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Linking Gender, Language, and Partisanship: Developing a Database of Masculine and Feminine Words

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Abstract

Seemingly, Gender, language, and partisanship are intertwined concepts. We believe that the use of gendered language in political settings may often act as a dog whistle. The purpose of this paper is to craft a tool for scholars to test the interconnection between politics, gender, and language – what we refer to as being the gendered language and partisanship nexus. We test our prediction using original word rating data. From our test, we find significant variation across 700 words in ratings as masculine and feminine and discover that words rated as masculine are more likely to be rated as dominant and negatively valenced. We additionally find that Republican men are most likely to rate words as more masculine. Using this dictionary, we find that Republican presidents are more likely to use masculine language than Democratic presidents in their State of the Union addresses and that the Republican Party uses more masculine language than the Democratic Party in their official party platform.

Keywords: gender, language, politics, Republicans, Democrats

Word Count: 6772

Donald Trump's presidency, and his rhetorical style, has led to increased attention towards gender, language, and the intersection between the two concepts in the political world. Some see Trump as a hyper-masculine politician, referred to by Jill Filipovic (2017)[1] as a "throwback to the day when authority and power were exclusively white and male by definition," but one that also exhibits more modern displays of masculinity as Filipovic (2017) refers to Trump as "the kind of overgrown adolescent you expect to find on internet forums dedicated to video games or anti-feminism." Trump has also been referred to by the media as being a prime example of fragile masculinity[2], suggesting he may go out of his way to portray masculinity in his public statements. Perhaps, Trump is using this gendered language as a dog whistle to communicate with and garner support from his base. Of course, it is difficult to understand this without knowing *which* words are gendered. We seek to establish and validate a dictionary of words, rated on their masculinity and femininity, and use that dictionary to determine the extent to which Republican and Democratic politicians are using gendered language in public proclamations.

Scholars have long studied the role of gender in politics. In this study, we aim to further understand more and more that gender and politics are inextricably linked. While scholars agree that this is true, the next step is to propose new ways to study, and to identify previously unidentified manifestations of, the intersection of gender and politics. For those who are interested in political communication, we are keenly interested in attempting to understand how language, and words specifically, are used by politicians to describe and frame political events with a masculine and feminine connotation; especially in an era where Democrats and Republicans focus on different aspects of gender in politics (Rymph, 2006).

Given their different bases of support, and the preferences of these bases for masculine and feminine language, we expect that Republicans and Democrats differ in how they use gendered language. While it is well understood that Democrats and Republicans view and use gender differently, we wonder how language may be used to emphasize

[1] https://www.nytimes.com/2017/11/02/opinion/sunday/donald-trump-masculinity.html

[2] https://www.cnn.com/2017/08/15/opinions/donald-trump-masculinity-maltby-opinion/index.html

these differences. More specifically, rather than analyzing gender stereotypes and similar phenomenon that have been well studied, we aim to show the subtle influence that individual words may have on candidate support. To do this, we present a dictionary of gendered words. We concede that this dictionary is not exhaustive and does not present every gendered word imaginable[3]. The goal of this, however, is to present a foundation for other scholars to use when using text analysis to study the intersection of gender, language, and politics (which we will refer to as the gendered language nexus). Validated dictionaries of words have been valuable in understanding political speech (see Hughes, 2019 as an example), and we aim to provide another avenue through which political speech can be examined. We believe that the results of this study further support the claim that there are many subtle, and simple ways, in which a political candidate may use gender to influence the voter.

Specifically, we find significant variation in word ratings, suggesting that words are indeed often perceived as either masculine or feminine. We find that masculine word ratings are associated with words perceived as negative and dominant, and that male Republicans are more likely to rate words as masculine in general. We additionally find, through analyzing State of the Union speeches and Party Platforms, that Republican presidents and the Republican Party are more likely to use masculine language in their public proclamations than Democrats.

Gendered Language and Politics

Upon reviewing the vast literatures on American politics and gender, one may easily and aptly infer that politics is a gendered space. There are many examples illustrating this point. First, the two prominent political parties are divided on gendered policies and are becoming more polarized on these issues (Hetherington & Rudolph 2015). While the Democratic Party has increasingly focused on feminist positions where women break free from traditional gender roles (Wolbrecht 2000), the Republican Party has worked to support policies served to reinforce these traditional gender roles (Rymph 2006). Voters take note of, and act upon, these politicized views of gender.

Partisan voters respond to female candidates differently and the media treats these candidates differently as well (see Huddy & Terkildsen 1993 a&b, Sonbonmatsu & Dolan 2009, Spisak 2009, Holman, Merolla, and Zechmeister 2016, Atkeson & Krebs 2008). These differences became starkly apparent during the 2008 election. Republicans – who are more likely to support traditional gender roles - were *more* likely to support Sarah Palin as the Vice-Presidential nominee, while Democrats were more likely to support Hillary Clinton as the Presidential nominee when they held more liberal gender attitudes (Sharrow et al. 2016). As with many reliable "rules" in politics, voters have begun to use gender and gender roles as heuristics to evaluate candidates (Winter 2000, Winter 2007, Winter 2010). Stereotypes about the parties and their stances on gender are no exception to this rule.

