control was included in the model, and a significant suppressing effect of power over others, unstandardized estimate = 0.05 [0.01, 0.10], indicating that the effect of personal control strengthened when power over others was included in the model.

### Discussion

The results of Study 2 were consistent with those of Study 1, showing that power over others and personal control had opposite effects for antisocial behavioral tendencies. In line

with previous work, power over others predicted readiness to exploit (cf. Anderson, John, & Keltner, 2012), but personal control was linked to lower exploitativeness (although in the latter case the effect was only marginally significant). Furthermore, we observed mutual suppressing effects, meaning that the effects of power over others and personal control on antisocial tendencies were stronger once we accounted for the overlap between the two predictors.

### **Study 3**

In Study 3, we sought to examine the effects of power over others and personal control on both interpersonal exploitativeness and verbal aggression. Moreover, we further tested whether both personal control and power over others were associated with holding high positions. Therefore, aside from personal control and power over others, we measured one's objective position in a hierarchy. To this end, Study 3 was specifically designed to enroll people who occupied low, medium or high positions in organizations. We hypothesized that power over others and personal control will serve as parallel yet opposite mediators of the link between high positions and the two indicators of anti-social tendencies.

#### **Method**

**Participants and procedure.** Study 3 was part of a larger organizational survey. Participants were recruited from various sized organizations by an external research agency. They took part in computer-assisted personal interviews (CAPI) in their workplace. We originally sought to include 600 participants. We aimed for a sample of full-time employees, approximately one third at the non-managerial, one third at low- or medium-level managerial positions, and one third at the top managerial positions, gender-balanced at each of the organizational levels. We obtained data from 600 participants, but we excluded 43 individuals who did not fulfil our basic inclusion criteria (e.g., not having a full-time position, failing to give full consent for participating in the study).

The final sample consisted of 557 Polish adults: 284 women (coded as 1), 273 men (coded as 2), aged from 19 to 83 ( $M = 39.98$ ,  $SD = 9.77$ ) working at various organizations at different levels of the organizational hierarchy: 194 were assistants or line employees, 201 were low or medium-level managers, and the remaining 162 were higher-level or top managers. Participants completed measures of power over others, personal control, exploitativeness and verbal aggression, among other variables.

### **Measures.**

**Power over others** was measured with four items, similar to those used in Study 2 (e.g., “To what extent do you have influence over people in your organization?”). Participants were asked to report on 6-point scales how much influence they had from -3 = very little to 3 = very much. Participants’ responses were recoded to a 1- 6 scale, with higher scores indicating greater power over others ( $\alpha = .95$ ).

**Personal control** was measured with the same three items as in Study 1 but with the use of a 6-point scale. Participants’ responses were recoded to a 1- 6 scale ( $\alpha = .80$ ).

**Verbal aggression** was measured with the same 5-item verbal aggression subscale (Buss & Perry, 1992) as in Study 1. One item measuring relations with friends was omitted from the analyses because it was not relevant to the workplace context, although retaining this item yields a similar pattern of results. Final analyses were conducted with four items ( $\alpha = .72$ ).

**Interpersonal exploitativeness** was measured with the 6-item scale as in Study 2 (Brunell et al., 2013). We excluded the item „Vulnerable people are fair game” which was weakly correlated with the latent construct (in line with the recommendations of Brown, 2006,

and Tabachnick & Fidell, 2007). Although retaining the additional item yields a similar pattern of results, the final analyses were conducted with five items ( $\alpha = .85$ )<sup>5</sup>.

## Results

**Bivariate relations.** Zero-order correlations and descriptive statistics are presented in Table 3. Power over others was significantly positively correlated with personal control, and with the two indices of anti-social tendencies: aggressiveness and exploitativeness. Personal control was negatively correlated with aggressiveness and exploitativeness, although only the latter correlation was statistically significant. The two indices of anti-social tendencies were correlated with each other. Gender was unrelated to both power over others and personal control, but it was significantly related to the tendencies to be verbally aggressive and exploitative toward others (with men showing higher anti-social tendencies than women).

Table 3

Descriptive statistics and correlations between variables with confidence intervals (Study 3)

Variable	1	2	3	4
1. Power over others	-			
2. Personal control	.47**	-		
	[0.39, 0.54]			
3. Verbal aggression	.12**	-.05	-	

<sup>5</sup> Several other theoretically relevant measures of anti-social tendencies were included in Study 3, such as objectification of others (Gruenfeld et al., 2008) and deviant organizational behavior (Bennett & Robinson, 2000). Although these variables were included for the purposes of a different project (and therefore are not reported in detail here), a similar pattern of results was found when these variables were included as indices of anti-social tendencies (please contact the first author for details).

	[0.04, 0.21]	[-0.14, 0.05]		
4. Interpersonal exploitativeness	.09*	-.10*	.43**	-
	[0.01, 0.17]	[-0.20, -0.01]	[0.35, 0.50]	
5. Gender	.02	.01	.10*	.09*
	[-0.07, 0.10]	[-0.07, 0.09]	[0.02, 0.18]	[0.003, 0.17]
M	4.05	4.54	3.91	3.09
SD	1.46	.96	1.26	1.43

<sup>+</sup>  $p < .10$ . \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

We then analyzed relationships between position in the organizational hierarchy and the focal variables with ANOVA conducted in SPSS (see Table 4). We found main effects of position for power over others and personal control. Simple main effects computed separately for each of the variables with Bonferroni corrections for multiple comparisons, showed that both power over others and personal control increased with higher organizational position. The main effect of position was non-significant for exploitativeness and marginal for aggression, but there were no significant simple main effects for these two outcomes across the levels of organizational hierarchy (we only observed a marginally significant difference between top-level and low-level employees in verbal aggression,  $p = .08$ ).

