


# The Double-Edged Sword of Grandiose Narcissism: Implications for Successful and Unsuccessful Leadership Among U.S. Presidents

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## Abstract

Recent research and theorizing suggest that narcissism may predict both positive and negative leadership behaviors. We tested this hypothesis with data on the 42 U.S. presidents up to and including George W. Bush, using (a) expert-derived narcissism estimates, (b) independent historical surveys of presidential performance, and (c) largely or entirely objective indicators of presidential performance. Grandiose, but not vulnerable, narcissism was associated with superior overall greatness in an aggregate poll; it was also positively associated with public persuasiveness, crisis management, agenda setting, and allied behaviors, and with several objective indicators of performance, such as winning the popular vote and initiating legislation. Nevertheless, grandiose narcissism was also associated with several negative outcomes, including congressional impeachment resolutions and unethical behaviors. We found that presidents exhibit elevated levels of grandiose narcissism compared with the general population, and that presidents' grandiose narcissism has been rising over time. Our findings suggest that grandiose narcissism may be a double-edged sword in the leadership domain.

## Keywords

narcissism, leadership, political, presidents, personality, personality disorders

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Recent research and theorizing suggest that narcissism may predict both positive and negative leadership outcomes, a duality termed the “bright side/dark side” phenomenon (Hogan & Hogan, 2001). Examples of leaders widely regarded as displaying prominent narcissistic traits range from the largely positive (e.g., Alexander the Great, George S. Patton; Brown, 2005) to the unquestionably malignant (e.g., Benito Mussolini, Muammar Gaddafi; Glad, 2002; Horowitz & Arthur, 1988).

On the bright side, narcissistic individuals tend to become leaders in new groups (Brunell et al., 2008) and to excel in job interviews (Paulhus, Westlake, Calvez, & Harms, in press) and other brief social interactions (Küfner, Nestler, & Back, 2013). They perform especially well when others evaluate them (Wallace & Baumeister,

2002). Narcissistic people may also be adept at becoming celebrities; the narcissism scores of reality-television stars—who arguably acquire fame without having obvious talent—are elevated (Young & Pinsky, 2006). Moreover, narcissistic individuals are skilled at selling their ideas as innovative even when they are not (Goncalo, Flynn, & Kim, 2010).

On the dark side, narcissism is linked to overconfident decision making, deceit, and failure to learn from mistakes (Campbell, Goodie, & Foster, 2004). In addition,

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narcissism is tied to placing the needs of the self before long-term organizational needs (Campbell, Bush, Brunell, & Shelton, 2005). Narcissism is also associated with counterproductive work behavior and poor ethics (Blair, Hoffman, & Helland, 2006; O'Boyle, Forsyth, Banks, & McDaniel, 2012).

The research we have just cited is based on narcissism broadly construed. Nevertheless, studies increasingly support the existence of two subdimensions of narcissism: grandiose and vulnerable (Miller & Campbell, 2008; Pincus et al., 2009; Wink, 1991). The former is associated with a flamboyant and interpersonally dominant style, and the latter with an emotionally fragile and socially withdrawn style. The diagnosis of narcissistic personality disorder (NPD) in the *Diagnostic and Statistical Manual of Mental Disorders* (American Psychiatric Association, 2000, 2013) appears to be a blend of grandiose and vulnerable narcissism, albeit with a greater emphasis on the former.

Although both subdimensions are marked by interpersonal antagonism, they manifest different relations with criterion measures, including traits from the five-factor model (FFM) of personality. Both are negatively related to agreeableness, but they display divergent relations with neuroticism (grandiose: negative; vulnerable: positive) and extraversion (grandiose: positive; vulnerable: negative). Grandiose narcissism correlates positively with self-esteem and negatively with distress (Miller et al., 2010). In contrast, vulnerable narcissism correlates negatively with self-esteem and positively with suicidal ideation (Pincus et al., 2009) and internalizing symptoms (Russ, Shedler, Bradley, & Westen, 2008).

In the present study, we examined the implications of narcissistic traits for performance of the U.S. presidents. Researchers have found that certain traits, such as extraversion and conscientiousness, are related to presidential job performance (Rubenzer, Faschingbauer, & Ones, 2000; Simonton, 1987). In the only study to examine narcissism's relations with presidential leadership, Deluga (1997) found that historian-rated narcissism was positively associated with independently rated charismatic leadership, overall performance, and creativity among U.S. presidents. Nevertheless, Deluga relied on the Narcissistic Personality Inventory (NPI; Raskin & Terry, 1988), which predominantly measures grandiose narcissism (Cain, Pincus, & Ansell, 2008). Additionally, his findings are limited by a lack of information on negative outcomes (e.g., unethical behaviors).

The U.S. presidents are an ideal subject for research on the implications of narcissism for leadership. They are intensively studied, so experts' personality ratings can be based on detailed historical information. Also, because they are public figures, it is possible to test hypotheses using objective historical indicators (e.g., reelection success, impeachment resolutions).

Taking our cue from the bright side/dark side distinction, we hypothesized that narcissistic traits, especially grandiose narcissism, would be associated with both positive and negative presidential outcomes. Specifically, we predicted that grandiose narcissism (and, to a lesser extent, NPD features) would correlate positively with indices of both superior presidential performance, such as overall leadership and interpersonal persuasiveness, and certain negative outcomes, such as scandals and unethical behaviors. In contrast, we predicted that vulnerable narcissism would correlate negatively with presidential performance across the board. In incremental-validity analyses, we examined the predictive power of narcissism above and beyond the contributions of fearless dominance, intellectual brilliance, and need for power, all of which predict presidential success (Lilienfeld et al., 2012; Simonton, 1987; Winter, 1987). In secondary analyses, we examined whether presidents are (a) more narcissistic than are individuals in the general population (see also Hill & Yousey, 1998) and (b) becoming more narcissistic over time, which would potentially be consistent with reports of a secular increase in narcissism (Twenge, Konrath, Foster, Campbell, & Bushman, 2008).

## Method

We drew upon a data set that was part of a broader investigation of personality correlates of leadership in U.S. presidents (Rubenzer & Faschingbauer, 2004; Rubenzer et al., 2000). For that study, 121 expert raters evaluated the personality of the 41 U.S. presidents up to and including William Clinton. In addition, we included ratings of George W. Bush from a previous study, for which the last two authors of the present article had evaluated Bush on the basis of presidential biographies. Because some experts rated more than 1 president, the total number of ratings was 177. The experts were American scholars who had published at least one biography on a president or had been nominated as especially well informed regarding a given president. The number of raters per president ranged from 1 to 13, with a mean of 4.2 ( $SD = 2.9$ ).