These gendered perceptions also appear in how citizens view the parties, and partisan candidates. Winter (2009 & 2010) finds that Republicans are seen as more masculine whereas Democrats are viewed to be more feminine. Candidate evaluations spill into this stereotype. While Laustsen and Bor (2017) find that candidates who display warm traits as being more appealing to voters, Clifford (2019) identifies specific candidate traits that, if they are considered to be stereotypically masculine, are attractive to Republicans and traits that are considered to be stereotypically masculine, are more often to be more appealing to Democrats. Specifically, Clifford (2019) points to traits like compassion in a leader as being important for liberals, whereas traits like toughness are more important to conservatives.

Gendered attitudes are important in the political realm. While considerable attention has been paid to how *concepts* can be gendered, comparatively little work has focused on how words themselves have a gendered component. Given the rise of content analysis and dictionary building in the social sciences generally, we feel it is vital to understand which words have gendered components, allowing future work to determine the consequences of the use of gendered words.

In recent years, the intersection of gender, language and politics has received increased attention among political scientists. Over the course of Hillary Clinton's career, Clinton made multiple changes to her linguistic style in efforts to improve her self-presentation (Jones 2016). Jones (2016) also showed that from the early 1990s until 2007, Clinton progressively used more language that is masculine. Late in her presidential campaign, in 2008, she changed her language "to improve her likability among voters by presenting herself in a way that was more akin to the expectations

[3] See Muddiman, McGregor & Stroud (2018) where the authors show that smaller dictionaries can do well if the content "theoretically aligns with the concept being measured" (pg. 223).

of her gender" (Jones 2016). In other words, softening Clinton's language softened her image. Beyond gendered language, Republicans and Democrats do not show systematic differences in their use of moral language, but in line with Lakoff's (2004) theory, Republicans are more likely to refer to rules and reinforcement, and Democrats are more likely to refer to nurturant or caregiving language (Nieman et al. 2016). This suggests that dominant language may be viewed as more masculine than less dominant language.

Linguists have shown that individual words can be classified as gendered and have important impacts on a conversation depending on the word choice of its participants. For example, the generic word "he" evokes a disproportionate number of male images among both males and females and that the word "they" appears more generic, even though males still produce more male images than females do when presented with this word (Gastil 1990). Considering that males are more likely to disproportionately imagine words as being masculine, we should expect that while validating our dictionary (**Study 1**) there will be distinct differences between how men and women (and, resultingly, partisans) rate the words in our dictionary. Additional research shows that the manner in which individuals speak is often tied to their own gender identity (Fitzpatrick, Mulac & Dindia 1995), or to their conception of their gendered personality, which is often more predictive of attitudes and behaviors than one's biological sex or gender (McDermott 2016). For our dictionary, it is important to take one's gender identity into consideration. So, if using the dictionary for a political candidate (or any individual in a political context), one should note the gender that the candidate identifies themselves as, rather than their biological sex.

In a political context, interestingly enough, when bilingual individuals are interviewed in a language without gendered nouns, they tend to report more liberal gendered attitudes than when they are interviewed in a language that features gendered nouns (Perez and Tavits 2018). Gendered language makes its speakers more aware of gender differences and facilitates gendered categorization (Boroditsky et al. 2003). This implies that, in a political context, gendered language has the potential to magnify the stereotyped "differences" between the genders.

Work in linguistics can further inform predictions about masculinity and femininity of words. In the Italian language, where words can take a masculine and feminine form, traits related to agency were more likely to occur in the masculine form, while communal traits were more likely to occur in the feminine form (Suitner & Maass, 2008). These differences only emerge, however, when controlling for the valence of the word – that is, word valence is correlated with agency, communion, and masculinity (Suitner & Maass, 2008). This suggests that valence will have an important part to play when assessing the validity of our dictionary. We should expect that words associated with femininity seem to be more correlated with positive valence, while those associated with masculinity are correlated with negative valence (Suitner & Maass, 2008).

Of course, our analysis is limited to English, and, with American word raters, specifically American English, a language that does not contain gendered nouns. While previous work shows important implications of gendered nouns, we hope to extend upon this work by looking at gendered connotations of words in a language without these cues. We hope that, in the future, scholars focused on different regions, using different languages, can extend upon this dictionary.

Since partisanship is, in part, divided along gender lines, this may also magnify the differences between the parties and of their stances towards gender policies; especially when considering the work on *schemas*. Psychologically speaking, individuals connect similar ideas using *schemas*, often provided by political elites (Winter 2013). For example, welfare recipients are considered to be lazy or lacking work ethic, and racial conservatives connect these stereotypes to African-Americans (Winter 2013). As a result, Americans assume that most welfare recipients are African-Americans, even though the vast majority of recipients are white. This is because the stereotypes of welfare recipients and African-Americans are part of the same schema for racial conservatives (Gilens 1999, Winter 2013). This phenomenon is driven by the fact that our brain takes shortcuts so that complex ideas are simplified (Winter 2013, Kahneman 2011). When Political language becomes gendered, we expect that similar consequences should follow. If policies are associated with femininity, attitudes towards these policies and attitudes towards women should become interlinked. While we do not directly test this in this study, it points to the potential importance that gendered language may play on shaping our attitudes of the political world.

