



# People with disagreeable personalities (selfish, combative, and manipulative) do not have an advantage in pursuing power at work

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**Does being disagreeable—that is, behaving in aggressive, selfish, and manipulative ways—help people attain power? This question has long captivated philosophers, scholars, and laypeople alike, and yet prior empirical findings have been inconclusive. In the current research, we conducted two preregistered prospective longitudinal studies in which we measured participants’ disagreeableness prior to entering the labor market and then assessed the power they attained in the context of their work organization ~14 y later when their professional careers had unfolded. Both studies found disagreeable individuals did not attain higher power as opposed to extraverted individuals who did gain higher power in their organizations. Furthermore, the null relationship between disagreeableness and power was not moderated by individual differences, such as gender or ethnicity, or by contextual variables, such as organizational culture. What can account for this null relationship? A close examination of behavior patterns in the workplace found that disagreeable individuals engaged in two distinct patterns of behavior that offset each other’s effects on power attainment: They engaged in more dominant-aggressive behavior, which positively predicted attaining higher power, but also engaged in less communal and generous behavior, which predicted attaining less power. These two effects, when combined, appeared to cancel each other out and led to a null correlation between disagreeableness and power.**

disagreeableness | power | extraversion | hierarchy

**W**e suffer no shortage of jerks in power. Even with just a moment’s reflection, it is easy to think of an individual in power who is bullying, selfish, and arrogant—whether in business, politics, academia, or the arts. Seeing a disagreeable person in power prompts a question that is profoundly important and yet that has received insufficient empirical attention: Does being a jerk help people attain power? Or more precisely stated, are people who are disagreeable when they begin their career more likely to become powerful than are agreeable people?

The current research tracked disagreeable individuals over an ~14-y span that began while they were in college or graduate school, prior to entering the labor market. We tested whether they attained more power in their work organization than others as their professional careers unfolded over that 14-y span. Disagreeableness is a relatively stable aspect of personality that involves the tendency to behave in quarrelsome, cold, callous, and selfish ways (1). It is the counterpole of the personality dimension agreeableness. For example, disagreeable people tend to be hostile and abusive to others (2), deceive and manipulate others for their own gain (3), and ignore others’ concerns or welfare (4).

## Why the Link between Disagreeableness and Power Matters

Power is a fundamental principle that organizes relationships within virtually all social-living species. It is defined as the capacity to influence others by providing or withholding resources or administering punishments (5). Power differences provide a heuristic for how resources, prerequisites, and control are allocated.

For example, individuals with power have control over a group’s decisions (6), shape its culture (7), govern the rules of its social relationships (8), and dictate how roles and rewards are distributed (9).

The current research focused on whether disagreeable individuals attain more power in their careers than agreeable individuals—an important question for many reasons. First, disagreeable individuals with power can have toxic far-reaching effects. They abuse those who work for them (10), prioritize their own self-interests over the good of their group (11), create cultures of corruption that normalize malfeasance (12), and ultimately lead their organizations to fail (13). It is, thus, important to understand whether these toxic individuals are systematically more likely to attain power than are others.

Disagreeable people who are powerful (and, thus, visible) can also serve as antisocial role models and encourage others to behave more disagreeably. For example, as one journalist noted, readers of former Apple CEO Steve Jobs’ biography are likely to think, “Maybe if I become an even bigger asshole, I’ll be successful like Steve” (14). In other words, when people see a disagreeable person in power, they might conclude that being disagreeable will help them attain power and, in turn, behave more disagreeably. If such a belief is inaccurate, it is important to empirically dispel this myth.

## Empirically Examining the Link between Disagreeableness and Power

While prior work has provided invaluable insights into disagreeableness and its effects on social success, the effects of disagreeableness

### Significance

**Are disagreeable individuals more likely to attain power than agreeable individuals? This question is important because highly disagreeable individuals in positions of power can do a lot of damage. For example, CEOs who are nasty and bullying create cultures of abuse and tend to lead their organizations to fail. In two longitudinal prospective studies, we found that disagreeableness did not predict the attainment of power. Selfish, deceitful, and aggressive individuals were no more likely to attain power than were generous, trustworthy, and nice individuals. Why not? Disagreeable individuals were intimidating, which would have elevated their power, but they also had poorer interpersonal relationships at work, which offset any possible power advantage their behavior might have provided.**

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on the attainment of power in work organizations remain unclear. For example, some research has tested whether “nice guys and gals finish last,” or whether disagreeableness predicts social success in contexts such as families (15), the dating realm (16), or laboratory economic games (17), which are all very different from work organizations. Other research has examined disagreeableness and hierarchy ascendance, focusing on laboratory or college-student groups (e.g., refs. 18, 19) in which the power dynamics also differ from work organizations. Finally, a substantial literature has examined personality and career success, focusing on outcomes such as salary or occupational prestige (e.g., refs. 20, 21), which are related to power and distinct from it in important ways. For example, a lawyer might hold a prestigious occupation and be paid well and, thus, score high on career success and yet still possess little power in her law firm. We are interested specifically in power because of the broader toxic effects powerful individuals can have on the lives and well being of others.

