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Sit Still, Talk Pretty: Partisan Differences Among Women Candidates' Campaign Appeals

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ABSTRACT

Women running for Congress make different choices from men about how to connect with constituents on social media, and the increasing number of women running for Congress from both parties suggests that further assessment of the gendered patterns of emotional appeals is needed. We use this opportunity to assess the joint influence of gender and partisanship on patterns of emotional appeals, showing how party moderates the distinct appeals women candidates make on social media. We use a dictionary-based computational approach to catalog congressional candidates' emotional rhetoric on Twitter during the 2020 election year, finding Republican women use more joyful appeals and fewer angry appeals compared to both Republican men and Democratic women, suggesting a gap in emotive appeals and differing expectations for how women communicate that varies with party. Our results underscore the importance of accounting for relative partisanship in developing a more nuanced explanation of how and when women adopt stereotypical styles of campaign communication as the number of Republican women running for Congress continues to increase.

Introduction

Twitter is one of a many digital tools that congressional candidates use to amplify their message, but while most candidates make use of the platform, women running for office have particularly relied on Twitter to develop relationships with voters and confer legitimacy to their campaigns (Evans and Hayes Clark 2016; McGregor 2018; Meeks 2016; Wagner, Gainous, and Holman 2017). Representative Alexandria Ocasio-Cortez, for example, has successfully wielded social media – from Twitter to Instagram – to connect with her audience and promote her political brand and policy agenda. In the House, Democratic women such as Cori Bush and Ayanna Pressley – notable members of "The Squad" — have used Twitter to promote a progressive agenda. But it's not just Democratic women turning to social media platforms to connect with a digital audience as the rise of Republican women candidates has seen the largest swing over the past two election cycles (CAWP 2020). During the 2020 election, Republican women candidates such as Representatives Lauren Boebert and Marjorie Taylor Greene turned to Twitter to both bolster their Republican base and draw fiery criticism from opposition. For example, in November 2020 Greene turned to Twitter to decry the platform and vent her frustration with the technology industry (see Figure 1).

As the number of women running for Congress across both parties has grown amid the normalization of social media campaigns, existing scholarship offers unclear conclusions about the extent to which party affiliation moderates gendered dynamics in constituent appeals (Dolan 2014; Fridkin, Kenney, and Wintersieck 2015; Osborn 2012). Gendered pressures can affect the policy preferences

Figure 1. Example Tweet from Congresswoman Marjorie Taylor Greene.

and content candidates share online, including the emotional appeals candidates use to motivate voters' attitudes and participation (Bauer and Santia 2021; Carpinella and Bauer 2021). Recent research suggests that women running for Congress are defying gender stereotypes with increasingly angry rhetoric and they are just as likely to go negative (Evans, Cordova, and Sipole 2014; Gervais, Evans, and Russell 2020, 2022), but as the number of Republican women running for office increases within a party-polarized political climate, we assess how party and gender dynamics intersect to shape candidates' emotional appeals.

Prior research on emotion commonly links the prevalence of emotive rhetoric to electoral vulnerability (Brader 2006; Valentino et al. 2011),[1] but we contribute a new framework for gendered emotional appeals that accounts for partisan differences. We offer a more nuanced assessment of how Republican women candidates adopt a distinctly different style of emotive rhetoric on Twitter – different from both Democratic women and male copartisans – that conforms to traditional gender stereotypes. Research on the gender gap in politics shows partisan differences in policy positions between men and women – with Republican women adopting different policy positions than Republican men (Barnes and Cassese 2017). We assess whether a similar within-party gender gap persists in the distinct emotional appeals candidates make to constituents on Twitter.

We leverage the higher rates of Republican women candidates running in 2020 to assess gender dynamics in emotional sentiment across party lines to understand if women use a distinct set of discrete emotions to connect with voters amid a hyper-partisan climate. This research uses over 1.45 million unique tweets from incumbent and challenger candidates' Twitter accounts during the 2020 election to explain the variation in women candidates' appeals on Twitter. We use a dictionary-based computational approach to catalog congressional tweets and find that while women use fewer angry appeals in their public facing rhetoric, those differences are importantly moderated by party. Republican women candidates are significantly more likely to use joyful emotional appeals – much more so than both Republican men or Democratic women. Democratic women, however, are more likely to adopt appeals similar to their male Democratic counterparts, demonstrating distinct

differences between Democratic and Republican women. These gendered appeals reflect expectations associated with existing stereotypes of women, which assume women are constrained in their ability to appear angry and are potentially punished for being an instigator for negativity or conflict (Peterson and Djupe 2005). Our results reveal that this may be especially relevant for Republican women running for office.

With more women running for Congress, particularly in the Republican Party, this has notable implications as to how women candidates in both parties choose to distinguish themselves on social media. Our findings offer important insights into the dual influence of gender and partisan affiliation on campaign communication, with implications for how Republican women win a seat at the table. Given that the United States has seen a rise in the number of Republican women running for Congress these gaps in emotional appeals suggest women may adopt distinct strategies for engaging partisan audiences and motivating voters.

Theoretical background

Emotional appeals on social media

Congressional candidates are increasingly relying on a digital toolbox of public-facing messaging to engage voters and to shape political debates (Auter and Fine 2016; Gainous and Wagner 2013; Stier et al. 2018). In the wake of the COVID-19 pandemic and the 2020 election, digital communication on social media became a necessity rather than a choice, enabling candidates to cultivate emotional connections with voters. While social media is a widely and frequently used tool for congressional candidates to connect with voters, candidates can selectively rely on emotional rhetoric to frame their political brand that best appeals to a digital constituency. Candidates' bombastic rhetoric on Twitter regularly makes headline news, capturing the attention of voters and media who then indirectly channel those messages to voters. Twitter also makes that transfer even easier across its network, where viral information spreads across loose but sprawling connections. As social media has become a dominant source for campaign communication – particularly during the 2020 campaign where voter connections were primarily made virtually – the emotional rhetoric that members of Congress (MCs) use on Twitter is even more impactful.

Emotions influence how people process information and make political judgments (Marcus and MacKuen 1993; Valentino et al. 2011). Much of the early research on politics and emotions adopted a valence concept, showing that positive and negative emotions connect to different information processing strategies; however, recent research argues that it is the specific emotion that influences how information is processed (Fridkin and Allen Gershon 2021; Marcus 2003; Marcus et al. 2000; Weber 2013). Affective Intelligence Theory (AIT) argues specific emotions differentially influence political information processing and related behaviors (Halperin, Canetti, and Kimhi 2012; Marcus et al. 2000; Weber 2013). Emotions activate different biological systems in which both positive and negative emotions prompt routine and more automatic decisions while a negative emotion, anxiety, triggers the surveillance system, reducing reliance on existing information (MacKuen et al. 2010; Marcus et al. 2000; Redlawsk, Civettini, and Lau 2007). Emotions like anger and anxiety, though both considered negative in tone, motivate different information processing responses because anger may motivate while anxiety may incentivize a withdrawal (Gervais 2017). Self-reported anxiety and anger often correlate but research shows they have distinct causes (Averill 1983; Brader, Groenendyk, and Valentino 2010). Further nuance in these discrete emotions is realized when the emotional stimuli are familiar, leading fear and anger to function differently but anger to actually better align with enthusiasm responses.

