

## **Women World Leaders and The Language of the Political Double Bind**

Courtney Burns  
Assistant Professor  
Department of Political Science  
Bucknell University

Leah C. Windsor  
Research Assistant Professor  
Institute for Intelligent Systems  
The University of Memphis

Gabrielle Peterson  
Georgia Southern University

Allison Sulkowski  
The University of Memphis

### **Abstract**

The study of women chief executives has begun to explore how they navigate the political double bind. Specifically, this research posits that women face two, potentially competing roles: woman and leader (Paxton & Hughes, 2015). For example, some research has found that women chief executives are more hawkish in the foreign policy arena to prove themselves as leader (Koch & Fulton, 2011), while other research has confirmed that female leaders practice better human rights to prove themselves as woman (Burns and Murdie 2018). However, this exploration of the effects of the political double bind on female leaders leaves out a critical point of analysis, speech. Past research has examined how language reveals leadership traits and personality characteristics that influence governance style. However, most of this research focuses exclusively on the speech of male world leaders. We seek to fill this gap in the literature through a comprehensive mixed methods analysis of women world leaders and language. The aim of this project is to answer the question: *How do women navigate the political double bind through language?*

Key terms: double bind, language analysis, gender, international relations

## Introduction

In spite of the vast literature on gender and language, we know comparatively little about broad language patterns of female world leaders. Studies of women in American politics have demonstrated that women often champion women's issues by introducing new legislation related to typically women's issues, but also that there are striking similarities between the policy concerns of male and female candidates (J. Dolan, Deckman, & Swers, 2017; K. Dolan, 2005). Bligh and Kohles (2008) find that women are much less aggressive than men, conforming to and perpetuating gendered stereotypes (Bligh & Kohles, 2008). In recent elections, the proportion of female candidates seeking office has increased; however, the U.S. still lags behind many countries in gender-balancing office holders and has not elected a female president. By comparison, women have served as heads of state in Bangladesh, Myanmar, India, Israel, the United Kingdom, Chile, Argentina, Australia, Germany, Brazil, Pakistan, Iceland, Norway, Finland, and New Zealand. In this paper, we seek to address the gap in the literature on the double bind facing women in office in the international system, namely how they balance the dual gendered roles of being women and being leaders. To do this, we examine their language over time to demonstrate how they use language to accomplish the dual roles of feminine gender expectations and masculine leadership qualities.

The growing literature on women chief executives examines female presidents and prime ministers who have full political control in the countries they lead. While men still outnumber women in holding elected office, there is growing interest in *why* proportional gendered representation remains unbalanced, and *what* female leaders say and do once they attain positions of power. For example, past research has found that women chief executives practice better human rights than men in the same positions (Burns & Murdie, 2018) and that women chief executives face higher rates of domestic terrorism because of their inability to respond

harshly towards their domestic population (Burns & Kattelman, 2017). Further, Koch and Fulton (2011) find that women chief executives are more conflict prone and spend more on defense spending.

The political double bind is defined as a set of assumptions about how women and men should behave in society, and how they should behave in politics. The double bind rests on implicit biases about beliefs that good leadership equates with masculine traits. Prevailing notions of leaders holds that they preside over a Hobbesian world – nasty, brutish, and short. Good leaders are feared, not loved (Sobek, 2005). Politics is a vicious game unsuitable for women to play. To survive in such a world, a leader must be swift, decisive, unemotional, and judicious. There is little room for nice women in such an environment. How then do female world leaders navigate gendered expectations of their behavior as leaders, and as women?

Social expectations of women, and female leaders, are that they behave according to gender stereotypes: gentle, forgiving, and focused on communally-based issues of well-being (Bligh & Kohles, 2008). Women are also penalized for adopting more masculine behavior (Heilman, Wallen, Fuchs, & Tamkins, 2004). Women’s strengths lie in the “soft” policy areas of health, humanitarianism, environment, and children rather than in the “hard” issues of security, economics, and conflict. Women must navigate the gendered dichotomy of high and low politics, and face a double bind in positions of leadership. They face a range of social and political problems at the domestic level, and at the international level, as shown in Table 1. Men have dominated the domain of high politics, while women are typically associated with the realm of low politics (Tickner, 1999; Waltz, 2010).

Table 1. High and Low Politics in Domestic and International Arenas

	<b>Domestic Arena</b>	<b>International Arena</b>
<b>High Politics</b>	Safety, crime, corruption, budgets, finance	State security, interstate wars, trade, globalization
<b>Low Politics</b>	Health, maternal/infant mortality, environment	Climate change, human rights, social movements, environment

In this paper we explore the gender and leadership dynamics of the double bind through the words of female world leaders. We ask, *how do women chief executives use language to navigate the political double bind?* Given the evidence that women chief executives face a double bind in both domestic and foreign policy choice, we suggest that the double bind manifests in their choice of language. Past research has found that in the aggregate women do use different language patterns than men (Lakoff, 2003; University, 1993). Moreover, past research on the language of people in positions of power primarily examine the speeches of men, with one exception of Margaret Thatcher (Klebanov, Diermeier, & Beigman, undefined/ed). We further our understanding of gendered discourse by examining the language of women chief executives. Do they also follow the patterns of women in the workplace or in the aggregate? In what ways must they portray certain characteristics through the words they use?

### **Gender and Leadership Stereotypes**

One of the first obstacles that a woman seeking power must overcome is a stereotype bias. This occurs in the general population through invoking the notion of leadership. The traditional expectations about what characteristics individuals should possess to obtain and lead in the top positions of power are typically traits like aggression, competitiveness, dominance, rationality, and decisiveness (Paxton & Hughes, 2015). For women, it can be harder to demonstrate these qualities because people have specific gendered expectations of men and women. In particular, the general population usually associates men with male traits and women

with female traits. Traditionally male traits usually include well-established political leadership qualities: dominance, aggression, competition, and rationality. On the other hand, female traits are sometimes the opposite: caring, nurturing, compassionate, polite, and emotional.

Female leaders have often been categorized based on their “iron” like qualities or their feminine qualities. Ellen Johnson Sirleaf was dubbed with both. She was called the “Iron Lady of Liberia” following her rise to presidential power after the country’s conflictual past. Liberia was newly past a civil war, facing economic instability, and political instability. Despite her leadership style that combined strength with compassion, her campaign often embraced gender stereotypes about women (Jalalzai, 2013). She was also affectionately called “Ma Ellen” by her followers and would speak to her voters in a way that reaffirmed her compassionate and nurturing leadership style. However, behind the scenes she was “tough” in her dealings with corruption and economic viability of the country. When she left office in 2017, the economy was doing better, but she was still criticized for not charging 20 ministers with corruption (for which she said, “it’s just how our system works”) (Pilling 2018).

Research on political knowledge and opinions has found that men and women differ cross-nationally. For example, gender gaps exist in men’s and women’s preferences in the use of force, drone strikes, and negotiation (Nincic & Nincic, 2002; Togeby, 1994; Wilcox, Hewitt, & Allsop, 1996). Specifically, in the aggregate, it appears that women tend to be more averse to the use of military force and more likely to support negotiation as a tool of foreign policy. Further, social psychology research sheds light on multiple findings that women appear to practice more prosocial behavior. That is, they are more likely to be socially sensitive, friendly, and concerned with other’s welfare (Eagly 1995). Other research also posits that women are more likely to be cooperative and less selfish than men (Eckel & Grossman, 1998). Comparatively, these findings

about women in the aggregate also relate to findings in language discourse that posits that speech development begins to differ at a young age (Tannen 1994). The outcome of the findings in the general population is that the cultural beliefs about and by women in the aggregate feed broader stereotypes of gender roles and expectations for women in politics.

