Virtues, Vices, and Political Influence in the U.S. Senate

Leanne ten Brinke¹, Christopher C. Liu², Dacher Keltner³, and Sameer B. Srivastava¹
¹Haas School of Business, University of California, Berkeley; ²Rotman School of Management, University of Toronto; and ³Department of Psychology, University of California, Berkeley

Abstract
What qualities make a political leader more influential or less influential? Philosophers, political scientists, and psychologists have puzzled over this question, positing two opposing routes to political power—one driven by human virtues, such as courage and wisdom, and the other driven by vices, such as Machiavellianism and psychopathy. By coding nonverbal behaviors displayed in political speeches, we assessed the virtues and vices of 151 U.S. senators. We found that virtuous senators became more influential after they assumed leadership roles, whereas senators who displayed behaviors consistent with vices—particularly psychopathy—became no more influential or even less influential after they assumed leadership roles. Our results inform a long-standing debate about the role of morality and ethics in leadership and have important implications for electing effective government officials. Citizens would be wise to consider a candidate’s virtue in casting their votes, which might increase the likelihood that elected officials will have genuine concern for their constituents and simultaneously promote cooperation and progress in government.

Keywords
individual differences, social influence, organizations, open data

What is the nature of political influence? This is one of the oldest questions to be considered by social theorists, and it can be reduced to two competing hypotheses. The first, which we call the virtue hypothesis, traces back to Aristotle, who reasoned that of all the various claims to power, including nobility, wealth, and strength of numbers, the claim of virtue is the most just and desirable (Aristotle, trans. 1962). The virtuous politician, he believed, would bear in mind the interests of the entire state, rather than the interests of a privileged few. Political influence was to be found in virtuous practices such as temperance, courage, kindness, and humility, allowing the virtuous politician to lead a harmonious and productive society.

The second hypothesis, which we call the vice hypothesis, originated with Niccolo Machiavelli. Although he was prescribing advice for a different time period and distinct political system, Machiavelli offered a much different approach in his book The Prince—and this framework has been developed further in ensuing scholarship. Machiavelli suggested that political leadership requires force, fraud, manipulation, and strategic violence (Machiavelli, 1532/1961). He advised rulers to “crush” those who stood in their way, declaring that it is better to be feared than loved. Although Machiavelli conceded that it might be useful to appear virtuous, he believed that to actually be kind would be unwise.

Psychological science has recently made advances in conceptualizing and measuring virtues and vices. The Virtues in Action (Park, Peterson, & Seligman, 2004) scale measures the extent to which people are wise, courageous, just, humane, transcendent, and temperate. Research has also yielded measures of the “dark triad” (Machiavellianism, narcissism, and psychopathy; Paulhus & Williams, 2002)—constructs that have traditionally been studied in criminal populations but are increasingly

Corresponding Author:
Leanne ten Brinke, 635 Bakar Faculty Building, Haas School of Business, 2220 Piedmont Ave., Berkeley, CA 94720
E-mail: leannetenbrinke@berkeley.edu
becoming a focus in organizational settings (Babiak, Neumann, & Hare, 2010).

Virtues predict increased interpersonal trust and pro-social behaviors (Bartlett & DeSteno, 2006; Dunn & Schweitzer, 2005; McCullough, Emmons, & Tsang, 2002). For example, having a grateful disposition or experiencing momentary gratitude increases efforts to assist other people, even when it comes at a cost to the self (Bartlett & DeSteno, 2006; McCullough et al., 2002). Further, experiencing transcendent emotions (e.g., awe) predicts generosity and ethical decision making by making the self feel small and increasing the salience of collective concerns and the greater good (Piff et al., 2015).

In contrast, vices predict competitive and antisocial actions, including lying, cheating, and aggression—both in prison samples and in the general population (Hare, 2006). In economic games, Machiavellian egocentricty—the tendency to pursue one’s own interests at the expense of other peoples’ interests—is negatively correlated with initiating or reciprocating cooperation with a partner (Curry, Chesters, & Viding, 2011). And, in negotiations, people with psychopathic personalities consistently seek to maximize personal gain but are seemingly unable to compromise to achieve mutually beneficial outcomes (ten Brinke, Black, Porter, & Carney, 2015).

