Gender in the Pulpit: The Differences in Speaking Style for Men and Women

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Abstract: One of the most important shifts occurring in the religious landscape is a significant increase in the number of churches that are ordaining and calling women to the ministry. While a tremendous amount of work in communication has studied the differences in speech by male and female speakers, that analysis has not turned to the level of the sermon. Using nearly 900 sermon transcripts collected from pastors of both genders, this paper uses a number of text analysis techniques including natural language processing and sentiment analysis to understand the differences in sermon delivery between the genders. Our findings note that while sermons delivered by males are significantly longer, female speakers are more likely to use first person pronouns and tentative speech than their male counterparts. Overall, our sentiment analysis finds that women are more likely to use positive words; however, sentiment varies dramatically across the entire arc of the sermon.

According to recent estimates, women make up between 17.6%-26.5% of the American pastorate (Bureau of Labor Statistics 2016), which is up markedly from a 2009 estimate of 16% from the BLS (Djupe 2014). Because of this rapid and consequential increase in female clergy, the desire to understand the gendered differences in ministry should be of great importance to scholars of religion and politics. In fact, some scholars who study the sociology of religion have noted that an elevated presence of female clergy could lead to an increasing gulf between liberals and conservatives on culture war issues— as this creates an "axis of tension and conflict…defined by different ideal-typical formulations of moral authority" (Hunter and Sargeant 1993).

While clergy have a number of tasks they must attend to during the course of their job, one of the most visible and possibly most influential is delivering the sermon or homily during a worship service (Quinley 1974; Djupe and Gilbert 2003). This task gives parishioners a chance to gain insight into the pastor's personality, the issues that the pastor wants to emphasize to the congregation, and how his/her faith drew them to a life of ministry. Yet, while social scientists have endeavored to understand how female clergy can have an impact on the outlook and activity of the congregation at a broad level (Olson, Crawford, and Deckman 2005; Djupe 2014), the topics and words that female clergy use during the weekly sermons is something that has not been systematically reviewed.

What follows is a brief summary of what both the fields of political science and communication bring to the understanding of homiletical discourse. While political scientists are interested in how a pastor can direct or amplify the political outlook of their congregation, scholars of communication are more interested in how men and women use language and discursive styles to convey information and meaning through both the written and spoken word. Each of these fields provide relevant insights to

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understanding the world of the gendered sermon. Following this summary, a dataset of 885 sermons will be analyzed containing transcripts of messages delivered by both male and female pastors. A number of text analysis techniques will be employed ranging from basic word counts to more sophisticated natural language processing to identify the sentiment of the words used by each gender and how that sentiment changes throughout the course of the sermon. Finally, implications and potential additional avenues for this research will be discussed.

Gendered Communication

The study of gendered language (word use) and communication (speech patterns) has a long history in the scholarly literature (Wood 2012). Some of the most foundational work contends that men and women have different cultural rules for casual conversation. This "gender as culture" theory posits that children quickly learn that language is an effective way to differentiate themselves from the opposite sex, and this results in each gender finding a different utility in communication (Maltz and Borker 1982). However, other scholars have contended that speech differences may be more about maintaining a power structure where word choice and communication style reinforce subordinate positions for females in society (Henley and LaFrance 1984; Henley and Kramarae 1991). Some scholars believe that this "gender as power" theory extends not just across the malefemale divide but also continues to stigmatize minority female groups (Tannen 1994). As Tannen (1994) notes, when linguistic and discursive styles differ between "those who hold the keys to societal power" and those who hold a subordinate position in society, stylistic differences historically disadvantage the latter group. For example, Tannen (1994) highlights how men's communication style typically places them in "the role of lecturer" (someone with expertise and authority to teach), while women's communication style more often leads them to take "the role of listener" (a student, never given the opportunity to lecture, even when they have expertise). The difference in the perception of roles (lecturer vs. student) could lead clergy of each gender to approach the craft of homiletics in their own distinct style.