However, these stereotypes can work against women who seek positions of power. Men more frequently match the stereotypes of leaders than women do, and women may be punished for flouting. Moreover, Kendall and Tannen (1997) find that when women speak more assertively in the workplace they are viewed as more competent, but less likeable (Kendall & Tannen, 1997). This creates an extra obstacle for women seeking political office (Paxton & Hughes, 2015), particularly in the executive branch. Further, many regions have cultural expectations that men are always more competent than women, and this puts extra pressure on women in office to demonstrate competence. Despite these obstacles, we have seen women climb the political ladder and reach the apex of political power. We argue that this comes with a double bind. Female leaders face two expectations: first, they must meet their roles as leader (act like a man) and second, their roles as women. Conversely, men who seek office do not have to demonstrate qualities of masculinity and leadership since they coalesce with one another.

A population's expectation of a leader exacerbates the double bind women face. If they act assertive, dominant, and aggressive they are being a good leader, but this also violates assumptions about them as women. In this vein, Koch and Fulton posit that female leaders act more hawkish in the realm of foreign policy in order to prove that they are capable leaders (Koch & Fulton, 2011). This may also translate into the language chosen by female leaders. Can they navigate the political double bind by choosing harsher language in the realm of foreign policy?

On the other hand, women may use the domestic sphere to demonstrate their feminine qualities and their language may be softer. Little research has been done cross-nationally on the domestic policies of women chief executives. Burns and Murdie find that women chief executives practice better human rights than men (Burns and Murdie 2018). They argue that this is one way for women to self-fulfill the feminine side of the political double bind, indicating that they may take a softer tone toward their own people. Furthermore, Schroeder and Powell (2018) and Burns and Kattelman (2017) argue that women chief executives may be viewed as weaker and thus targeted for coups and domestic terrorism. Schroeder and Powell do not find support for this assertion about coups, but Burns and Kattelman do for domestic terrorism. The common theoretical underpinnings suggest that women chief executives may be viewed as softer in the domestic arena.

Research on women in the legislature may shed some light on the role women play in the domestic sphere. Holsti and Rosenau (1981) conduct a survey and find that female leaders, including those in the legislature, in the United States held more dovish views while men held more hawkish views (Holsti & Rosenau, 1981). Moreover, Regan and Paskeviciute (2003) posit that because women hold different views on conflict than men, their access to government is important for reducing the likelihood that states will experience conflict (Regan & Paskeviciute, 2003). They ultimately find evidence for a “gender equity” peace through women’s representation. Finally, research supports the idea that when more women are in the legislature there will be more spending on policies that benefit women like family leave and health care, which indicates that they would also support lower funding for the military (Bratton & Ray, 2002; Kittilson, 2008; Swiss, Fallon, & Burgos, 2012). However, none of this research can help us understand what role women’s language plays in how women may navigate this bind.

Predominantly, research looks at how the policy choices of female leaders demonstrates the double bind.

### **Gender and Language**

The hierarchical ranking of masculine traits over feminine traits has shaped the development of a women's language. Some of the first research on the topic by Robin Lakoff (1975) posits that women's language (WL) is displayed in the same way women wear skirts or make themselves small. Women use mitigating devices in their speech, for example they avoid strong or aggressive language. This has been equated to a 'stylized powerlessness.' The main critiques of Lakoff is that her generalizations are made on anecdotes of primarily white, middle class women. Following Lakoff, Tannen emphasizes that language differences stem from the self-segregation that boys and girls do at a young age (James, Clarke, & Tannen, 1993; Tannen, 1990, 1994). This develops differing speech because boys and girls participate in different activities. Furthermore, Gal (1995) argues that the concepts of men's speech, women's speech, and prestigious or powerful speech are culturally constructed (Gal, 1995). This is important for international relations given the arguments of feminist IR scholars that the international system was developed by men so it assumes a naturalness to masculine traits and values (Steans, 1998; Tickner, 1997).

Kendall and Tannen (1997) report that workplace norms are usually masculine norms because men have been employed in the public sphere longer than women (Kendall & Tannen, 1997). Recent research has explored whether women in leadership positions in the United States speak as women; speak like women; and speak like male members of their profession (L. Windsor, Mitchell, & Cupit, 2017). Selection bias in curating political corpora also exists, as



most research focuses on male world leaders even as the number of women world leaders increases. We seek to address these biases by studying the language of women world leaders.

Female chief executives face a political double bind and that their speech can help shed light on how they navigate this predicament. Female leaders face more scrutiny by the public because they are not the traditional image that comes to mind when picturing a leader (Dolan, Deckman, and Swers 2017). Eagly, Makhijani, and Klonsky (1992) demonstrate that women are perceived more negatively by the public for exhibiting the same behavior as men (Eagly, Makhijani, & Klonsky, 1992). When women act (or speak) assertively like a stereotypical masculine leader would, they violate gendered expectations and they get penalized more for this behavior (Ridgeway, 2001). Crawford (1988) argues that when women are assertive in their language in the workplace, they are viewed in a more negative light (Crawford, 1988). Thus the double bind is problematic because women must act as both a leader and a woman, two competing roles given prevailing sentiments about how women ought to behave, and what characteristics make for good politicians. For example, while on the 2008 and 2016 campaign trails Hillary Clinton was regularly derided for her tone and demeanor as too bossy. In fact, as Tannen (2016) points out, if one googled “Hillary Clinton ambition” titles like “naked ambition,” “unbridled ambition,” and “ruthless ambition” came up. Compared to Bernie Sanders or Donald Trump whose google searches turned up headlines like “ambitious plans” and “ambitious real estate developments” (James et al., 1993).

Under what circumstances, then, can women behave according to traditional, stereotypical norms, and when can they step out of this role? We propose that because of the double bind, female leaders will exhibit speech patterns that help them establish foreign policy or electoral credibility by adopting more masculine language and speaking styles. For example,

recent research found that female chief executives are more likely to increase defense spending and initiate conflict behavior with other countries (Koch & Fulton, 2011). Commensurate with this, their language should reflect hawkish foreign policies. Language in the realm of foreign policy, then, provides an outlet for female leaders to prove themselves as capable in their role as leader, i.e., behaving and speaking like men. Caprioli and Boyer (Caprioli & Boyer, 2001, p. 507) state: “Female leaders who have risen to power through a male-defined and male dominated political environment may well need to be more aggressive in crises than their male counterparts... women may also work harder to ‘win’... because to appear and act feminine (and therefore weak) would be political suicide (Caprioli & Boyer, 2001).”

In other words, we expect that female chief executives should use more hawkish language in foreign policy and international affairs to show the public that they are capable leaders and can be assertive, aggressive, competitive, and rational. On the other hand, when women are seeking election, they may soften their tone to appeal to a domestic audience critical of flouting gender stereotypes. Through their language, female world leaders demonstrate how they “take care of the national family” while protecting the country from the outside world. There is some evidence that this was the case for Angela Merkel, at least in how she was represented in the media. Reports stated that Merkel was the “mother of Germany” (Steckenrider 2013).