Table 4

Tests of Differences in Means of Focal Variables across Levels within the Organizational Hierarchy (Study 3)

Variables	Organizational Position M (SD)			ANOVA	
	low	mid-level	top	F(2,554)	p
Power over others	2.65 (1.25) <sup>a</sup>	4.38 (0.88) <sup>b</sup>	5.33 (0.63) <sup>c</sup>	354.65	< .001

Personal control	4.11 (1.00) <sup>a</sup>	4.58 (0.89) <sup>b</sup>	5.02 (0.76) <sup>c</sup>	45.27	< .001
Verbal aggression	3.80 (1.26) <sup>a</sup>	3.87 (1.32) <sup>a</sup>	4.10 (1.17) <sup>a</sup>	2.73	.07
Interpersonal exploitativensess	3.01 (1.29) <sup>a</sup>	3.10 (1.49) <sup>a</sup>	3.17 (1.51) <sup>a</sup>	0.58	.56

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Note. Different subscripts represent differences significant at  $p < .05$  between means within rows (with Bonferroni correction for multiple comparisons).

We repeated these analyses including gender as a factor, and found significant effects of gender on verbal aggression,  $F(1,551) = 6.32$ ,  $p = .01$ , and interpersonal exploitativensess  $F(1,551) = 4.00$ ,  $p = .046$ , indicating that men tended to be more verbally aggressive and exploitative than women. There were no significant effects of gender on power and personal control. We also did not find any significant interactions between gender and organizational position (see details in Supplementary Materials).

**Power over others and personal control as mediators of the effect of organizational position on anti-social tendencies.** We then examined whether high organizational position was associated with anti-social tendencies through power over others and personal control using structural equation modeling. The predictors were organizational position, recoded on two dummy variables, comparing line employees to mid- and top-level managers respectively and gender as manifest variables. The measurement model for the intervening variables included power over others with four indices, and personal control with three indices. The measurement model for the outcome formed a two-level structure: it included nine observed variables which formed two first-level latent variables (four for verbal aggression and five for interpersonal exploitativensess).

As illustrated in Figure 3, both power over others and personal control were significantly stronger among those occupying mid-level and top-level organizational positions



relative to low-level positions. Thus, a higher position within the organizational hierarchy predicted both higher perceived power over others and higher personal control. Occupying a mid-level, in comparison with a low-level, position within the organizational hierarchy predicted an increase in perceived power over others,  $b = 1.77$  [1.55, 1.97],  $p < .001$ , and a simultaneous (albeit smaller) increase in perceived personal control,  $b = 0.46$ , [0.27, 0.65],  $p < .001$ . Similarly, occupying a top-level position, in comparison with a low-level position, predicted both an increase in perceived power over others,  $b = 2.65$ , [2.44, 2.85],  $p < .001$ , and in perceived personal control,  $b = 0.89$ , [0.71, 1.08],  $p < .001$ . Gender was neither associated with power over others,  $b = 0.05$ , [-0.11, 0.21],  $p = .51$ , nor with personal control,  $b = 0.02$ , [-0.13, 0.17],  $p = .79$ .

Furthermore, while power over others predicted anti-social tendencies measured with verbal aggression and interpersonal exploitativeness significantly and positively,  $b = 0.16$ , [0.04, 0.27],  $p = .01$ , personal control predicted them significantly and negatively,  $b = -0.31$  [-0.47, -0.12],  $p = .001$ . Indirect effects of mid- and top-level positions, compared to a low-level position, on anti-social tendencies via personal control were significant: estimates = -0.14 [-0.27, -0.05] and -0.27 [-0.46, -0.11], respectively. Similarly, the indirect effects of mid- and top-level positions (compared to low-level positions) on anti-social tendencies via power over others were significant, estimates = 0.28 [0.08, 0.48] and 0.42 [0.12, 0.72], respectively.

After accounting for the significant indirect effects via power over others and personal control, neither holding a mid-level,  $b = -0.07$ , [-0.34, 0.20],  $p = .62$ , nor a top-level organizational position had a direct effect on anti-social tendencies,  $b = 0.10$ , [-0.26, 0.46],  $p = .60$ . However, the direct effect of gender was still significant,  $b = 0.24$ , [0.04, 0.42],  $p = .02$ , indicating greater anti-social tendencies in men than in women. There were no significant indirect effects of gender on anti-social tendencies (estimate via personal control = -0.01 [-0.06, 0.04], estimate via power over others = 0.01, [-0.01, 0.04]).