An ideal study of whether disagreeable individuals attain more power in their careers than agreeable individuals would have several features. First, it would be longitudinal. Concurrent designs that assess personality and power simultaneously leave the origin of causality unclear (22, 23), in part, because power can foster disagreeable behavior (5). Second, the study would need to span a considerable length of time—years rather than weeks or months—to allow for the effects of personality to unfold. Third, it would examine individuals in a wide range of organizations and industries to help maximize generalizability. Fourth, it would study the mechanisms that underlie any relationship between disagreeableness and power, which is critical if we are to fully understand why disagreeable individuals attain power or not. Fifth, it would assess power using reputational as well as structural indices. Power in organizations is based not just on formal rank (24), but also on factors such as individuals’ social network (e.g., ref. 25) and control over resources (e.g., ref. 26). Because organizational actors are remarkably accurate in assessing their own and others’ power, reputational indices are seen as essential to the study of power (27). Finally, it would examine a large enough sample to provide sufficient statistical power and allow for tests of possibly curvilinear and interaction effects (28). The current study involved two preregistered studies that met all of the criteria above.

#### Four Paths to Power

Do disagreeable individuals attain more power than agreeable individuals, and if so, how? Here, we outline four major theories that address how power can be acquired. In the next section, we discuss, based on these theories, how disagreeableness might or might not affect power.

Evolutionary theorists propose that individuals can attain power by engaging in dominant-aggressive behavior, which involves “the induction of fear through intimidation and coercion to attain social rank” (ref. 29, p. 106). This means gaining power in ways similar to our phylogenetic relatives, chimpanzees and gorillas.\* Organizational theorists posit that individuals can acquire power through political behavior, which involves being aware of “what individuals are influential and important in your achieving your goal,” and using “the various strategies and tactics for exercising power (that) seem most appropriate and are likely to be effective” (ref. 24, p. 44). Note that the term “political” here does not imply manipulating and exploiting others in a Machiavellian way, but rather, the use of persuasion and

influence to accomplish important personal or organizational goals (30). Many other scholars have suggested that individuals can gain power through communal behavior or if they “maintain a generous pattern of behavior in which they... are willing to provide help when others approach them” (ref. 31, p. 1,124). Such behaviors are thought to give individuals a reputation for benevolence and, thus, higher status (32, 33), and status, in turn, helps people attain power in work organizations (34). Finally, theorists have also proposed that individuals can achieve power by engaging in competent behavior (sometimes called “prestige” behavior), which involves exhibiting “personal characteristics that are important for the attainment of collective goals” (ref. 35, p. 160), in particular, by demonstrating competence in domains critical to the group’s success (36). In so doing, individuals gain a reputation for being high performers and important to the group, which enhances their power and influence among coworkers (37).

#### Hypotheses

Based on the theoretical foundation set by the four accounts above, a number of competing hypotheses may be formulated regarding the effects of disagreeableness on power. A “nice guys finish last” hypothesis is that disagreeableness enhances power. For example, disagreeable individuals might engage in more dominant-aggressive behavior and, thus, intimidate others into submission. They might also engage in more political behavior because agreeable individuals might view political behavior as too selfish and manipulative and, thus, avoid it (23). Conversely, an “ostracism” hypothesis is that disagreeableness diminishes power. Disagreeable individuals might engage in less communal behavior, undermining their ability to get along with others and to successfully negotiate their social network. A “Goldilocks” hypothesis is that disagreeableness has a curvilinear effect on power: Moderately disagreeable individuals might fare better than highly disagreeable people who become socially isolated and better than highly agreeable individuals who are more easily exploited. A “compensatory” hypothesis is that disagreeableness has no effect on power; individuals might behave in some ways that enhance their power, such as dominant-aggressive behavior, but in other ways that diminish their power, such as less communal behavior. In other words, the effects of these different behaviors might offset each other. Finally, prior work does not lay out a clear link between disagreeableness and competent behavior. We, thus, examined this as an open research question so that we would address all possible paths to power.

#### The Present Research

We conducted two longitudinal studies that measured participants’ personality traits while they were in school and their power in their work organizations ~14 y later. We also examined the relationship between extraversion and power. Extraversion has been consistently linked to the attainment of higher rank (for a review, see ref. 38). We hoped to replicate this finding to lend confidence in our methods and to compare how disagreeableness and extraversion uniquely relate to power. Extraversion is the other interpersonal dimension in the big five personality taxonomy and involves an “energetic approach to the social and material world and includes traits, such as sociability, activity, assertiveness, and positive emotionality” (ref. 1, p. 121).