Self-report measures of virtues (Park et al., 2004) and vices (Paulhus & Williams, 2002) provide abstract summaries of an individual’s tendency to act in specific ways and the intentions underlying those actions. In face-to-face interactions, where so much of political influence is exerted, virtues and vices will be manifest in specific patterns of nonverbal behavior, which will in part dictate the social outcomes of the interaction (Caspi & Bem, 1990; Keltner & Kring, 1998; Scarr & McCartney, 1983). This claim is founded on two distinct theoretical traditions. The first is known as the Brunswikian lens model of individual differences (Brunswick, 1952), which holds that meaningful individual differences in personality traits (or virtues and vices) can be reliably judged by naive observers because of behavioral (verbal and nonverbal) cues associated with the underlying trait. For example, people can quickly detect how extraverted a person is through that individual’s pattern of smiling, speed of speaking, and dynamism of gesturing (Asendorpf, 1987; Funder & Sneed, 1993).

The second tradition, known as the social-functional approach, suggests that behaviors themselves (e.g., facial-muscle movements, tones of voice, patterns of gaze, and touch) are strategic manifestations of a person’s intention to systematically affect other people in the social environment (Fridlund, 1992; Keltner & Kring, 1998). For example, people who are domineering tend to show a pattern of anger in the face, voice, and posture that furthers their agenda of coercing and controlling other people (Van Kleef, De Dreu, Pietroni, & Manstead, 2006). Together, these two theoretical traditions suggest that virtues and vices will manifest themselves in systematic behaviors and that those actions may reflect the social strategies through which people seek to gain influence (see Table 1 for a brief summary of coded behaviors; the complete coding scheme appears in Table S1 in the Supplemental Material available online).

These divergent social strategies—virtue and vice—can have major consequences, particularly in organizations in which leaders are required to motivate people and coordinate the collaborative pursuit of collective goals (Anderson & Brown, 2010; Van Vugt, Hogan, & Kaiser, 2008). Recent research suggests that the upper ranks of business include a disproportionate number of smooth-talking ladder climbers who are self-serving and manipulative; however, findings also warn of the social harm they cause (Mathieu, Neumann, Hare, & Babiak, 2014). Employees who work for supervisors with psychopathic personality traits report decreased job satisfaction and psychological well-being relative to other workers (Mathieu et al., 2014). In contrast, virtuous individuals with a strong sense of responsibility to other people are reluctant to take on leadership roles, but they make honest, ethical, and capable leaders and are well liked by others (Cohen, Panter, & Turan, 2012; Schaumberg & Flynn, 2012).

Guided by Aristotle’s and Machiavelli’s competing prescriptions and the scientific study of the functions of verbal and nonverbal displays, we analyzed behaviors reliably associated with vices and virtues to assess the social strategies of a large sample of U.S. senators (Fowler, 2006a; Liu & Srivastava, 2015a). We tested these competing models of influence—the virtue-leads-to-influence hypothesis, best exemplified by Aristotle, and the vice-leads-to-influence hypothesis, most clearly associated with Machiavelli. In particular, we were interested in how these divergent social strategies engendered political influence after individuals gained power (Chen, Lee-Chai, & Bargh, 2001). Specifically, we examined how vices and virtues affected a senator’s ability to enlist colleagues as collaborative cosponsors on bills he or she originated after being elevated to the leadership role of Senate committee chair (Chown & Liu, 2015).