Female leaders must walk a line between being assertive and caring. This is a line that broadly, men do not have to tread so carefully. While constituencies expect that a male leader will be competent in foreign policy, a female leader must work harder to prove themselves competent. “Conforming to their gender role can produce a failure to meet the requirements of their leader role, and conforming to their leader role can produce a failure to meet the

requirements of their gender role” (Eagly and Johannesen-Schmidt 2001). The language choices of female leaders may demonstrate that they are attempting to clearly show that they can be both a leader and a woman at the same time while not selecting a dominant style.

However, they still have feminine roles and expectations to fill. One of the primary ways that researchers have argued women fulfill this role is by acting more dovish with their own populations. Research has found that female leaders practice better human rights (Burns & Murdie 2018), so it may be that this cooperativeness can translate into the language women choose in the domestic realm as well. In fact, Jalalzai (2004) finds that several women have been elected to office directly following conflict because the citizens believe women represent the values of communication and cooperation, like Ellen Johnson Sirleaf mentioned in the introduction. Given that the stereotypical traits of women include cooperation, politeness, and helpfulness, we expect that we will see women speaking *as* women and *like* women, i.e. focusing on traditionally feminine policy domains and using language consistent with gendered expectations. These cooperative domestic policies are their way of demonstrating to the electorate that they can also fulfill the role of woman while in office. We know from past research that women legislators do this, but no one has explored whether women chief executives also do this.

On the other hand, “woman” is not a universal term. Case study research on female leaders like Margaret Thatcher, Indira Gandhi, Golda Meir, and Corazon Aquino have come to no real conclusions about broad preferences of women while in office (Genovese 2013; Jensen 2008). However, this does not mean that, in general, female leaders do not face the political double bind. Genovese (2013) states that despite variation in the reign of many women chief executives, the one thing that they have in common is that they have risen to power despite major

gender bias (Genovese, 2013). One preference we can assume all women (and all leaders) have is to stay in office (Mayhew, 1974). We posit that women will use language to their advantage in order to stay in power, but that they must do this in the face of the political double bind. This discussion leads us to our two sets of hypotheses:

Hypothesis 1a: Female leaders use more masculine language during non-election years.

Hypothesis 1b: Female leaders use more feminine language surrounding election years.

Hypothesis 2a: Female leaders will use more feminine language when talking about domestic issues and low politics.

Hypothesis 2b: Female leaders will use more masculine language when talking about international affairs and issues of high politics.

### *Case Selection*

We selected Ellen Johnson Sirleaf (2006-2017), who served as the 24th President of Liberia from 2006 to 2018. She was the first elected female head of state in Africa. Called the “Iron Lady of Liberia” – a nod to Margaret Thatcher’s moniker – Sirleaf serves as the baseline model of how we expect women to speak in office.

Ellen Johnson Sirleaf presents perhaps the most classical linguistic portrait of a female world leader straddling the demands of masculinity and femininity in office (see Figure 3). This portrait is not surprising in relation to the nature of how she campaigned for office. For example, she said, “I’m a mother, so there’s a certain sensitivity that I bring to the job, a certain caring and sharing that I’m able to balance with the need for hard decisions and courage... Where we have seen women leaders, they have been strong, honest, and effective. They have all left something behind that they and their people can be proud of” (McClanahan, 2011). Johnson Sirleaf was elected as President of Liberia in 2005; her 2006 speech to the nation demonstrates markers of

increased femininity. Moreover, in her first 100 days of office she focused on restoring basic services to people, thus focusing on the domestic arena (Jalalzai 2013). We expected to see an increase in years where more focus was placed on domestic policies for women leaders.

Subsequently in 2007, Sirleaf celebrated Liberia's 160<sup>th</sup> independence day and enacted major educational reforms. However, this was also marked with the replacement of individuals charged with corruption and meetings with world leaders about the Liberian economy. We observe a shift in the directions of masculine and feminine language between 2009 and 2010 when she begins gearing up for her re-election bid. She ran for re-election in 2011, the year when her presidentiality score is lowest throughout her tenure in office. It is not surprising that her presidentiality score drops during her re-election bid. Johnson Sirleaf promised that she would be a one term president, but then stated that the job was not done (Jalalzai, 2013). In order to balance the potential corrupt view of going back on her word, she again played up feminine stereotypes. One major event that helped her was winning the Nobel Peace Prize with fellow Liberian Leymah Gbowee. Following the election, her presidentiality/masculine language score rebounds, and she decreases her use of feminine language dramatically. Her second term, she stated, was about moving beyond the restoring of basic services of her first term and "finishing the job" (Jalalzai 2013). However, her final year in office (2017), serving as a "lame-duck" president coincides with an increase in feminine language.

It is important to note that Johnson Sirleaf regularly spoke about the importance of paying close attention to girls. She led the creation of organizations to help stop gender-based violence which increased after the civil war ended. She also appointed women to top cabinet positions, including Justice, Finance, and Commerce. In this way, she used her leadership differently than Bhutto or Thatcher. This could lend some evidence to why her femininity scores

are different than both Bhutto and Thatcher. Bhutto acknowledged issues of rights of women, but it was not necessarily a large platform while in office. Thatcher was not necessarily concerned with the rights of women.

An excerpt of Ellen Johnson Sirleaf's annual address from 2011 reads as follows:

*So I ask everyone in this Chamber – and every Liberian out there – to look into your hearts, spark your hopes, and fire your imaginations. There is so much good, so much possibility, and so much excitement in our nation. This is our moment. Let us shine our eyes as one nation, and from the mountaintop of this Liberian rebirth, look ahead to a bright future. I have faith in you. I have faith in the Liberian people, and I have faith in a God who promised, having brought us thus far, not to leave us. May God continue to bless Liberia!*

## **Methodology**

We use two approaches to analyze the language of Sirleaf: a word-counting method, and topic modeling. We collected 372 speeches, dated from May 8, 2006 to June 7, 2016. All speeches were given in English, so no translations were performed.

### *Word Count Strategies*

Psychological word count strategies exist for both the analysis of content (what is being said) and style (how it is being said). Word count strategies are based on the assumption that the words people use convey psychological information over and above their literal meaning and independent of their semantic context (Campbell & Pennebaker, 2003; Pennebaker, 2013). This approach is a “bag of words” method, meaning that word order (e.g., syntax, grammar, and semantics) is not considered. Our primary word count tool is LIWC (Pennebaker, Boyd, Jordan, & Blackburn, 2015). We analyzed the Female World Leaders corpus with LIWC and generated two composite variables: presidentiality and femininity using the formulas from Slatcher et al., (Slatcher, Chung, Pennebaker, & Stone, 2007).

In “Winning Words”, Slatcher et al., investigate the language of politics, including measures of honesty, presidentiality, femininity, depression, age, and cognitive complexity

(Slatcher et al., 2007). Drawing on a study about sex differences in language use, Slatcher et al., generate a formula for feminine language use. They write, “In comparison with men, women reliably use more references to others, and more positive feeling words. They also use fewer big words, negations, articles, prepositions, swear words, references to money, and numbers.”