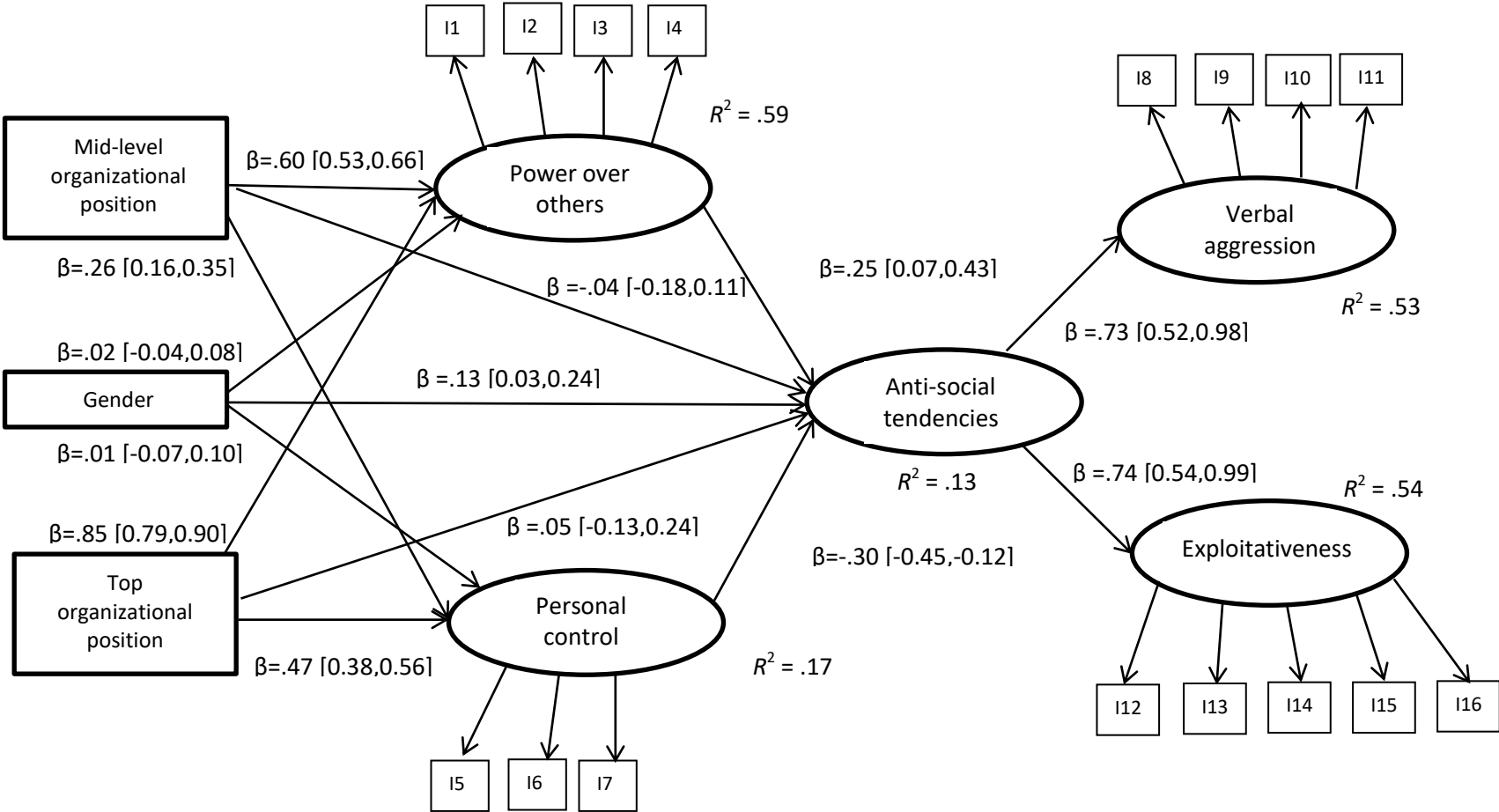


Figure 3. Power over others and personal control as mediators of the effect of organizational position on anti-social tendencies (Study 3). The simplified measurement model with standardized coefficients. Goodness-of-fit indices:  $\chi^2(139)=411.29$ ,  $p < .001$ ,  $\chi^2/df=2.96$ , CFI=.95, RMSEA=.059 [.053, .066], SRMR=.05.

Additionally, the total effect of mid-level (relative to low-level) position on anti-social tendencies,  $\beta = .04$ ,  $[-0.08, 0.16]$ ,  $b = .07$   $[-0.16, 0.29]$ ,  $p = .55$ , was not significant. However, the total effect of a top-level (relative to a low-level) position on anti-social tendencies was marginally significant,  $\beta = .12$ ,  $[-0.003, 0.25]$ ,  $b = 0.24$   $[-0.01, 0.48]$ ,  $p = .06$ , indicating a weak overall corruptive effect of high positions. Total effect of gender was significant,  $\beta = .13$ ,  $[0.02, 0.24]$ ,  $b = 0.24$   $[0.04, 0.43]$ ,  $p = .02$ .

## **Discussion**

Study 3 extended the findings of Studies 1 and 2 by demonstrating that power and personal control were parallel, yet opposing, mediators of the association between organizational position and anti-social tendencies. We found that the higher the position individuals held within the organization, the higher the power and personal control they experienced (cf. Leach, Weick, & Lammers, 2017). However, people at different levels of organizational position did not significantly differ in their self-reported levels of aggressiveness or exploitativeness (although top-level managers were marginally more aggressive than low-level employees). Our analyses demonstrated that this was because a higher organizational position was simultaneously associated with enhanced power, which positively predicted anti-social tendencies, and enhanced personal control, which negatively predicted anti-social tendencies.