Other meaningful differences may also exist between women's and men's sermons. For instance, the vast majority of scholarship has indicated that women are much more likely to include words such as "my" and "I" in a wide variety of speech contexts (Harley and Ritter 2002; Herring and Paolillo 2006). This gap persists even when analyzing over 14,000 text files from 70 separate studies in a meta-analysis. This difference may be the direct result of the fact that women use language to refer to psychological or social processes, which lends itself to using first person singular pronouns. On the other hand men are more apt to discuss object properties and impersonal topics that are typically not related to first person pronouns (Newman et al. 2008). It is worth exploring whether these differences are reflected in sermons delivered by men and women.

In addition, there has been a tremendous amount of research in the area of tentative speech patterns by each gender. Dating back to foundational work by Lakoff (1973) and Lakoff (1975), communication scholars have consistently concluded that female speech patterns exhibit more hesitation than those used by males. More recent study of this phenomenon has reinforced the idea that women are more likely to speak with uncertainty ("not sure" or "I think"), use qualifiers in their language ("somewhat disappointing"), use hedges ("I guess" or "kind of"), and use intensifiers ("so hard")

(Palomares 2009; Leaper and Robnett 2011). These findings are consistent with Tannen's (1994) work, which, as discussed above, suggests that while men's speech patterns often place them in a role of authority and expertise, women's speech frequently leads them to take a subordinate (and less assertive) role. While these differences have been found in a number of communicative circumstances, few studies have compared sermons delivered by each gender to see examples of this this tentative language from the pulpit.

Finally, there has been a tremendous amount of work to understand gendered differences in temperament and how these affect communication patterns. Foundational work has concluded that emotional temperament is apparent at very young ages (as early as toddlers) and can have a profound impact on daily activities such as eating and sleeping (Buss and Plomin 1975; Thomas and Chess 1977; Rothbart and Derryberry 1981). Societal expectations can further influence expressions of emotion. For example, society sees men using anger in their speech and demeanor as a positive display of emotion, while females are looked down upon for expressing anger. Further, some research has concluded that individuals are quicker to pick up angry faces in males (Becker et al. 2007), while other studies have indicated that women are oftentimes punished for showing anger in job interviews while men are rewarded by receiving a job offer (Tiedens 2001; Brescoll and Uhlmann 2008). As Tannen (1994) further notes, the disinclination of women to make an expression of anger or conflict when in conversation with a male places them at a disadvantage in a conversational setting, even if such a result was not intrinsically sought after by the male. As a result, women often find themselves acquiescing to men in a confrontational situation (Tannen 1994). Whether such variation in the usage of anger emerges from the sermon styles of women and men is an interesting possibility to consider.

Some of the most famous sermons of all time (i.e. "Sinners in the Hands of an Angry God") display a tremendous amount of anger regarding the unworthiness of humanity, yet God's merciful love (Edwards 1992). Even popular 20th Century evangelists like Billy Graham used anger and the fear of eternal punishment to encourage parishioners to allow Jesus into their hearts (McLoughlin 2004). Oftentimes this anger and fear ramps up during the final portion of the sermon as pastors are looking to have a fruitful yield during the invitational time as evidence of the effectiveness of the sermon (Sunukjian 2007). However, one has to wonder if women would be more hesitant to use this rhetorical style knowing that it will be received differently than by their male counterparts.

Outside of possible differences discussed thus far, simple comparisons of word counts may further illuminate meaningful variation between men's and women's sermons. Work that has focused on parental word usage finds that mothers speak more to their children than fathers (Leaper, Anderson, and Sanders 1998), and further research shows that female children evince more verbal ability than their male peers (Leaper and Smith 2004). However, analysis of word volume has not been extended to the realm of written communication between the genders (but see Warshay 1972; Mulac and Lundell 1994), much less to sermons.

It is difficult to link these findings to the specific context of a Sunday homily, however. Sermon delivery can range from a pastor using nothing but her Bible and speaking extemporaneously to reading verbatim remarks that were prepared throughout the preceding week (Roland 2012). Such an analysis is also constrained by the reality that different Christian traditions place a varying amount of emphasis on the typical components of a worship service (Haskell 2012). This could lead some sermons to be of a shorter length for reasons of tradition; not gender differences. Nonetheless, understanding if sermons are of varying length, and the magnitude of this difference, can be an illuminating exercise.