Method
Cases
We used the publicly available C-SPAN video library (http://www.c-spanvideo.org/videoLibrary/index.php), which includes gavel-to-gavel floor proceedings of the U.S. Senate; all speeches that take place on the Senate floor are included in the library. We considered for
inclusion all proceedings on the chamber floor, consisting of speeches in which the focal senator gave opinions and presented bills, resolutions, and motions for inclusion in the Congressional Record. Public-affairs events and congressional hearings were excluded. We identified 502 videos of all 151 U.S. senators who held office in the 101st to 105th Congresses (January 1989 through December 1998). Senators in office during these Congresses were predominantly male (141 men, 10 women) and were roughly equally Democratic (n = 73) and Republican (n = 78). One video of each senator per Congress was randomly selected for coding. The mean number of videos coded per senator was 3.35.

**Coding**

Past research has shown that video clips as brief as 30 s can provide reliable evidence of character traits; even untrained observers can accurately identify traits on the basis of available nonverbal information (Ambady & Rosenthal, 1992). Thus, we used a thin-slicing approach in which the first minute of each video was coded for evidence of virtues (wisdom, courage, justice, humanity, transcendence, and temperance) and vices (Machiavellianism, narcissism, and psychopathy). We chose the first minute of each video primarily because the content was more standardized than the content in the rest of the video. Speeches generally began with a formal request that the speech be entered into the Congressional Record, followed by a description of the bill or issue at hand. This shared script decreased the variation in content across senators but still provided latitude for interpersonal differences in verbal and nonverbal behavior to emerge. Furthermore, speeches generally went uninterrupted in the first minute, allowing us to code behavior that was unaffected by interjecting third parties. In addition, because these speeches were generally brief, we did not have to exclude any senators because of the brevity of their speeches, allowing us to code a complete sample of senators across five different Congresses.

Verbal and nonverbal signals for the six virtues and three vices were derived from a systematic review of the scientific literature describing behaviors empirically and conceptually related to each virtue or vice—a methodology informed by the Brunswikian approach to the manner in which social tendencies are manifest in behavior (see Table 1 for a brief summary of coded behaviors; the complete coding scheme appears in Table S1 in the Supplemental Material). Specifically, core constructs of each virtue or vice were identified by consulting the psychometric properties of self-report measures commonly used to measure each of the six virtues and three vices.
(Christie & Geis, 1970; Park et al., 2004; Paulhus, Neumann, & Hare, 2015; Raskin & Hall, 1979). For example, callousness has been identified as a core construct of psychopathy, and gratitude is a core construct of transcendence. Established verbal and nonverbal correlates of these constructs were then identified via a systematic review of the empirical literature; callousness is signaled by a lack of emotional facial expression, and gratitude is marked by giving thanks and bowing one’s head. Guided by a vast body of literature on trait associations with nonverbal behavior, we translated each core component of the virtue or vice to its verbal and nonverbal behavioral manifestation. We extensively trained a group of coders to detect these behaviors. The coders then used this scheme to rate the degree to which each of the six virtues and three vices was evident in the 1st minute of the speech (1 = not at all, 7 = highly). Coders were blind to hypotheses and to the number of cosponsorships on bills that the senator originated. Reliability of the ratings was established by having a second, independent coder rate a random sample of 61 of the videos (α = .70–.82; for all reliabilities, see Table S2 in the Supplemental Material).

To test our primary hypotheses, we created composite (mean) measures of virtues and vices. Reliable measures of psychological traits demonstrate temporal stability; to ascertain whether this was the case in the present study, we tested the consistency of the composite ratings of senators’ virtues and vices across the 101st to 105th Congresses. Intraclass correlation coefficients were .52 and .60 (ps < .001), for virtues and vices, respectively. According to standards set out by Fleiss (1986), this level of consistency is considered good (.40–.75) and provides support for the validity of our coding scheme, which indicates that our coding method tapped traits that remain constant over time. Consistency of individual trait ratings across Congresses ranged from .32 (wisdom) to .75 (psychopathy), all ps < .03. The consistency of wisdom may be low because it was the only trait to change (increase) linearly over time (β = 0.13, p = .003)—a finding that is consistent with the concept of wisdom and lends further evidence to the validity of our coding approach (Baltes & Staudinger, 1995).