Because the current findings are based on correlational data, our inferences about causality are limited. It is of course plausible that it is those with anti-social tendencies that feel more powerful over others and less in control of their lives, or that people with a higher sense of power and control are promoted more readily. It is also possible that these factors affect each other in a dynamic system. Still, our studies offer preliminary evidence of mechanisms that might drive the connections between holding positions of authority and diverse social outcomes.

### General Discussion

In three studies, using different operationalizations of predictors and dependent variables, and samples from Western (US) and Eastern-European (Poland) countries, we found converging evidence regarding the opposite effects of power over others and personal control. While power over others was associated positively with antisocial tendencies, personal control was associated negatively with them. These results are consistent with previous findings on the desirable effects of personal control (Deci & Ryan, 1985; Weinstein & Ryan, 2010) and the destructive effects of power (e.g. Gruenfeld et al., 2008; Inesi et al., 2012; Kipnis, 1972). We observed these relationships over and above the effects of gender. Although in some of the studies gender was associated with experienced power over others (Study 2) and personal control (Studies 1-2) as well as with anti-social tendencies (Studies 2-3), adjusting for gender in the analyses did not meaningfully affect the strength of the relationships of power over others and personal control with anti-social tendencies.

Importantly, we demonstrated that these two processes operate simultaneously within the individual. Both perceptions of power over others and personal control seem to stem from holding high positions within social hierarchies. In Study 3, we found that higher positions within organizations were associated both with increased perceived power over others and increased personal control. Thus, power over others and personal control share a certain amount of variance and, therefore, they tend to suppress each other—only when accounting for their overlap, can we observe their direct effects on anti-social tendencies.

The positive effects of personal control were most clearly observed once we accounted for its overlap with perceived power over others. Similarly, including personal control strengthened the positive association between power over others and anti-social tendencies. This suggests that the corruptive effects of power may, in fact, have been underestimated in previous studies in which the opposing effects of personal control were not accounted for.

Overall, our work helps explain the inconsistent findings on the relation between power and anti-social tendencies (cf. Anderson et al., 2012). These mixed results may be attributed to the diverging psychological experiences resulting from the holding a high position.

Thus, in this work we highlight the role of the dual psychological processes responsible for the different outcomes of high position. Our approach is then different from previous work highlighting the different effects of different types of power. For example, Sassenberg and colleagues (2012) differentiated power construed as opportunity (to achieve one's goals via influence) or as responsibility (for the implications of one's actions resulting from one's influence). Both these construals focus on control over others' outcomes, and thus should be related to our "power over others" component. Our distinction is probably more akin to that of Lammers, Stoker, and Stapel (2009), who differentiated personal power (freedom from others) from social power (power over others). They demonstrated that while both forms of power increase approach motivation, personal power increases stereotyping, and social power decreases it. Compared to these authors, we differentiate between perceptions of power over others and personal control over one's life (rather than independence from others), and propose that these are not two types of power, but rather two processes inherently intertwined with holding high positions in the society. In fact, based on our findings we could expect power over others to increase stereotyping (to the extent that it reflects negative treatment of others) and approach motivation, but personal control to decrease stereotyping and also decrease (rather than increase) approach motivation (see Greenaway et al., 2015).

Our work also helps to clarify some of the desirable effects of a high position in the social hierarchy. For example, our work could explain why Blader & Chen, 2012 (see also Blader, Shirako, & Chen, 2016) found that high status (which might be more strongly related to personal control), but not high power over others, was linked to just treatment of others.

Furthermore, research by Guinote (2007) demonstrated desirable effects of power for the individual in terms of "attunement to the situation by means of selective attention and processing flexibility" (p. 256). She argued that these effects can primarily be explained by the link between power and personal control. For example, in an experiment by Guinote, Brown, and Fiske (2006) members of an arguably more powerful majority group engaged in more focused reasoning than members of a minority group due to an increased sense of control. We propose that differential outcomes might be observed if we simultaneously considered the mediating effect of personal control, alongside the effects of feelings of power associated with higher group status (or other indices of high position). The examination of the effects of personal control versus power over others on information processing await future research.

Taken together, the results of our studies shed new light on the social dynamics of climbing up the organizational or, more broadly, social ladder. People are motivated to strive for high power positions in order to enhance their autonomy and ability to achieve goals, rather than to gain influence on others (Lammers et al., 2016). It is at least plausible that due to this more noble motivation they might hope that attaining higher position would have positive societal consequences. To the extent that power increases personal control, it does. Nevertheless, holding a high position is not only associated with personal control, but also with to ability to exert power over others, which tends to have negative effects on social relations.

Interestingly, in Study 3 position seemed to more strongly predict perceptions of power than those of personal control. Power by definition is a relational concept (Emerson, 1962). Feelings of power are thus grounded in existing social arrangements, such as occupying a certain organizational position. In contrast, personal control might have been additionally affected by factors outside of the organization, such as the broader social and

economic context (e.g. Bukowski, de Lemus, Rodriguez-Bailón, & Willis, 2017). Thus, the experience of personal control may fluctuate more over time than that of power over others. This may have important social implications. In changing political and social climates, even those occupying high social positions may experience occasional threats to personal control. Hence, the increased personal control among those holding high positions may take a longer time to fully stabilize. Future research should, therefore, test how the experiences power, personal control, and their consequences develop over time.