Congressional candidates' lean into the variation in emotion-distinct strategies in their appeals with voters, establishing the important link between candidates' rhetoric and voters' political opinions and participation (Valentino et al. 2011; Weber 2013). Evidence from prior literature suggests that systematic variation exists for candidates' emotional rhetoric, with most studies often tracing the

use of fear-inducing appeals given their power to motivate (Brader 2006; Evans et al. 2019; Fowler and Ridout 2013; Lau and Pomper 2004). Those voter appeals are regularly considered in the context of electoral vulnerability by prior research whereas factors such as proximity to the election and incumbency status are found to form varying patterns in candidates' use of emotional appeals (Gervais, Evans, and Russell 2020; Hassell and Oeltjenbruns 2016; Kahn and Kenney 1999; Ridout and Searles 2011). Many of these appeals are analyzed within the context of candidate advertising, and most commonly in the form of television ads. It remains less clear, however, when elected officials and challenger candidates may ratchet up specific emotional appeals on a newer platform such as Twitter while campaigning. Social media followers experience similar emotions to the candidate leading the conversation (Kramer, Guillory, and Hancock 2014), which suggests that campaigns can capitalize on certain rhetorical appeals as a means to evoke emotional responses and broaden their reach with voters.

Emotional posts elicit strong responses and also often spur users to respond with their own posts that are consistent with the previous emotions they engage with (Gerodimos and Justinussen 2015; Kramer 2012). As campaigns rely on the ability of emotional states to be transferred (Kramer, Guillory, and Hancock 2014), candidates often emphasize emotional messages and visuals on social media that can reach voters across the spectrum of political involvement (Magin et al. 2017; Marquart et al. 2019). During the 2012 presidential campaign, candidates Mitt Romney and Barack Obama both used emotional messages in half of their Facebook posts (Bronstein 2013), demonstrating the early prevalence of candidates' use of emotional appeals in their social media campaigning. In support of this, recent research on Facebook communications from the 115th Congress finds that congressional candidates also rely on emotional rhetoric in their public outreach and that audience responses frequently mirror the emotion conveyed in those messages (Paul and Sui 2019).

Gendered campaign communication and partisanship

It is important to note that how emotion is conveyed through language differs across individuals, particularly in relation to gender (Kemp, Kennett-Hensel, and Kees 2013). The content of emotional appeals are often socially constructed through masculine and feminine dimensions such that women use language to make connections and strengthen relationships in contrast to men who do so to reinforce their independence and status (Brunel and Nelson 2000; Kemp, Kennett-Hensel, and Kees 2013). Research on candidates' television ads demonstrates support for this notion, finding gender differences in appeals with women candidates reinforcing anger and fear to counter gender stereotypes (Ridout and Searles 2011). This suggests that gender may also impact the emotional rhetoric used in persuasive political messages online as well. All candidates make strategic decisions about how they want to advertise their political brand, yet these choices in messaging do not necessarily look the same for men and women.

Understanding the distinctive ways in which women appeal to voters has important implications for the study of representation. Women running for office not only speak more frequently to the issues of marginalized groups (Bratton and Haynie 1999; Heidbreder and Scheurer 2013; Holman 2010), they also increase women's political participation overall (Wolbrecht and Campbell 2017; Schlozman et al. 1995; Wolak 2015). With more women running for Congress than ever before, campaign communication research has increasingly focused on examining gender differences in the types of appeals candidates make to voters with an emphasis on social media (Evans and Clark 2016; Evans, Cordova, and Sipole 2014, 2016; Wagner, Gainous, and Holman 2017).

Prior scholarship often highlights gender as an important characteristic that shapes different communication patterns (Cormack 2016; Fridkin and Kenney 2014; Gershon 2008; Kathlene 1994). Some scholars argue that women candidates communicate differently than men because female politicians feel simultaneous pressure to reinforce masculine and feminine stereotypes in their communication (Herrnson, Lay, and Stokes 2003; Kahn 1993, 1994; Kahn and Gordon 1997), or to counter stereotypes by selectively emphasizing policy topics in their advertising and social

media (Evans, Cordova, and Sipole 2014; Huddy and Terkildsen 1993; McGregor 2017; McGregor et al. 2017). Women running for office are often forced to decide how to respond to male opponents and whether to pursue "masculine" strategies for communication, and research shows that the gender of candidates influences both issues and strategies during the campaign (Windett 2014).

Another line of research, however, suggests gendered differences are waning – such that candidates adopt similar campaign styles regardless of gender (Bystrom 2006; Sapiro et al. 2011), leaving a mixed picture as to whether women adopt distinct or similar communication strategies to those of men candidates along the campaign trail. The potential to respond to and counter gendered stereotypes in a public, accessible space like Twitter makes it an appealing venue for women and racial minorities to emphasize messages highlighting their competency, work-ethic, and qualifications (Cryer 2019), but in a hyper-partisan political climate, the influence of gender stereotypes may not be equally felt across both parties.

One potential explanation for the variation in gendered communication behavior is the intersection between gender and partisan identities for candidates and the ways in which women run for office across both parties. Candidates communicate on social media to foster public support and develop desired narratives by providing information both directly and indirectly to voters (Gilens 2001; Gross 2008), but how candidates do that may be both influenced by gender and party norms. Research shows a growing divide between Democratic and Republican women and increased similarity between copartisans regardless of gender (Frederick 2009; Osborn 2012). Women running for Congress seek to match the needs of their voters, but they must do so through the constraint of party institutions (Bauer 2015; Osborn 2012; Thomsen 2015). While both Democrat and Republican parties have adopted similar strategies that exclude women from the candidate-recruitment process, the networks and support of women candidates across both parties is variable (Sanbonmatsu 2002). Distinct party cultures that may foster Democratic representation and inhibit Republican women may not only shape electoral outcomes but also rhetoric (Elder 2012). The incentive structures are different for Democratic and Republican women's candidacy (Reingold and Harrell 2010) and those incentives may also structure how they communicate that candidacy online.

Prior studies on digital emotional appeals often address gender differences in candidates' use of emotional appeals on Twitter and Facebook (Evans, Cordova, and Sipole 2014; Lee and Lim 2019; Meeks 2016; Russell, 2021a; Wagner, Gainous, and Holman 2017), yet less scholarly attention has been paid to the question of the intersectional dynamics of gender and party in digital communications. This article explores how such candidate characteristics may intersect and moderate those emotional social media appeals, importantly because research suggests that the rhetorical choices elites make in political discourse often lead the public to follow suit (Gervais 2017).

Hypotheses

We contribute to the growing literature on digital campaign rhetoric by suggesting a framework of gendered emotional appeals on social media that captures the important differences in how women and men appeal to voters in a partisan political environment. Women are running for office and winning at rates comparable to men, but prior research suggests different expectations for the types of emotional rhetoric among men and women running for office. While some scholarship notes that women actively counter stereotypes by ratcheting up the angry rhetoric (Ridout and Searles 2011) and adopting more attacking rhetoric on social media (Evans et al. 2017), women also use social media to communicate in unique ways given that they are the "out party" or "political outsiders" (Evans and Clark 2016). This outsider role may lead women candidates, regardless of party, to adopt a more positive frame for their messaging that comports with perceived gender stereotypes that portray women as more relationship oriented and nurturing. Angry or less enthusiastic tweets could be particularly problematic for women because negativity contrasts the notion of women as sensitive or nurturing (Trent and Sabourin 1993;

Krupnikov and Bauer 2014). We thus expect that women are making different emotional appeals to voters than men given that women must avoid coming off as negative or angry: in order to counter perceived gender stereotypes, they must be more joyful.

- Hypothesis 1: Women candidates will use less angry emotional appeals on Twitter than men.
- Hypothesis 2: Women candidates will use more joyful emotional appeals on Twitter than men.

The 2020 election featured a notable number of women running, particularly Republican women, allowing us to explore whether important partisan differences emerge in women candidates' emotional appeals online. Research by Osborn (2012) suggests that lawmakers' sex and party influences their approaches to representation, and part of that representation is defining themselves on social media for voters. Republican women may be more likely to adopt more stereotype-confirming styles of representation that emphasize their positive traits and avoid "mudslinging" or getting "too angry." Democratic women candidates, whose base consists of many more women, may feel more able to break from those stereotypes and communicate with emotional appeals more similar to their male Democratic counterparts. This partisan differentiation in emotional appeals is compounded by a political climate where Democratic women are responding to President Trump and Republican control in the Senate and White House while Republican women will likely be more apt to defend or remain silent on the actions of a Republican administration.