Leadership role

In a pure contest of the virtue and vice hypotheses, one must account for an individual’s position of authority or role-based power. For example, it is possible that someone who adopts one of the strategies will be more successful (or less successful) in rising within the organization and will then enjoy different levels of influence that depend on his or her position or role within the organization. In light of this concern, our empirical strategy takes advantage of the bureaucratic mechanism that underlies power gains in the U.S. Senate. Although committee chairs are elected positions, Senate custom dictates that the person who has the longest tenure on a particular committee should be the committee chair. (The choice also depends on which party is in control of the Senate.) This custom, reminiscent of a vacancy chain, means that some individuals “in waiting” rise to power quickly, whereas others advance more slowly, depending on the departures of senior colleagues (Chase, 1991). As a consequence, it is plausible to consider a senator’s elevation to committee chair to be exogenous (quasirandom), thus allowing us to account for his or her position of authority and enabling a cleaner test of the virtue and vice hypotheses.

Political influence

For each senator, we then derived a measure of political influence based on his or her ability to successfully enlist colleagues as collaborative cosponsors on bills that he or she originated in a given Congress (Fowler, 2006b; Liu & Srivastava, 2015b). To ensure that collaborations were meaningful, rather than symbolic, we restricted our analysis to bills with fewer than five cosponsors (symbolic collaborations on bills often enlist dozens of sponsors but are not meaningful indicators of interpersonal influence; Theriault, 2013). Our outcome measure was highly correlated with the number of bills (r = .41, p < .0001) and amendments (r = .66, p < .0001) that a senator succeeded in having passed into law; these relationships are consistent with the notion that collaborative cosponsorships are reflective of political influence.

Results

Demographic differences in vices and virtues

Across the 468 observations we used for multivariate regression analysis, female senators rated higher on a standardized mean composite measure of the six virtues than did male senators (1.2 vs. −0.07; p < .001). We found no significant gender difference on a mean composite of the vices; however, it is important to note that the sample included a very small number of women (n = 10). Likewise, there were no significant differences in virtues or vices between the two main political parties, Republicans and Democrats.

Statistical approach

As we observed each individual and his or her leadership role over multiple Congresses, we used a multiple regression strategy with individual fixed effects. The individual fixed effects method allowed us to control for the time-invariant, observed and unobserved characteristics of
each individual (e.g., interpersonal style, past leadership experiences). This methodology also implicitly allowed us to control for the main effect of each individual’s social strategy: whether he or she exhibited a virtue or vice orientation. The inclusion of individual fixed effects allowed us to focus the analysis on a senator’s exogenous transition from chair-in-waiting to committee chair. It thus helped in isolating how the virtue and vice variables moderated the effects of this power shock on a senator’s subsequent level of influence. In interpreting these models, it is important to note that the main effects of virtues and vices were subsumed by the individual fixed effects and are therefore not reportable. This approach is comparable to traditional moderation analyses in which both main effects and an interaction are entered into a regression model, but it is superior because the individual fixed effects also account for the main effects of social strategies, as well as a myriad of other unobserved individual differences.

**Control variables**

As noted earlier, fixed-effects regressions already account for a significant number of time-invariant traits (e.g., interpersonal style, ethnicity) including traits that were not directly observed. However, individual fixed-effects regression models do not account for unobserved, time-varying traits. We determined that political influence was associated with tenure and tenure squared—suggesting a curvilinear relationship between time in office and political influence (see Fig. S1 in the Supplemental Material)—as well as with majority party status (see Table S3, Model 1, in the Supplemental Material). Consequently, we included these variables as controls in models used for hypothesis testing. Finally, we included a control for each time period to account for observed and unobserved idiosyncrasies of each particular Congress (i.e., fixed effects of the Congress). These controls accounted for time-specific factors such as the current President, the degree of polarization in Congress, and the composition of congressional leadership, among others.