Examining the stability and legitimacy of high status positions could also elucidate the boundary conditions for the observed effects. Past work suggests that unstable high positions are more conducive to undesirable consequences. For example, when the hierarchy was unstable, dominant leaders were inclined to exclude threatening group members (Maner & Mead, 2010). Also, when put in teams, leaders competed over position in a newly formed group, thus undermining collaboration and team performance (Hildreth & Anderson, 2016). It is then possible that a tenuous hold of a high position decreases personal control, while strengthening the need to assert power, resulting in yet stronger negative interpersonal consequences. At the same time, past work demonstrated that when power difference was perceived as illegitimate, the tendency to take action and risk diminished among the powerful but increased among the powerless, reorienting them toward greater agency aimed at system change (Lammers, Galinsky, Gordijn, & Otten, 2008). The stability and legitimacy of hierarchy may then moderate the effects of power over others as well as personal control on the anti-social behavior we observed in our studies.

These studies are of course not free from limitations. Because our research was correlational, it was not possible to establish causality between variables. We chose a cross-sectional design because we were interested in the analysis of concurrent opposing processes. In practice, this means that real life powerholders should show a dual tendency in responding

to social situations: on the one hand, their heightened sense of personal control might foster a more benevolent interpersonal behavior; on the other hand, their sense of power might tempt them to act more aggressively or exploitatively. Therefore, it would be difficult to experimentally place people in high (vs. low) positions and evoke only one of these processes. Nevertheless, we hope that our studies help clarify the psychological processes and outcomes associated with holding a high position.

### **Conclusion**

In his correspondence to Acton, Creighton wrote: "I remember that in 1880 I met John Bright at dinner: he was very cross, apparently a cabinet meeting had disagreed with him. Amongst other things he said: 'If the people knew what sort of men statesmen were, they would rise and hang the whole lot of them.' Next day I met a young man who had been talking to Gladstone, who urged him to parliamentary life, saying: 'Statesmanship is the noblest way to serve mankind'" (Acton, 1887/1906, p. 370). Our studies suggest that both politicians' remarks regarding holding a high position in the social hierarchy may have merit. Holding a high position can be both corruptive and ennobling, and the overall effect may depend on which of these two opposing processes prevails.



## References

- Acton, J. E. E. D. (1887/1906). Acton-Creighton correspondence. In J. N. Figgis & R. V. Laurence (Eds.), *Lectures on Modern History* (pp. 357–373). London: Macmillan and Co. Limited. Retrieved from [http://lf-oll.s3.amazonaws.com/titles/2254/Acton\\_PowerCorrupts1524\\_EBk\\_v6.0.pdf](http://lf-oll.s3.amazonaws.com/titles/2254/Acton_PowerCorrupts1524_EBk_v6.0.pdf)
- Anderson, C., & Brion, S. (2014). Perspectives on power in organizations. *Annual Review of Organizational Psychology and Organizational Behavior*, 1, 67–97. <https://doi.org/10.1146/annurev-orgpsych-031413-091259>
- Anderson, C. A., & Bushman, B. J. (2002). Human aggression. *Annual Review of Psychology*, 53, 27–51. <https://doi.org/10.1146/annurev.psych.53.100901.135231>
- Anderson, C., John, O. P., & Keltner, D. (2012). The personal sense of power. *Journal of Personality*, 80, 313–344. <https://doi.org/10.1111/j.1467-6494.2011.00734.x>
- Bennett, R. J., & Robinson, S. L. (2000). Development of a measure of workplace deviance. *Journal of Applied Psychology*, 85, 349–360. <https://doi.org/10.1037/0021-9010.85.3.349>
- Blader, S. L., & Chen, Y. R. (2012). Differentiating the effects of status and power: a justice perspective. *Journal of Personality and Social Psychology*, 102, 994-1014. <https://doi.org/10.1037/a0026651>
- Blader, S. L., Shirako, A., & Chen, Y. (2016). Looking out from the top: Differential effects of status and power on perspective taking. *Personality and Social Psychology Bulletin*, 42, 723–737. <https://doi.org/doi:10.1177/0146167216636628>
- Brown, T. A. (2006). *Confirmatory Factor Analysis for Applied Research*. New York: Guilford Press.

- Brunell, A. B., Davis, M. S., Schley, D. R., Eng, A. L., van Dulmen, M. H., Wester, K. L., & Flannery, D. J. (2013). A new measure of interpersonal exploitativeness. *Frontiers in Psychology, 4*, 299. <https://doi.org/10.3389/fpsyg.2013.00299>
- Bukowski, M., de Lemus, S., Rodriguez-Bailón, R., & Willis, G. B. (2017). Who's to blame? Causal attributions of the economic crisis and personal control. *Group Processes & Intergroup Relations, 20*, 909–923. <https://doi.org/10.1177/1368430216638529>
- Buss, A. H., & Perry, M. (1992). The Aggression Questionnaire. *Journal of Personality and Social Psychology, 63*, 452–459. <https://doi.org/10.1037/0022-3514.63.3.452>
- Cartwright, D., & Zander, A. (1968). *Group Dynamics: Research and Theory* (3rd ed.). New York: Harper & Row.
- Cichocka, A., Dhont, K., & Makwana, A. (2017). On self-love and out-group hate: Opposite effects of narcissism on prejudice via social dominance orientation and right-wing authoritarianism. *European Journal of Personality, 31*, 366–384. doi: 10.1002/per.2114
- Cichocka, A., Golec de Zavala, A., Marchlewska, M., Bilewicz, M., Jaworska, M., & Olechowski, M. (in press). Personal control decreases narcissistic but increases non-narcissistic in-group positivity. *Journal of Personality*. <https://doi.org/10.1111/jopy.12328>
- Cichocka, A. (2016). Understanding defensive and secure in-group positivity: The role of collective narcissism. *European Review of Social Psychology, 27*, 283–317. <https://doi.org/10.1080/10463283.2016.1252530>
- Cislak, A. (2013). Effects of power on social perception: All your boss can see is agency. *Social Psychology, 44*, 139–147. <https://doi.org/10.1027/1864-9335/a000139>
- Deci, E. L., & Ryan, R. M. (1985). *Intrinsic Motivation and Self-Determination in Human Behavior*. New York: Plenum.