- Hypothesis 3: Republican women will use different emotional appeals on Twitter compared to Democratic women.
- Hypothesis 4: Republican women will use different emotional appeals on Twitter compared to Republican men.

We use over 1.26 million tweets to assess how gender factored into the highly partisan and polarized 2020 election, where candidates often expressed their anger over the public health crisis and government management of it on social media to fuel their voter outreach and promote their political brand. Candidates make choices about how and when to rile up different emotions from voters, and these choices about when to get angry or reduce anxiety on Twitter have implications for our understanding of how women counter gender stereotypes and attempt to present a compelling message to the public.

Data and methods

To address our hypotheses, we study the public tweets of 1,617 congressional candidates — 530 women and 1,087 men – running in 2020 for the House of Representatives. Our dataset contains both incumbent and challenger candidate tweets from January 1st, 2020 to Election Day (i.e., November 3rd, 2020) scraped using Twitter's API from a total of 2,009 unique user accounts ($n = 1,445,441$ tweets). The initial list of candidates' Twitter handles used for the data collection was manually compiled, along with other known social media accounts, by an undergraduate research assistant if listed on the candidate's campaign website or Ballotpedia. In an effort to reduce noise in the initial data that may arise with fringe or atypical challenger candidates, we focus our analysis on main party Democratic and Republican candidates, excluding tweets from challengers running as third party or without a party affiliation.

To ensure our analyses include all incumbents' communications that may take place on Twitter prior to the 2020 election, we chose to keep all office and campaign accounts in our dataset and make the candidate the unit of analysis (all incumbents have an office account but not all have a separate campaign account). There are 391 incumbents in our dataset (481,580 tweets). Table 1 displays the number of unique candidates, Twitter accounts, and tweets in our dataset by incumbency, gender, and party affiliation. The table also includes the average number of tweets per candidate.

Table 1. Number of Candidates, Accounts, and Tweets.

			Candidates	Accounts	Tweets	Avg. per Candidate
Incumbents	Women	Democrat	85	164	142,893	1,681
		Republican	11	22	11,266	1,024
		Total	96	186	154,159	1,606
	Men	Democrat	136	261	192,476	1,415
		Republican	159	303	134,945	849
		Total	295	564	327,421	1,110
Non-Incumbents	Women	Democrat	259	270	259,317	1,001
		Republican	175	179	124,699	713
		Total	434	449	384,016	885
	Men	Democrat	342	353	333,145	974
		Republican	450	457	246,700	548
		Total	792	810	579,845	732
			*1,617	2,009	1,445,441	894

Note: * Refers to the number of total unique candidates in our full dataset.

Measuring emotive rhetoric

We use a computational dictionary approach to measure and analyze candidates' use of emotional appeals in all tweets in our dataset. In contrast to hand-coding, automated textual analysis allows us to study congressional communications more comprehensively and efficiently (see: Grimmer and Stewart 2013). We study candidates' reliance on emotional appeals, measuring rhetoric that contains the following six specific emotions: *anger*, *disgust*, *fear*, *sadness*, *joy*, and *trust*. The dictionary categories used for our analysis are derived from the NRC Word-Emotion Association Lexicon,[2] in which the set of words for each category (sourced from previous lexicons)[3] are labeled manually by crowdsourced coders as being associated with each particular emotion. For the anger, disgust, fear, and sadness categories we leverage a recently revised version of the NRC negative sentiment dictionary that improves upon the accuracy and face validity of the original measures (Hua and Macdonald 2020). In brief, the authors manually evaluated all words in the NRC sentiment dictionary ($k = 3,342$ unigrams) to determine whether each could be reasonably used in the congressional context.[4]

To construct our full dictionary object containing the aforementioned emotive categories, we combined the keys from the original NRC lexicon and the revised dictionary. Table 2 displays the dictionary categories and number of unigrams for the original NRC lexicon (Mohammad and Turney 2013), the revised negative sentiment dictionary (Hua and Macdonald 2020), and the final compiled dictionary object. After this, we converted the approximately 1.46 million tweets in our dataset into a document-feature matrix, applying standard text pre-processing steps – i.e. lowercasing, removing conventional English stopwords, Twitter-specific stopwords, punctuation, and numbers – to clean the text prior to running the compiled dictionary object. This produced separate frequency scores indicating the number of emotion-associated words for each respective category that were identified in each tweet per the compiled dictionary object. These score variables serve as the basis of our dependent variables in the following analyses. Table 3 provides examples of tweets by 2020 congressional candidates and a frequency score assigned to each.

Table 2. Dictionary Categories and Number of Unigrams.

Category	Original NRC	Revised*	Compiled Object
Anger	1,247	1,012	1,012
Disgust	1,058	841	841
Fear	1,476	1,014	1,014
Sadness	1,191	921	921
Positive	2,312	NA	2,312
Joy	689	NA	689
Trust	1,231	NA	1,231
k total	9,204	3,788	8,020

Note: * Only contains revised keys for negative sentiment dictionary categories.

Table 3. Examples of 2020 Campaign Tweets and Emotion Scores.

Campaign	Tweet Text	Frequency Score
Todd Rowley (Democratic Non-Incumbent, PA-13)	Trump draft deferments - fraud Trump University - fraud Trump Charitable Foundation - fraud Trump bank loan applications - fraud Trump tax deductions - fraud Trump a self-made billionaire - fraud Trump a Conservative - fraud Trump a Christian - fraud Trump Presidency - fraud	Anger: 9
Patrice Kimbler (Republican Non-Incumbent, CA-36)	Ok! I decided to do a Play by Play recap of the impeachment hearing. . .. Schiff: blah, blah, blah blah blah blah blah, blah. Then he (Schiff) pipped up with: lie, lie lie, lie lie lie lie, lie lie. He finished with blah, blah blah blah blah, impeach.	Disgust: 10
Katherine Clark (Democratic Incumbent, MA-5)	LOVE IS LEGAL! #PrideMonth #PRIDE2020 #LGBTQ #SCOTUS	Joy: 22
Fabian Cordova Vasquez (Republican Non-Incumbent, TX-33)	Gmorning Early Voting! Let's exercise our right and freedom to vote for our Faith, Family and Freedom! Vote VASQUEZ! We Get To Serve . . . Thank you in advance for your vote and to all the Glory & Praise be to Almighty GOD! Respectfully, Fabian Cordova Vasquez	Trust: 10

Results

To assess how women candidates use emotional appeals on Twitter, we estimate separate multivariate linear regression models for each of the seven categories discussed previously – anger, disgust, fear, sadness, positive, joy, trust – in which the candidate-month is the unit of analysis[5] and the dependent variable is the candidates' average use of emotion-specific words per tweet for each respective category. Table 4 provides descriptive statistics of the average emotion words as a proportion of the total number of words in candidate tweets, by candidate. For most emotions, the modal number of emotion words is 0. The average varies by emotion – the smallest is disgust at 0.19 and the largest is positive at 1.63.

For regression analysis we aggregate our dataset at the candidate-level by month, in which each candidate's set of tweets per month is grouped into separate observations (up until November). This leaves us with 13,975 total unique candidate-month observations, capturing any variation that may occur across time as the election date becomes closer. Each candidate therefore has a separate score for each month that signifies the candidate's average use of emotive words per tweet during each of the eleven months leading up to the 2020 election. The average general election candidate, for example, would have 11 different observations in the aggregated dataset, which enables us to explore differences in candidates' use of emotive rhetoric throughout the election year.