*Equation 1. Feminine Language*

$$\text{Femininity} = \text{zother} + \text{zposfeel} - \text{zsixltr} - \text{znegate} \\ - \text{zarticle} - \text{zpreps} - \text{zswear} - \text{zmoney} - \text{znumbers}.$$

Slatcher et al., also measured a concept called “presidentiality”, which has high levels of articles, prepositions, positive emotions, and big words. Presidential language was generated using a corpus of presidential inaugural addresses; importantly, the sample used to generate the presidential formula included only male chief executives. Thus, we subsequently refer interchangeably to presidentiality as masculine leadership language.

*Equation 2. Presidential (Masculine) Language*

$$\text{Presidentiality} = \text{zarticle} + \text{zpreps} + \text{zposemo} + \text{zsixltr}$$

*Latent Dirichlet Allocation*

We also use the Latent Dirichlet Allocation (LDA) process – also known as topic modeling – to discover thematic categories throughout Sirleaf’s speeches (Blei, Ng, & Jordan, 2003; Lucas et al., 2015). Topic modeling is also a “bag of words” approach, and is reliably used across languages as it is agnostic to the system of orthography (Vries, Schoonvelde, & Schumacher, 2018; L. C. Windsor, Cupit, & Windsor, 2019). Again, word order, grammar, syntax, and semantic relationships are not accounted for using this approach. Topic modeling is a generative statistical model whereby documents contain mixtures of topics, and where each word in each document has some probability of being included in each topic. Based on term co-occurrence –

not on semantic or epistemological relatedness – words are sorted into categories based on their probability of occurring together. Our model reports the top twenty most highly probable words for each category, and topic labels are qualitatively assigned based on word relatedness.

The number of categories is also qualitatively assigned; for this relatively small-n corpus of 371 documents, we selected a model of 15 topics so as to not overfit the data. The question of the “right” number of topics is again a qualitative discussion. Some scholars use a measure of entropy for determining the ideal number of topics (L. Windsor, Zhiqiang, & Zelinka, 2019). Some topic modeling processes determine the number of topics endogenously (Blei, Griffiths, & Jordan, 2010). Many scholars define the “right” number of topics as being a range of possible numbers of topics, determined in part by the size of the corpus and the number of variables necessary and feasible for a meaningful analysis.

We now turn to the discussion of our results.

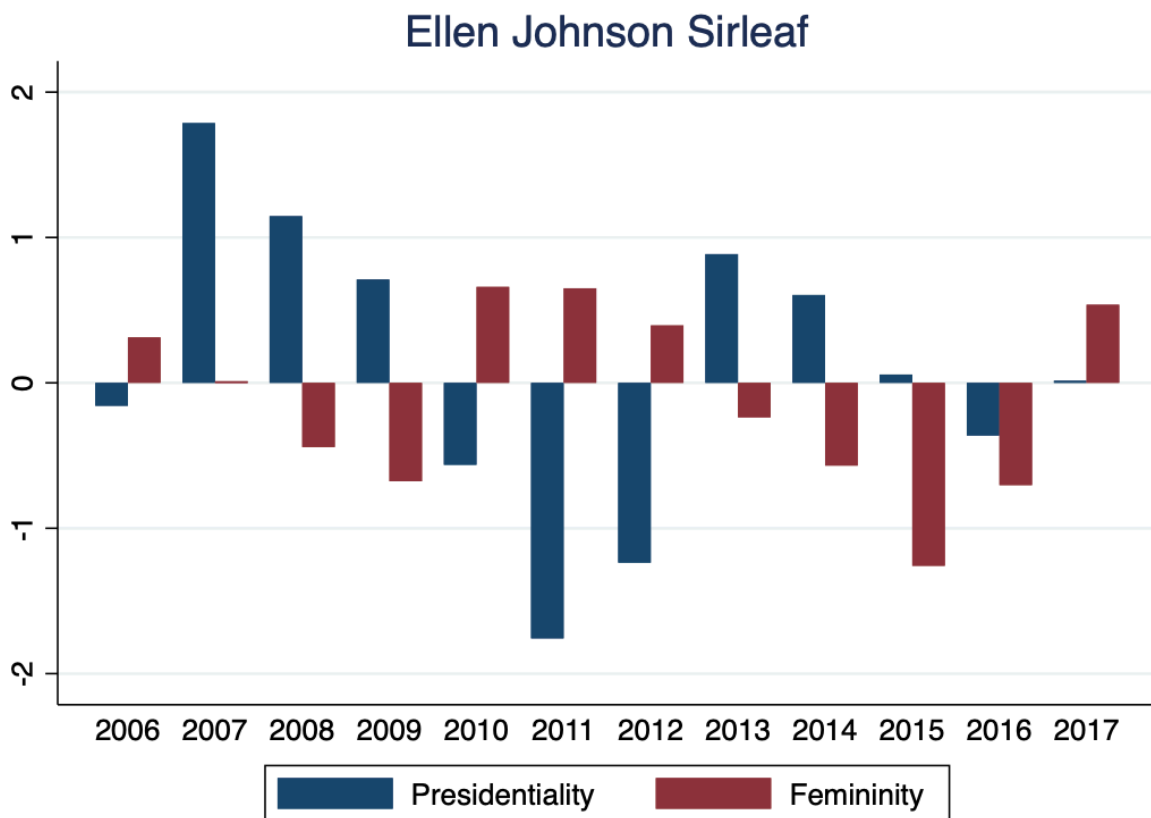
## **Results**

### *Masculine and Feminine Language*

In Figure 1 we graph the dimensions of linguistic masculinity and femininity for Ellen Johnson Sirleaf’s speeches, aggregated by year. In her first year officially in office (2006), her feminine language outpaced her masculine language. In the subsequent year, however, her masculine/presidential language spiked dramatically. Between 2007 and 2010, her use of masculine language decline. In 2010, Sirleaf announced she would run for office again, and was re-elected in 2011 – the same year she won the Nobel Peace Prize. Importantly, her use of feminine language increased – and her use of masculine language decreased – during the domestic election years’ focus between 2010 and 2012. Toward the end of her presidency, her use of feminine language continued to decline, except for the year that she claimed support for



the opposition candidate, George Weah in 2017. These findings demonstrate the pattern that the double bind theory would predict: female chief executives use more masculine language during non-election times, and use more feminine language when they are courting the votes of their domestic, national “family.” Figure 2 shows a more nuanced version of Sirleaf’s language over time, graphing her masculine and feminine language by month over year for the duration of her tenure in office.



*Figure 1. Masculine and Feminine Language of Ellen Johnson Sirleaf (Source: Liberian presidential archive)*