Raters completed a 596-item questionnaire evaluating the personality and behavior of their president or presidents of focus; this questionnaire contained the Revised NEO Personality Inventory (NEO PI-R; Costa & McCrae, 1992); items assessing presidential character, including unethical behavior; and other items not analyzed here. Each president's personality was rated for the 5 years prior to his assuming office, to minimize criterion contamination with outcome variables.

In this study (see also Lilienfeld et al., 2012), we expanded on Rubenzer and Faschingbauer's (2004) data set by incorporating (a) data from several more recent presidential performance polls, (b) largely or entirely

objective historical indicators, and (c) FFM estimates of grandiose and vulnerable narcissism (not examined by Lilienfeld et al., 2012).

## Measures

**FFM-derived estimates of narcissism.** Our estimates of narcissism were based on ratings from the NEO PI-R, a 240-item Likert-type questionnaire that assesses the FFM personality dimensions (neuroticism, extraversion, openness to experience, agreeableness, and conscientiousness; Costa & McCrae, 1992); each is assessed with six facet scales. The presidential experts completed Form R, an observer-report version of the NEO PI-R. In this sample, internal consistencies (Cronbach's alphas) of the five domain scales ranged from .91 to .94.

To assess NPD features in the 42 presidents, we used Lynam and Widiger's (2001) FFM prototype for this disorder. Lynam and Widiger created a prototype for each of the 10 personality disorders in the fourth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (American Psychiatric Association, 2000) by asking experts to rate its prototypical expression on the 30 NEO PI-R facets, using a scale from 1 to 5. Any facet with a mean lower than 2 or higher than 4 was included in a disorder's prototype. These means were unit weighted and summed (Miller, Bagby, Pilkonis, Reynolds, & Lynam, 2005). In this sample, the average pairwise correlation for NPD estimates across presidential raters, estimated using generalized estimating equations (GEEs), was .53. The correlations were within the range typically reported for interobserver agreement in personality ratings (Connelly & Ones, 2010).

To derive estimates of grandiose and vulnerable narcissism, we used NEO PI-R facets that had an average correlation of .3 or above with either dimension in a meta-analysis by Campbell and Miller (2013). To be consistent with Lynam and Widiger's (2001) prototype approach, we unit-weighted and summed scores for these facets to create a score for each president on each dimension.<sup>1</sup> Grandiose narcissism comprises facets of extraversion (e.g., assertiveness) and reversed agreeableness (e.g., modesty). Vulnerable narcissism comprises facets of neuroticism (e.g., self-consciousness) and one reversed facet of agreeableness (i.e., trust). The average pairwise correlation across raters (estimated using GEEs) was .68 for grandiose narcissism and .33 for vulnerable narcissism. As in past research (Miller et al., 2011), the correlation between grandiose and vulnerable narcissism was low,  $r = .12$ , n.s. Grandiose and vulnerable narcissism were both significantly correlated with NPD scores,  $r = .84$ ,  $p < .001$ , and  $r = .40$ ,  $p < .001$ , respectively.

**Presidential performance surveys.** We examined a composite measure of presidential greatness derived

from Simonton (2007). This measure, which we refer to as the Simonton Survey composite, is a sum of standardized (z-scored) results from 12 surveys of overall presidential performance. Independent surveys of presidential performance typically intercorrelate at a level of .9 or above (Simonton, 2006).

To assess more specific presidential performance outcomes, we used data from a 2009 C-SPAN poll of 64 U.S. historians who rated the presidents on 10 dimensions: overall job performance, public persuasiveness, crisis management, moral authority, economic management, international relations, administrative skill, congressional relations, setting of an agenda, and pursuit of equal justice (C-SPAN.org, 2013). Pairwise  $r$ s across these dimensions ranged from .46 to .96, all  $p$ s  $< .001$ . Sixty-two of these 64 historians were independent of those who rated the presidents on the NEO PI-R and other items.

Finally, for a third indicator, we examined the results from the 2010 Siena College Poll (Siena College, 2010), in which 238 historians ranked the presidents on 20 dimensions (e.g., overall ability, integrity, willingness to take risks, avoiding crucial mistakes; we do not report results for 5 of these dimensions because they are not relevant to the focus of this article). Pairwise Spearman rank correlation coefficients across these dimensions ranged from .18 to .97, all  $p$ s  $< .05$ .

**Largely or entirely objective measures of presidents' job performance.** We expanded upon Rubenzer and Faschingbauer's (2004) data set by examining scores on a regression-derived formula developed by Simonton (1987) to predict presidential greatness. This formula, the *Simonton equation*, consists of a weighted sum of six largely or entirely objective historical indicators: number of years served, number of war years as president,<sup>2</sup> war heroism prior to becoming president, intellectual brilliance, scandals in office (i.e., whether the president or cabinet-level officials engaged in illegal actions, either political or sexual; coded negatively), and being the victim of an assassination.<sup>3</sup>

In addition, we examined 11 other indicators. Seven of these variables were coded dichotomously and derived from the publicly available historical record: reelected (Kenney & Rice, 1988), won the popular vote (Wooley & Peters, 1999–2013), defeated for reelection after a single or partial term (Merry, 2012), did not run again after a single or partial term (Merry, 2012), was the subject of one or more congressional impeachment resolutions (Perkins, 2003), faced impeachment proceedings, and faced scandals in office (Simonton, 1987, 2013). The other 4 were rated on a scale from 1 to 9 by the same experts who evaluated presidents on the NEO PI-R and therefore are not strictly independent of the NEO PI-R ratings from which we derived narcissism estimates: initiated new legislation and programs, was power oriented,

was viewed by others as a world figure, and placed political success over effective policy,

Finally, we examined six largely objective indicators of unethical behavior coded by the same expert raters. On a scale from 1 to 9, the raters indicated whether the presidents abused positions of power, tolerated unethical behavior in subordinates, stole, bent or broke rules, cheated on taxes, and had extramarital affairs. The six variables were moderately to highly correlated and aggregated into an unethical-behavior scale ( $\alpha = .74$ ).