Table 5 displays the results of our multivariate regression models estimating all candidates' average use of emotive rhetoric on Twitter in 2020. Standard errors are in parentheses. In addition to our key hypothesized indicators pertaining to (1) *gender* (female/male) and (2) *party* (Democrat/Republican), we also include other candidate- and district-level variables controlling for (3) incumbency status (incumbent/non-incumbent), (4) district competitiveness, and (5) whether or not the candidate is

Table 4. Descriptive Statistics of Average Emotion Words in Candidate Tweets, by Candidate.

Emotion	Minimum	1st Quartile	Median	Mean	3rd Quartile	Maximum	Standard Deviation
Anger	0	0	0	0.32	0	31	0.68
Disgust	0	0	0	0.19	0	31	0.50
Fear	0	0	0	0.35	1	16	0.72
Sadness	0	0	0	0.29	0	20	0
Positive	0	0	1	1.63	3	54	1.66
Joy	0	0	0	0.55	1	54	0.88
Trust	0	0	1	1.13	2	54	1.31

Table 5. OLS Regression of All 2020 candidates' Monthly Average Use of Emotive Words per Tweet (Grouped by Candidate-Month).

	Dependent Variable:						
	Anger (1)	Disgust (2)	Fear (3)	Sadness (4)	Positive (5)	Joy (6)	Trust (7)
Female	−0.014***	−0.020***	−0.011**	−0.012***	0.042***	0.032***	0.006
	(0.004)	(0.003)	(0.005)	(0.004)	(0.013)	(0.007)	(0.010)
Party (R)	−0.029***	−0.013***	−0.052***	−0.052***	−0.052***	0.013**	0.039***
	(0.004)	(0.003)	(0.004)	(0.004)	(0.013)	(0.006)	(0.010)
Incumbent	0.026***	−0.003	0.077***	0.065***	0.620***	0.120***	0.360***
	(0.004)	(0.003)	(0.005)	(0.004)	(0.014)	(0.007)	(0.010)
Competitive	−0.003	−0.011***	0.002	−0.008*	0.100***	0.039***	0.058***
	(0.005)	(0.003)	(0.005)	(0.004)	(0.015)	(0.007)	(0.011)
White	0.005	0.009***	0.004	−0.001	0.008	−0.022***	0.036***
	(0.005)	(0.003)	(0.005)	(0.004)	(0.014)	(0.007)	(0.011)
Observations	13,582	13,582	13,582	13,582	13,582	13,582	13,582
R^2	0.620	0.520	0.650	0.630	0.870	0.760	0.850
F Statistic (df = 59; 13523)	379***	247***	430***	389***	1,511***	722***	1,267***

Note: Models include month and state fixed effects. * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

racially white. We include month- and state-fixed effects in all models. Our measure of electoral safety assessing district competitiveness is drawn from Cook's *competitiveness* score from November 2, 2020.

Hypothesis 1: *Women candidates will use fewer angry emotional appeals on Twitter than men.*

In addressing our first hypothesis, we find support for the expectation that women candidates are less likely to use angry emotional appeals in their tweets than men during the 2020 campaign. Table 5 shows that, holding all else constant, women candidates on average are associated with decreased use of angry rhetoric, in addition to lower levels of disgust, fear, and sadness on Twitter in comparison to men. More specifically, women are found to use about 0.02 less disgust words, and about 0.01 less anger, fear, and sadness words per tweet on average ($p < 0.05$). These differences represent an average difference of about three to five percent in the use of these emotion words across all candidates in 2020 (see Table 4).

When looking at the all-candidates models displayed in Table 5, women candidates are not more likely than men to rely on angry emotional appeals as a means of reaching voters and amplifying their candidacy, reinforcing gender types that expect women to be more positive and warm. Countering recent studies that find women candidates use more attacking rhetoric (Evans and Clark 2016) and get more angry on Twitter (Gervais, Evans, and Russell 2020), our findings echo those from traditional campaign communication research that suggest women are less or as likely to adopt angry or negative-tone advertising in their campaigns (Bystrom 2006; Proctor, Schenck-Hamlin, and Haase 1994; Sapiro et al. 2011). This suggests that candidates' gender influences not only issue strategies during the campaign (Windett 2014), but may also constrain or motivate the types of appeals made to the public.

Hypothesis 2: *Women candidates will use more joyful emotional appeals on Twitter than men.*

In addition to using fewer angry emotional appeals, we find that women candidates also use more joyful appeals, on average, than men on Twitter, providing support for our second hypothesis. Holding all else constant, Table 5 shows that women candidates use about 0.03 more joy words per tweet than men ($p < 0.01$).[6] This difference represents about a six percent difference of the average use of joy words by all candidates (see Table 4). By adopting a more positive frame for their campaign messaging that specifically emphasizes joy-associated language, women candidates may be attempting to avoid coming off negative or angry as a means to counter perceived gender stereotypes of their emotionality. Republican women and Democratic women, however, may not conform to these

expectations to the same extent, leading to differing use of emotional appeals on Twitter.

> **Hypothesis 3:** *Republican women will use different emotional appeals on Twitter compared to Democratic women.*

We find that while women candidates are overall using more joyful and fewer angry appeals in their tweets than men, these differences are moderated by party. Table 6 displays the multivariate models estimating all women candidates' average use of emotive words per tweet, aggregated by candidate-month. In support of our third hypothesis, we find important partisan differences amongst women candidates' use of emotional appeals on Twitter. On average, Republican women are found to use significantly fewer emotional appeals specifically associated with anger, fear, and sadness ($p < 0.01$) than their Democratic counterparts. Republican women are significantly more likely to use rhetoric specifically associated with joy, using approximately 0.04 more joy-specific words per tweet on average ($p < 0.05$). This highlights the importance of taking into account partisan differences between Republican women and Democratic women when seeking to understand patterns in their communications and representational styles.

As the results in Table 6 indicate, Republican women may be adopting to a greater extent more stereotype-confirming styles of representation that emphasize highly-positive traits such as joyfulness. Given the vast demographic differences between each party's voting base particularly with regards to gender, Republican women candidates may be more careful to avoid "mudslinging" behavior or being typecast as being "too angry," leading them to adopt more joyful emotional appeals in their public rhetoric.

In order to further assess how gender and party dynamics intersect in shaping the emotional appeals candidates share online, we also estimate within-party multivariate linear regression models of candidates' monthly average use of emotion-specific rhetoric for Democrats and Republicans separately. Table 7 and Table 8 display the results of the party-specific regressions on Democratic and Republican candidates, respectively. Across both sets of party-specific models, Democratic and Republican women candidates are found to use significantly less disgust and sadness rhetoric, but more joyful rhetoric, in comparison to their male co-partisans ($p < 0.05$). The gendered-differences in emotive rhetoric are much starker, however, within the Republican Party.

In contrast, as displayed in Table 7, Democratic women appear to communicate rather similarly to Democratic men with no significant differences in their use of anger or fearful emotive rhetoric. While prior research finds women candidates to play against stereotypes and use more anger and fear in their televised ad appeals (Ridout and Searles 2011), we only find similar gendered patterns within the Republican Party while Democratic women and men do not significantly differ in their use of anger and fear.

Table 6. OLS Regression of 2020 Women candidates' Monthly Average Use of Emotive Words per Tweet (Grouped by Candidate-Month).