- Deci, E. L., & Ryan, R. M. (2001). The “what” and “why” of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11, 227–268.  
[https://doi.org/10.1207/S15327965PLI1104\\_01](https://doi.org/10.1207/S15327965PLI1104_01)
- Emerson, R. M. (1962). Power-Dependence Relations. *American Sociological Review*, 27, 31–41. <https://doi.org/10.2307/2089716>
- Faris, R., & Felmler, D. (2011). Status struggles. *American Sociological Review*, 76, 48–73.  
<https://doi.org/10.1177/0003122410396196>
- Fast, N. J., & Chen, S. (2009). When the boss feels inadequate: Power, incompetence, and aggression. *Psychological Science*, 20, 1406–1413. <https://doi.org/10.1111/j.1467-9280.2009.02452.x>
- Fast, N. J., Gruenfeld, D. H., Sivanathan, N., & Galinsky, A. D. (2009). Illusory control. A generative force behind power’s far-reaching effects. *Psychological Science*, 20, 502–508. <https://doi.org/10.1111/j.1467-9280.2009.02311.x>
- Fast, N. J., Sivanathan, N., Mayer, N. D., & Galinsky, A. D. (2012). Power and overconfident decision-making. *Organizational Behavior and Human Decision Processes*, 117, 249–260. <https://doi.org/10.1016/j.obhdp.2011.11.009>
- Fiske, S. T. (1993). Controlling other people: The impact of power on stereotyping. *American Psychologist*, 48, 621–628. <http://dx.doi.org/10.1037/0003-066X.48.6.621>
- French, J. R. P., & Raven, B. (1959). The bases of social power. In D. Cartwright (Ed.), *Studies in social power* (pp. 150–167). Ann Arbor: University of Michigan Press.
- Fritsche, I., Jonas, E., Ablasser, C., Beyer, M., Kuban, J., Manger, A.-M., & Schultz, M. (2013). The power of we: Evidence for group-based control. *Journal of Experimental Social Psychology*, 49, 19–32. <https://doi.org/10.1016/j.jesp.2012.07.014>

- Fritz, M. S., & MacKinnon, D. P. (2007). Required sample size to detect the mediated effect. *Psychological Science*, 18, 233–239. <https://doi.org/10.1111/j.1467-9280.2007.01882.x>
- Gagné, M. (2003). The role of autonomy support and autonomy orientation in prosocial behavior engagement. *Motivation and Emotion*, 27, 199–223. <https://doi.org/10.1023/A:1025007614869>
- Galinsky, A. D., Gruenfeld, D. H., & Magee, J. C. (2003). From power to action. *Journal of Personality and Social Psychology*, 85, 453–466. <https://doi.org/10.1037/0022-3514.85.3.453>
- Galinsky, A. D., Magee, J. C., Gruenfeld, D. H., Whitson, J. A., & Liljenquist, K. A. (2008). Power reduces the press of the situation: Implications for creativity, conformity, and dissonance. *Journal of Personality and Social Psychology*, 95, 1450–1466. <https://doi.org/10.1037/a0012633>
- Galinsky, A. D., Magee, J. C., Inesi, M. E., & Gruenfeld, D. H. (2006). Power and perspectives not taken. *Psychological Science*, 17, 1068–1074. <https://doi.org/10.1111/j.1467-9280.2006.01824.x>
- Georgeson, J. C., & Harris, M., J. (1998). Why's my boss always holding me down? A meta-analysis of power effects on performance evaluations. *Personality and Social Psychology Review*, 2, 184–195. [https://doi.org/10.1207/s15327957pspr0203\\_3](https://doi.org/10.1207/s15327957pspr0203_3)
- Gerevich, J., Bácskai, E., & Czobor, P. (2007). The generalizability of the Buss–Perry Aggression Questionnaire. *International Journal of Methods in Psychiatric Research*, 16, 124–136. <https://doi.org/10.1002/mpr.221>
- Goodwin, S. A., Gubin, A., Fiske, S. T., & Yzerbyt, V. Y. (2000). Power can bias impression processes: Stereotyping subordinates by default and by design. *Group Processes & Intergroup Relations*, 3, 227–256. <https://doi.org/10.1177/1368430200003003001>