Dominant language and masculinity should also be connected. Men tend to use more dominant speech than women, and men use a variety of dominant language, depending upon the context (Kiesling, 2007). This arises from a social correlation of masculinity with authority and power, causing men to feel the need to be authoritative (Kiesling, 2007).

Indeed, conservatives tend to prefer dominant looking faces in politicians, while liberals tend to prefer less dominant faces (Laustsen & Peterson, 2016). Because of these factors, we expect that words that are rated as more dominant will also be rated as more masculine.

Language has significant consequences for how we may perceive gender. Among young children, using gendered language leads to an increase in the importance of categorizing gender (Liben & Hilliard, 2010). Masculine language can also lead to an increased perception of fictional characters as masculine or male (Leaper, 2014). Considering the importance of gender stereotypes in candidate evaluations, Lenton, Sedikides, and Bruder's (2008) work, which demonstrates the ability that language has on reinforcing gender stereotypes, suggests that it is important for this to be tested in political contexts. Also, of significant importance, negative language is often more memorable than positive language (Rozin, Berman & Royzman, 2010), if negativity and masculinity are correlated, masculine language may also be more memorable than feminine language which has important implications for political campaigns and the like.

In support of this idea, the theory of hot cognition suggests that the valence of events is stored in an individual's memory, along with factual information (Morris et al., 2003). This suggests that how citizens *feel* about an issue influences their attitudes towards that issue. When individuals receive political information entwined with profoundly negative words, for example, they often feel more negatively about these political concepts (Utych, 2018). We argue that masculine and feminine language should operate in a similar way -- as individuals hear words that they perceive as more masculine in the context of a political discussion, they should begin to store these concepts in their memories as being more masculine. This could lead to long-term consequences for political attitudes. We argue that determining *which* words are more masculine or feminine, and how individuals may perceive these based on their own characteristics and in relation to other perceptions of the words, is a methodologically important approach to determining the consequences of masculine and feminine language in politics.

In addition to our predictions that dominant and negatively valenced words are considered to be more masculine, we additionally predict that conservatives will generally rate words as more masculine than liberals will, since conservatives seem to have a bias towards thinking of masculine topics, while liberals may be biased towards thinking of concepts from a feminine perspective (Petrocik 1996). Additionally, we predict that Republicans will be more likely to use masculine language in their speech than Democrats, while Democrats will be more likely to use feminine language. We argue that this is strategic – if topics related to masculinity appeal more to conservatives or Republicans (as Lakoff (2004) suggests), *words* that are masculine should also appeal more to these individuals. In this sense, politicians and parties are able to best appeal to their co-partisans by using language that these individuals should be most receptive towards.

Methods and Results

Our predictions suggest that gender, language and partisanship are intrinsically linked. To test our predictions, we conduct two studies. First, we build a database of words – or dictionary if you will – that determines gendered (or non-gendered) perceptions of various words. The second, we test whether or not this database can be an applicable tool to measure the language used by politicians, by examining State of the Union speeches and political party platforms.

Study 1 – Masculine and Feminine Words and their Correlates

As a first step in studying the correlation between gender, language and partisanship, we need to build an appropriate database of words that are considered to be gendered. Seemingly, though, there is no such database that meets our needs.[4] A segment of the first study is to build such a database. We recruited participants from Amazon's Mechanical Turk (mturk) in June 2018 to rate words on their perceptions of masculinity or femininity. A total of 175 participants were recruited for the study, with each participant rating a randomly assigned 100 words, of the 700total that were rated. Due to random assignment, words were rated by a minimum of 15 raters, and a maximum of 44, with a mean of 25 (s.d. = 5.19). Participants were paid $1 for completing this task, which took an average of 6 minutes to complete.

[4] Both the Bem Sex Role Inventory (BSRI) (Bem 1974) and Personality Attributes Questionnaire (PAQ) (Spence, Helmreich & Stapp) scales provide ratings of various *traits* as masculine or feminine. These are useful databases, but focus primarily on the ideas of gender stereotypes of larger concepts, rather than pure reactions to words.

To select words to be rated, we used a variety of sources. In order to make key comparisons with on valence and dominance, to help validate the dictionary, we selected a subset of words from the Affective Norms for English Words (ANEW) database (Bradley & Lang, 1999). These words were selected by the authors as words we expected could have had a gendered component. Additionally, we supplemented these words with words from various sources that are considered to be gendered in some way. We also selected words that were approximate synonyms for these words, allowing for potential variation of words with similar meanings on their masculinity and femininity. As we hope this dictionary will be a resource for scholars developing experimental treatments, we felt it was vital to include words with similar meanings, to allow for replacement with experimental treatments. Lastly, we included words from the ANEW with similar themes (animals and colors) to allow for words we expected may be a bit neutral, for us to examine correlations with valence and dominance on words that may not be gendered.

