The Best Words: Linguistic Indicators of Grandiose Narcissism in Politics

James E. Underberg¹, Anton Gollwitzer², Gabriele Oettingen¹, and Peter M. Gollwitzer¹

Abstract
At a 2015 campaign event, Donald Trump claimed, “I have the best words.” While remarks like these have inspired extensive commentary on grandiosity in politics, few studies have investigated how grandiosity manifests in political speech. This research finds that grandiose U.S. presidents (n = 35) use words differently than their humbler presidential counterparts, and differently than other grandiose individuals, including by using more “we-talk.” We theorize that grandiose individuals adjust their language based on context to find “the best words” for a particular audience.

Keywords
grandiose narcissism, personality, politics, word use, American presidency

With the election of a “textbook” grandiose narcissist (Alford, 2015) to the presidency of the United States, researchers and commentators have scrambled to understand the politics of grandiosity (Ahmadian, Azarshahi, & Paulhus, 2017). Word use, which has been associated with social–emotional dynamics that can influence voting decisions (Pennebaker, 2011), could illuminate the impact of grandiosity in politics. If grandiose politicians use words differently from their humbler counterparts, this could help uncover whether unique linguistic patterns offer grandiose candidates an advantage or disadvantage on the political stage. Yet while grandiose politicians may claim to “have the best words” (Trump, 2015), the literature has not thoroughly investigated their word

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Much of the research on narcissistic personality (distinct from the clinical disorder) has focused on grandiose narcissism (Watts et al., 2013). Grandiose narcissism typically captures inflated self-views, and aggressive, extraverted, dominant, and attention-seeking behavior, and is distinguished from vulnerable narcissism, which is associated with inhibition, fragile self-esteem, and shame (DeWall, Buffardi, Bonser, & Campbell, 2011; Miller et al., 2011). Conventional wisdom and some evidence (Raskin & Shaw, 1988) suggest grandiose narcissists use more first-person singular pronouns (I-talk). Indeed, commentators regularly tracked President Obama’s I-talk to highlight his alleged grandiosity (Bandler, 2017). The study with the largest sample size, however, found no significant relationship between I-talk and grandiosity (Carey et al., 2015).

Researchers have also examined correlations with other word categories. Studies of predominantly student samples have identified positive relationships between grandiosity and word categories, including sexual (Holtzman et al., 2019; Holtzman, Vazire, & Mehl, 2010), friend (Holtzman et al., 2010), first-person plural pronouns (we-talk; Rathner et al., 2018), swear words, and sport words (Holtzman et al., 2019). Negative correlations have been observed among students between grandiosity and anxiety, fear/tentative words (Holtzman et al., 2019; Rathner et al., 2018), and also between grandiosity and we-talk (Raskin & Shaw, 1988). Other studies have examined social media users and found positive correlations between grandiosity and antisocial words (DeWall et al., 2011), or no robust relationships with any word categories (Preotiuc-Pietro, Carpenter, Giorgi, & Ungar, 2016).

None of this research, however, has investigated politicians. Past work has shown the importance of context in determining how personality is expressed: Every setting has its own social norms and presents unique opportunities for manifesting different facets of personality (Funder, 1999). Grandiose personality may have a unique expression in the political context. For instance, while swear words may convey power and independence among college students, they may express something different in the political realm. In the one study on grandiosity and word use in politics, which examined Republican primary candidates in the 2016 election, Ahmadian et al. (2017) considered I-talk and, contrary to the study of mostly college students by Carey et al. (2015), did find an association with grandiosity. Ahmadian et al.’s method, however, correlated I-talk with boasting, rather than using an independent measure of grandiosity. Boasting likely correlates with I-talk in most cases since it is, by their definition, a form of self-referential speech (Ahmadian et al., 2017). Given these divergent findings on I-talk, and the lack of investigation into other word categories, we conducted an exploratory study to identify whether grandiose politicians in the United States use words in unique ways.

**Method**

We drew presidential narcissism ratings from Watts et al.’s (2013) study, which estimated grandiose narcissism scores for each president from George Washington
through George W. Bush. These estimates were based on work from Rubenzer and Faschingbauer (2004), who recruited 177 historians to complete the Revised Neuroticism–Extraversion–Openness Personality Inventory (NEO PI-R) on behalf of their presidents of expertise. Watts et al. (2013) estimated grandiose narcissism for each president by summing unit-weighted scores from the NEO PI-R facets shown to correlate with grandiosity (extraversion and reversed agreeableness).