### Covariates

**Estimates of fearless dominance.** Lilienfeld et al. (2012) examined fearless dominance (boldness) and its relations to indicators of presidential success. In the Psychopathic Personality Inventory-Revised (PPI-R; Lilienfeld & Widows, 2005), fearless dominance is a constellation of traits (e.g., fearlessness, social potency) that some researchers believe reflects the largely adaptive features of psychopathy (cf. Miller & Lynam, 2012). In this data set, fearless dominance displayed significant partial correlations (controlling for number of raters per president) with grandiose narcissism (.65,  $p < .001$ ), vulnerable narcissism ( $-.52$ ,  $p < .001$ ), and NPD features (.39,  $p < .001$ ).<sup>4</sup> To estimate PPI-R fearless dominance, we used a regression-based formula developed by Ross, Benning, Patrick, Thompson, and Thurston (2009), which use the 30 NEO PI-R facets. Ross et al. found that this formula, after cross-validation in fresh samples, accounted for 68% of the variance in fearless-dominance scores. The average pairwise correlation for fearless dominance across presidential raters, obtained using GEEs, was .56.

**Intellectual brilliance.** Simonton (2000) derived an estimate of intellectual brilliance for each president from a factor analysis of the Gough Adjective Checklist (Gough & Heilbrun, 1965), which was completed by independent raters on the basis of historical information. Ratings on this measure, which includes adjectives such as *intelligent* and *wise*, correlated highly with estimates of presidents' intelligence derived from biographical information (Simonton, 2006).

**Rated need for power.** Ratings of the presidents' need for power were derived from Winter (1987), who examined presidents' inaugural addresses before 1981 (i.e., more recent presidents were not included in our analyses involving this variable). Two raters coded these speeches for several categories of power imagery; their agreement was high,  $r = .85$ . Disagreements between raters were deliberated upon until resolved. Raw scores indicate the number of power images per 1,000 words.

### Analyses

To account for nesting of expert raters within presidents and for the differential number of raters per president, we analyzed associations between narcissism and presidential performance using GEEs treating the data as nested, with president as a subject variable and rater as a within-subjects variable. Each narcissism variable (NPD, grandiose narcissism, and vulnerable narcissism) was entered separately as a predictor; for incremental-validity analyses designed to ascertain the contribution of narcissism above and beyond the covariates, each narcissism variable was entered in conjunction with each covariate, and its incremental contribution was ascertained using the GEE Type III sum of squares.

### Results

#### Associations between narcissism and presidential performance ratings

Table 1 displays the associations between narcissism variables, on one hand, and the Simonton Survey composite and C-SPAN presidential performance ratings, on the other. Effect sizes are reported as  $R^2$  ratios, computed as Wald's  $\chi^2$  divided by the total number of ratings (see Rosenthal, 1991). Grandiose narcissism was significantly and positively associated with the Simonton Survey composite and with C-SPAN ratings of public persuasiveness, crisis management, and agenda setting. In contrast, vulnerable narcissism and NPD features were not significantly associated with the Simonton Survey composite or any C-SPAN ratings.

Findings for Siena College Poll rankings generally corroborated those for the C-SPAN poll (see Table 2). Grandiose narcissism was significantly and positively related to Siena rankings for leadership ability, willingness to take risks, and imagination. In contrast, vulnerable narcissism did not exhibit a significant positive association with any Siena variables, although it was negatively related to avoiding crucial mistakes and competence. NPD features were not significantly associated with Siena indices of presidential performance, with the exception of willingness to take risks.<sup>5</sup> (See Table S1 in the Supplemental Material available online for findings on two other presidential surveys.)

#### Associations between narcissism and largely or entirely objective indicators

Grandiose narcissism was significantly and positively associated with the Simonton equation, winning the popular vote, initiating new legislation and programs, and being power oriented (see Table 3). Grandiose narcissism was

**Table 1.** Associations of Narcissism With the Simonton Survey Composite and C-SPAN Poll Variables

Predictor	Grandiose narcissism			Vulnerable narcissism			Narcissistic personality disorder		
	Wald $\chi^2$	<i>p</i>	<i>R</i> <sup>2</sup>	Wald $\chi^2$	<i>p</i>	<i>R</i> <sup>2</sup>	Wald $\chi^2$	<i>p</i>	<i>R</i> <sup>2</sup>
Simonton Survey composite	4.729* (+)	.030	2.7%	0.064	.801	0.0%	1.426	.232	0.8%
C-SPAN overall rank	2.816 (–)	.093	1.6%	0.606	.436	0.3%	0.064	.800	0.0%
C-SPAN overall performance	2.161	.142	1.2%	0.912	.340	0.5%	0.011	.916	0.0%
C-SPAN public persuasiveness	4.707* (+)	.030	2.7%	1.328	.249	0.8%	0.641	.423	0.4%
C-SPAN crisis management	4.307* (+)	.038	2.4%	1.137	.286	0.6%	0.164	.686	0.1%
C-SPAN moral authority	0.001	.975	0.0%	2.159	.142	1.2%	1.159	.282	0.7%
C-SPAN economic management	2.174	.140	1.2%	0.000	.989	0.0%	0.187	.665	0.1%
C-SPAN international relations	1.023	.312	0.6%	0.126	.723	0.1%	0.006	.941	0.0%
C-SPAN agenda setting	5.268* (+)	.022	3.0%	0.199	.655	0.1%	1.284	.257	0.7%
C-SPAN administrative skill	1.112	.292	0.6%	0.069	.793	0.0%	0.002	.963	0.0%
C-SPAN pursuit of equal justice	2.264	.132	1.3%	0.199	.656	0.1%	0.203	.652	0.1%
C-SPAN congressional relations	0.779	.377	0.4%	0.887	.346	0.5%	0.080	.777	0.0%

Note: The direction of the association ( $\pm$ ) is indicated in parentheses for results with *p* less than .1.

\**p* < .05.

not significantly positively correlated with reelection or being viewed as a world figure. It was, however, related to several negative indicators: having impeachment resolutions raised in Congress, facing impeachment proceedings, placing political success over effective policy, and behaving unethically; additionally, one-term or partial-term presidents with higher grandiose narcissism scores were significantly more likely to be defeated for reelection.

Vulnerable narcissism was not significantly related to any indicators of positive performance (Table 3). In contrast, it was positively related to several indicators of negative performance: facing impeachment proceedings, placing political success over effective policy, and behaving unethically. It was also negatively associated with being viewed as a world figure, and positively associated with power orientation.