We realize this strategy does not come close to encompassing all words that may be both gendered and politically relevant. However, we argue that it is an important first step in examining gendered connotations that words may hold. With this in mind, we focused on key words that are likely to be gendered, allowing us to examine the types of words that may be most likely to have a gendered component.

Upon starting the study, participants were asked a brief demographic questionnaire, then given instructions[5] on how to rate the words, adapted from the ANEW protocol (Bradley & Lang, 1999). Then, they were asked to rate 100 words ranging from 1 (very feminine) to 7 (very masculine). On average, the words in the database were rated slightly above the neutral point of 4 (mean rating = 4.22). A significant difference emerged between male and female raters, with men rating words as significantly more masculine than women, though this difference is small (mean for men = 4.27, mean for women = 4.16, difference = .11, $p < .01$).

It is important to note that we have chosen a unidimensional measure of masculinity, rather than a multi-dimensional measure, in order to compare these measures with other unidimensional measures like the ANEW. However, we appreciate that masculinity and femininity may not be unidimensional (see Constantinople 2005). We find that our unidimensional measure provides face validity and predictive validity, but perhaps future scholars could benefit from measuring gendered words in a multi-dimensional way.

These ratings[6] varied from 1.36 for the word *woman* to 6.40 for the word *man*. Additionally, the ratings provide some measure of face validity – highly gendered descriptive words such as heroine (1.80), mistress (2.14), jock (6.28), and guy (5.85) were rated as gendered in the expected direction. Among the most feminine words (rating less than 2.5) were adorable, sassy, beautiful, sensitive, cherish, cut, delicate, kitten and exquisite. Among the most masculine words (ratings greater than 5.5) were jock, cocky, thug, roughneck, violent, destruction, terrorist, rough, domination, deadbeat, handsome, two-fisted, savage, brash, hero, prison, bravado, captain, and chief. Words rated precisely at the midpoint of 4, on average, included words such as elderly, fulfilled, minute, nose, purport, pushover, red, shaky, spurn, suitable, tragedy and truth.[7]

As one might expect when ratings are relatively subjective, intercoder reliability is fairly low among the ratings, with a Cohen's Kappa of .05 and a percent agreement of about 25% throughout the entire sample. To this end, we have included standard deviations of the ratings in the dataset – which range from 0.60 to 2.13, with a mean value of 1.26. This suggests that some words are rated more consistently by raters, while others are rated less consistently.[8] Future scholars could use these standard deviation measures to examine which words are more reliably masculine or feminine.

A subset of 226 of our 700 words were also rated in the ANEW database on valence (negative to positive), arousal (low to high) and dominance (low to high). These ratings are on a nine-point scale, ranging from 1 to 9, with 1 indicating a negative, low arousal, or low dominance word, and 9 indicating a positive, high arousal or high dominance word (Bradley and Lang 1999). The 226-word subsample of the ANEW database was rated as slightly above the midpoint value of 5 for valence (5.22), arousal (5.35), and dominance (5.06), though not largely so.

[5] Full text of these instructions is available in Appendix A.

[6] A full dictionary of all 700 words and their ratings, for all raters and broken down by gender, is available in online Appendix C.

[7] Though, note that words we expected could be gendered, charming and frigid, were also rated at 4.

[8] There appears to be no discernable pattern in which words are rated most and least consistently. Words with the lowest standard deviations include history, infection, mistake, shame, sloppy, stomach, truth and unfamiliar. Words with the highest standard deviations include aggressive, bitchy, blossoming, brevity, captivating and charming.

Given that there are reasons to believe that masculine words should be higher on dimensions of dominance, are more negatively valenced, this analysis using the ANEW database will provide additional validation of the quality of the word ratings. If masculine words are indeed rated as more dominant, and more negative, than feminine language in our dictionary, this provides evidence that masculinity ratings fall in line with reasonable theoretical expectations, suggesting that we are adequately measuring a dimension of masculinity via the word ratings.

To examine if a pattern emerges between the three dimensions rated in the ANEW database and masculinity,we turn to regression analysis[9], as presented in Table 1.

Column 1 of Table 1[10] suggests that both valence (negative) and dominance are correlated with masculinity of words.[11] There is little correlation between arousal and masculinity, but masculinity is correlated with words rated as more negative and higher in dominance, by about 1/3 of a point in each case. These correlations are substantively similar when examining male and female raters of our dictionary words separately, and when examining ANEW ratings broken down by gender. These results are available in the Appendix. This suggests that certain *types* of words are more likely to be seen as masculine – words with negative valence and words considered highly dominant are rated as more masculine in our database. These correlations allow us to suggest a broader typology of masculine language, with more dominant and negative words (especially, perhaps, those words rated highly on both dimensions) likely to be more masculine.