To analyze word use, we used two speeches per president: First inaugural addresses and first State of the Union addresses, sourced from the UC Santa Barbara American Presidency Project webpage (n.d.). While these speeches were written, to varying degrees, by speechwriters, past researchers have noted that candidates select the speechwriters and edit their work to ensure that it is in their own voice (Winter, 2002). Furthermore, studies have shown stable word use patterns in politicians’ speeches written by different speechwriters over time. Thus, political speeches have been accepted as valid source material for personality analysis (e.g., Ahmadian et al., 2017; Ramey, Klingler, & Hollibaugh, 2017).

We ran each address through the Linguistic Inquiry and Word Count (LIWC) software, which calculates the frequency of different word categories within a text based on percentage of total words. We averaged the scores for each LIWC category from the two addresses to create a single measure of word use for each LIWC category for each president as a percentage of words in both addresses. We included the maximum number of presidents who received grandiosity scores in the Watts et al. (2013) study and gave both inaugural and State of the Union addresses (written or spoken) within their first year in office of their first term. This resulted in a sample size of 35 presidents spanning 212 years.

We exploratorily investigated the LIWC output and identified categories that related to grandiosity. We also specifically examined word categories correlated with grandiosity in more than one prior study, namely first-person singular and plural pronouns (Ahmadian et al., 2017; Raskin & Shaw, 1988; Rathner et al., 2018); sexual references (Holtzman et al., 2019; Holtzman et al., 2010), and anxiety words (negative correlation; Holtzman et al., 2019; Rathner et al., 2018).

Results
The average number of words entered into the LIWC analysis per president was 10,308 words ($SD = 5,492$). A total of 68 LIWC outcome variables were included (see Supplements for details). We found presidential grandiosity to be significantly correlated with 20 LIWC variables at the $p = .05$ threshold level, 10 variables at the $p = .01$ level, and 7 variables below the $p = .005$ level. To provide more conservative analyses—given the largely exploratory nature of our study—we solely present the 10 correlations found to be significant at or below $p = .01$ (Table 1; see Supplemental Table S1 for all raw correlations).

To assess intermeasure reliability, we calculated the correlation between presidents’ word use on each of the categories in Speech 1 and Speech 2. Higher correlations mean that presidents who used more (less) of a word use category at Time 1 also used
that category more (less) often at Time 2. When averaging across these correlations, we observed high intermeasure reliability, $r_{avg} = .75$.

**Observed Correlations**

Grandiose presidents scored higher on the LIWC clout summary category, which indicates a tone of leadership, confidence, and higher social status (Pennebaker, Boyd, Jordan, & Blackburn, 2015). This finding provides face-valid support for the reliability and validity of our measures—since theoretically grandiosity should relate to this word usage category. Grandiose presidents also scored lower on the analytic summary variable, indicating a simpler communication style (Pennebaker et al., 2015).

Grandiosity was also strongly correlated with total pronoun and personal pronoun usage. These relationships were entirely driven by greater we-talk (Figure 1). Almost universally, this we-talk was what Pennebaker (2011) calls the “politician’s favorite, the every-like-minded-person-on-earth we” (p. 176) referring to a group that cannot be clearly specified, as in “We must live up to the calling we share,” from George W. Bush’s first inaugural address (2001).

Grandiose presidents also used more words in the core drives and needs category, driven by a relationship with affiliation words, and they used more social words. However, we-talk is also an input into each of these categories. Controlling for we-talk, the relationships did not remain, $p_s \geq .272$, suggesting that these correlations are reflecting the same pattern already identified by the correlation with we-talk. Given these results, we reanalyzed the relationship between grandiosity and clout, which also includes we-talk. Similarly, clout no longer related to grandiosity when controlling for presidents’ degree of we-talk, $p = .608$. These findings indicate that the observed

### Table 1. Correlations Between Grandiose Narcissism and Presidential Word Use as Calculated by Linguistic Inquiry and Word Count (LIWC).

<table>
<thead>
<tr>
<th>LIWC output variables</th>
<th>Correlation with grandiosity: Pearson’s $r$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clout</td>
<td>.50</td>
<td>.002*</td>
</tr>
<tr>
<td>Analytic</td>
<td>-.43</td>
<td>.010</td>
</tr>
<tr>
<td>Total pronouns</td>
<td>.59</td>
<td>.001**</td>
</tr>
<tr>
<td>Personal pronouns</td>
<td>.57</td>
<td>.001**</td>
</tr>
<tr>
<td>First-person plural (we-talk)</td>
<td>.54</td>
<td>.001*</td>
</tr>
<tr>
<td>Drives</td>
<td>.46</td>
<td>.005*</td>
</tr>
<tr>
<td>Affiliation</td>
<td>.54</td>
<td>.001*</td>
</tr>
<tr>
<td>Social</td>
<td>.55</td>
<td>.001**</td>
</tr>
<tr>
<td>Biological processes</td>
<td>.51</td>
<td>.002*</td>
</tr>
<tr>
<td>Body</td>
<td>.44</td>
<td>.008*</td>
</tr>
</tbody>
</table>

*Note. We only report LIWC output variables significant at a $p \leq .01$ level.