NPD features were unrelated to objective indicators of positive performance, with the exception of winning the popular vote (Table 3). NPD features were also related to numerous indicators of negative performance: having impeachment resolutions brought up in Congress, facing impeachment proceedings, placing political success over effective policy, and behaving unethically. No narcissism measure was significantly related to the scandal variable.

### **Incremental-validity analyses**

Given that most of our positive findings pertained to grandiose narcissism, we focused our incremental-validity analyses on this dimension, examining all dependent measures for which grandiose narcissism had previously

been at least a marginally significant predictor (*p* < .01). After we controlled for fearless dominance, the relations between grandiose narcissism and the presidential survey variables became nonsignificant, with the exception of willingness to take risks and imagination, from the Siena College Poll. Nevertheless, even after we controlled for fearless dominance, grandiose narcissism remained a significant predictor of winning the popular vote, having impeachment resolutions raised in Congress, facing impeachment proceedings, placing political success over effective policy, being power oriented, and behaving unethically.

Grandiose narcissism remained a significant predictor of Siena willingness to take risks when we controlled for intellectual brilliance; all other previous associations between grandiose narcissism and presidential survey variables became nonsignificant. Numerous objective indicators of presidential performance remained significant when we controlled for intellectual brilliance: winning the popular vote, having impeachment resolutions raised in Congress, facing impeachment proceedings, initiating new legislation, being power oriented, being defeated for reelection after a single or partial term, and behaving unethically.

When we controlled for need for power, the relations between grandiose narcissism and the Simonton Survey composite was reduced to marginal significance (*p* = .051); grandiose narcissism remained a significant predictor of all previously significant or marginally significant presidential survey variables except for executive ability and overall ability in the Siena College Poll. Numerous objective outcomes remained significantly associated

**Table 2.** Associations of Narcissism With Siena College Poll Variables

Predictor	Grandiose narcissism			Vulnerable narcissism			Narcissistic personality disorder		
	Wald $\chi^2$	<i>p</i>	<i>R</i> <sup>2</sup>	Wald $\chi^2$	<i>p</i>	<i>R</i> <sup>2</sup>	Wald $\chi^2$	<i>p</i>	<i>R</i> <sup>2</sup>
Overall ranking	1.391	.238	0.8%	0.133	.715	0.1%	0.049	.825	0.0%
Overall ability	2.770 (+)	.096	1.6%	0.344	.558	0.2%	0.978	.323	0.6%
Leadership ability	3.841 (+)	.050	2.2%	0.561	.454	0.3%	0.552	.458	0.3%
Party leadership	3.487 (+)	.062	2.0%	0.031	.859	0.0%	0.890	.345	0.5%
Integrity	2.164	.141	1.2%	0.428	.513	0.2%	2.410	.121	1.4%
Executive ability	2.771 (+)	.096	1.6%	0.039	.843	0.0%	0.663	.415	0.4%
Communication ability	3.267 (+)	.071	1.8%	0.181	.670	0.1%	0.636	.425	0.4%
Domestic accomplishments	2.222	.136	1.3%	0.242	.623	0.1%	0.390	.532	0.2%
Foreign-policy accomplishments	0.080	.777	0.0%	0.165	.685	0.1%	0.099	.753	0.1%
Handling of economy	2.409	.121	1.4%	0.129	.720	0.1%	0.653	.419	0.4%
Relationship with Congress	0.674	.412	0.4%	1.001	.371	0.6%	0.045	.832	0.0%
Willingness to take risks	8.005** (+)	.005	4.5%	0.150	.698	0.1%	4.538* (+)	.033	2.6%
Avoiding crucial mistakes	0.324	.569	0.2%	3.241 (-)	.072	1.8%	1.642	.200	0.9%
Competence	0.026	.872	0.0%	3.991* (-)	.046	2.3%	1.883	.170	1.1%
Imagination	4.441* (+)	.035	2.5%	0.165	.685	0.1%	2.197	.138	1.2%

Note: The direction of the association ( $\pm$ ) is indicated in parentheses for results with *p* less than .1.

\**p* < .05. \*\**p* < .01.

with grandiose narcissism after we controlled for need for power: winning the popular vote, facing impeachment proceedings, initiating new legislation, being power

oriented, being defeated for reelection after a single or partial term, and behaving unethically. The relationship between grandiose narcissism and the Simonton

**Table 3.** Associations of Narcissism With Objective Indicators of Presidential Behavior

Predictor	Grandiose narcissism			Vulnerable narcissism			Narcissistic personality disorder		
	Wald $\chi^2$	<i>p</i>	<i>R</i> <sup>2</sup>	Wald $\chi^2$	<i>p</i>	<i>R</i> <sup>2</sup>	Wald $\chi^2$	<i>p</i>	<i>R</i> <sup>2</sup>
Simonton equation	4.139* (+)	.042	2.3%	0.070	.792	0.0%	1.062	.303	0.6%
Reelection	0.000	.996	0.0%	0.838	.360	0.5%	0.353	.552	0.2%
Popular vote	7.373** (+)	.007	4.2%	0.070	.791	0.0%	4.211* (+)	.040	2.4%
Impeachment resolutions	4.004* (+)	.045	2.3%	2.063	.151	0.1%	5.238* (+)	.022	3.0%
Impeachment proceedings	40.400*** (+)	< .001	22.8%	3.206 (+)	.073	1.8%	36.802*** (+)	< .001	20.8%
Initiated new legislation and programs	5.370* (+)	.020	3.0%	0.428	.513	0.2%	2.059	.151	1.2%
Placed political success over effective policy	3.029 (+)	.082	1.7%	5.222* (+)	.022	3.0%	6.307* (+)	.012	3.6%
Power orientation	10.449** (+)	.001	5.9%	3.304 (+)	.069	1.9%	8.718** (+)	.003	4.9%
Viewed by others as a world figure	.000	.985	0.0%	2.745 (-)	.098	1.6%	1.795	.180	1.0%
Scandal	0.272	.602	1.5%	0.000	.998	0.0%	0.316	.574	0.2%
Defeated for reelection after single or partial term	6.511* (+)	.011	3.7%	1.245	.265	0.7%	1.034	.309	0.6%
Did not run again after single or partial term	2.552	.110	1.4%	0.013	.911	0.0%	0.366	.545	0.2%
Unethical behavior	20.005** (+)	.001	11.3%	33.328*** (+)	< .001	18.8%	45.003*** (+)	< .001	25.4%

Note: The direction of the association ( $\pm$ ) is indicated in parentheses for results with *p* less than .1.