Beyond word usage, the sermon can provide an interesting window into differing homiletical styles, which can range from the extremely personal to much more academic and less individually oriented. For example, an analysis of the worship style of Pentecostal churches in Appalachia concluded that the personal testimony was an effective form of preaching style (Titon 1988). On the other hand, expository preaching, a style that is focused on illuminating the original context and meaning of a biblical text is much more impersonal and often seen as an educational exercise (Goldsworthy 2000). While prevalent in both the evangelical and mainline tradition, the expository style is particularly well suited to pastors with significant theological education and therefore seems likely to be used more by the female clergy as they have an increased level of education in other samples (Olson, Crawford, and Deckman 2005).

Political Communication

If one were to describe the relationship between clergy and politics, it would be tenuous. A cursory assessment of clergy would seem to indicate that they are ideally suited to not only engage in politics themselves, but to also use the power of their pulpit to try to mobilize and persuade their congregations to support candidates of their political persuasion. Research suggests that clergy are by and large highly educated (Guth, Green, Smidt, & Kellstedt 1997; Perl & Chang 2000; McDaniel 2008), have many resources at their disposal (Djupe and Gilbert 2002; Finke and Dougherty 2002; Djupe and Gilbert 2006), make reasonable incomes (Perl and Chang 2000; Trawick and Lile 2007), and have a great deal of latitude when it comes to how they spend their time (Brunette-Hill and Finke 1999; Andersen 2004). This combination is exactly what most political scientists believe are ideal conditions for a politically active individual (Nie and Verba 1987; Verba, Schlozman, and Brady 1995). However, even if such characteristics really do describe the average member of clergy, on the whole they have been notoriously reluctant to speak publicly about political issues or engage in any sort of political participation outside basic civic requirements such as voting in primaries and elections (Djupe and Gilbert 2002; Djupe and Calfano 2009; Djupe et al. 2016). Though more recent work suggests that clergy's trepidations about political activity have waned over time (Djupe and Gilbert 2008)—and this may be especially true in the wake of the divisive 2016 US Presidential election-the attitudes of congregants toward their pastor's political activity presents a notable limitation on clergy involvement in political action (Djupe and Gilbert 2008). That said, political activity among clergy does exist.

When an individual decides to dedicate their career to religious service, this choice is deeply rooted in a religious conviction that they have been anointed or called by a divine power to serve (Christopherson 1994). While each individual pastor feels the call into ministry, the way that their calling is evidenced in day to day life can be highly variable and can, at times, extend to the political. Some pastors, for example, feel that the call to ministry does not end at being the religious leader for a community of faith but also the congregation's political voice to government officials (Owens 2007; Djupe, Burge, and Calfano 2016). One study of nearly one hundred Protestant ministers found that the pastors who did choose to speak out on political issues did so because they felt

called by God to be prophets for their congregation and their denomination (Olson 2000).

This divine need is rooted in what scholars describe as "social theology," which refers to how a member of the clergy views the role of the Church in relation to the rest of the world (Guth et al. 1997). Many denominations and pastors have struggled with how to guide their congregation in engaging those outside the church in order to seek transformative change. Pastors who have a social theology that teaches separation create a strong sense of social identity among their flock (Burris and Jackson 2000), however these churches often struggle with how to engage the larger culture and with bringing in new converts (Djupe and Calfano 2013; Burge and Djupe 2014). This tension was described nearly five decades ago by Jeffrey Hadden, who called this "the gathering storm," where the clergy urge the congregation to "move beyond the four walls of the church," while the congregation, "seeks comfort and escape from the world in the sanctuary of God" (Hadden 1969, 99).

While pastors may have differing views of the role of the Church, little work has considered whether gendered differences in word usage and communication styles shape how pastors convey their social theology. The friction between the inward and outward looking understandings of how the church and the world should relate is crucial because it speaks to the tension that many pastors face between, on the one hand, teaching and challenging their flock and, on the other hand, satisfying the needs of congregants. The earliest scholars of clergy found that pastors and priests were overwhelmed with the necessity to maintain good relationships with members of their congregation and believed that if they spoke out on political issues that they ran the risk of alienating a significant portion of their membership (Campbell & Pettigrew, 1959; Hadden, 1969). These early works take special care to note that clergies' positions are unlike any other in the workforce. They must walk into a parish that "has an ongoing social structure of its own" (Quinley 1974, 43). Having to quickly understand the unwritten rules of structure and culture is compounded by the fact that clergy are asked to be preachers, teachers, counselors, arbiters, and leaders all at once (Campbell and Pettigrew 1959). Such difficulties make women's entrance into the clergy all the more precarious, and therefore more hesitant to speak about divisive issues from the pulpit.