*Significant after controlling for the false discovery rate. **Significant when applying the most conservative Bonferroni correction.
relationships between grandiosity and core drives and needs, affiliation, social, and clout words may primarily be driven by greater we-talk.

Finally, grandiose presidents used more biological references. This includes references to the body, as in “We see tasks that need doing, waiting for hands to do them” (Nixon, 1969), and to biological processes, such as “It may seem strange that any men should dare to ask a just God’s assistance in wringing their bread from the sweat of other men’s faces, but let us judge not, that we be not judged” (Lincoln, 1865).

We adjusted for the multiple comparisons conducted in our analyses in two ways: by accounting for the false discovery rate and by applying a more conservative Bonferroni correction. All the reported relationships except the analytical summary category remained significant when controlling for the false discovery rate (Table 1). Only total pronouns, personal pronouns, and social words remained significant when applying the Bonferroni correction ($p$ threshold = .000735). However, this latter correction is likely too conservative and stringent (see García, 2004; Nakagawa, 2004).

Figure 1. Relationship between presidents’ grandiosity and degree of we-talk.
Indeed, past research using LIWC has used false discovery rate instead of Bonferroni to correct for multiple comparisons (e.g., García, 2004).

The correlation coefficients of the observed significant findings ranged between .43 and .59. These coefficients are larger than most findings correlating personality variables with word use, which rarely exceed .3 (Fast & Funder, 2008; Pennebaker, Mehl, & Niederhoffer, 2003). Our comparatively large effect sizes are likely due to the small sample size of our study \( n = 35 \); small samples commonly lead to inflated effect sizes, also known as the “winner’s curse” (Ioannidis, 2008). Furthermore, the estimated correlations, given the small sample size, are unlikely to be particularly reliable in terms of accuracy. Effect size estimates, like mean estimates, vary increasingly with smaller sample sizes. For instance, based on our sample, the observed relationship between grandiosity and we-talk in the presidential “population” may be anywhere between \( r = .25 \) and \( r = .74 \) (95% confidence interval).

However, despite the unreliability in these effect-size estimates, we can confidently conclude that the observed relationships exist. And we can likely do so even when taking prestudy odds (the odds that a probed effect is indeed non-null among the effects being probed) into account (see Button et al., 2013; see Supplements for a detailed calculation). This is because all reported findings fall below (and in most cases significantly below) a more conservative \( p \)-value threshold of \( p = .01 \) (instead of the usual \( p = .05 \)).

### Null Relationships

Since past research has observed correlations between grandiosity and I-talk, anxiety and sexual words, we examined these relationships despite their nonsignificance (Table 2). We applied Bayesian analyses to test these null findings using the JASP software (JASP Team, 2018). For the relationship between grandiosity and I-talk, the Bayesian analysis indicated it is 4.29 times more likely a null relationship exists than the alternative hypothesis is true (3.19 times more likely if a positive relationship is assumed as the prior). To provide perspective for the relationship between grandiosity and we-talk, the odds were 45 to 1 that a relationship does exist.

Similar to I-talk, for the relationship between grandiosity and sexual words, the Bayesian analysis indicated that it is 3.86 times more likely the null relationship exists.
than the alternative hypothesis is true (7.40 times more likely if a positive relationship is assumed as the prior). And, for anxiety, the Bayesian analysis indicated that it is 3.38 times more likely the null relationship exists than the alternative hypothesis is true (8.19 times more likely if a negative relationship is assumed as the prior). These results tentatively support that grandiosity among U.S. presidents is not linked to I-talk or sexual or anxiety words.

Discussion

Our analysis of word use in presidents’ State of the Union and inaugural addresses identified positive correlations between presidents’ grandiosity and their word use in terms of clout, we-talk, affiliation and social language, as well as body references. We also identified a negative correlation with analytical thinking. While these relationships may appear to conflict with prior research that found alternate correlates of grandiosity (e.g., sexual words, I-talk), the contrasting results may be explained by different samples and contexts. We theorize that grandiose narcissists adjust their word use based on their audience. Whether these adjustments are conscious or nonconscious, the linguistic patterns we uncovered are theoretically consistent with how a grandiose politician would seek voters’ admiration, particularly by projecting an aura of power. Pennebaker (2011) notes that we-talk conveys status and power, characteristics any grandiose president would feel and hope to project. We-talk also accounted for the observed correlations between grandiosity and clout, and social and affiliation words, underlining how this pronoun category might enhance a speaker’s image as powerful and popular.