#### Results

**Study 1.** The final sample for our primary hypothesis tests comprised 457 participants. At Time 1 (1999–2008), these participants and their classmates completed personality measures as an extracredit part of their coursework in either an undergraduate degree or a Masters of Business Administration (MBA) program in one of three universities in the United States: a public university

\*Evolutionary theorists have typically called this path to power “dominance.” However, that term has been used to refer to the personality trait that involves assertive and self-assured behavior. Therefore, we use the term dominant-aggressive here to refer to the intimidation and fear-inducing strategy they describe in ref. 29.

on the West Coast, a private university in the Midwest, and a private university in the Northeast. At Time 2 (2018), we followed up with these alumni offering the opportunity to participate in our longitudinal study. Thus, the interval between Time 1 and Time 2 was, at least, 10 y with a mean of 14 y. As an incentive to participate at Time 2, we offered personality feedback. The response rate was 32.5%, which compares favorably to similar prior studies (more details below). There were also no differences between participants and nonparticipants in their personality, suggesting our sample was representative of the broader student populations from which they were drawn.

Participants reported their power, control over subordinates, and rank in their organization's hierarchy. After standardizing all three measures, they correlated substantially with each other and were combined into a single overall power score ( $\alpha = 0.69$ ). Participants also rated how combative was their organization's culture, their tenure in their organization, the size of their organization, and how many organizations they had worked for in their employment history. All 457 participants had completed the Big Five Inventory (BFI; ref. 1), and 258 had also completed the revised NEO personality inventory (NEO-PI-R) (39). Therefore, we focused our analyses on the BFI and used the NEO-PI-R for methodological replication as reported in the *SI Appendix*.

Our analysis plan was preregistered (<https://aspredicted.org/d3ij7.pdf>). As expected, extraversion at Time 1 predicted participants' power in their work organization at Time 2 about 14 y later (see Model 1 of Table 1). Thus, individuals who were assessed during their school years as more sociable, energetic, and assertive had achieved higher power in their organization years later. This result is consistent with related findings from prior work and, thus, lends confidence in our methods.

However, disagreeableness at Time 1 did not predict power at Time 2, indicating that individuals who were more selfish, combative, and deceitful did not, subsequently, attain higher power. Moreover, we did not find a curvilinear relationship between disagreeableness and power (see Model 2a). It was not the case that moderately disagreeable individuals attained higher power than those high or low in disagreeableness.

Model 2a tested the core moderators of the relationship between disagreeableness at Time 1 and power at Time 2. In the regressions, the critical question was whether any of the interactions

were significant. If so, it would suggest that the effect of disagreeableness differs for subsets of people (e.g., men and women). We also controlled for the main effect of these moderators. As expected, there were main effects for gender and age, suggesting that men and older participants possessed more power, which is consistent with prior work (36). However, as shown in Table 1, none of these interactions were significant. Gender, ethnicity, age, degree program, and organizational culture—none emerged as significant moderators, indicating that the null relationship between disagreeableness and power held up for men as well as women, white as well as nonwhite participants, older as well as younger individuals, alumni of undergraduate as well as MBA degree programs, and those who worked in more combative cultures as well as those who worked in less combative cultures. A few of these variables did show the main effect. For example, participants who worked in more combative cultures had less power overall (consistent with prior work suggesting that individuals have less power overall in more dysfunctional social environments; ref. 40). However, the interaction between disagreeableness and combative culture was not significant.

For 406 participants, we were also able to test for three additional moderators (see Model 2b). As shown, the main effects of extraversion and disagreeableness remained the same, and none of those variables emerged as moderators. The null relationship between disagreeableness and power held up for individuals with long as well as short tenures, those in large organizations as well as small, and those who switched jobs frequently as well as those who did so infrequently. We also examined grade point average (GPA) for the 317 participants for whom we had those data. GPA did not predict power ( $\beta = -0.10 [-0.21, 0.01]$ ) or moderate the relationship between disagreeableness and power ( $\beta = -0.02 [-0.12, 0.09]$ ). Finally, based on a reviewer's request, we examined whether disagreeableness and extraversion interacted in predicting power, but the interaction was not significant ( $\beta = -0.03 [-0.09, 0.05]$ ).

The *SI Appendix* includes additional analyses on the subset of participants who also completed the NEO-PI-R at Time 1 ( $n = 258$ ). The findings are nearly identical to those using the BFI: Extraversion predicted power, and disagreeableness did not. Disagreeableness again did not have a curvilinear relationship with power, and there were no interaction effects. The *SI Appendix* also includes analyses of the specific facets of