These obstacles can be even greater for female clergy, who have to navigate an additional set of concerns that are largely absent for their male counterparts: the reluctance to accept a woman in the pulpit (Olson, Crawford, and Deckman 2005). Returning to the work of Tannen (1994), speech differences between men and women often result in women more often being relegated to the role of listener/student, while men more often take the role of lecturer/teacher. This dynamic should weigh heavy has women pastors must navigate the role of church leader, teacher, and councilor, all the while having to contend with societal expectations that such tasks are more often the domain of men. Such considerations may further make it difficult for women to speak authoritatively about political issues. In a questionnaire responded to by female clergy, one in three women said that their gender constrained their ability to engage in any sort of political activity (Olson, Crawford, and Deckman 2005). This wariness to speak politically is well summarized by a female pastor who stated in an interview,

that, when I make a statement or do an action, I am conscious that there are those who might dismiss me or marginalize me because of my gender (Olson, Crawford, and Deckman 2005, 50–51).

As a way to deflect this issue, many female clergy note that they do not speak directly about political issues or candidates, but instead to try to move the discussion toward issue statements that are focused on biblical principles (Olson, Crawford, and Deckman 2005). It seems reasonable that such hesitancy and caution may demark women's sermons from men's.

Another practical issue that may limit female clergies' ability or desire to engage in political discussion and political activity is their commitment to other responsibilities—the so-called "second shift" problem. On top of pastoral duties, women clergy are frequently tasked with taking care of many of household chores and therefore have less time to think about, speak about, and engage in political issues as members of the clergy (Hochschild and Machung 2012). This time constraint can be especially burdensome when a female pastor is also a single parent, as is sometimes the case with women in the ministry (Olson, Crawford, and Deckman 2005).

However, while many of these issues should make women less likely to speak about political issues and urge political activity from the pulpit, other factors may make that more likely. Take, for instance, the fact that female clergy tend to have much higher levels of graduate level theological education than their male counterparts (Olson, Crawford, and Deckman 2005). Because of the reality that mainline denominations are the primary vehicle for female ordination in the United States (Diupe 2014), much of this graduate education takes place in denominations that have storied histories of political activity. For example, some female pastors note with great pride the fact that the Presbyterian Church (U.S.A.) or the United Methodist Church found their raison d'etre by fighting for abolitionist causes during the buildup to the Civil War (Olson, Crawford, and Deckman 2005). Seeing themselves as the continuation of this tradition, many female clergy feel the need to speak on issues of social justice and human rights (Olson, Crawford, and Deckman 2005). However, some subsequent empirical evidence finds that the ability of female clergy to alter the political participation of their congregations to be quite limited (Djupe 2014). Nevertheless, it is worthwhile to explore how women engage differently with politics from pulpit compared with men.

Research Questions

The above discussions of gendered differences in speech and of gendered differences in discussion of political issues in sermons raise a number of important questions about differences in the length, content, and communicative stylings of sermons delivered by men and women. For example, do female clergy speak longer during their sermons compared to their male counterparts? When they speak do women use more first person singular pronouns than their male counterparts? Do they use more examples of tentative speech? Are they more likely to express positive sentiment, or any less likely to rely on anger? Turning to politics, are women more likely to engage in political discussions than their male counterparts? To answer these questions, we will turn to a unique dataset of sermons from both men and women clergy in the United States.

Data and Methods

To answer these questions, we compiled a dataset of 885 sermons by a total 118 pastors from a variety of denominational backgrounds. These were collected in a convenience method using simple internet searches. Almost all of the transcripts were acquired from Sermon Central (an online repository of preaching material) or the websites of churches or pastors. Using this method will likely bias the sample toward larger churches or more professional pastors; however, there is no reason to believe that the transcripts collected have theological or ideological content that differs greatly from that which an average church goer hears during a worship service. The bulk of these sermons are relatively recent (from the past few years), although some date to as early as February of 1997. Of the sermons included in our data, 288 are by women and 597 are by men. The average number of sermons by a given pastor included in our data is 7.5, though the number ranges from as few as 1 to as many as 78. Some summary statistics are shown in table 1.