Table 1. *Masculine Language and Valence, Arousal and Dominance*

	Masculine Rating
Valence	-0.29***
	(0.04)
Arousal	0.04
	(0.05)
Dominance	0.33***
	(0.08)
N	226
R^2	0.2405

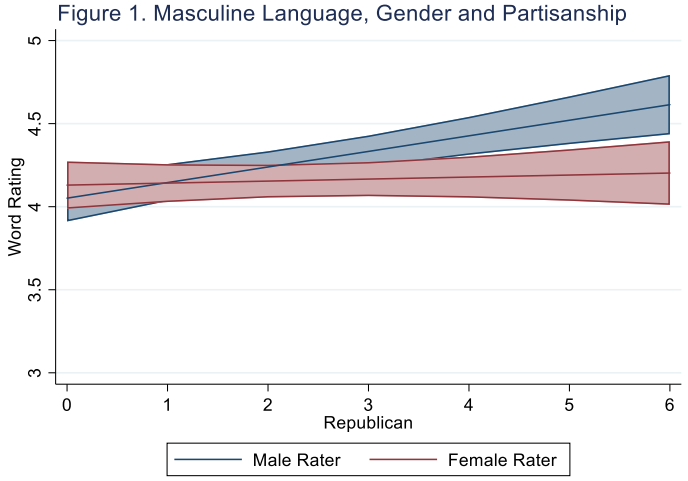
Table entries are OLS coefficients with standard errors in parenthesis. Control for number of raters and constant are omitted for brevity, *** p<0.01

[9] We use the average ratings of words in our database, rather than individual-level ratings, for ease of comparability with the ANEW database, where we only have access to average ratings.

[10] ANEW ratings of dominance and valence are highly correlated (r = -0.865), suggesting that OLS regression might suffer in the presence of multicollinearity of these two independent variables. However, each variable retains an independent effect in the model, and results are robust to ridge regression analysis, which accounts for multicollinearity (Hoerl & Kennard, 1970), which is presented in the Appendix.

[11] Moreover, we stress that these analyses be viewed only as correlational – we do not argue, or know, whether masculinity causes valence, arousal, or dominance, or vice versa.

Figure 1. Masculine Language, Gender and Partisanship



We further examined how gender and partisanship influences word ratings. Figure 1 presents these results.[12] We find a direct effect of partisanship on word ratings, with Strong Republicans rating words, on average, about .33 (β=.054, p<.01) points more masculine than Strong Democrats, and an effect of gender, with women rating words about .12 points more feminine than men (β=-.12, p=.10). However, when we turn to an interactive model, we see that both partisan and gender differences are driven by Republican men (β for interaction of Republican and Female =-.082, p=.01). Strong Democratic women and Strong Republican women rate words, on average, quite similarly (4.13 and 4.20, respectively, with no statistical difference), while Strong Democratic men (4.05) rate words as significantly more feminine than Strong Republican men (4.61). That is, these effects of gender and partisanship on perceptions of masculinity are being driven exclusively by Republican men – all women, and Democratic men, rate words similarly on the dimension of masculinity. For Democrats, gender has no influence on word ratings, and for women, partisanship has no influence on word ratings.

In Study 1, we have created a dictionary of 700 words rated by coders on their masculinity, and demonstrated that this dictionary provides some level of face validity in word ratings. Using a subset of these words, we find that masculine words are positively correlated with dominance, and negatively correlated with positive valence. We additionally find that Republican men, compared to all other raters, are likely to generally perceive words as more masculine.[13] While this is an important first step in demonstrating that words have a gendered component, and that these words differ on other dimensions, we still have not demonstrated that this language has any real political *consequences*. To this end, we turn to an additional study, examining the language used by Democrats and Republicans in two very public displays of language – State of the Union speeches and official party platforms.

Study 2 – Masculine and Feminine Word Usage in the State of the Union and Party Platforms

We use the second study to determine the applicability of our newly created database to politics. To do this, we use our database to test the hypotheses derived from the theoretical framework we laid out earlier in the paper. Since we expect to find more frequent usage of masculine language by Republican politicians than Democratic politicians do, we turn to an analysis of State of the Union speeches from 1948-2018 to determine whether this is true among Republican presidents. Full text of these speeches is provided by the American Presidency Project (Wooley & Peters, 2018). State of the Union addresses can be a vital way for presidents to appeal to the public about their policy agendas and goals (Tulis, 1987; Kernell, 1997). Indeed, the State of the Union is seen as a way for presidents to convey their own thoughts and propose new policies (Teten, 2003). Given the similarities in the State of the Union across

[12] Results are derived from a multi-level model including fixed effects for word, and random effects for word raters. The full model is available in the Appendix.