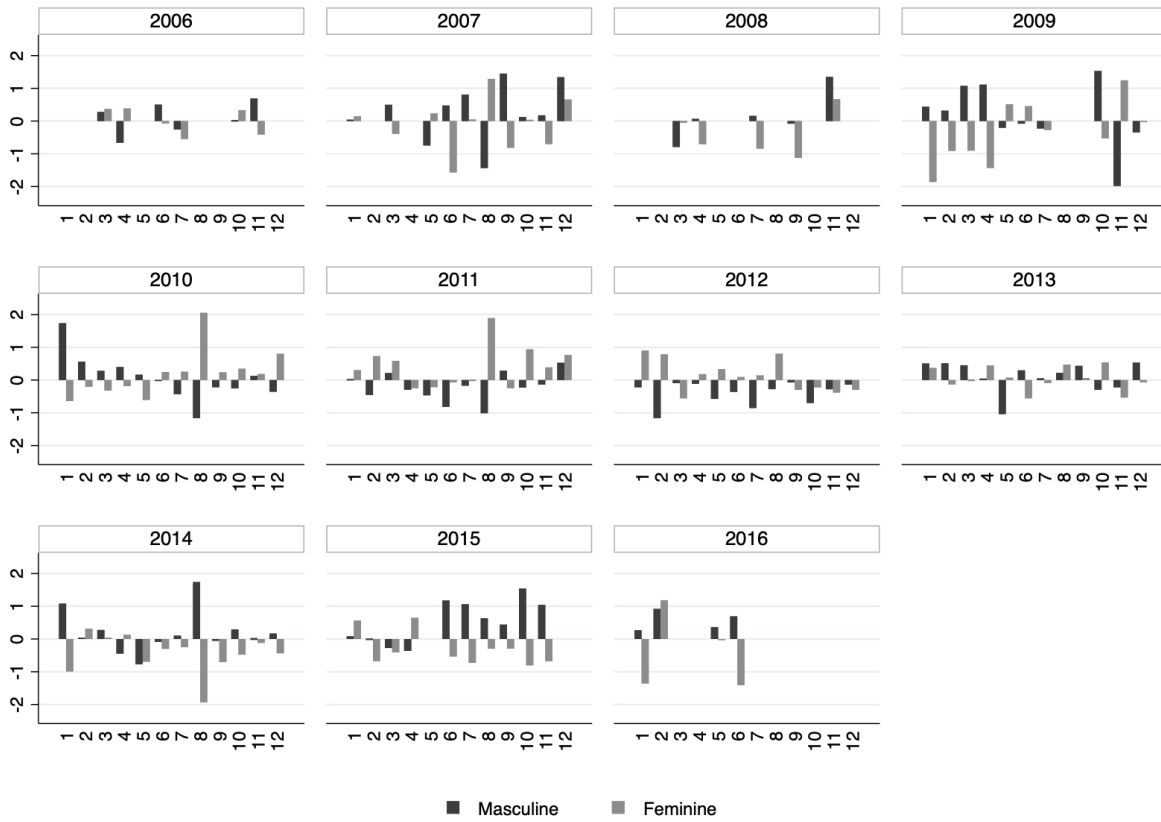


Figure 2. Sirleaf's masculine and feminine language over time.

Topics Results

In

Table 2 we show the results of a 15 topic LDA model. Each of the topic names is labeled qualitatively by examining the relatedness of the key associated terms.

Table 3 sorts the topics (labels) into the high and low politics, and domestic and international categories established in Table 1. We have also graphed these results across topics over years in Figure 3.

Table 2. Topic Modeling results

Topic	Topic name	Key terms
1	Ebola	health malaria ebola disease care world fight percent progress virus deaths continue children mortality lives president fund healthcare facilities liberia
2	United Nations honorifics	liberia president african mr peace states united union nations countries africa ecowas republic government west security excellency river region secretary
3	Development capacity	development government national support work people sector capacity challenges program partners ensure year institutions provide public level important resources services
4	Women in Africa	women africa african world gender girls political leadership president female percent woman empowerment violence participation equality continent market men international
5	Liberian challenges	liberia africa years economic countries people world country debt growth conflict war today peace governance percent african infrastructure corruption economy
6	Development goals	development agenda africa countries global world african 2015 economic post level liberia goals panel conflict high poverty nations regional general
7	Democracy and society	society political today people life freedom national human rights world past social values democracy media change time responsibility work free
8	Military	forces armed liberia security military afl support united defense training personnel general distinguished police unmil today service day force mission
9	Justice and corruption	justice corruption liberia government public law country court president constitution system political members liberians fight officials rights madam citizens legislature
10	Business	liberia business million sector investment economy country growth agriculture private oil bank percent mining small liberian capital market potential businesses
11	Country-level honorifics	mr county minister ministry government national process liberia counties honorable commission act executive administration speaker public development budget local deputy
12	Civil service	service civil government 00 csa 000 reform strategy macs public csr smaller implementation delivery servants ministries develop pay liberia gender
13	Liberia FY	ve people president things make don sirleaf work time today put place good started talk ll back government big coming
14	Peace and reconciliation	liberia peace people country nation liberians national liberian president members reconciliation god today years future year time fellow johnson continue
15	Education	education university liberia students school college today young teachers graduates country quality class training president make life skills educational service

### *High Politics, Domestic Arena*

We classify Ebola as a domestic topic of high politics given its relevance as a security threat. The topic of “Liberian challenges” relates to economics, debt, war, and peace – all issues of high politics and security. Military is the quintessential high politics topic. Justice and corruption, as they focus on the bureaucracy and not on the popular consequences, are also classified as high politics in the domestic arena. Country level honorifics include formal language that shows deference and reverence for political office, and is also classified as high politics.

### *High Politics, International Arena*

High politics in the international arena include honorifics related to the United Nations, and continental development goals that include but are not limited to Liberia. The pan-Africanism element and focus on conflict places this topic in high politics.

### *Low Politics, Domestic Arena*

The topic of development and capacity falls in the low politics, domestic arena because of its focus on people, public, work, resources, and services. Democracy and society also falls in this quadrant because of the idealism embodied in the topic. Civil service also falls in this category, as does the general topic of “Liberia” which seems to be a Sirleaf-cheerleading theme. Peace and reconciliation, and Education also fall under low politics in the domestic arena.

### *Low Politics, International Arena*

The sole topic of low politics in the international arena is Women in Africa.

Table 3. High and Low, Domestic and International Topics in Sirleaf Speeches

	<b>Domestic Arena</b>	<b>International Arena</b>
<b>High Politics</b>	Ebola Liberian challenges Military Justice and corruption Business Country-level honorifics	UN honorifics Development goals
<b>Low Politics</b>	Development/capacity Democracy and society Civil service Liberia FY Peace and reconciliation Education	Women in Africa