Table 1: Summary Statistics						
	N	Mean	Median	SD	Min.	Max.
Sermons	885					
Pastors	118					
Sermons /Pastor		7.5	5	11.45	1	78
Male	288					
Female	597					
Sermons /Male		7.02	5	10.67	1	78
Sermons /Female		8.47	4.5	13.37	1	70
Total Unique Words	38,838					
Date		2016/09/10	2016/12/04		1997/02/27	2017/11/28

To analyze this data, we employ various methods of text analysis, which range from simple word counts to natural language processing to identify sentiment and emotions within sermons. For the latter, we rely on the National Research Council (NRC) Emotion Lexicon, which provides a crowdsourced list of English words and their associations with one of two sentiments (positive vs. negative) and one of eight emotions (anger, anticipation, disgust, fear, joy, sadness, surprise, and trust) (Mohammad and Turney 2013). Discussion of our analysis proceeds as follows. First, we explore linguistic differences between men's and women's sermons, comparing the lengths of sermons, differences in the use of tentative speech and first-person pronouns, and differences in the frequency of mentions of political words. Second, we consider communicative differences between men's and women's sermons by examining variation in positive and negative sentiment, as well as variation in expressions of emotion across the eight

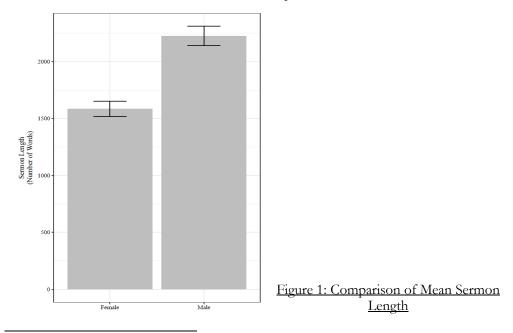
Analysis

Linguistic Differences Volume of Words Used

emotions mentioned above.

As discussed previously, some research shows that a significant difference in the number of words used by men and women exists. It is therefore possible that differences in length are observable between men's and women's sermons. Though, as previously mentioned, there are possible causes beyond gender that might explain variation in sermon length, such as tradition and denominational differences, exploration of sermon length can still provide insights into differences in linguistic styles between men and women.

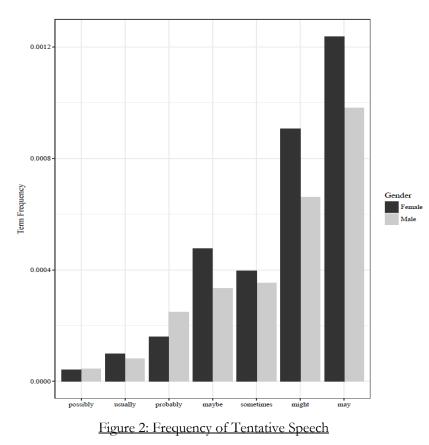
Consistent with the findings of James and Drakich's (1993) meta-analysis, we find that the sermons by men in our data tend to be, on average, longer than those by women (see figure 1). The difference is quite substantial, with men using on average more than 600 more words per sermon than women (mean word count for men = 2,225.58; mean word count for women = 1,585.52; t = -11.61; p < 0.001).¹ Whether this difference is purely the result of gender is, nevertheless, unclear. Women pastors may belong to mainline traditions that, by convention, have typically shorter sermons. More work to control for denomination is therefore required.



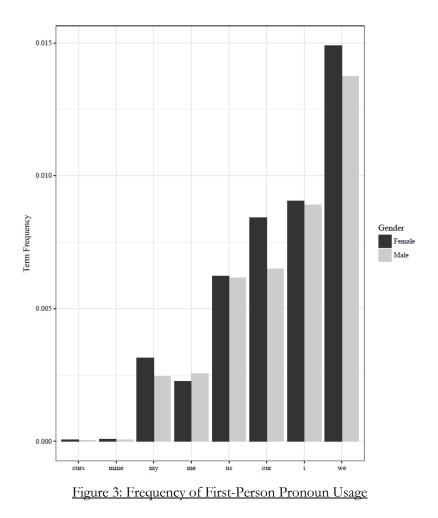
¹ We use a Welch two-sample t-test for all significance tests.