[13] We realized that this divergence in ratings based on partisanship and gender may introduce bias into the word ratings. To this end, we have examined the word ratings while dropping strong partisans, finding similar effects. Word ratings without strong partisan raters included are highly correlated with overall ratings (r = 0.936), and ratings by male and female raters only are highly correlated to overall ratings (r = 0.934 and r = 0.938, respectively), though are a bit less correlated with each other (r = .7645). We have provided a file with average ratings broken down by gender, and provided a full dataset of word ratings by respondent, where each observation is a respondent-rating, in the supplemental materials, to allow other researchers to examine ratings by various characteristics.

presidential administrations, it "can be readily found and compared across all the presidents to mark changes in speech, address, and other elements of delivery" (Teten, 2003, p.335). Each president has traditionally reported on the State of the Union annually, and in our study period, has done so in a live delivery before Congress, carried nationwide on a radio and, later, television broadcast. This gives the president an opportunity to, in his own words, lay out his vision for the country for the upcoming year. If conservatives show a preference for masculine language, we predict that Republican presidents will use more masculine language in their State of the Union speeches than Democratic presidents.

To test this hypothesis, we use our dictionary of masculine and feminine words and pick out words that are the *most* masculine (average rating of 5 or higher) and *most* feminine (average rating of 3 or lower). We chose to use words over these thresholds as we are interested in examining words we are relatively certain are highly masculine or feminine – we appreciate that the word ratings contain some element of error in the coding process, and remain most confident that words rated a full point above or below the midpoint are masculine or feminine. Words below these thresholds become increasingly ambiguously gendered, and, if elites are using this language strategically, we expect that they will want to use words they are more certain are masculine or feminine. Using this approach, a total of 137 words are retained for analysis – 92 masculine words (average rating = 5.32) and 45 feminine words (average rating = 2.65).

We then use Diction 7.1.3[14] software to automatically analyze State of the Union texts for the presence of masculine and feminine language. This creates our dependent variable of a total count[15] of the number of masculine and feminine words used in each speech per 1000 words in the speech, to allow us to control for the varying lengths of each speech. We also include contextual controls – a variable for whether or not the country was at war[16] during the speech, as discussion of war may contain more masculine language, and a variable for divided government, as we expect presidents faced with an adversarial Congress may take a more conflictual approach, a concept generally correlated with masculinity. We additionally cluster standard errors at the president level, to account for correlations in speaking style between presidents. The results of these analyses are presented in Table 2.[17]

Table 2. *Masculine Language in the State of the Union (1948-2018)*

	Masculine Language	Feminine Language	Masculine / Feminine Difference
Democrat	**-2.01*** **	**-0.30**	**-1.71** **
	(0.63)	**(0.28)**	**(0.73)**
War	-0.28	0.18	-0.46
	(0.62)	(0.26)	(0.65)
Divided Government	-0.78	-0.28	-0.50
	(0.59)	(0.24)	(0.69)
Constant	9.78***	1.83***	7.95***
	(0.74)	(0.35)	(0.93)
N	69	69	69
pseudo R^2	0.1349	0.0657	0.0926

Table entries are OLS coefficients with robust standard errors, clustered by President, in parentheses
* p<0.1, ** p<0.05, *** p<0.01

[14] Since we are employing a dictionary of words rated as masculine or feminine, automated content analysis provides a reliable and efficient way to count the presence of these words. We create two custom dictionaries, one of our most masculine words, and one of our most feminine words.

[15] Models including raw counts of the number of masculine and feminine words, while controlling for length of the speech, produce similar results.

[16] During the study period, these wars include the Korean War (1950-1953), the Vietnam War (1964-1973), the first Iraq War (1990-1991), the Afghanistan War / War on Terrorism (2001-present), and the second Iraq War (completely concurrent with the Afghanistan War).

[17] Results are somewhat robust to using the average word rating in each speech (where each word in our dictionary is multiplied by our dictionary rating for each time it occurs, and then divided by the total number of dictionary words in each speech). This analysis suggests that Republicans, on average, use words about .05 points more masculine than Democrats (p = .103, two-tailed). We choose to present the results using cutoff points in the main text because we are concerned about imbalance between masculine and feminine words in our dictionary – 448 words are rated above the midpoint of 4, but only 238 are rated below the midpoint of 4 (and, 14 exactly at the midpoint of 4).

As demonstrated in Table 2[18], Democratic presidents are less likely to use masculine language than Republican presidents, though no significant difference emerges in the use of feminine language ($p = .31$) – indeed, the sign of the effect of Democratic partisanship on feminine language usage is negative, in the opposite direction of expectations.. Democratic presidents are predicted to use about 2 fewer highly masculine words, per 1000 words in a speech, than Republicans. Given that the average number of masculine words per 1000 across all speeches is only 8.2, this represents an effect of partisanship that is a roughly 25% change from the mean. When examining the difference in masculine and feminine words, we find that Democrats are likely to have a smaller difference than Republican presidents, by about 1.7 words.

These results suggest that, among American presidents, Republicans are more likely to use masculine language in their most public proclamations than Democratic presidents. However, these conclusions are limited by a relatively small number of presidents (13 – 6 Democrats, and 7 Republicans). While we have attempted to account for contextual factors, it is possible that peculiarities of these 13 individuals are driving these results, rather than a correlation of masculine language with conservatism. To this end, we turn to an analysis of official party platforms of the Republican and Democratic Parties from 1948-2016.