**Table 1. Predicting power in 2018 from personality traits assessed on average 14 y earlier**

Predictor	Study 1			Study 2	
	Model 1 ( $n = 457$ )	Model 2a ( $n = 457$ )	Model 2b ( $n = 406$ )	Model 1 ( $n = 214$ )	Model 2b ( $n = 214$ )
Extraversion	0.252*** (0.16, 0.34)	0.223*** (0.14, 0.31)	0.242*** (0.15, 0.33)	0.24*** (0.11, 0.37)	0.24** (0.09, 0.38)
Disagreeableness	0.045 (−0.04, 0.14)	0.053 (−0.03, 0.14)	0.023 (−0.07, 0.12)	0.020 (−0.12, 0.15)	0.04 (−0.10, 0.18)
Disagreeableness <sup>2</sup>		−0.054 (−0.12, 0.01)	−0.071 (−0.14, 0.002)		−0.004 (−0.14, 0.13)
Gender (men = 1, women = 0)		0.147** (0.06, 0.24)	0.152** (0.06, 0.24)		−0.10 (−0.24, 0.03)
Disagreeableness * Gender		0.048 (−0.05, 0.14)	0.077 (−0.02, 0.18)		0.02 (−0.14, 0.17)
Ethnicity (white = 1, nonwhite = 0)		0.024 (−0.06, 0.11)	0.006 (−0.08, 0.10)		0.06 (−0.08, 0.19)
Disagreeableness * Ethnicity		−0.018 (−0.10, 0.07)	−0.026 (−0.12, 0.07)		−0.05 (−0.19, 0.09)
Age		0.183** (0.06, 0.31)	0.216** (0.06, 0.37)		0.03 (−0.10, 0.17)
Disagreeableness * Age		−0.062 (−0.16, 0.03)	−0.106 (−0.25, 0.04)		0.09 (−0.05, 0.23)
Degree program (MBA = 1, undergrad = 0)		0.086 (−0.04, 0.21)	0.043 (−0.10, 0.18)		0.05 (−0.09, 0.18)
Disagreeableness * Degree		0.009 (−0.10, 0.12)	0.068 (−0.06, 0.20)		−0.015 (−0.13, 0.10)
Combative organizational culture		−0.221*** (−0.30, −0.14)	−0.219*** (−0.30, 0.13)		−0.30*** (−0.43, −0.17)
Disagreeableness * Culture		0.069 (−0.01, 0.16)	0.074 (−0.01, 0.16)		0.03 (−0.13, 0.18)
Tenure in organization			0.123* (0.03, 0.22)		0.09 (−0.04, 0.23)
Disagreeableness * Tenure			−0.008 (−0.10, 0.09)		−0.02 (−0.17, 0.13)
Organization size			−0.102* (−0.19, −0.01)		−0.17* (−0.31, −0.03)
Disagreeableness * Size			−0.021 (−0.13, 0.09)		0.07 (−0.06, 0.20)
Job switching			0.022 (−0.08, 0.13)		0.01 (−0.12, 0.15)
Disagreeableness * Job switching			0.008 (−0.11, 0.12)		−0.01 (−0.20, 0.17)

Shown are standardized  $\beta$  coefficients. Confidence intervals (CIs) are in parentheses. \* $P < 0.05$ ; \*\* $P < 0.01$ ; \*\*\* $P < 0.001$ .

disagreeableness. These correlations are all null, similar to the overall disagreeableness dimension. Finally, the *SI Appendix* includes analyses of personality assessed at Time 2. As described, these findings replicated the findings with Time 1 personality. This is important because it suggests that, even if individuals had become more disagreeable over time, they still did not attain higher power.

**Study 2.** We conducted an additional prospective longitudinal study that also spanned ~14 y in order to extend the findings from Study 1 in a few key ways. First, we tested whether the findings from Study 1 would replicate in an independent sample of participants. Second, we assessed behavior patterns to examine possible mediating mechanisms. Building from the four different “paths to power” outlined in the Introduction, we measured dominant-aggressive, political, communal, and competent behaviors. Third, we employed peer ratings to measure participants’ power and behavior patterns, which provided more reliable measures and allowed us to validate the self-report indices used in Study 1.

A total of 214 alumni participated, none of whom had participated in Study 1. In the first assessment at Time 1, the participants and their classmates completed personality measures for extra course credit in either an undergraduate or MBA program at either a public university on the West Coast or a private university in the Midwest. All participants completed the BFI. We, then, followed up with these alumni, just as we had in Study 1 with a second assessment at Time 2 (2018). Similar to Study 1, the duration between Time 1 and Time 2 was, at least, 10 y for all participants. Participants again did not differ from nonrespondents in personality, helping rule out selection effects.<sup>†</sup>

Participants provided email addresses for coworkers to rate them. A total of 540 coworkers completed ratings ( $M = 2.52$ ,  $SD = 0.99$ ) with a range of two to four coworkers per participant. Participants and their coworkers rated participants’ power and organizational rank with the same items as in Study 1 and rated participants’ behavior in the workplace. Based on a pilot study, we constructed 35 items that assess behaviors in four specific domains discussed in the Introduction: dominant-aggressive (e.g., “intimidate[s] others”), political (e.g., “build[s] alliances with influential people”), communal (e.g., “care[s] about others’ well being”), and competent (e.g., “am/is highly effective at my/his/her job”). The entire item set is shown in the *SI Appendix*. Coworkers’ ratings agreed highly with each other and with participant’s self-ratings. This is an important finding in itself. In contrast to the common distrust of self-report measures, participants’ ratings of their own power is substantially related to independent ratings by peers in the organization. Finally, participants rated how combative their organization’s culture was, their tenure, their organization’s size, and how many organizations they had worked for in their employment history.