Tentative Speech and First-Person Pronouns

Prior research indicates that women's speech tends to be more hesitant than men's (Lakoff 1973, Lakoff 1975; Palomares 2009; Leaper and Robnett 2011). This may be the case because of anticipated differences in audience responses to the temperament of male and female speakers (Tiedens 2001; Becker et al. 2007; Brescoll and Uhlmann 2008). Women may feel leery of using strong language and thus prefer to qualify their statements. Our data supports this view (Figure 2). In terms of tentative speech, though differences are not substantial, women pastors tend to use certain qualifiers, such as "may," "might," "sometimes," and "maybe" more often than men, although men do appear to use "probably" more often than women.



Because women are more likely to use psychological and social language, whereas men are more apt to rely on impersonal language, there is reason to expect gender differences in the use of first-person pronouns in male versus female sermons as well. Our data supports this expectation; though, it is important to not overstate the magnitude of the difference (figure 3). Women more often use "we," "I," "our," and "my," for example, but the difference is not considerable. This is likely due to the fact that sermons frequently contain personal anecdotes, which often relate to first-person pronoun usage. Even so, women do use these pronouns slightly more frequently than their male counterparts.



Political Speech

As already discussed, clergy are uniquely situated for political action, yet political activism often comes with the risk of alienating members of one's congregation—a danger many women pastors might shy away from. However, some reasons why women might be more politically engaged than men also exist. Notably, as previously discussed, women pastors tend to have higher levels of graduate education relative to their male counterparts (Olson, Crawford, and Deckman 2005), which, in fact, may make them more likely to engage in political issues (Verba, Schlozman, and Brady 1995). Furthermore, mainline Protestant institutions have tended to serve as the primary vehicle for female ordination, and many of these institutions have storied pasts of political activism (Djupe 2014), which may compel greater political involvement among its seminarians.

Our exploration of a handful of terms related to salient political and social issues suggests that the latter view may be more accurate; though, this finding is far from uniform. As figure 4 shows, women more frequently used the terms "government," "vote," "gay," "USA," "terrorism," "lesbian," and "LGBT." As for the remaining terms, women and men appear to use with similar frequency "America," "president," "Trump," "terrorist," "homosexuality," and "Clinton." "America" and "president" are by far the most frequently used political words by men and women among the words included in figure 4.

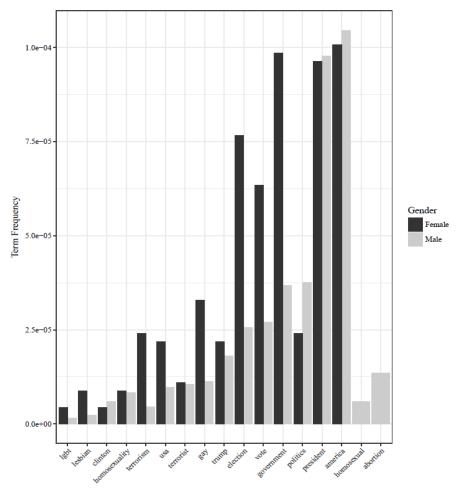
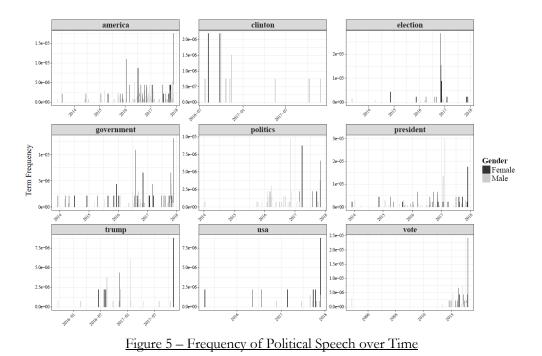


Figure 4: Frequency of Political Speech

While women do use some political words more frequently than men, men more often use the word "politics," and men exclusively use the terms "homosexual" and "abortion." That only the men in our sample discuss abortion (directly at least) is interesting. It suggests that women in our sample may be reluctant to mention abortion in their sermons, while men lack this same hesitancy, even while it is an issue that uniquely affects women.