**Effect of vices and virtues on leaders’ political influence**

Testing the interaction between social strategies and leadership status, we found that highly virtuous senators in the committee-chair role wielded more political influence than did senators with lower ratings on our composite measure of virtues (Committee Chair Roles × Virtues interaction: $b = 0.477, p < .001$). Although composite measures of vices and virtues were not highly correlated ($r = -.08, p > .10$), we also created a model in which the composite measure of vices was entered as a covariate and found that virtues continued to predict increased cosponsorship after a senator ascended to a committee-chair role (see Fig. 1; also see Table S4, Model 13, in the Supplemental Material).

![Fig. 1. Predicted change in cosponsorship rate after attainment of a leadership role, for senators low (2 SD below the mean), moderate (mean), and high (2 SD above the mean) in each of the assessed virtues, as well as the composite measure of virtue. The graph shows the marginal effect of becoming a committee chair on cosponsorship rate with all covariates set to their mean values.](image)
Specifically, greater courage, humanity, and justice were all independently associated with greater political influence when senators assumed a committee-chair role (\(b = 0.355, 0.377, 0.330, ps < .001\), respectively). Likewise, interactions between committee-chair role and the virtues of transcendence and wisdom were positive, although marginally significant (see Table S3 in Supplemental Material).

There was no evidence, however, that vices enabled senators to exert more influence after they gained a leadership role than before (see Table S4 in Supplemental Material). Overall, composite ratings of vices were unrelated to cosponsorship (Committee Chair Role \(\times\) Vices interaction: \(b = -0.211, p > .05\)), although psychopathy interacted with committee-chair role to negatively predict cosponsorship (\(b = -0.215, p < .05\); see Fig. 2). In other words, contrary to Machiavelli’s advice, a self-serving social strategy was not associated with greater political influence and, in the case of psychopathy, was associated with decreased political influence on ascending to a leadership role.

Discussion

The findings from the present investigation shed fresh empirical light on the long-standing philosophical and theoretical debate about the role of morality and ethics in leadership (Aristotle, trans. 1962; Machiavelli, 1532/1961). Senators who exhibited signs of being virtuous became more influential when they were appointed to leadership roles, which is consistent with Aristotle’s thesis. Expressing empathy and concern for others, being concerned with issues of justice and fairness, and communicating fearless courage all led independently to increased success in enlisting fellow senators as collaborative cosponsors on bills originated by a given senator. The pattern of our findings suggests that the efficacy of particular virtues may be context-specific. In particular, courage, humanity, and justice are all necessary when a person acts in the interest of other people and may be especially relevant for the success of politicians.

Machiavellian approaches to leadership, in contrast, had no effect on senators’ political influence or were even counterproductive. These findings suggest that senators who exhibited signs of using manipulative, deceitful, or forceful strategies to assert political influence were generally unsuccessful. Senators who displayed a lack of empathy and a competitive orientation toward other people (i.e., psychopathic traits), in particular, were unlikely to garner support from their peers after they became leaders. In sum, our results suggest that leaders who are more likely to act in the interest of others are more likely to receive cooperation from their colleagues, whereas those who are more likely to act in self-interest and in opposition to others are least likely to receive support.

These regression findings held for politicians of both genders and both political parties across 10 years of U.S. Congresses, which varied in terms of which party was in control. Our findings also converge with other, similarly focused studies: Past research has found that U.S. presidents who exhibited interpersonal affective deficits related...
to psychopathy were less likely to initiate new legislation and programs. The present findings suggest that this may be due in part to their inability to enlist support from other people (Lilienfeld et al., 2012).

An alternate causal mechanism for these findings might draw on the psychological effects of experiencing power (Keltner, Gruenfeld, & Anderson, 2003). That is, the increased feelings of power experienced when a senator is promoted to a leadership role may affect the extent to which he or she engages in virtuous or vicious behavior and ultimately increase or decrease political influence. However, the consistency of our vice and virtue coding over five Congresses—during which time senators experienced the power shock of ascending to a leadership position—suggests that these behavioral traits are stable and represent a truly consistent social strategy rather than a transient behavior profile.