	Dependent Variable:						
	Anger (1)	Disgust (2)	Fear (3)	Sadness (4)	Positive (5)	Joy (6)	Trust (7)
Party (R)	−0.023***	−0.0003	−0.045***	−0.041***	−0.054**	0.035***	0.024
	(0.007)	(0.004)	(0.008)	(0.007)	(0.022)	(0.011)	(0.016)
Incumbent	0.076***	0.030***	0.120***	0.110***	0.640***	0.130***	0.360***
	(0.008)	(0.005)	(0.009)	(0.008)	(0.025)	(0.013)	(0.018)
Competitive	0.005	−0.014***	0.012	0.0004	0.190***	0.066***	0.120***
	(0.007)	(0.005)	(0.008)	(0.007)	(0.023)	(0.012)	(0.017)
White	−0.007	−0.004	−0.011	−0.016**	0.097***	0.009	0.078***
	(0.007)	(0.004)	(0.008)	(0.007)	(0.021)	(0.011)	(0.016)
Observations	4,634	4,634	4,634	4,634	4,634	4,634	4,634
R^2	0.670	0.590	0.680	0.660	0.890	0.780	0.870
F Statistic (df = 56; 4578)	165***	116***	117***	157***	639***	297***	555***

Note: Models include month and state fixed effects. * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

Table 7. OLS Regression of 2020 Democratic candidates' Monthly Average Use of Emotive Words per Tweet (Grouped by Candidate-Month).

	Dependent Variable:						
	Anger (1)	Disgust (2)	Fear (3)	Sadness (4)	Positive (5)	Joy (6)	Trust (7)
Female	−0.008	−0.020***	−0.006	−0.010**	0.049***	0.020***	0.019*
	(0.005)	(0.004)	(0.006)	(0.005)	(0.016)	(0.008)	(0.012)
Incumbent	0.051***	0.010**	0.110***	0.091***	0.610***	0.120***	0.360***
	(0.006)	(0.004)	(0.006)	(0.006)	(0.017)	(0.008)	(0.013)
Competitive	−0.012*	−0.020***	−0.006	−0.014**	0.110***	0.050***	0.064***
	(0.007)	(0.005)	(0.007)	(0.006)	(0.020)	(0.010)	(0.015)
White	0.008	0.015***	0.010	0.005	−0.018	−0.027***	0.022*
	(0.006)	(0.004)	(0.006)	(0.005)	(0.017)	(0.008)	(0.013)
Observations	7,263	7,263	7,263	7,263	7,263	7,263	7,263
R²	0.670	0.560	0.700	0.680	0.890	0.800	0.870
F Statistic (df = 58; 7205)	255***	158***	293***	258***	994***	428***	846***

Note: Models include month and state fixed effects. * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

Table 8. OLS Regression of 2020 Republican candidates' Monthly Average Use of Emotive Words per Tweet (Grouped by Candidate-Month).

	Dependent Variable:						
	Anger (1)	Disgust (2)	Fear (3)	Sadness (4)	Positive (5)	Joy (6)	Trust (7)
Female	−0.032***	−0.027***	−0.028***	−0.024***	0.041*	0.052***	−0.019
	(0.008)	(0.005)	(0.008)	(0.007)	(0.024)	(0.012)	(0.019)
Incumbent	−0.0002	−0.014***	0.042***	0.038***	0.600***	0.110***	0.340***
	(0.008)	(0.005)	(0.008)	(0.007)	(0.024)	(0.012)	(0.019)
Competitive	0.003	−0.005	0.007	−0.005	0.096***	0.033***	0.045***
	(0.007)	(0.005)	(0.007)	(0.006)	(0.022)	(0.011)	(0.017)
White	0.006	0.001	0.001	−0.002	0.047*	−0.013	0.051**
	(0.009)	(0.006)	(0.009)	(0.007)	(0.026)	(0.014)	(0.021)
Observations	6,319	6,319	6,319	6,319	6,319	6,319	6,319
R²	0.570	0.480	0.590	0.570	0.850	0.720	0.820
F Statistic (df = 57; 6262)	147***	103***	159***	146***	606***	290***	515***

Note: Models include month and state fixed effects. * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

Hypothesis 4: *Republican women will use different emotional appeals on Twitter compared to Republican men.*

We now turn to our final hypothesis in which we specifically assess gender differences in all Republican candidates' emotional appeals on Twitter. While our previous findings demonstrate that women candidates indeed rely on emotional appeals differently compared to men, there are important differences between the way Democratic women and Republican women communicate that may reflect varying partisan-influenced strategies.

In Table 8 we see that within the Republican Party, women candidates differ much more in their use of emotional language from their male co-partisans than Democratic women did from theirs (as shown in Table 7). The finding of gender differences within the Republican Party – stronger than that within the Democratic party – echoes research that finds that party affiliation often moderates how constituents respond to lawmakers of both genders. Research by Costa and Schaffner (2018) finds that female Republican legislators are rated more positively than male Republican legislators, but Democratic legislators are not rated differently based on their gender.

Table 8 shows that on average, Republican women are using significantly less anger, disgust, fear, and sadness emotive rhetoric ($p < 0.01$), and more positive ($p < 0.05$), joyous rhetoric ($p < 0.01$) than Republican men. As above, the substantive interpretation of these differences represents about three to

five percent of the average use of these emotion words by all candidates (see Table 4). Across both party-specific sets of models, we find women candidates are consistently more likely to use joyful emotive appeals on social media to appeal to voters compared to men, demonstrating that women are adopting different rhetorical strategies that are likely to emphasize positive traits. As more Republican women run for office, how Republican and Democratic women distinguish themselves in differing ways will have important implications to understanding the specific ways in which party and gender dynamics intersect in shaping candidates' rhetoric and self-presentation.

Discussion & conclusion

Women running for Congress make different choices from men about how to connect with constituents on social media, and the increasing number of women running for Congress from both parties suggests further assessment is needed of gendered patterns of emotional appeals. While we still don't know the long-term electoral consequences of these appeals for women candidates, we show that women adopt distinct appeals on social media but those appeals are moderated by party. In this article, we have argued that women running for office in 2020 used different emotional rhetoric than their male colleagues, finding that women are generally more joyful in their appeals and, consistent with prior assumptions about gender norms, are *less* likely to adopt angry appeals.

Additionally, we find that Republican women candidates are significantly more likely to use joyful emotional appeals – much more so than both Republican men and Democratic women. Democratic women, however, are more likely to adopt appeals similar to their male Democratic counterparts, demonstrating distinct differences between Democratic and Republican women. These gendered appeals reflect expectations associated with existing stereotypes of women, which assume women are constrained in their ability to appear angry and are potentially punished for being an instigator for negativity or conflict (Peterson and Djupe 2005). Our results reveal that this may be especially relevant for Republican women running for office. This underscores the importance of accounting for relative partisanship in developing a more nuanced explanation of how partisan women adopt different styles of campaign communication. The application of gender stereotypes may be felt differently by candidates from either party, and the impact of those differences may increase with growing numbers of Republican women running for Congress.

We have shown evidence that different types of politicians, by gender and party, choose to use different types of emotive language at different levels. Other work has begun to examine the impact of different types of appeals by congressional campaigns on social media. For example, when 2020 congressional campaigns used more negative rhetoric in their Facebook posts they received more engagement in likes, shares, and comments (Macdonald, Russell, and Hua 2023). However, other work has also shown that this does not hold equally for all candidates. Though 2020 female congressional candidates use more negative sentiment in their Facebook posts than male candidates on average, they do not receive additional benefits of greater spread of their posts on Facebook from their behavior, but do receive more likes and comments (Russell, Macdonald, and Hua 2023). In related work, Facebook and Twitter posts by news media and members of Congress that referenced the out-group received twice as much engagement (in shares and retweets) than those which referenced the in-group (Rathje, Van Bavel, and van der Linden 2021). This remains a fruitful pathway for continued work across social media platforms and to assess how politician's messages affect the engagement they receive on- and off-platform.