The American Presidency Project (Wooley & Peters, 2018) provides information about the party platforms of every party who won electoral votes in each presidential election. Party platforms are produced every four years, coinciding with presidential elections. Party platforms may often be ignored by the general public, but are a time-consuming process that often involves a small army of party leaders, rising stars, and interest groups (Victor & Reinhardt, 2018). These platforms are often distinct from candidates, and may represent views of party activists, as the 2008 Republican platform mentioned nominee John McCain only once, and provided significantly more conservative positions on abortion and immigration than McCain's positions (Rozell, Wilcox & Franz, 2012). Those who are most policy focused, and often the most ideological, are most influential in developing official party platforms (Bawn et al., 2012). Indeed, party platforms are more likely to show influence from interest groups that are most ideologically proximate to the political party (Victor & Reinhardt, 2018).

In our analysis, we take both Democratic and Republican primary platforms, and conduct an analytical technique similar to our study of State of the Union speeches – each platform is automatically analyzed in Diction 7.1.3 software to count the total usage of highly masculine (ratings of 5 or higher) and highly feminine (ratings of 3 or lower) language.

To test these effects, we turn OLS regression analysis. We control for whether or not there was an active war, the previous number of electoral votes for the Party, whether the Party had an incumbent president running, and whether there was no incumbent running in the election. These results are presented in Table 3.[19]

The Democratic Party is less likely to use masculine language in their platforms than the Republican Party. For each 1000 words in a platform, Democrats use about 1 fewer masculine word, but no difference based on partisanship emerges for the use of feminine words. Given that parties use an average of about 9.4 masculine words (out of the 137 from our dictionary retained for analysis) per 1000 in their platforms, this represents about a 12% change from the mean value.

[18] Results are robust to excluding the most common words – those that occur with a frequency more than 2 standard deviations above the mean in the total sample of SOTU speeches (gloat, guy, jail, man, massacre, mogul). All 6 of the outlying words are masculine.

[19] Here, results are not entirely robust to excluding words more than 2 standard deviations above the mean in appearances in our entire sample of platforms (more than 404 times). These words are government, power, protect and strong. In this analysis, Democrats are marginally less likely to use masculine language than Republicans ($\beta = -0.46$, $p = 0.194$, two-tailed). Recall, however, that there are only a total of 92 masculine words coded, and the sample size of 36 is very small.

Table 3. *Masculine Language in Party Platforms (1948-2016)*

	Masculine Language	Feminine Language
Democrat	**-1.10****	**0.05**
	(0.47)	**(0.11)**
Previous Electoral Votes	-0.00	-0.00
	(0.00)	(0.00)
War	-0.01	-0.13
	(0.48)	(0.12)
Incumbent President	-1.03	0.14
	(0.76)	(0.18)
No Incumbent Running	-0.52	0.29*
	(0.62)	(0.15)
Constant	10.51***	0.92***
	(0.63)	(0.15)
N	36	36
R2	0.2114	0.1582

Table entries are OLS coefficients with standard errors in parentheses
* p<0.1, ** p<0.05, *** p<0.01

Taken together, this evidence suggests that Republicans are more likely to use masculine language than Democrats – while both parties are more likely to use masculine language, compared to feminine language; this difference is heightened among Republicans. These results persist both in State of the Union addresses given by Presidents, and in official platforms developed by the political parties.

Conclusion

Our findings show that our database has the potential to further test gendered language in politics. We find that masculine language typically is correlated with negative language, and more dominant language, than feminine language. We additionally find that conservatives are more likely to rate words as masculine, compared to liberals, an effect driven only by *male* conservatives. Even in a simple task of rating the masculinity or femininity of words, we find that both gender and partisan identities matter. We also find that Republican presidents are more likely to use masculine language in their State of the Union speeches, and the Republican Party uses more masculine language in their official party platforms. The use of masculine language by Republican platforms is increasing over time, while the use of masculine language by Democrats is holding relatively steady.

This research provides broad implications for scholars of gender, language, and partisanship. Given a considerable gendered divide in politics, our research suggests we must not only consider the *content* of political language may be gendered, but that words themselves may have a gendered component. While we have validated a limited dictionary of gendered words, correlations with valence and dominance suggest that a typology of masculinity can be created, based on other characteristics of language. This work serves to build a bridge between extant work on gendered language in politics by providing a database of words that can be used in experimental and survey treatments.

This research is limited in its ability to discuss gender roles and gendered language. Women and men may use masculine and feminine language differently – it may make sense, for example, for Republican women to benefit from the use of feminine language, given the Republican party's focus on traditional gender roles (Rymph 2006). We are unfortunately limited to only men in our State of the Union speech analysis, though future work could analyze speeches, perhaps in Congress, from women members and determine how frequently they use masculine or feminine language, and partisan differences in language usage. There is a bit of a disconnect, at least for Republicans, between gender and the use of gendered language – conservatives may have a psychological preference for masculine words, but may prefer women to behave in traditional gender roles. Future work would be well served to adjudicate this disconnect.