Our analysis plan was preregistered (<https://aspredicted.org/96cj7.pdf>). Even though power ratings in Study 2 consisted primarily of coworkers as informants, the key findings in Study 2 replicated those in Study 1. As shown in Table 1 (see Study 2,

Model 1), extraversion again predicted power, and disagreeableness again did not. As shown in Model 2b, disagreeableness also again did not have a curvilinear relationship with power, and it was again not moderated by gender, ethnicity, age, degree program, tenure in the organization, organizational culture, organization size, or job switching. (Note that we did not need a Model 2a because we had all data for all participants.) The main effects of gender and age on power did not replicate; however, as Lakens and Etz (41) demonstrated, it is very common to obtain inconsistent results across studies even when a finding is true and studies are sufficiently powered. We again found that disagreeableness and extraversion did not interact in predicting power ( $\beta = 0.11 [-0.02, 0.18]$ ).

We next examined which domains of workplace behavior predicted the attainment of power. Indeed, consistent with prior theories, achieving higher power was associated with engaging in more dominant-aggressive behavior ( $r [214] = 0.21$ ,  $P = 0.002$ ), more political behavior ( $r [214] = 0.49$ ,  $P < 0.001$ ), more communal behavior ( $r [214] = 0.36$ ,  $P < 0.001$ ), and more competent behavior ( $r [214] = 0.45$ ,  $P < 0.001$ ). Thus, individuals who engaged in more of all of these behaviors had higher power.

How were these workplace behaviors associated with personality traits? Extraversion assessed at Time 1 predicted engaging in all four of these power behaviors at Time 2: more dominant-aggressive behavior ( $r [214] = 0.14$ ,  $P = 0.038$ ), political behavior ( $r [214] = 0.37$ ,  $P < 0.001$ ), communal behavior ( $r [214] = 0.21$ ,  $P = 0.002$ ), and competent behavior ( $r [214] = 0.28$ ,  $P < 0.001$ ). More extraverted individuals, thus, “did everything right” to attain higher power.

The pattern of correlations was quite different for disagreeableness, however. Disagreeableness assessed at Time 1 predicted engaging at Time 2 in more dominant-aggressive behavior ( $r [214] = 0.22$ ,  $P = 0.001$ ) but less communal behavior ( $r [214] = -0.23$ ,  $P = 0.001$ ). Competent behavior  $r [214] = -0.11$ ,  $P = 0.101$  and political behavior  $r [214] = -0.09$ ,  $P = 0.185$ , were not related to disagreeableness. In contrast to extraverts, then, disagreeable individuals engaged in some of the behaviors that predict higher power but engaged in less of other power behaviors. Specifically, they enacted more dominant-aggressive behavior but also less communal behavior where the correlation was negative.

We next conducted a series of multiple mediation analyses. The more positive domains of workplace behaviors—communal, competent, and political behaviors—all correlated with each other highly (the average correlation between those three domains was  $r = 0.58$ ). Therefore, to avoid the problems of multicollinearity, in our mediation analysis of extraversion, we combined those behaviors together in an aggregate measure of valued behavior ( $\alpha = 0.80$ ).

As shown in Fig. 1, extraversion assessed at Time 1 predicted more dominant-aggressive and more valued behaviors, and both mediated the relationship between extraversion and power. We used Preacher and Hayes’ (42) bootstrapping procedure with 10,000 resamples with replacement to derive 95% bias-corrected CIs for the indirect effects of personality traits on power transmitted by workplace behaviors. The unique indirect effects were 0.0210 for dominant-aggressive (CI: 0.0026, 0.0571) and 0.1707 for valued behaviors (CI: 0.0990, 0.2606). Furthermore, the link between extraversion and power was no longer significant (direct effect = 0.0465 [-0.0759, 0.1689]) when taking into account both dominant-aggressive and valued behaviors as mediators.

In contrast, disagreeableness assessed at Time 1 positively predicted dominant-aggressive behaviors but negatively predicted communal behaviors. Both of those behaviors, in turn, positively predicted power. The unique indirect effects were 0.1135 for dominant-aggressive (CI: 0.0499, 0.1934) and -0.1563 (CI: -0.2555, -0.0758) for communal behaviors. These results, thus, support the “compensatory”

<sup>†</sup>The response rate was difficult to calculate for Study 2. We sent emails to 3,187 email addresses, but many of the addresses were old and no longer used. As opposed to Study 1, we had no way of tracking which addresses were no longer valid. Therefore, we simply stopped collecting data after 200 participants had responded, consistent with our pre-registration. It is difficult to know what the response rate would have been if we had continued to collect data. Among the participants for whom we have the exact date for when they completed their Time 1 survey, the median year of participation was 2004; therefore, the median duration between Time 1 and Time 2 was 14 y as in Study 1. We also administered two attention checks in the Time 2 survey. All participants passed both checks, except one person who failed one but passed the other. We, thus, included all participants in the sample. Furthermore, in line with our preregistered analysis plan (<https://aspredicted.org/96cj7.pdf>), we included all participants regardless of the size of their organization.

hypothesis laid out in the Introduction. Disagreeable individuals did not attain higher power because they engaged in two different patterns of behavior that offset each other's effects. They engaged in dominant-aggressive behavior, which predicted higher power, but also engaged in fewer communal behaviors, which predicted lower power. These two effects, when combined, canceled each other out and led to an overall null correlation between disagreeableness and power.