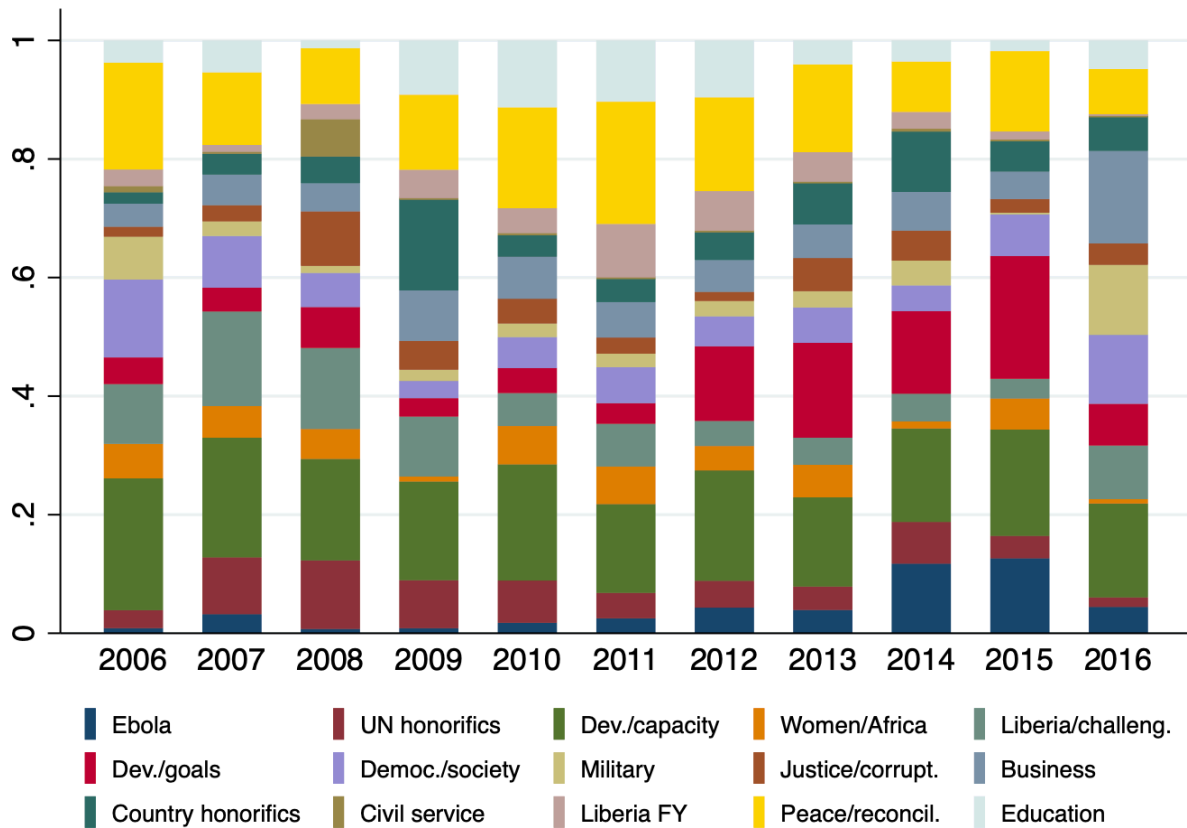


Figure 3. Sirleaf Speech Topics by Year

To test Hypotheses 2a, we use a generalized linear model to regress feminine language on the fifteen topics in Sirleaf’s speeches. We multiply the topics (a percentage) by the number of

words (word count) to get a total number of words per topic. We anticipate that Sirleaf will use more feminine language when talking about domestic issues and low politics. Figure 4 shows the predicted probabilities of this model of feminine language over the fifteen speech topics. Figure 5 subsequently shows the predicted probabilities of this model of masculine language over the fifteen speech topics.