A limitation of the study and opportunity for future work is to investigate and understand the source of these partisan differences – whether they are grounded in constituents' expectations or rather, elite-driven styles of rhetoric. There are also a few limitations in using a dictionary-based approach, such as the concern that a dictionary developed for one purpose is applied to another context, which can cause misleading inferences (Grimmer and Stewart 2013; Loughran and McDonald 2011). We are less concerned with this possibility given that we draw upon a dictionary in which the words for each emotive category is manually assessed for whether each word is *associated* with the particular emotion, rather than if the word evokes or elicits it (Mohammad and Turney 2013)—the latter of which is much

more context-dependent and subjective to the coder. Despite these limitations, however, our research has important implications for the understanding of the relationship between gender and party in campaign communication, suggesting that stereotypes may be conditional in communication.

Congressional candidates' patterns of political communication on Twitter add to a growing body of research that explores how politicians communicate with voters and other audiences, particularly on new platforms that have the ability to amplify emotional appeals on a global scale. As more women of both parties are elected to office, their campaign communications become an important source of information about how gendered appeals play out in elections. All candidates need to build a reputation (Russell, 2021; Bernhard and Sulkin 2018), and many now use their daily communications on Twitter to facilitate that political brand – this branding, however, may be shaped by both gender and party. Scholars have long studied how candidates advertise, but never before has there been such an accessible and concentrated measure like Twitter that captures politicians' daily appeals in a homogenous format.

The next step is to question how these patterns of communication hold across candidates' communications over time and whether gender stereotypes can play a factor given a change in the political climate or variable electoral constraints. Assessing candidates' communication on Twitter moves communication research toward a more complex understanding of how politicians appeal to their constituents and share information that reinforces or confronts perceived stereotypes.

Notes

1. An exception being Gervais and Morris (2018).
2. The NRC Word-Emotion Association Lexicon (Mohammad and Turney 2013) is an open-access resource available at: https://saifmohammad.com/WebPages/NRC-Emotion-Lexicon.htm. It contains 13,901 unigrams across 10 categories: two broad sentiment categories (negative and positive) with four discrete emotive categories contained in each.
3. Specifically drawn from 1) the Macquarie Thesaurus (which includes phrases); 2) the Ekman subset of the WordNet Affect Lexicon; and 3) all terms in the General Inquirer. See Mohammad and Turney (2013) for further detail.
4. Hua and Macdonald's (2020) revised negative sentiment dictionary (which contains about 20% less unigrams) is found to accurately classify 76.5% of messages with negative language in comparison to hand-coding, improving upon the original dictionary's performance accuracy metric by 5%.
5. We estimate alternative models aggregated at the Twitter account level and find substantively similar results (see Appendix Table 1–Table 4).
6. There are no significant gender differences found in candidates' use of trust appeals, however, which we aim to investigate further in the next iteration of this research.

Disclosure statement

No potential conflict of interest was reported by the author(s).

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References

Auter, Zachary J., and Jeffrey A. Fine. 2016. "Negative Campaigning in the Social Media Age: Attack Advertising on Facebook." *Political Behavior* 38 (4):999–1020. doi:10.1007/s11109-016-9346-8.

Averill, James R. 1983. "Studies on Anger and Aggression: Implications for Theories of Emotion." *American psychologist* 38 (11): 1145.

Barnes, Tiffany D., and Erin C. Cassese. 2017. "American Party Women: A Look at the Gender Gap Within Parties." *Political Research Quarterly* 70 (1):127–41. doi:10.1177/1065912916675738.

Bauer, Nichole M. 2015. "Emotional, Sensitive, and Unfit for Office? Gender Stereotype Activation and Support Female Candidates.". *Political Psychology* 36 (6): 691–708.

Bauer, Nichole M., and Martina Santia. 2021. "Going Feminine: Identifying How and When Female Candidates Emphasize Feminine and Masculine Traits on the Campaign Trail." *Political Research Quarterly* 75 (3):691–705. doi:10.1177/10659129211020257.

Bernhard, William, and Tracy Sulkin. 2018. *Legislative style*. University of Chicago Press.

Brader, Ted. 2006. *Campaigning for Hearts and Minds: How Emotional Appeals in Political Ads Work*. Chicago: University Of Chicago Press.

Brader, Ted, Eric W. Groenendyk, and Nicholas A. Valentino. 2010 April 22–25. "Fight or flight? When political threats arouse public anger and fear." Paper presented at the Annual Meeting of the Midwest Political Science Association, Chicago, IL.

Bratton, Kathleen A., and Kerry L. Haynie. 1999. "Agenda Setting and Legislative Success in State Legislatures: The Effects of Gender and Race." *The Journal of Politics* 61 (3):658–79. doi:10.2307/2647822.

Bronstein, Jenny. 2013. "Like Me! Analyzing the 2012 Presidential Candidates Facebook Pages."*Online Information Review* 37 (2): 173–92.

Brunel, Frédéric F., and Michelle R. Nelson. 2000. "Explaining Gendered Responses to "Help-self" and "Help-others" Charity Ad Appeals: The Mediating Role of World-Views." *Journal of Advertising* 29 (3): 15–28.

Bystrom, Dianne. 2006. Gender and Campaign Communication: TV Ads, Web Sites, and Media Coverage. Working paper. https://escholarship.org/uc/item/3nh303r0.

Carpinella, Colleen, and Nichole M. Bauer. 2021. "A Visual Analysis of Gender Stereotypes in Campaign Advertising." *Politics, Groups, and Identities* 9 (2):369–86. doi:10.1080/21565503.2019.1637353.

Cormack, Lindsey. 2016. "Gender and Vote Revelation Strategy in the United States Congress." *Journal of Gender Studies* 25 (6):626–40. doi:10.1080/09589236.2015.1078228.

Cryer, Jennifer. 2019. "Navigating Identity in Campaign Messaging: The Influence of Race & gender on strategy in US Congressional Elections." 2019 National Conference of Black Political Scientists (NCOBPS) Annual Meeting.

Dolan, Kathleen. 2014. "Gender Stereotypes, Candidate Evaluations, and Voting for Women Candidates: What Really Matters?" *Political Research Quarterly* 67 (1):96–107. doi:10.1177/1065912913487949.

Elder, Laurel. 2012. "The Partisan Gap Among Women State Legislators." *Journal of Women, Politics & Policy* 33 (1):65–85. doi:10.1080/1554477X.2012.640609.

Evans, Heather K., Victoria Cordova, and Savannah Sipole. 2014. "Twitter Style: An Analysis of How House Candidates Used Twitter in Their 2012 Campaigns." *PS: Political Science & Politics* 47 (2):454–62. doi:10.1017/S1049096514000389.

Evans, Heather K., Jessica Habib, Danielle Litzen, Bryan San Jose, and Ashlee Ziegenbein. 2019. "Awkward Independents: What are Third-Party Candidates Doing on Twitter?" *PS: Political Science & Politics* 52 (1):1–6. doi:10.1017/S1049096518001087.

Evans, Heather K., and Jennifer Hayes Clark. 2016. ""You Tweet Like a girl!" How Female Candidates Campaign on Twitter." *American Politics Research* 44 (2): 326–352. doi:10.1177/1532673X15597747.

Evans, Heather K., Sean Smith, Alexis Gonzalez, and Kayla Strouse. 2017. "Mudslinging on Twitter During the 2014 Election." *Social Media and Society* 3 (2):2056305117704408. doi:10.1177/2056305117704408.

Fowler, Erika Franklin, and Travis N. Ridout. 2013. "Negative, Angry, and Ubiquitous: Political Advertising in 2012." *The Forum* 10 (4):51–61. doi:10.1515/forum-2013-0004.

Frederick, Brian. 2009. "Are Female House Members Still More Liberal in a Polarized Era? The Conditional Nature of the Relationship Between Descriptive and Substantive Representation." *Congress & the Presidency* 36 (2):181–202. doi:10.1080/07343460902948097.