\**p* < .05. \*\**p* < .01. \*\*\**p* < .001.

equation was marginally significant ( $p = .055$ ) after we controlled for need for power. (For more detailed results of the incremental-validity analyses controlling for intellectual brilliance, need for power, and fearless dominance see Tables S3, S5, and S7 in the Supplemental Material.)

### **Individual presidents' scores on narcissism dimensions**

Table 4 displays all 42 presidents' scores on each measure of narcissism (in  $z$ -score units, to facilitate comparisons), ranked from highest to lowest. Although any

**Table 4.** Presidential Rankings on the Three Narcissism Indices

Narcissistic personality disorder	Grandiose narcissism	Vulnerable narcissism
L. B. Johnson (1.656)	L. B. Johnson (1.652)	A. Johnson (2.020)
Nixon (1.629)	T. Roosevelt (1.641)	J. Q. Adams (1.674)
Jackson (1.548)	Jackson (1.311)	Nixon (1.658)
A. Johnson (1.121)	F. D. Roosevelt (0.952)	J. Adams (1.567)
Arthur (1.068)	Kennedy (0.890)	L. B. Johnson (1.496)
J. Adams (1.039)	Nixon (0.864)	Arthur (0.981)
T. Roosevelt (1.007)	Clinton (0.730)	Polk (0.783)
Kennedy (0.652)	Arthur (0.635)	Taft (0.735)
G. W. Bush (0.529)	A. Johnson (0.556)	Jackson (0.698)
F. D. Roosevelt (0.520)	Wilson (0.542)	Coolidge (0.573)
J. Q. Adams (0.489)	G. W. Bush (0.489)	Clinton (0.474)
Clinton (0.449)	Tyler (0.277)	Hoover (0.340)
Polk (0.316)	Taylor (0.238)	Pierce (0.189)
Tyler (0.300)	Van Buren (0.105)	B. Harrison (0.115)
Van Buren (0.159)	Reagan (0.085)	Buchanan (0.016)
Reagan (0.113)	W. H. Harrison (-0.001)	Lincoln (0.004)
Wilson (0.045)	J. Adams (-0.057)	G. W. Bush (-0.046)
Buchanan (0.018)	Truman (-0.154)	Garfield (-0.077)
Taylor (0.006)	Washington (-0.212)	Truman (-0.106)
Hoover (-0.001)	Carter (-0.220)	Jefferson (-0.180)
W. H. Harrison (-0.038)	Eisenhower (-0.240)	Kennedy (-0.184)
Washington (-0.089)	Polk (-0.293)	W. H. Harrison (-0.188)
B. Harrison (-0.350)	Hoover (-0.299)	Cleveland (-0.225)
Eisenhower (-0.379)	Harding (-0.313)	Wilson (-0.256)
Coolidge (-0.415)	Buchanan (-0.385)	Van Buren (-0.281)
Harding (-0.467)	G. H. W. Bush (-0.399)	Harding (-0.281)
Jefferson (-0.483)	J. Q. Adams (-0.425)	Tyler (-0.331)
Truman (-0.516)	B. Harrison (-0.478)	McKinley (-0.355)
Carter (-0.580)	Pierce (-0.478)	Washington (-0.364)
Ford (-0.588)	Jefferson (-0.481)	Madison (-0.368)
Taft (-0.802)	Ford (-0.492)	Carter (-0.403)
Pierce (-0.836)	Lincoln (-0.495)	T. Roosevelt (-0.403)
Garfield (-0.843)	Garfield (-0.637)	G. H. W. Bush (-0.467)
Madison (-0.926)	McKinley (-0.717)	F. D. Roosevelt (-0.549)
G. H. W. Bush (-0.952)	Hayes (-0.995)	Monroe (-0.578)
Hayes (-0.997)	Madison (-1.088)	Grant (-0.623)
Cleveland (-1.130)	Taft (-1.114)	Eisenhower (-0.776)
Lincoln (-1.143)	Coolidge (-1.126)	Fillmore (-0.900)
Fillmore (-1.166)	Grant (-1.139)	Ford (-0.986)
Grant (-1.197)	Cleveland (-1.234)	Reagan (-1.234)
McKinley (-1.330)	Monroe (-1.340)	Taylor (-1.395)
Monroe (-1.605)	Fillmore (-1.366)	Hayes (-2.694)

Note: Numbers in parentheses are mean  $z$  scores.

comparisons of these means across presidents should be made with the caveat that they are not based on a fully nested design (each expert rated only his or her president or presidents of focus), we note that the presidents scoring highest on grandiose narcissism were (in order) Lyndon B. Johnson, Theodore Roosevelt, Andrew Jackson, Franklin D. Roosevelt, and John F. Kennedy. The lowest scorers were (in order) Millard Fillmore, James Monroe, Grover Cleveland, Ulysses S. Grant, and Calvin Coolidge.

### **Comparison of presidents' narcissism scores with population norms**

We computed mean scores on the three narcissism variables from the Form R facet-level normative data reported in the NEO PI-R manual (Costa & McCrae, 2000) and compared the population means with the presidents' mean scores. Presidents scored higher on grandiose narcissism ( $M = 17.41$ ,  $SD = 2.81$ ) than the normative sample did ( $M = 15.23$ ), and the effect size was large in magnitude ( $d = 0.78$ ). However, the presidents' mean score on vulnerable narcissism ( $M = 11.57$ ,  $SD = 3.46$ ) was virtually identical to the normative mean ( $M = 11.50$ ,  $d = 0.01$ ). In contrast, presidents scored higher on NPD traits ( $M = -0.11$ ,  $SD = 0.21$ ) compared with the normative sample ( $M = -0.33$ ,  $d = 1.05$ ).