We also found a relationship between grandiosity and biological references. Given grandiose narcissists’ inflated views of their own attractiveness (Gabriel, Critelli, & Ee, 1994), grandiose presidents may make more biological references because their own bodies are a source of confidence they hope to highlight. Finally, grandiose presidents used fewer analytical words (though this was not significant after adjusting for multiple comparisons), which could result from greater confidence and entitlement, leading them to feel less of a need to explain themselves through nuanced, detailed rhetoric.

Outside politics, the grandiose personality seeks admiration differently, and thus uses different words. Among undergraduate students, sex and friend words (Holtzman et al., 2010) and less we-talk (Raskin & Shaw 1988) may help grandiose individuals assert independence and gain social prestige in the unique cultural environment of a college campus. And while the grandiose personality may stand out among college students and social network users for using fewer anxiety words when asked to self-reflect and reveal feelings about their own lives (Holtzman et al., 2019; Rathner et al., 2018), it may be that this pattern simply does not manifest when the topic of speech is the business of the nation, rather than a personal inquiry (and perhaps the correlation would appear if U.S. presidents were similarly asked to self-reflect). Furthermore, while grandiose presidents may use body words in their addresses to call attention to their physical appearances, this strategy may be less compelling for survey takers
whose bodies are not seen. Finally, while grandiose candidates may use more I-talk when running for office to stand out from the crowd (Ahmadian et al., 2017), they may not feel the need to do so once in office. It is also possible and perhaps likely, given the breadth of Carey et al.’s (2015) null findings, that our contrasting results with Ahmadian et al. (2017) arise from different measures of grandiosity. Ahmadian et al.’s use of boasting as their measure of grandiosity may inevitably yield correlations with I-talk since boasting is, by their definition, a form self-referential speech.

Our sample size was limited given that we examined word use of U.S. presidents. We address this potential concern in a number of ways. First, we conducted a sensitivity power analysis. This analysis ($\alpha = .05$, two-tailed) revealed that we had at least 80% power to detect a true correlation of $r = .45$ or larger. Though not ideal, our study still had high enough power to detect a large effect if that effect exists in the population. Second, we only reported significant findings passing the more conservative threshold of $p = .01$. Doing so strongly reduces the possibility that our findings fall prey to Type I error. Third, we controlled for multiple comparisons using false discovery rate and Bonferroni adjustments to further reduce Type I error. Fourth, regarding potential Type II error, we reported the strength of our null findings using Bayesian analyses. Finally, low power in terms of sample size can be compensated for by the use of reliable measures. We believe that our measures are reliable given that (1) multiple expert raters were used to calculate the presidential grandiosity scores (Watts et al., 2013) and the reliability across these raters was high, $r = .68$; (2) we only included LIWC output variables in our results that had acceptable internal reliability, $\alpha \geq .60$; (3) the average number of words analyzed per president was large, at approximately 10,000; and (4) we included two different samples from each president (two speeches), and high intermeasure reliability in terms of presidents’ use of LIWC categories was found across these two speeches, $r_{avg} = .75$. While these considerations give us confidence in the integrity of our results, future research could also address the sample size concern by conducting a similar analysis of U.S. senators or politicians across the world, using much larger samples.

Finally, our sample was White, male, and of high socioeconomic status; thus, our conclusions may not extrapolate to all politicians. In the interest of delivering a focused short report, we also limited our exploration to this single personality trait of grandiosity, though future research should consider other important personality characteristics. Nonetheless, our findings inform a more valid linguistic indicator of grandiosity in politics than I-talk and may also help illuminate how grandiose individuals adjust their word use depending on context to convey a high degree of power and charm to their audience. Future work could experimentally manipulate grandiose language to understand its impact on voter opinion. Indeed, past research links grandiosity to favorable impressions, particularly in initial interactions (Back, Schmukle, & Egloff, 2010; Paulhus 1998), and to public persuasiveness and agenda setting among U.S. presidents (Deluga, 1997; Watts et al., 2013). However, it does not adequately consider the drivers of these relationships. A closer look at word use might clarify the apparent grandiose communication advantage among U.S. presidents and reveal whether grandiose politicians truly do “have the best words” (Trump, 2015).
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Supplemental Material
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Notes
1. We excluded LIWC output categories from these counts that have extremely low internal reliability (αs < .60; see Pennebaker et al., 2015). The correlations between grandiosity and articles, \( r = -0.54, p = .001 \), and grandiosity and health words, \( r = -0.46, p = .005 \), are thus not considered.
2. Arguably, small sample sizes can heighten Type I error; see Button et al., 2013.

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