The *SI Appendix* also includes analyses of the specific facets of disagreeableness for Study 2. Again, the correlations for the specific facets are all null, similar to the overall disagreeableness dimension. The *SI Appendix* also, again, includes analyses of personality assessed at Time 2. As in Study 1, these findings replicated the findings with Time 1 personality.

## Discussion

Two preregistered prospective longitudinal studies found a null relationship between disagreeableness and power. Disagreeable individuals, who behave in aggressive, selfish, and manipulative ways, did not attain more power than agreeable individuals over time. Moreover, this null relationship held up across all kinds of individuals (men and women, white and nonwhite, and young and old) and across different organizational contexts (in more and less combative cultures and in large and small organizations). In contrast, both studies found a consistent and robust relationship between extraversion and power, replicating prior results that assertive, sociable individuals attain higher power over time.

Why was there a null relationship between disagreeableness and power? We found support for the compensatory hypothesis. Disagreeable individuals behaved in some ways that seemed to enhance their power (i.e., dominant-aggressive behavior) but in other ways that seemed to diminish their power (i.e., communal behavior, such as generosity). These two behavior patterns offset each other's effects, leading to an overall null correlation.

These findings are important, in part, because they speak to the functionality of social hierarchies. Functionalist accounts propose that hierarchies serve groups and organizations through a "sorting" mechanism or by placing individuals at the top who

will best serve the group through their decisions and leadership, and by placing individuals at the bottom who contribute the least or have a negative impact on the group (e.g., ref. 6). Functionalist theories, thus, would suggest that disagreeable individuals should be relegated to the bottom of hierarchies, given the toxic effects they have when they are placed in power. However, our findings suggest that organizations do not distribute power this way. Instead, the null correlation we observed indicates that organizations place disagreeable individuals in powerful positions at the same rate they do agreeable individuals. Nasty individuals reach the top just as often as nice individuals.

Our studies had a number of strengths. They involved two distinct prospective longitudinal designs that each spanned ~14 y of adult development, beginning just before participants entered the workforce; they examined individuals in a wide range of industries and type of organization, which helped increase the generalizability of the results; they employed a multimethod approach using self-reports, peer ratings, and life-outcome measures, for example, and they included mediation analyses that helped explain why disagreeableness and power had a null relationship. The strong link between self- and peer-rated power was an important finding in itself. Participants' ratings of their own power related substantially to independent ratings by peers in their organization, lending trust in self-reported power.

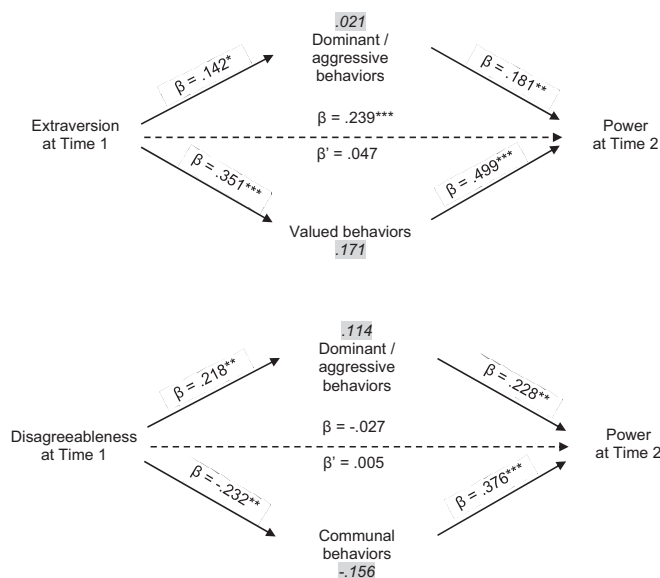
However, our studies also highlight issues that need further examination. For example, are there unique contexts in which disagreeableness does assist in the attainment of power (e.g., an organization in which social relationships matter little)? Given that we studied only samples in the United States, how might disagreeableness affect the attainment of power in different cultures? If disagreeableness does not help individuals attain power, why do so many people believe that nice guys (and gals) finish last? Given our studies focused on the attainment of power, does disagreeableness help people maintain power once they possess it? Finally, because our studies focused on a highly competent set of samples (for example, these participants were all enrolled at elite colleges), did they underestimate the impact of competence on power attainment due to a restriction of range?

Our findings help address the critical question we laid out in the Introduction: Does being a jerk help people attain power? This question often emerges when people see a CEO or politician behaving in nasty and unethical ways. However, our findings suggest that being disagreeable did not help those individuals gain their powerful position. Instead, their problematic behavior might be a product of occupying a powerful position. In other words, while the possession of power can foster disagreeable behavior (5), disagreeable behavior does not appear to help people gain power.