- Greenaway, K. H., Storrs, K. R., Philipp, M. C., Louis, W. R., Hornsey, M. J., & Vohs, K. D. (2015). Loss of control stimulates approach motivation. *Journal of Experimental Social Psychology*, 56, 235–241. <https://doi.org/10.1016/j.jesp.2014.10.009>
- Gruenfeld, D. H., Inesi, M. E., Magee, J. C., & Galinsky, A. D. (2008). Power and the objectification of social targets. *Journal of Personality and Social Psychology*, 95, 111–127. <https://doi.org/10.1037/0022-3514.95.1.111>
- Guinote, A. (2007). Power and goal pursuit. *Personality and Social Psychology Bulletin*, 33, 1076–1087. <https://doi.org/10.1177/0146167207301011>
- Guinote, A., Brown, M., & Fiske, S. T. (2006). Minority status decreases sense of control and increases interpretive processing. *Social Cognition*, 24, 169–186. <https://doi.org/10.1521/soco.2006.24.2.169>
- Guinote, A., Cotzia, I., Sandhu, S., & Siwa, P. (2015). Social status modulates prosocial behavior and egalitarianism in preschool children and adults. *Proceedings of the National Academy of Sciences*, 112, 731–736. <https://doi.org/10.1073/pnas.1414550112>
- Guinote, A., & Vescio, T. K. (2010). Introduction: Power in social psychology. In A. Guinote & T. K. Vescio, *The social psychology of power* (pp. 1–16). New York, London: Guilford Press.
- Hildreth, J. A. D., & Anderson, C. (2016). Failure at the top: How power undermines collaborative performance. *Journal of Personality and Social Psychology*, 110, 261–286. <https://doi.org/10.1037/pspi0000045>
- Hobbes, T. (1651/2002). *Leviathan: Or the Matter, Forme, & Power of a Common-wealth Ecclesiasticall and Civill*, 1651. Retrieved from <http://www.gutenberg.org/files/3207/3207-h/3207-h.htm>

Howard, J. A., Blumstein, P., & Schwartz, P. (1986). Sex, power, and influence tactics in intimate relationships. *Journal of Personality and Social Psychology*, 51, 102–109.

<https://doi.org/10.1037/0022-3514.51.1.102>

Inesi, M. E., Botti, S., Dubois, D., Rucker, D. D., & Galinsky, A. D. (2011). Power and choice. Their dynamic interplay in quenching the thirst for personal control.

*Psychological Science*, 22, 1042–1048. <https://doi.org/10.1177/0956797611413936>

Inesi, M. E., Gruenfeld, D. H., & Galinsky, A. D. (2012). How power corrupts relationships: Cynical attributions for others' generous acts. *Journal of Experimental Social Psychology*, 48, 795–803.

<https://doi.org/10.1016/j.jesp.2012.01.008>

Kay, A. C., Whitson, J. A., Gaucher, D., & Galinsky, A. D. (2009). Compensatory control. Achieving order through the mind, our institutions, and the heavens. *Current Directions in Psychological Science*, 18, 264–268.

<https://doi.org/10.1111/j.1467-8721.2009.01649.x>

Keltner, D. J., Gruenfeld, D. H., & Anderson, C. (2003). Power, approach, and inhibition.

*Psychological Review*, 110, 265–284. <https://doi.org/10.1037/0033-295X.110.2.265>

Kipnis, D. (1972). Does power corrupt? *Journal of Personality and Social Psychology*, 24, 33–41. <http://dx.doi.org/10.1037/h0033390>

Kipnis, D., Castell, P. J., Gergen, M., & Mauch, D. (1976). Metamorphic effects of power.

*Journal of Applied Psychology*, 61, 127–135. <http://dx.doi.org/10.1037/0021-9010.61.2.127>

Korndörfer, M., Egloff, B., & Schmukle, S. C. (2015). A Large Scale Test of the Effect of Social Class on Prosocial Behavior. *PLoS ONE*, 10, e0133193.

<https://doi.org/10.1371/journal.pone.0133193>

- Lammers, J., Galinsky, A., Gordijn, E. H., & Otten, S. (2008). Illegitimacy moderates the effects of power on approach. *Psychological Science*, 19, 558–564.  
<https://doi.org/10.1111/j.1467-9280.2008.02123.x>
- Lammers, J., Stapel, D., & Galinsky, A. (2010). Power increases hypocrisy. *Psychological Science*, 21, 737–744. <https://doi.org/10.1177/0956797610368810>
- Lammers, J., Stoker, J. I., Jordan, J., Pollmann, M., & Stapel, D. A. (2011). Power increases infidelity among men and women. *Psychological Science*, 22, 1191–1197.  
<https://doi.org/10.1177/0956797611416252>
- Lammers, J., Stoker, J. I., Rink, F., & Galinsky, A. D. (2016). To have control over or to be free from others? The desire for power reflects a need for autonomy. *Personality and Social Psychology Bulletin*, 42, 498–512. <https://doi.org/10.1177/0146167216634064>
- Lammers, J., Stoker, J., & Stapel, D. (2009). Differentiating social and personal power. Opposite effects on stereotyping, but parallel effects on behavioral approach tendencies. *Psychological Science*, 20, 1543–1549. <https://doi.org/10.1111/j.1467-9280.2009.02479.x>
- Leach, S., Weick, M., & Lammers, J. (2017). Does influence beget autonomy? Clarifying the relationship between social and personal power. *Journal of Theoretical Social Psychology*, 1, 5–14. <https://doi.org/10.1002/jts5.5>
- MacKinnon, D. P., Krull, J. L., & Lockwood, C. M. (2000). Equivalence of the mediation, confounding and suppression effect. *Prevention Science*, 1, 173–181.  
<https://doi.org/10.1023/A:1026595011371>
- Magee, J. C., Galinsky, A. D., & Gruenfeld, D. H. (2007). Power, propensity to negotiate, and moving first in competitive interactions. *Personality and Social Psychology Bulletin*, 33, 200–212. <https://doi.org/10.1177/0146167206294413>