Fridkin, Kim, and Sarah Allen Gershon. 2021. "Nothing More Than Feelings? How Emotions Affect Attitude Change During the 2016 General Election Debates." *Political Communication* 38 (4):370–87. doi:10.1080/10584609.2020.1784325.

Fridkin, Kim, Patrick J. Kenney, and Amanda Wintersieck. 2015. "Liar, Liar, Pants on Fire: How Fact-Checking Influences citizens' Reactions to Negative Advertising." *Political Communication* 32 (1):127–51. doi:10.1080/10584609.2014.914613.

Fridkin, Kim, and Patrick J. Kenny. 2014. "Different Portraits, Different Leaders? Gender Differences in U.S. Senators' Presentation of Self." In *Women and Elective Office: Past, Present, and Future*, 3rd. ed., eds. Sue Thomas and Clyde Wilcox. Oxford: Oxford University Press, 126-44.

Gainous, Jason, and Kevin M. Wagner. 2013. *Tweeting to Power: The Social Media Revolution in American Politics*. New York: Oxford University Press.

Gerodimos, Roman, and Jákup Justinussen. 2015. "Obama's 2012 Facebook Campaign: Political Communication in the Age of the Like Button." *Journal of Information Technology & Politics* 12 (2):113–32. doi:10.1080/19331681.2014.982266.

Gershon, Sarah Allen. 2008. "Communicating Female and Minority Interests Online: A Study of Web Site Issue Discussion Among Female, Latino, and African American Members of Congress." *The International Journal of Press/politics* 13 (2):120–40. doi:10.1177/1940161208315741.

Gervais, Bryan T. 2017. "More Than Mimicry? The Role of Anger in Uncivil Reactions to Elite Political Incivility." *International Journal of Public Opinion Research* 29 (3):384–405. doi:10.1093/ijpor/edw010.

Gervais, Bryan T., Heather K. Evans, and Annelise Russell. 2020. "Fear and Loathing on Twitter: Exploring Negative Rhetoric in Tweets During the 2018 Midterm Election." In *The Roads to Congress 2018*, eds. Sean D. Foreman, Marcia L. Godwin, and Walter Clark Wilson. Cham: Palgrave Macmillan, 31–52.

Gervais, Bryan T., and Irwin L. Morris. 2018. *Reactionary Republicanism: How the Tea Party in the House Paved the Way for Trump's Victory*. New York: Oxford University Press.

Gilens, Martin. 2001. "Political Ignorance and Collective Policy Preferences." *The American Political Science Review* 95 (2):379–96. doi:10.1017/S0003055401002222.

Grimmer, Justin, and Brandon M. Stewart. 2013. "Text as Data: The Promise and Pitfalls of Automatic Content Analysis Methods for Political Texts." *Political Analysis* 21 (3):267–97. doi:10.1093/pan/mps028.

Gross, Kimberly. 2008. "Framing Persuasive Appeals: Episodic and Thematic Framing, Emotional Response, and Policy Opinion." *Political Psychology* 29 (2):169–92. doi:10.1111/j.1467-9221.2008.00622.x.

Halperin, Eran, Daphna Canetti, and Shaul Kimhi. 2012. "In Love with Hatred: Rethinking the Role Hatred Plays in Shaping Political Behavior." *Journal of Applied Social Psychology* 42 (9):2231–56. doi:10.1111/j.1559-1816.2012.00938.x.

Hassell, Hans JG, and Kelly R. Oeltjenbruns. 2016. "When to Attack: The Trajectory of Congressional Campaign Negativity." *American Politics Research* 44 (2):222–46. doi:10.1177/1532673X15589613.

Heidbreder, Brianne, and Katherine Felix Scheurer. 2013. "Gender and the Gubernatorial Agenda." *State and Local Government Review* 45 (1):3–13. doi:10.1177/0160323X12463945.

Herrnson, Paul S., J. Celeste Lay, and Atiya Kai Stokes. 2003. "Women Running 'As women': Candidate Gender, Campaign Issues, and Voter-Targeting Strategies." *The Journal of Politics* 65 (1):244–55. doi:10.1111/1468-2508.t01-1-00013.

Holman, Mirya R. 2010. "Sex and the City: Female Leaders and Spending on Social Welfare Programs in US Municipalities." *Journal of Urban Affairs* 36 (4):701–15. doi:10.1111/juaf.12066.

Hua, Whitney, and Mary Macdonald. 2020. Speaking and Leading with Negativity: The Strategic Use of Negative Sentiment in US Congressional Messages. Working paper.

Huddy, Leonie, and Nayda Terkildsen. 1993. "Gender Stereotypes and the Perception of Male and Female Candidates." *American Journal of Political Science* 37 (1):119–47. doi:10.2307/2111526.

Kahn, Kim Fridkin. 1993. "Gender Differences in Campaign Messages: The Political Advertisements of Men and Women Candidates for US Senate." *Political Research Quarterly* 46 (3):481–502. doi:10.1177/106591299304600303.

Kahn, Kim Fridkin. 1994. "Does Gender Make a Difference? An Experimental Examination of Sex Stereotypes and Press Patterns in Statewide Campaigns." *American Journal of Political Science* 38 (1):162–95. doi:10.2307/2111340.

Kahn, Kim Fridkin, and Ann Gordon. 1997. "How Women Campaign for the US Senate." In *Women, Media, and Politics*, ed. Pippa Norris. New York: Oxford University Press, 59–76.

Kahn, Kim Fridkin, and Patrick J. Kenney. 1999. *The Spectacle of US Senate Campaigns*. Princeton, NJ: Princeton University.

Kathlene, Lyn. 1994. "Power and Influence in State Legislative Policymaking: The Interaction of Gender and Position in Committee Hearing Debates." *The American Political Science Review* 88 (3):560–76. doi:10.2307/2944795.

Kemp, Elyria, Pamela A. Kennett-Hensel, and Jeremy Kees. 2013. "Pulling on the Heartstrings: Examining the Effects of Emotions and Gender in Persuasive Appeals." *Journal of Advertising* 42 (1):69–79. doi:10.1080/00913367.2012.749084.

Kramer, Adam DI. 2012. "The Spread of Emotion via Facebook." Proceedings of the SIGCHI Conference on Human Factors in Computing Systems, Austin.

Kramer, Adam DI, Jamie E. Guillory, and Jeffrey T. Hancock. 2014. "Experimental Evidence of Massive-Scale Emotional Contagion Through Social Networks." Proceedings of the National Academy of Sciences 111 (24): 8788–90.

Krupnikov, Yanna, and Nichole M. Bauer. 2014. "The relationship between campaign negativity, gender and campaign context." *Political Behavior* 36 (1):167–88. doi:10.1007/s11109-013-9221-9.

Lau, Richard R., and Gerald M. Pomper. 2004. *Negative Campaigning: An Analysis of US Senate Elections*. Lanham, MD: Rowman & Littlefield Publishers, Inc.

Lee, Shin Haeng, and Tae Yun Lim. 2019. "Connective Action and Affective Language: Computational Text Analysis of Facebook Comments on Social Movements in South Korea." *International Journal of Communication* 13: 2960–83.

Loughran, Tim, and Bill McDonald. 2011. "When Is a Liability Not a Liability? Textual Analysis, Dictionaries, and 10-Ks." *The Journal of finance* 66 (1):35–65. doi:10.1111/j.1540-6261.2010.01625.x.

Macdonald, Maggie, Annelise Russell, and Whitney Hua. 2023. "Congressional Cue-taking on Social Media: Negative Sentiment and Constituent Engagement." *PS: Political Science & Politics* 56 (2):201–06. doi:10.1017/S1049096522001299.