Although the present findings lend support to the Aristotelian approach to political leadership, it is important to bear in mind the particulars of the context studied—U.S. politics in a specific historical era. We cannot rule out the possibility that, in other contexts or during other historical periods, more Machiavellian approaches to influence may yield better outcomes. Specifically, we conjecture that more Machiavellian strategies of influence—for example, manipulation, deception, and the strategic use of force—might prevail in less democratic, more violent, and less scrutinized political contexts.

Our findings suggest that citizens would be wise to weigh a candidate's virtue among the factors that guide their voting behavior. Voting for a virtuous candidate increases not only the likelihood that legislators will have genuine concern for other people but also the chances that he or she will cooperate effectively in promoting democratic aims.

**Author Contributions**

All authors contributed equally to the study design. L. ten Brinke and D. Keltner created the coding scheme and organized the coding effort. C. C. Liu and S. B. Srivastava conducted the data analyses and created the regression tables. All authors contributed to the data interpretation. L. ten Brinke and D. Keltner wrote a first draft of the manuscript, and C. C. Liu and S. B. Srivastava provided critical revisions.

**Declaration of Conflicting Interests**

The authors declared that they had no conflicts of interest with respect to their authorship or the publication of this article.

**Funding**

This work was supported by funds from the Greater Good Science Center at the University of California, Berkeley (to L. ten Brinke) and the Social Sciences and Humanities Research Council of Canada (to L. ten Brinke).

---

### Supplemental Material

Additional supporting information can be found at http://pss.sagepub.com/content/by/supplemental-data

### Open Practices

All data have been made publicly available via Open Science Framework and can be accessed at https://osf.io/6d3ry/. The complete Open Practices Disclosure for this article can be found at http://pss.sagepub.com/content/by/supplemental-data. This article has received the badge for Open Data. More information about the Open Practices badges can be found at https://osf.io/tvxyz/wiki/1.%20View%20the%20Badges/ and http://pss.sagepub.com/content/25/1/3.full.

### Notes

1. We conducted supplemental analyses to assess the robustness of the main results (as presented in Table S4, Model 13) to alternative cutoffs for the number of cosponsors per bill. The Committee Chair Role × Virtues (Composite) interaction term remained positive and significant when we chose cutoffs of 3, 5, 9, and 11, and marginally significant ($p = .056$) when we chose a cutoff of 7. At cutoffs of 12 and beyond, the noise from symbolic cosponsorships appeared to swamp the signal of influence, and the interaction term was no longer significant.

2. Comparable results (not reported) were obtained when we estimated models using cosponsorships from senators of the same party and cosponsorships from senators of the other party in separate models.

3. Although 502 observations were coded, only 468 were included in subsequent analyses. Senators who served in only one of the coded Congresses could not be analyzed because multiple observations for each individual were necessary to conduct the multivariate regression analyses reported.

4. Fixed-effects and linear mixed-effects models are two of the most common approaches to analyzing data on individuals who are observed over multiple time periods. The main advantage of the former is that they account for time-invariant unobserved heterogeneity and therefore tend to produce less biased estimates; however, they may also be subject to high sample dependence. Conversely, linear mixed-effects models reduce the variance of those estimates. In other words, these models strike different tradeoffs between bias and sample-to-sample variability.

On balance, we believe that models with individual fixed effects are better suited to our empirical context, data structure, and theoretical aims. This approach helped to mitigate the threat of bias from various unobserved variables that could also affect a senator's ability to exert influence. In addition, these within-individual models examined how influential a focal individual becomes after the shock of increased power associated with a committee-chair role. We believed that this modeling approach was a better match to our theory, which concerns how the virtues and vices moderate the effects of power on a leader's subsequent influence. Nevertheless, Table S5 in the Supplemental Material demonstrates that comparable results...
were obtained when we estimated linear mixed-effects models instead of models with individual fixed effects.

References