- Maner, J. K., & Mead, N. L. (2010). The essential tension between leadership and power: When leaders sacrifice group goals for the sake of self-interest. *Journal of Personality and Social Psychology*, 99, 482–497. <https://doi.org/10.1037/a0018559>
- Muthén, L. K., & Muthén, B. O. (2017). *MPlus. Statistical Analysis With Latent Variables User's Guide* (Eighth Edition). Los Angeles, CA: Muthén & Muthén.
- Overbeck, J. R., & Park, B. (2001). When power does not corrupt: Superior individuation processes among powerful perceivers. *Journal of Personality and Social Psychology*, 81, 549–565. <https://doi.org/10.1037//0022-3514.81.4.549>
- Overbeck, J. R., Tiedens, L. Z., & Brion, S. (2006). The powerful want to, the powerless have to: perceived constraint moderates causal attributions. *European Journal of Social Psychology*, 36, 479–496. <https://doi.org/10.1002/ejsp.353>
- Paulhus, D. L., Robins, R. W., Trzesniewski, K. H., & Tracy, J. L. (2004). Two replicable suppressor situations in personality research. *Multivariate Behavioral Research*, 39, 303–328. [https://doi.org/10.1207/s15327906mbr3902\\_7](https://doi.org/10.1207/s15327906mbr3902_7)
- Piff, P. K., Kraus, M. W., Côté, S., Cheng, B. H., & Keltner, D. (2010). Having less, giving more: The influence of social class on prosocial behavior. *Journal of Personality and Social Psychology*, 99, 771–784. <https://doi.org/10.1037/a0020092>
- Raven, B. (2008). The bases of power and the Power/Interaction Model of interpersonal influence. *Analyses of Social Issues and Public Policy*, 8, 1–22. <https://doi.org/10.1111/j.1530-2415.2008.00159.x>
- Rogow, A. A., & Lasswell, H. D. (1963). *Power, Corruption, and Rectitude*. Englewood Cliffs, NJ: Prentice-Hall.
- Russell, B. (1938). *Power: A New Social Analysis*. London, England: Allen & Unwin.



- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist, 55*, 68–78.  
<https://doi.org/10.1037/0003-066X.55.1.68>
- Sassenberg, K., Ellemers, N., & Scheepers, D. (2012). The attraction of social power: The influence of construing power as opportunity versus responsibility. *Journal of Experimental Social Psychology, 48*, 550–555.  
<https://doi.org/10.1016/j.jesp.2011.11.008>
- See, K., Wolfe Morrison, E., Rothman, N. B., & Soll, J. B. (2011). The detrimental effects of power on confidence, advice taking, and accuracy. *Organizational Behavior and Human Decision Processes, 116*, 272–285.  
<https://doi.org/10.1016/j.obhdp.2011.07.006>
- Spreitzer, G. M. (1995). Psychological empowerment in the workplace: Dimensions, measurement, and validation. *Academy of Management Journal, 38*, 1442–1465.  
<https://doi.org/10.2307/256865>
- Tabachnick, B. G. & Fidell, L. S. (2007). *Using multivariate statistics* (5th ed). Boston, MA: Pearson.
- van Kleef, G. A., Oveis, C., van der Löwe, I., LuoKogan, A., Goetz, J., & Keltner, D. (2008). Power, distress, and compassion. *Psychological Science, 19*, 1315–1322.  
<https://doi.org/10.1111/j.1467-9280.2008.02241.x>
- Van Vugt, M., Hogan, R., & Kaiser, R. B. (2008). Leadership, followership, and evolution: Some lessons from the past. *American Psychologist, 63*, 182–196.  
<https://doi.org/10.1037/0003-066X.63.3.182>
- Weinstein, N., & Ryan, R. M. (2010). When helping helps: Autonomous motivation for prosocial behavior and its influence on well-being for the helper and recipient. *Journal of Personality and Social Psychology, 98*, 222–244. <https://doi.org/10.1037/a0016984>

Westfall, J., & Yarkoni, T. (2016). Statistically controlling for confounding constructs is harder than you think. *PLOS ONE*, 11, e0152719.

<https://doi.org/10.1371/journal.pone.0152719>

Whitson, J. A., & Galinsky, A. D. (2008). Lacking control increases illusory pattern perception. *Science*, 322, 115-117.

Workplace Bullying Institute. (2014). U.S. workplace bullying survey. Retrieved June 18, 2017, from <http://workplacebullying.org/multi/pdf/WBI-2014-US-Survey.pdf>

Zimbardo, P. G. (1973). On the ethics of intervention in human psychological research: with special reference to the Stanford Prison Experiment. *Cognition*, 2, 243–256.

[https://doi.org/10.1016/0010-0277\(72\)90014-5](https://doi.org/10.1016/0010-0277(72)90014-5)