## Materials and Methods

### Study 1.

**Participants.** Both studies were approved by the IRB at the University of California, Berkeley; informed consent was obtained from all participants. Data and stimuli are available at the Open Science Framework (<https://osf.io/g97nz/>). We obtained email addresses of alumni through the university registrar as well as online searches (e.g., LinkedIn). Many email addresses either could not be found or were nonfunctioning, causing our outreach email to "bounce back." We were able to successfully send emails to 1,558 addresses. Of these, 506 participants completed the Time 2 survey for a response rate of 32.5%—although this rate is almost certainly an underestimate because many of the 1,558 email addresses were old and may no longer be used. Nonetheless, the response rate is higher than in similar longitudinal studies (21, 43). Consistent with our preregistered analysis plan (<https://aspredicted.org/d3ij7.pdf>), we excluded 49 participants who worked as a stay-at-home parent, were a full-time student or postdoctoral fellow, or were working in an organization with fewer than five employees (e.g., self-employed, independent contractors, etc.). This left 457 participants for our analyses. Of these, 158 were men, 297 were women, and 2 reported "other";



**Fig. 1.** In Study 2, the mediation model for the relationship between personality dimensions at Time 1 (2004 was the median year for the Time 1 assessment) and power measured 14 y later on average (in 2018). Shown are standardized  $\beta$  coefficients. Indirect effects are in italics and gray boxes. \* $P < 0.05$ ; \*\* $P < 0.01$ ; \*\*\* $P < 0.001$ .

43.3% were Caucasian, 1.3% were African-American, 8.8% were Hispanic, 38.7% were Asian-American, 2.2% were Middle Eastern, 0.9% were Pacific Islander, 0.2% were Native American, and 4.6% reported other. At Time 1, 318 of the participants were undergraduate students and 139 were MBA students. At Time 2, participants were, on average, 37.82-y old ( $SD = 5.34$ ), and over 90% of the sample was between 28- and 44-y old.

#### **Predictor variables.**

**Personality dimensions.** The means for extraversion and disagreeableness measured by the BFI were 3.294 ( $SD = 0.79$ ,  $\alpha = 0.86$ ) and 2.245 ( $SD = 0.59$ ,  $\alpha = 0.78$ ), respectively, which are highly similar to those in prior large samples (e.g., ref. 44). This lends confidence that our sample was representative of the broader population in terms of personality.

#### **Dependent variable.**

**Power.** Power in organizations can be measured with three major approaches: 1) The influence approach assesses individuals' influence over important decisions and activities in the workplace (e.g., ref. 25), 2) the managerial approach focuses on their power to evaluate, promote, or demote, and to reward or punish subordinates (45–47), and 3) the formal rank approach focuses on rank in the organizational hierarchy (e.g., refs. 48–51). To capture participants' power in a comprehensive way, we used all three measurement approaches. Key, however, was that we used reputational in addition to structural indices (27). Drawing from prior studies,<sup>†</sup> participants rated seven items about their power, such as "I have influence over important decisions" ( $\alpha = 0.90$ ) and three items about their control over subordinates, such as "I can punish or reward subordinates" ( $\alpha = 0.88$ ), on a scale from 1 ("strongly disagree") to 7 ("strongly agree"). They also reported their level in their organization's hierarchy as well as the total number of levels in their organization's hierarchy; the former was then divided by the latter to make comparable individuals' rank across different organizational sizes. All items are described in the *SI Appendix*.

**Control and moderator variables.** Participants rated items adapted from the Organizational Culture Profile (52): how aggressive, harsh, mean, criticizing, suspicious, political, selfish, and narcissistic their culture was on a seven-point scale (from 1 "extremely uncharacteristic of my organization" to 7 "extremely characteristic of my organization"). These items correlated highly with each other and were combined ( $\alpha = 0.89$ ,  $M = 2.99$ ,  $SD = 1.21$ ). Participants also reported how many years they had worked in their organization ( $M = 5.25$ ,  $SD = 3.95$ ), the size of the organization in which they worked in terms of the number of employees ( $M = 16,666.94$ ,  $SD = 50,881.38$ ), and how many organizations they had worked for in their employment history ( $M = 4.00$ ,  $SD = 2.18$ ).

For 317 of the participants who were undergraduates at Time 1, we were also able to obtain objective indicators of cognitive performance from their university's registrar—specifically, their final undergraduate GPA ( $M = 3.42$ ,  $SD = 0.35$ ). It is worth noting that these undergraduates attended a public university that admits applicants with a wide range of socioeconomic backgrounds and, thus, makes it a more representative sample than some elite private universities that primarily admit students from upper-income backgrounds. Furthermore, among students for whom we were able to obtain data from their admissions records, undergraduate GPA correlated positively with high school GPA ( $r [229] = 0.30$ ,  $P < 0.001$ ) and SAT ( $r [230] = 0.27$ ,  $P < 0.001$ ). Thus, we used college GPA as our indicator for academic/cognitive performance.

## **Study 2.**

**Participants.** Cohen, Cohen, West, and Aiken (28) recommend a sample size of 200 participants to achieve 80% statistical power if the effect size is small (e.g., if the correlation between two variables is expected to be  $r = 0.20$ ). Therefore, to detect a small effect of disagreeableness and in line with our preregistered plan (<https://aspredicted.org/96cj7.pdf>), we targeted a final sample of size of 200 participants. We sent messages to all of the email addresses we had and stopped collecting data after 214 participants had completed the Time 2 survey.