### **Changes in narcissism scores over time**

We examined whether narcissism scores among the presidents have increased over time using GEEs with presidential order (1 = Washington, 42 = G. W. Bush) as the independent variable and the three indices of narcissism as dependent variables. This analysis revealed that grandiose narcissism, but not vulnerable narcissism or NPD, has increased significantly over time across the presidents ( $p = .031$ ). We also examined whether this increase is potentially attributable to extraversion, given that Twenge (2001) found that extraversion has increased over time in the U.S. population. When we controlled for extraversion, the increase in grandiose narcissism among the presidents became nonsignificant ( $p = .362$ ). Further analyses revealed that extraversion increased significantly over time among the presidents ( $p = .025$ ), but this relation became nonsignificant when we controlled for grandiose narcissism ( $p = .216$ ; see also Rubenzer & Faschingbauer, 2004). Finally, grandiose narcissism increased significantly over time among the presidents after we controlled for agreeableness ( $p = .031$ ).

## **Discussion**

Our analyses revealed that grandiose narcissism (a) is tied to independently rated and objective indicators of

presidential success; (b) is associated with several indicators of negative presidential performance, especially in the ethical domain; (c) is more elevated in U.S. presidents than in the general population; and (d) has increased in presidents over time. Taken together, our findings are consistent with the conceptualization of grandiose narcissism as a double-edged sword. This construct is linked to positive elements of leadership (e.g., persuasiveness), but also to negative outcomes (e.g., ethical indiscretions). Our results suggest that contrary to some earlier findings (e.g., Judge, LePine, & Rich, 2006), narcissism—especially its grandiose subdimension—is related to objective indicators of superior leadership. Contrary to our prediction, vulnerable narcissism was not negatively associated with presidential performance; rather, it was not significantly correlated with the vast majority of presidential performance indicators.

Our findings underscore the differences between grandiose narcissism and allied constructs. For example, fearless dominance, which may be an important component of psychopathy (cf. Miller & Lynam, 2012), appears to be linked exclusively to adaptive features of presidential performance (Lilienfeld et al., 2012). Unlike fearless dominance, grandiose narcissism manifested significant relations with both positive and negative outcomes. Moreover, grandiose narcissism continued to manifest significant associations with some positive and most negative outcomes after we controlled for fearless dominance.

Our findings leave open the question of which traits mediate the adaptive and maladaptive outcomes of grandiose narcissism—and indeed, whether the same traits (e.g., self-promotion) might predispose a person to both sets of outcomes. Subsidiary analyses revealed that when we controlled for extraversion, the relations between grandiose narcissism and positive outcomes became nonsignificant (with the exception of willingness to take risks, from the Siena College Poll). In fact, extraversion may serve as a suppressor for negative outcomes, as the relations between grandiose narcissism and negative outcomes (e.g., impeachment resolutions) became more pronounced after we controlled for extraversion. In contrast, when we controlled for agreeableness, the associations between grandiose narcissism and negative outcomes became nonsignificant. Agreeableness may serve as a suppressor for positive outcomes (e.g., communication ability), as the relations between grandiose narcissism and positive indicators of performance became more pronounced after we controlled for agreeableness. Few associations changed when we controlled for neuroticism, openness to experience, and conscientiousness. These findings suggest that grandiose narcissism's adaptive correlates stem largely from its positive association with extraversion, whereas its maladaptive correlates stem largely from its negative association with agreeableness. More broadly, these results suggest that grandiose



narcissism may be conceptualized as a combination or configuration of various FFM traits. (See Tables S2, S4, and S6 in the Supplemental Material for analyses regarding the incremental validity of grandiose narcissism as a predictor of presidential outcomes after controlling for FFM domains.)

The finding that grandiose narcissism among U.S. presidents has increased over time lends itself to several explanations. First, this increase might be partly artifactual, reflecting the ability of raters to perceive grandiose narcissism more readily in more recent presidents. Although this possibility is difficult to exclude, subsidiary analyses (see Table S8 in the Supplemental Material) revealed that features of histrionic personality disorder have increased among presidents over time, whereas features of schizotypal, schizoid, and avoidant personality disorders have decreased. If raters had merely noticed traits more readily in more recent presidents, it is unclear why scores on certain personality-disorder measures, including those associated with interpersonal oddity (e.g., schizotypal traits), would have declined over time. Second, the increase in grandiose narcissism may reflect changes in traits linked to it, as our analysis controlling for extraversion suggest (see Table S9 for analyses regarding the increase in features of personality disorder over time after controlling for extraversion). Increases in both traits could have stemmed from the heightened demands on political figures to be publicly charismatic and flamboyant as media coverage has become more intense (Donovan & Scherer, 1992; Mayer, 2004). Secondary analyses showed that extraversion did not increase significantly over time after we controlled for grandiose narcissism, rendering the interpretation of the sources of these increases unclear. Third, the increase in grandiose narcissism could reflect a broader trend toward increasing narcissism scores in the general U.S. population (Twenge & Campbell, 2009; see Donnellan, Trzesniewski, & Robins, 2009, for a competing view).

Our study is marked by several limitations. First, our sample size was necessarily limited by the small number of presidents. Second, although raters were asked to evaluate each president for the 5 years before he assumed office, the narcissism ratings might have been influenced subtly by raters' hindsight knowledge of presidents' performance. Nevertheless, because raters evaluated presidents on general personality traits rather than narcissism per se, this biasing effect is unlikely. Moreover, the finding that grandiose narcissism was linked to both positive and negative outcomes renders a simple effect of rater bias implausible. Third, the generalizability of our findings to other cultures is unknown. In collectivist societies (Triandis & Suh, 2002), grandiose narcissism may bear more negative implications for leadership (e.g., O'Boyle et al., 2012), because such societies may devalue displays of self-centeredness and ambition.

These caveats notwithstanding, our results illuminate the bright and dark sides of narcissism in a sample of enormous historical and scientific importance. They are consistent with the hypothesis that grandiose narcissism is a basic tendency that can be channeled into either adaptive or maladaptive characteristics (or both), depending on unknown moderating variables (see Harkness & Lilienfeld, 1997). Further investigation of the implications of this impactful but enigmatic trait for leadership, and interpersonal behavior more generally, is warranted.

### Author Contributions

A. L. Watts and S. O. Lilienfeld developed the study concept. All authors contributed to editing and statistical analyses; I. D. Waldman was specifically responsible for initial analytical guidance. A. L. Watts, S. O. Lilienfeld, and S. F. Smith were responsible for conceptualizing and drafting the manuscript, and J. D. Miller and W. K. Campbell aided in constructing narcissism prototypes, conceptualizing the manuscript, and writing the manuscript. S. J. Rubenzer and T. J. Faschingbauer were responsible for initial data collection and provided advice and editing.