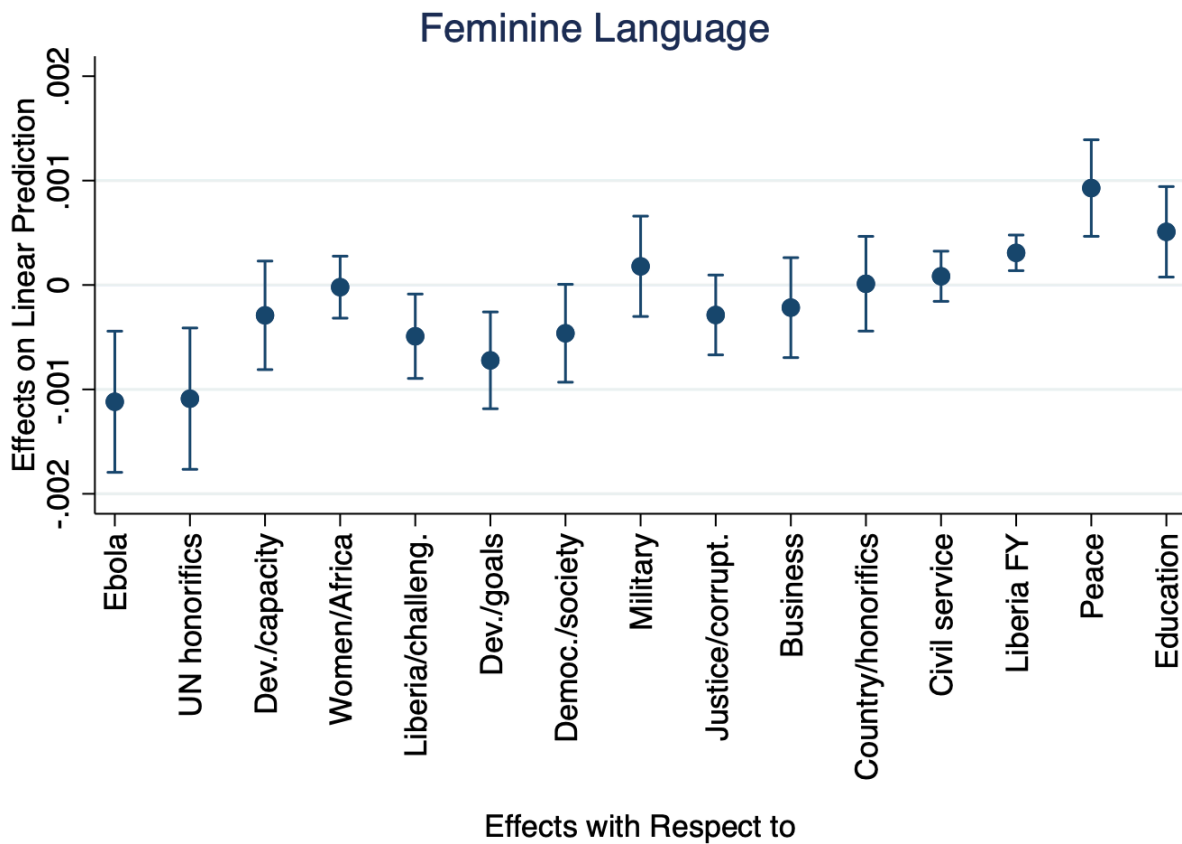


Figure 4. Predicted Probabilities of Feminine Language and Topics



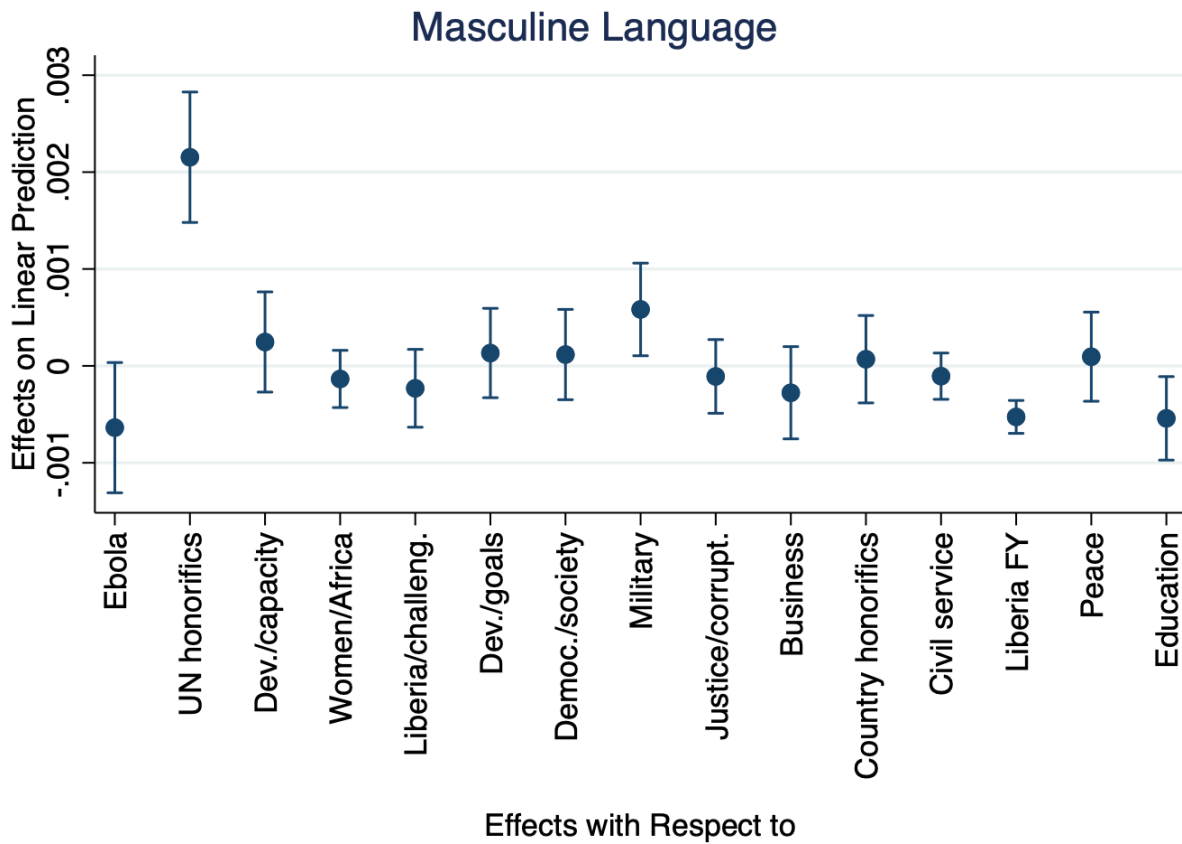


Figure 5. Predicted Probabilities of Masculine Language and Topics  
Validation

We validate these results using a logit model where 1 stands for years in which Sirleaf declares her candidacy and/or runs for the presidency (n=133), and 0 otherwise (n=238) between 2006 and 2017. In the first model, we include feminine and masculine language; in the second model we include the fifteen topics. Table 8 in the Appendix shows the full regression table; we report predicted probabilities in Figure 6.

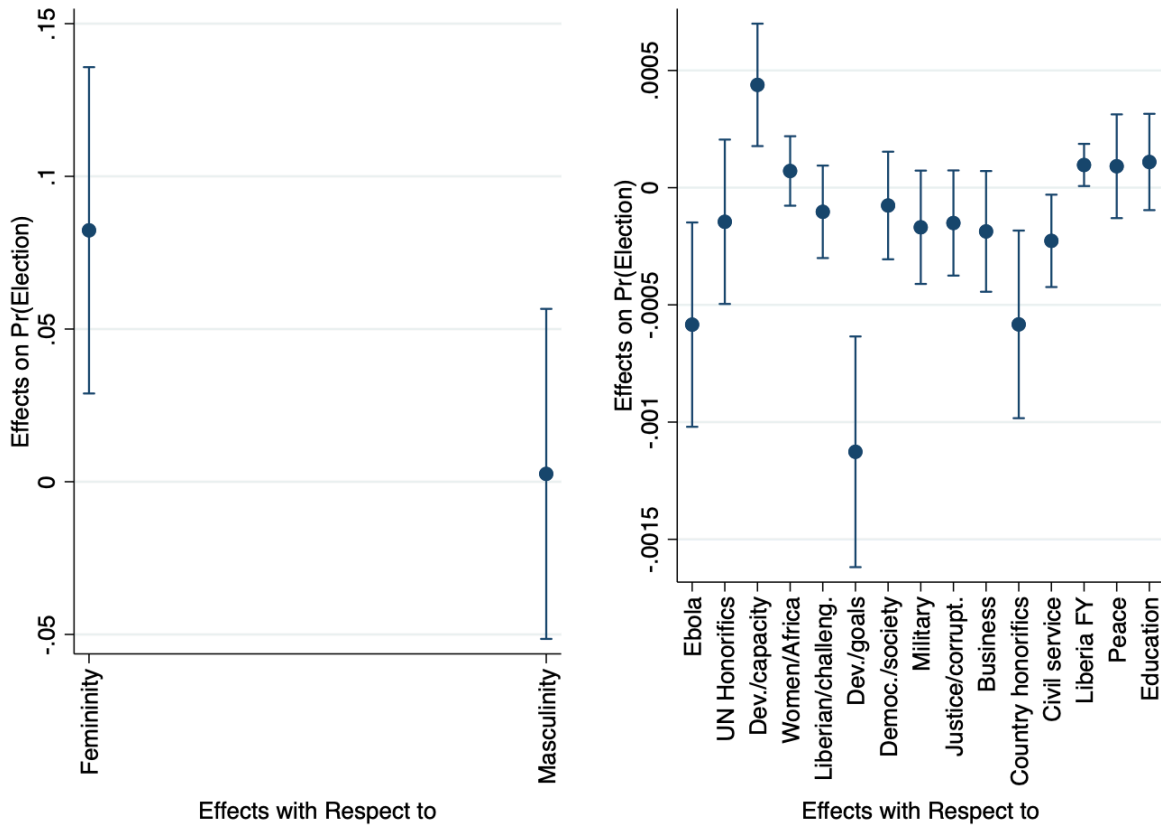


Figure 6. Marginal effects of feminine and masculine language and topics on pr(election)

Summary of results

Table 4 provides a summary of the results based on the predicted probabilities. Significance and directionality for the masculinity variable is denoted by \* and +/-, and for femininity \*\* and +/- where + denotes a positive value and – denotes a negative value.

Table 5 summarizes again our hypotheses and whether they are supported or not. Our findings show clear support for the language of female chief executives and the political double bind. As demonstrated through the language of Ellen Johnson Sirleaf, we see that she moderates her masculine and feminine language temporally as well as across issues.

*Table 4. Significance for Masculine (\*+/-) and Feminine (\*\*+/-) Language*

	<b>Domestic Arena</b>	<b>International Arena</b>
<b>High Politics</b>	Ebola (**-) Liberian challenges( **-) Military (*+) Justice and corruption Business Country-level honorifics	UN honorifics(**-) (*+) Development goals (**-)
<b>Low Politics</b>	Development/capacity Democracy and society Civil service Liberia FY (**+) (*-) Peace and reconciliation (**+) Education (**+) (*-)	Women in Africa

*Table 5. Summary of Hypotheses and Outcomes*

<b>Hypothesis</b>	<b>Outcome</b>
Hypothesis 1a: Female leaders use more masculine language during non-election years.	Supported
Hypothesis 1b: Female leaders use more feminine language surrounding election years.	Supported
Hypothesis 2a: Female leaders will use more feminine language when talking about domestic issues and low politics.	Supported
Hypothesis 2b: Female leaders will use more masculine language when talking about international affairs and issues of high politics.	Supported

## **Conclusions**

Evidence demonstrates that women leaders are navigating the pressures of the double bind through their language, to be both leader (man) and woman, while in office through their policies. We provide the first glimpse into whether this is occurring in their language as well. Our research only scratches the surface, but also provides some context and evidence to the fact that women leader's language does appear to reflect the areas, whether traditionally masculine or feminine, they are grappling with. Their speech tends to behave in predictable ways based on the double bind theory. This is an important area of research because it sheds light on stereotype bias affecting women

seeking positions of power. It also demonstrates the problems with even differentiating “presidentiality” with “femininity”, given that presidential language was calculated exclusively using the words of male world leaders.