Seventy-four participants were men, 139 were women, and 1 reported other; 39.3% were Caucasian, 1.9% were African-American, 8.9% were Hispanic, 40.2% were Asian-American, 0.9% were Middle Eastern, 1.9% were Pacific Islander, and 7.0% reported other. At Time 1, 209 of the participants were undergraduate students and five were MBA students. The findings did not differ whether we included or excluded these MBA program alumni. At Time 2, participants were 38.72-y old on average ( $SD = 4.32$ ). Of the coworker raters, 69% of these coworkers were on the same

organizational level as the participant, 17% were the participant's direct report, and 14% were the participant's manager.

#### **Predictor variables.**

**Personality dimensions.** At Time 1, all participants completed the BFI. The means for extraversion and disagreeableness were 3.20 ( $SD = 0.83$ ) and 2.42 ( $SD = 0.62$ ), respectively, and coefficient  $\alpha$  reliabilities were 0.86 and 0.74.

#### **Dependent variable.**

**Power.** As in Study 1, we used the influence approach to measuring power in addition to the other approaches, but this time relied on coworkers' perceptions of influence as well as self-reported influence. Coworkers rated participants' influence over important decisions and activities in the workplace using the same seven items that we used in Study 1. We also explored whether participants' power in their local department might differ from their power in the entire organization by asking coworkers to rate these seven items in the context of the participant's local department or subunit as well as within the entire organization. Coworkers showed high interjudge agreement in rating participants' power in the department, intraclass correlation coefficients (ICC) (2) = 0.711, and entire organization, ICC (2) = 0.616. Coworkers also viewed participants' power in their department and in their organization very similarly,  $r (214) = 0.73$ ,  $P < 0.001$ .

Participants rated themselves on the same sets of items. Just like their coworkers, participants viewed their own power in their department and in the organization very similarly,  $r (214) = 0.67$ ,  $P < 0.001$ . These self-ratings also correlated highly with the aggregated peer ratings both for power in the department ( $r [214] = 0.67$ ,  $P < 0.001$ ) and power in the organization ( $r [214] = 0.55$ ,  $P < 0.001$ ). Self-ratings also did not differ from peer ratings in terms of their mean level both for power in the department ( $F [1,213] = 1.20$ ,  $P = 0.274$ ) and in the organization ( $F [1,213] = 0.42$ ,  $P = 0.518$ ). Therefore, participants' self-perceptions of power did not show evidence of self-enhancement. Accordingly, we combined self- and peer perceptions together. Note that the high correspondence between the self- and peer ratings of power helps validate the self-report measure of power used in Study 1.

As in Study 1, we also used the formal rank approach to measuring power. Participants reported their rank their organizational hierarchy. This measure, the aggregate (i.e., combined peer and self-rated) measure of participants' power in their department and the aggregate (i.e., combined peer and self-rated) measure of power in the organization correlated substantially with each other, and, thus, all three were standardized and combined ( $\alpha = 0.76$ ). However, it is worth noting that when we created a measure of power that was based solely on peer-rated power and organizational rank and that excluded self-rated power, the results replicated our findings that included the self-rated power.

#### **Mediator variables.**

**Workplace behaviors.** The items in each domain of behavior showed sufficient internal reliability: coefficient  $\alpha$  reliability estimates were all above 0.74 for coworkers' ratings and 0.69 for self-ratings. Furthermore, coworkers' ratings agreed with each other and with participant's self-ratings. When including the coworker and self-ratings, ICC (2) scores for peer and self-ratings were 0.484 for dominant-aggressive, 0.628 for political, 0.500 for communal, and 0.538 for competent. Therefore, we combined coworkers' ratings and participants' self-ratings into one aggregate measure for each of the four dimensions.

**Moderator variables.** We examined the same moderator variables as in Study 1. Participants reported how combative their organization's culture was with the same items in Study 1 ( $\alpha = 0.87$ ,  $M = 2.87$ ,  $SD = 1.19$ ), how long they had worked in their organization ( $M = 65.10$  mo,  $SD = 56.52$ ). Based on the distribution of organization sizes in Study 1, we asked participants to rate their organization's size on a scale from 1 ("5 or fewer employees") to 10 ("35,000 or more employees"). The average rating was 5.61 ( $SD = 2.89$ ), indicating an average company size of between 301 and 1,000 employees. Participants reported how many organizations they had worked for in their employment history ( $M = 4.59$ ,  $SD = 3.41$ ). Finally, university GPA was available from their university's registrar for 123 of the participants ( $M = 3.40$ ,  $SD = 0.37$ ); it again correlated with high school GPA ( $r [117] = 0.43$ ,  $P < 0.001$ ) and SAT scores ( $r [116] = 0.27$ ,  $P = 0.004$ ).

**Data Availability.** Data and stimulus materials are available in Open Science Framework: <https://osf.io/g97nz/>. The survey items used can be found in Open Science Framework: [https://osf.io/w72ga/?view\\_only=d4202220fd7845b69b4177c6ff1cdf0a](https://osf.io/w72ga/?view_only=d4202220fd7845b69b4177c6ff1cdf0a).

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<sup>†</sup>The full list of items can be found in *SI Appendix*.

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