Further research can build on the present research to analyze more speech from public officials, either in public proclamations or on their burgeoning social media accounts. Moving from an understanding of the use of masculine language to the consequences of masculine language, future research can also examine how masculine and feminine language influences the attitudes of liberals and conservatives differently. It is possible that conservatives may expect politicians to speak in a more masculine way than liberals do, and masculine language should then influence the attitudes of conservatives more effectively than those of liberals. Furthermore, future research should study these phenomena in other countries where partisan and gendered differences exist. While this paper's focus is only on American politics and the English language, it is also useful to understand the effects of gendered language on international political actors.

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Appendix A. Instructions for Word Ratings

In this study, you will rate 100 words as masculine or feminine.

At one extreme of this scale, you will view the word as very feminine. When you feel a word is completely feminine, you should bubble the leftmost option.

The other end of the scale is when you feel a word is completely masculine. You can indicate this by bubbling the rightmost option.

If you feel a word is completely neutral, neither masculine nor feminine, bubble in the option in the middle. If you feel a word falls somewhere in between, then bubble in the space between these options. This permits you to make more finely graded ratings of how you feel in reaction to each word.

Please work at a rapid pace and don't spend too much time thinking about each word. Rather, make your ratings based on your first and immediate reaction as you read each word

Appendix B. Supplemental Analyses

Table B1. *Masculine Language and Valence, Arousal and Dominance – Ridge Regression*

	Masculinity
Valence	-0.28
Arousal	0.04
Dominance	0.32
N	226
R^2	0.2403
Lambda	0.0043
Cross-validation MSE	0.4623

Table entries are regression coefficients (column 2). Control for number of raters and constant are omitted for brevity, *** p<0.01

Table B2. *Masculine Language and Valence, Arousal and Dominance by gender*

	Male Raters	Female Raters
Valence	-0.27***	-0.31***
	(0.04)	(0.05)
Arousal	0.05	0.03
	(0.05)	(0.05)
Dominance	0.33***	0.31***
	(0.08)	(0.09)
N	226	226
R^2	0.1988	0.2314

Table entries are OLS coefficients with standard errors in parentheses. Control for number of raters and constant are omitted for brevity, *** p<0.01

Table B3. *Masculine Language and Valence, Arousal and Dominance by gender (Ridge Regression)*

	Male Raters	Female Raters
Valence	-0.25	-0.29
Arousal	0.05	0.04
Dominance	0.30	0.28
N	226	226
R^2	0.1982	0.2309
Lambda	0.0093	0.0091
Cross-validation MSE	0.4919	0.5932

Table entries are ridge regression coefficients. Control for number of raters and constant are omitted for brevity

Table B4. *Masculine Language and Valence, Arousal and Dominance – Broken Down by ANEW Gender Ratings*

	Average – Male ANEW	Male Average – Male ANEW	Average – Female ANEW	Female Average – Female ANEW
Valence	-0.28***	-0.24***	-0.23***	-0.23***
	(0.04)	(0.04)	(0.04)	(0.05)
Arousal	-0.02	-0.00	0.08**	0.08**
	(0.05)	(0.05)	(0.04)	(0.05)
Dominance	0.31***	0.27***	0.22***	0.17**
	(0.07)	(0.07)	(0.07)	(0.08)
Number of Raters	0.01	0.01	0.01*	0.01*
	(0.01)	(0.01)	(0.01)	(0.01)
Constant	3.97***	3.89***	3.50***	3.64***
	(0.38)	(0.39)	(0.39)	(0.44)
N	226	226	226	226
R^2	0.2231	0.1682	0.2327	0.2236

Table entries are OLS coefficients with standard errors in parenthesis., *** p<0.01, ** p<.05, * p<.10

Table B5. *Masculine Language, Gender, and Partisanship*

	Model 1	Model 2
Republican	0.05***	0.09***
	(0.02)	(0.02)
Female	-0.12	0.08
	(0.07)	(0.10)
Republican x Female		-0.08**
		(0.03)
White	-0.20**	-0.16
	(0.09)	(0.09)
Age	0.001	0.001
	(0.003)	(0.003)
Constant	3.89***	4.16***
	(0.33)	(0.13)
Random Effects (Rater-level)	0.20***	0.19***
	(0.02)	(0.02)
Residual Variance	1.36	1.36
	(0.01)	(0.01)
N	17,555	17,555
# of Raters	176	176

Table entries are multi-level model coefficients with standard errors in parentheses. Models include fixed effects for word (omitted for presentation) and random effects for each individual rater *** p<0.01, ** p<.05

Table B6. *Masculine Language in the State of the Union (1948-2018) – Average word rating among the full sample*

	Average Word Rating
Democrat	**-0.46***
	(0.03)
War	0.02
	(0.03)
Divided Government	0.00
	(0.04)
Constant	4.28***
	(0.04)
N	69
R^2	0.0232

Table entries are OLS coefficients with robust standard errors, clustered by President, in parentheses
* p<0.1, ** p<0.05, *** p<0.01, one-tailed