Increasingly in the international system, women are assuming the role of chief executive which means that the sample of women leaders is larger. Analyzing the diversity of leaders’ language is also becoming more feasible and representative. Female chief executives are not geographically bound, either. Women world leaders are running countries on every continent and across most of the major cultural and religious divides.

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Table 6. GLM Femininity and Topics

**ITERATION 0: LOG LIKELIHOOD = -470.80099**

<b>GENERALIZED LINEAR MODELS</b>	No. of obs	=	367			
<b>OPTIMIZATION : ML</b>	Residual df	=	351			
	Scale parameter	=	0.7964201			
<b>DEVIANCE = 279.5434576</b>	(1/df) Deviance	=	0.7964201			
<b>PEARSON = 279.5434576</b>	(1/df) Pearson	=	0.7964201			
<b>VARIANCE FUNCTION: V(U) = 1</b>	[Gaussian]					
<b>LINK FUNCTION : G(U) = U</b>	[Identity]					
	AIC	=	2.652866			
<b>LOG LIKELIHOOD = -470.8009922</b>	BIC	=	-1793.239			
<b>ZFEM</b>	Coef.		Std.Err.	z	P>z	[95% Conf. Interval]
<b>TOPIC1_WC</b>	-0.0011184		0.0003437	-3.25	0.001	-0.0017921 -0.0004447
<b>TOPIC2_WC</b>	-0.0010888		0.0003442	-3.16	0.002	-0.0017634 -0.0004142
<b>TOPIC3_WC</b>	-0.0002904		0.0002644	-1.1	0.272	-0.0008086 0.0002277
<b>TOPIC4_WC</b>	-0.0000207		0.000151	-0.14	0.891	-0.0003165 0.0002752
<b>TOPIC5_WC</b>	-0.000491		0.0002054	-2.39	0.017	-0.0008936 -0.0000884
<b>TOPIC6_WC</b>	-0.0007219		0.0002357	-3.06	0.002	-0.0011839 -0.00026
<b>TOPIC7_WC</b>	-0.0004624		0.0002384	-1.94	0.052	-0.0009296 4.82E-06
<b>TOPIC8_WC</b>	0.0001789		0.0002444	0.73	0.464	-0.0003001 0.0006579
<b>TOPIC9_WC</b>	-0.000287		0.0001945	-1.48	0.14	-0.0006682 0.0000941
<b>TOPIC10_WC</b>	-0.0002168		0.0002433	-0.89	0.373	-0.0006937 0.0002602
<b>TOPIC11_WC</b>	0.000012		0.0002306	0.05	0.959	-0.00044 0.000464
<b>TOPIC12_WC</b>	0.0000837		0.0001222	0.69	0.493	-0.0001557 0.0003232
<b>TOPIC13_WC</b>	0.0003079		0.0000867	3.55	0	0.0001379 0.000478
<b>TOPIC14_WC</b>	0.0009286		0.0002351	3.95	0	0.0004679 0.0013893
<b>TOPIC15_WC</b>	0.0005092		0.0002203	2.31	0.021	0.0000774 0.000941
<b>_CONS</b>	0.188434		0.0844002	2.23	0.026	0.0230126 0.3538554

Table 7. GLM Masculinity and Topics

**ITERATION 0: LOG LIKELIHOOD = -468.73246**

<b>GENERALIZED LINEAR MODELS</b>	No. of obs	=	367			
<b>OPTIMIZATION : ML</b>	Residual df	=	351			
	Scale parameter	=	0.7874928			
<b>DEVIANCE = 276.409957</b>	(1/df) Deviance	=	0.7874928			
<b>PEARSON = 276.409957</b>	(1/df) Pearson	=	0.7874928			
<b>VARIANCE FUNCTION: V(U) = 1</b>	[Gaussian]					
<b>LINK FUNCTION : G(U) = U</b>	[Identity]					
	AIC	=	2.641594			
<b>LOG LIKELIHOOD = -468.7324612</b>	BIC	=	-1796.372			
<b>ZPRES</b>	Coef.	Std. Err.	z	P>z	[95% Conf. Interval]	
<b>TOPIC1_WC</b>	-0.0006375	0.0003418	-1.87	0.062	-0.0013074	0.0000324
<b>TOPIC2_WC</b>	0.0021533	0.0003423	6.29	0	0.0014824	0.0028241
<b>TOPIC3_WC</b>	0.0002466	0.0002629	0.94	0.348	-0.0002686	0.0007618
<b>TOPIC4_WC</b>	-0.0001348	0.0001501	-0.9	0.369	-0.000429	0.0001594
<b>TOPIC5_WC</b>	-0.0002311	0.0002043	-1.13	0.258	-0.0006314	0.0001692
<b>TOPIC6_WC</b>	0.0001327	0.0002344	0.57	0.571	-0.0003266	0.0005921
<b>TOPIC7_WC</b>	0.000117	0.000237	0.49	0.622	-0.0003476	0.0005816
<b>TOPIC8_WC</b>	0.0005826	0.000243	2.4	0.017	0.0001064	0.0010589
<b>TOPIC9_WC</b>	-0.0001088	0.0001934	-0.56	0.574	-0.0004878	0.0002702
<b>TOPIC10_WC</b>	-0.0002773	0.000242	-1.15	0.252	-0.0007516	0.0001969
<b>TOPIC11_WC</b>	0.0000689	0.0002293	0.3	0.764	-0.0003805	0.0005184
<b>TOPIC12_WC</b>	-0.000106	0.0001215	-0.87	0.383	-0.0003441	0.0001321
<b>TOPIC13_WC</b>	-0.0005266	0.0000863	-6.1	0	-0.0006957	-0.0003575
<b>TOPIC14_WC</b>	0.0000949	0.0002338	0.41	0.685	-0.0003632	0.0005531
<b>TOPIC15_WC</b>	-0.0005413	0.0002191	-2.47	0.013	-0.0009707	-0.0001119
<b>_CONS</b>	-0.0692657	0.0839259	-0.83	0.409	-0.2337573	0.095226

Table 8. Logistic regression *pr*(election)

	<b>Coef.</b>	<b>Std. err.</b>	<b>Coef.</b>	<b>Std. err.</b>
<b>Femininity</b>	3669429**	1268618		
<b>Masculinity</b>	.0114631	1228814		
<b>Ebola</b>			-.0029412*	0.0011543
<b>United Nations honorifics</b>			-0.0007323	0.000904
<b>Development capacity</b>			.0022077**	0.0007054
<b>Women in Africa</b>			0.0003588	0.000382
<b>Liberian challenges</b>			-0.0005183	0.0005091
<b>Development goals</b>			-.005672***	0.0013678
<b>Democracy and society</b>			-0.0003828	0.000591
<b>Military</b>			-0.0008504	0.0006269
<b>Justice and corruption</b>			-0.0007587	0.0005808
<b>Business</b>			-0.0009395	0.0006681
<b>Country-level honorifics</b>			-.0029361**	0.0010684
<b>Civil service</b>			-.0011422*	0.0005174
<b>Liberia FY</b>			.0004877*	0.0002361
<b>Peace and reconciliation</b>			0.0004602	0.0005706
<b>Education</b>			0.000552	0.0005312
<b>Constant</b>	-.5811389***	0.1106211	-0.2385003	0.2304173
* p<0.05, **p<0.01, *** p<0.001				