### 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.

### Supplemental Material

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

### Notes

1. In subsidiary analyses, we used weighted sums of exact correlations for all 30 facets (rather than those with correlations of .3 or higher). The findings using this approach were very similar to those reported here.
2. Simonton (1987) found that presidential greatness was associated with leading the country through more years of war ( $r = .43$ ), which supported the inclusion of the latter variable in a greatness composite.
3. Being the victim of an assassination correlated positively with a variety of independent indicators of presidential greatness (Simonton, 1987).
4. Correlations not controlling for the number of raters were nearly identical:  $r = .66, p < .001$ ;  $r = -.53, p < .001$ ; and  $r = .40, p < .001$ , respectively.
5. As noted earlier, 2 of the 64 C-SPAN raters were among the experts who rated the presidents on the personality variables. Analyses excluding these 2 raters yielded no substantial changes in the associations between narcissism and C-SPAN variables. The possibility of rater overlap could not be examined for the Siena College Poll, as raters in that poll were anonymous.

### References

- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed., text rev.). Washington, DC: Author.

- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Washington, DC: Author.
- Blair, C. A., Hoffman, B. J., & Helland, K. R. (2006, August). *Narcissism in organizations: An empirical look at managerial integrity and effectiveness*. Paper presented at the annual meeting of the Academy of Management, Atlanta, GA.
- Brown, B. (2005). Narcissistic leaders: Effectiveness and the role of followers. *Otago Management Graduates Review*, 3, 69–87.
- Brunell, A. B., Gentry, W. A., Campbell, W. K., Hoffman, B. J., Kuhnert, K. W., & Demarree, K. G. (2008). Leader emergence: The case of the narcissistic leader. *Personality and Social Psychology Bulletin*, 34, 1663–1676.
- Cain, N. M., Pincus, A. L., & Ansell, E. B. (2008). Narcissism at the crossroads: Phenotypic description of pathological narcissism across clinical theory, social/personality psychology, and psychiatric diagnosis. *Clinical Psychology Review*, 28, 638–656.
- Campbell, W. K., Bush, C. P., Brunell, A. B., & Shelton, J. (2005). Understanding the social costs of narcissism: The case of the tragedy of the commons. *Personality and Social Psychology Bulletin*, 31, 1358–1368.
- Campbell, W. K., Goodie, A. S., & Foster, J. D. (2004). Narcissism, confidence, and risk attitude. *Journal of Behavioral Decision Making*, 17, 297–311.
- Campbell, W. K., & Miller, J. D. (2013). Narcissistic personality disorder (NPD) and the five-factor model: Delineating NPD, grandiose narcissism, and vulnerable narcissism. In T. A. Widiger & P. T. Costa (Eds.), *Personality disorders and the five-factor model of personality* (3rd ed., pp. 133–146). Washington, DC: American Psychological Association.
- Connelly, B. S., & Ones, D. S. (2010). An other perspective on personality: Meta-analytic integration of observers' accuracy and predictive validity. *Psychological Bulletin*, 136, 1092–1122.
- Costa, P. T., & McCrae, R. R. (1992). *Revised NEO Personality Inventory (NEOPI-R) and NEO Five-Factor Inventory (NEO-FFI) professional manual*. Lutz, FL: Psychological Assessment Resources.
- Costa, P. T., & McCrae, R. R. (2000). *NEO PI-R professional manual* (updated). Odessa, FL: Psychological Assessment Resources.
- C-SPAN.org. (2013). *C-SPAN 2009 historians presidential leadership survey*. Retrieved from <http://legacy.c-span.org/PresidentialSurvey/Overall-Ranking.aspx>
- Deluga, R. J. (1997). Relationship among American presidential charismatic leadership, narcissism, and rated performance. *The Leadership Quarterly*, 8, 49–65.
- Donnellan, M. B., Trzesniewski, K. H., & Robins, R. W. (2009). An emerging epidemic of narcissism or much ado about nothing? *Journal of Research in Personality*, 43, 498–501.
- Donovan, R., & Scherer, R. (1992). *Unsilent revolution: Television news and American public life*. Cambridge, England: Cambridge University Press.
- Glad, B. (2002). Why tyrants go too far: Malignant narcissism and absolute power. *Political Psychology*, 23, 1–2.
- Goncalo, J. A., Flynn, F. J., & Kim, S. H. (2010). Are two narcissists better than one? The link between narcissism, perceived creativity and creative performance. *Personality and Social Psychology Bulletin*, 36, 1484–1495.
- Gough, H. G., & Heilbrun, A. B., Jr. (1965). *The Adjective Check List manual*. Palo Alto, CA: Consulting Psychologists Press.
- Harkness, A. R., & Lilienfeld, S. O. (1997). Individual differences science for treatment planning: Personality traits. *Psychological Assessment*, 9, 349–360.
- Hill, R. W., & Yousey, G. P. (1998). Adaptive and maladaptive narcissism among university faculty, clergy, politicians, and librarians. *Current Psychology*, 17, 163–188.
- Hogan, R., & Hogan, J. (2001). Assessing leadership: A view from the dark side. *International Journal of Selection and Assessment*, 9, 40–51.
- Horowitz, M. J., & Arthur, R. J. (1988). Narcissistic rage in leaders: The intersection of individual dynamics and group processes. *The International Journal of Social Psychiatry*, 34, 135–141.
- Judge, T. A., LePine, J. A., & Rich, B. L. (2006). Loving yourself abundantly: Relationship of the narcissistic personality to self-and other perceptions of workplace deviance, leadership, and task and contextual performance. *Journal of Applied Psychology*, 91, 762–776.
- Kenney, P. J., & Rice, T. W. (1988). The contextual determinants of presidential greatness. *Presidential Studies Quarterly*, 18, 161–169.
- Küfner, A. C. P., Nestler, S., & Back, M. D. (2013). The two pathways to being an (un-)popular narcissist. *Journal of Personality*, 81, 184–195.
- Lilienfeld, S. O., Waldman, I. D., Landfield, K., Watts, A. L., Rubenzer, S., & Faschingbauer, T. R. (2012). Fearless dominance and the U.S. presidency: Implications of psychopathic personality traits for successful and unsuccessful political leadership. *Journal of Personality and Social Psychology*, 103, 489–505.
- Lilienfeld, S. O., & Widows, M. (2005). *Psychopathic Personality Inventory-Revised professional manual*. Odessa, FL: Psychological Assessment Resources.
- Lynam, D. R., & Widiger, T. A. (2001). Using the five-factor model to represent the DSM-IV personality disorders: An expert consensus approach. *Journal of Abnormal Psychology*, 110, 401–412.
- Mayer, W. G. (2004). *The making of the presidential candidates*. Lanham, MD: Rowman & Littlefield.
- Merry, R. W. (2012). *Where they stand: The American presidents in the eyes of voters and historians*. New York, NY: Simon & Schuster.
- Miller, J. D., Bagby, R. M., Pilkonis, P. A., Reynolds, S. K., & Lynam, D. R. (2005). A simplified technique for scoring the DSM-IV personality disorders with the Five-Factor Model. *Assessment*, 12, 404–415.
- Miller, J. D., & Campbell, W. K. (2008). Comparing clinical and social-personality conceptualizations of narcissism. *Journal of Personality*, 76, 449–476.
- Miller, J. D., Dir, A., Gentile, B., Wilson, L., Pryor, L. R., & Campbell, W. K. (2010). Searching for a vulnerable dark triad: Comparing Factor 2 psychopathy, vulnerable narcissism, and borderline personality disorder. *Journal of Personality*, 78, 1529–1564.
- Miller, J. D., Hoffman, B. J., Gaughan, E. T., Gentile, B., Maples, J., & Campbell, W. K. (2011). Grandiose and vulnerable