MacKuen, Michael, Jennifer Wolak, Luke Keele, and George E. Marcus. 2010. "Civic engagements: Resolute partisanship or reflective deliberation." *American Journal of Political Science* 54 (2):440–58. doi:10.1111/j.1540-5907.2010.00440.x.

Magin, Melanie, Nicole Podschuweit, Jörg Haßler, and Uta Russmann. 2017. "Campaigning in the fourth age of political communication. A multi-method study on the use of Facebook by German and Austrian parties in the 2013 national election campaigns." *Information, Communication & Society* 20 (11):1698–719. doi:10.1080/1369118X.2016.1254269.

Marcus, George E. 2003. "The psychology of emotion and politics." In *The Oxford Handbook of Political Psychology*, eds. Leonie Huddy, David O. Sears, and Jack S. Levy. New York: Oxford University Press, 182–221.

Marcus, George E., and Michael B. MacKuen. 1993. "Anxiety, enthusiasm, and the vote: The emotional underpinnings of learning and involvement during presidential campaigns." *The American Political Science Review* 87 (3):672–85. doi:10.2307/2938743.

Marquart, Franziska, Andreas C. Goldberg, Erika J. van Elsas, Anna Brosius, and Claes H. de Vreese. 2019. "Knowing is not loving: Media effects on knowledge about and attitudes toward the EU." *Journal of European Integration* 41 (5):641–55. doi:10.1080/07036337.2018.1546302.

McGregor, Shannon C. 2018. "Personalization, social media, and voting: Effects of candidate self-personalization on vote intention." *New Media & Society* 20 (3):1139–60. doi:10.1177/1461444816686103.

McGregor, Shannon C., Regina G. Lawrence, and Arielle Cardona. 2017. "Personalization, gender, and social media: Gubernatorial candidates' social media strategies."*Information, Communication & Society* 20 (2): 264–83.

McGregor, S. C., and C. J. Vargo. 2017. "Election-Related Talk and Agenda Setting-Effects on." 1 (1): 44–62.

"Measuring Success: Women in the 2020 Elections". The Center for American Women and Politics. https://womenrun.rutgers.edu/2020-report/

Meeks, Lindsey. 2016. "Gendered styles, gendered differences: Candidates' use of personalization and interactivity on Twitter." *Journal of Information Technology & Politics* 13 (4):295–310. doi:10.1080/19331681.2016.1160268.

Mia, Costa, and Brian F. Schaffner. 2018. "How Gender Conditions the Way Citizens Evaluate and Engage with Their Representatives." *Political Research Quarterly* 71 (1): 46–58.

Mohammad, Saif M., and Peter D. Turney. 2013. "Crowdsourcing a word–emotion association lexicon." *Computational Intelligence* 29 (3):436–65. doi:10.1111/j.1467-8640.2012.00460.x.

Osborn, Tracy L. 2012. *How Women Represent Women: Political Parties, Gender and Representation in the State Legislatures*. New York: Oxford University Press.

Paul, Newly, and Mingxiao Sui. 2019. "I Can Feel What You Feel: Emotion Exchanges in Twitter Conversations between Candidates and the Public." *Journal of Political Marketing* 21 (2):175–95. doi:10.1080/15377857.2019.1684419.

Peterson, David A.M., and Paul A. Djupe. 2005. "When primary campaigns go negative: The determinants of campaign negativity." *Political Research Quarterly* 58 (1):45–54. doi:10.1177/106591290505800104.

Proctor, David E., William J. Schenck-Hamlin, and Karen A. Haase. 1994. "Exploring the role of gender in the development on negative political advertisements." *Women & Politics* 14 (2):1–22. doi:10.1080/1554477X.1994.9970698.

Redlawsk, David P., Andrew J.W. Civettini, and Richard R. Lau. 2007. "Affective intelligence and voting: Information processing and learning in a campaign." In *The Affect Effect: Dynamics of Emotion in Political Thinking and Behavior*, eds. Russell Neuman, George E. Marcus, Ann N. Crigler, and Michael MacKuen. Chicago: University of Chicago Press, 152–79.

Reingold, Beth, and Jessica Harrell. 2010. "The impact of descriptive representation on women's political engagement: Does party matter?." *Political Research Quarterly* 63 (2):280–94. doi:10.1177/1065912908330346.

Ridout, Travis N., and Kathleen Searles. 2011. "It's my campaign, I'll cry if I want to: How and when campaigns use emotional appeals." *Political Psychology* 32 (3):439–58. doi:10.1111/j.1467-9221.2010.00819.x.

Russell, Annelise. 2021a. *Tweeting is Leading: How Senators Communicate and Represent in the Age of Twitter*. New York: Oxford University Press.

Russell, Annelise. 2021b. "Minority Opposition and Asymmetric Parties? Senators' Partisan Rhetoric on Twitter." *Political Research Quarterly* 74 (3):615–27. doi:10.1177/1065912920921239.

Russell, Annelise, Maggie MacDonald, and Whitney Hua. 2023. "Constrained Communication and Negativity Bias: Gendered Emotional Appeals on Facebook." *Accepted Journal of Women, Politics, and Policy*.

Sanbonmatsu, Kira. 2002. "Gender stereotypes and vote choice." *American journal of political science* 46 (1):20–34. doi:10.2307/3088412.

Sapiro, Virginia, Katherine Cramer Walsh, Patricia Strach, and Valerie Hennings. 2011. "Gender, context, and television advertising: A comprehensive analysis of 2000 and 2002 House races." *Political research quarterly* 64 (1):107–19. doi:10.1177/1065912909343583.

Schlozman, Kay Lehman, Nancy Burns, Sidney Verba, and Jesse Donahue. 1995. "Gender and citizen participation: Is there a different voice?." *American journal of political science* 39 (2):267–93. doi:10.2307/2111613.

Stier, Sebastian, Arnim Bleier, Haiko Lietz, and Markus Strohmaier. 2018. "Election campaigning on social media: Politicians, audiences, and the mediation of political communication on Facebook and Twitter." *Political Communication* 35 (1):50–74. doi:10.1080/10584609.2017.1334728.

Thomsen, Danielle M. 2015. "Why so few (Republican) women? Explaining the partisan imbalance of women in the US Congress." *Legislative Studies Quarterly* 40 (2):295–323. doi:10.1111/lsq.12075.

Trent, Judith S., and Teresa Sabourin. 1993. "Sex still counts: Women's use of televised advertising during the decade of the 80's." *Journal of Applied Communication Research* 21 (1):21–40. doi:10.1080/00909889309365353.

Valentino, Nicholas A., Ted Brader, Eric W. Groenendyk, Krysha Gregorowicz, and Vincent L. Hutchings. 2011. "Election Night's Alright for Fighting: The Role of Emotions in Political Participation." *The journal of politics* 73 (1):156–70. doi:10.1017/S0022381610000939.

Wagner, Kevin M., Jason Gainous, and Mirya R. Holman. 2017. "I am woman, hear me tweet! Gender differences in Twitter use among congressional candidates." *Journal of Women, Politics & Policy* 38 (4):430–55. doi:10.1080/1554477X.2016.1268871.

Weber, Christopher. 2013. "Emotions, campaigns, and political participation." *Political Research Quarterly* 66 (2):414–28. doi:10.1177/1065912912449697.

Windett, Jason Harold. 2014. "Gendered campaign strategies in US elections." *American Politics Research* 42 (4):628–55. doi:10.1177/1532673X13507101.

Wolak, Jennifer. 2015. "Candidate gender and the political engagement of women and men." *American Politics Research* 43 (5):872–96. doi:10.1177/1532673X14547228.

Wolbrecht, Christina, and David E. Campbell. 2017. "Role Models Revisited: Youth, Novelty, and the Impact of Female Candidates." *Politics, Groups, and Identities* 5 (3):418–34. doi:10.1080/21565503.2016.1268179.