- narcissism: A nomological network analysis. *Journal of Personality*, 79, 1013–1042.
- Miller, J. D., & Lynam, D. R. (2012). An examination of the Psychopathic Personality Inventory's nomological network: A meta-analytic review. *Personality Disorders: Theory, Research, and Treatment*, 3, 305–326.
- O'Boyle, E. H., Jr., Forsyth, D. R., Banks, G. C., & McDaniel, M. A. (2012). A meta-analysis of the dark triad and work behavior: A social exchange perspective. *Journal of Applied Psychology*, 97, 557–579.
- Paulhus, D. L., Westlake, B. G., Calvez, S., & Harms, P. D. (in press). Self-presentation style in job interviews: The role of personality and culture. *Journal of Applied Social Psychology*.
- Perkins, W. B. (2003). The political nature of presidential impeachments in the United States. In J. C. Baumgartner & N. Kada (Eds.), *Checking executive power* (pp. 21–44). Westport, CT: Praeger.
- Pincus, A. L., Ansell, E. B., Pimentel, C. A., Cain, N. M., Wright, A. G. C., & Levy, K. N. (2009). Initial construction and validation of the Pathological Narcissism Inventory. *Psychological Assessment*, 21, 365–379.
- Raskin, R., & Terry, H. (1988). A principal-components analysis of the Narcissistic Personality Inventory and further evidence of its construct validity. *Journal of Personality and Social Psychology*, 54, 890–902.
- Rosenthal, R. (1991). *Meta-analytic procedures for social research*. Newbury Park, CA: Sage.
- Ross, S. R., Benning, S. D., Patrick, C. J., Thompson, A., & Thurston, A. (2009). Factors of the Psychopathic Personality Inventory: Criterion-related validity and relationship to the BIS/BAS and five-factor models of personality. *Assessment*, 16, 71–87.
- Rubenzler, S. J., & Faschingbauer, T. J. (2004). *Personality, character, and leadership in the White House: Psychologists assess the presidents*. Dulles, VA: Potomac Books.
- Rubenzler, S. J., Faschingbauer, T. J., & Ones, D. S. (2000). Assessing the U.S. presidents using the Revised NEO Personality Inventory. *Assessment*, 7, 403–420.
- Russ, E., Shedler, J., Bradley, R., & Westen, D. (2008). Refining the construct of narcissistic personality disorder: Diagnostic criteria and subtypes. *American Journal of Psychiatry*, 165, 1473–1481.
- Siena College. (2010). *Siena Poll: American presidents*. Retrieved from <https://www.siena.edu/pages/179.asp?item=2566>
- Simonton, D. K. (1987). *Why presidents succeed: A political psychology of leadership*. New Haven, CT: Yale University Press.
- Simonton, D. K. (2000). Creativity: Cognitive, personal developmental, and social aspects. *American Psychologist*, 55, 151–158.
- Simonton, D. K. (2006). Presidential IQ, openness, intellectual brilliance, and leadership: Estimates and correlations for 42 U.S. chief executives. *Political Psychology*, 27, 511–526.
- Simonton, D. K. (2007). Historiometrics. In N. J. Salkind (Ed.), *Encyclopedia of measurement and statistics* (Vol. 2, p. 441). Thousand Oaks, CA: Sage.
- Simonton, D. K. (2013). Presidential leadership. In M. G. Rumsey (Ed.), *Oxford handbook of leadership* (pp. 327–342). New York, NY: Oxford University Press.
- Triandis, H. C., & Suh, E. M. (2002). Cultural influences on personality. *Annual Review of Psychology*, 53, 133–160.
- Twenge, J. M. (2001). Birth cohort changes in extraversion: A cross-temporal meta-analysis, 1966–1993. *Personality and Individual Differences*, 30, 735–748.
- Twenge, J. M., & Campbell, W. K. (2009). *The narcissism epidemic: Living in the age of entitlement*. New York, NY: Free Press.
- Twenge, J. M., Konrath, S., Foster, J. D., Campbell, W. K., & Bushman, B. J. (2008). Egos inflating over time: A cross-temporal meta-analysis of the Narcissistic Personality Inventory. *Journal of Personality*, 76, 875–902.
- Wallace, H. M., & Baumeister, R. F. (2002). The performance of narcissists rises and falls with perceived opportunity for glory. *Journal of Personality and Social Psychology*, 82, 819–834.
- Wink, P. (1991). Two faces of narcissism. *Journal of Personality and Social Psychology*, 61, 590–597.
- Winter, D. G. (1987). Leader appeal, leader performance, and the motives profile of leaders and followers: A study of American presidents and elections. *Journal of Personality and Social Psychology*, 52, 196–202.
- Wooley, J., & Peters, G. (1999–2013). *The American Presidency Project: Voter turnout in presidential elections: 1828 - 2008*. Retrieved from <http://www.presidency.ucsb.edu/data/turnout.php/>
- Young, S. M., & Pinsky, D. (2006). Narcissism and celebrity. *Journal of Research in Personality*, 40, 463–471.