Mentions of political terms also appear to be time sensitive. As figure 5 shows, several political words are more frequently used during the period leading up to the 2016 presidential election. "Clinton," "Trump," "election," "politics," "president," and "vote" all were more frequently used by men and women in 2016, and some terms remained salient on into 2017. To the eye, there appear to be gender differences in how frequently pastors mention Trump and Clinton in their sermons. Clinton was mentioned by both men and women in 2016 election, Clinton was mentioned only in sermons by men (but with less frequency). Trump was mentioned by both men and women as well in 2016, but Trump was mentioned with greatest frequency by women in late 2017. It seems only natural that Trump would remain a salient topic for both men and women since he is the current US President; however, it is interesting that men, in particular, maintained some interest in Clinton well into 2017 while women, particularly most recently, have been especially vocal about Trump on into 2017.

It further is important to note that while both men and women increasingly discussed the presidential election in the period leading up to the latter part of 2016, the most frequent mentions of terms related to the election were made by the women pastors in our dataset. This suggests, contrary to what might be expected given past research on gendered communication showing timidity in women's speech, women in our sample engage in discussion about politics as frequently as men, and sometimes even more frequently than men. However, denominational differences are an important confounding variable not controlled for here. Future research, therefore, should consider whether women might not also serve in congregations that are more receptive to political engagement.

Differences in Discursive Styles

Beyond differences in word usage, men's and women's sermons further display differences in terms of emotive expressions. For example, the fact that women's language tends to be more tentative and reliant upon qualifying terms (as shown above) suggests that women also may be reluctant to display strong emotions in their sermons, such as anger and fear. As mentioned earlier, anger is more quickly identified in men and can work in men's favor, while it can work to the disadvantage of women.

To explore differences in the use of emotion between sermons by men and women, we utilize the NRC Emotion Lexicon, which contains a crowdsourced dictionary of words and their associated sentiments and emotions. This dictionary contains the positive and negative sentiment of words, along with their association with eight emotions: anger, anticipation, disgust, fear, joy, sadness, surprise, and trust.²

Figure 6 displays point estimates of the mean level of sentiment and of the eight emotions listed above, along with 95% confidence intervals, for men's and women's sermons. In terms of positive and negative sentiment, a significance in difference test reveals that women's sermons are more positive than men's; though this finding is only moderately significant at p < 0.1. Moreover, there is not a significant difference in negative sentiment between men's and women's sermons. In terms of the eight emotions, women use significantly less disgust (p < 0.05) and significantly less fear (p < 0.05) than men; however, there is not a significant difference of the remaining six emotions.

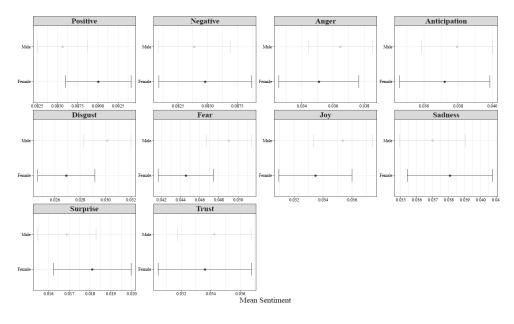


Figure 6 – Differences in Sentiment

Broad differences in the mean sentiment and emotional valence between men's and women's sermons can be insightful, but exploring how the presence of sentiment

² We used the get_nrc_sentiment() function in the syuzhet package in R.

and emotion varies across sermons from beginning to end can also be informative because seemingly insignificant differences in mean emotions and sentiment for entire sermons can mask significant differences between sentiments and emotions at certain pivotal points in the arc of a sermon.

Figure 7 displays point estimates of mean sentiment and emotions for five parts of a sermon: the beginning, middle, and end, along with parts in between. 95% confidence intervals are also included. In terms of sentiment, women's sermons contain significantly more positive sentiment than men's in the first and latter halves of their sermons; however, there is not a significant difference in the middle of men's and women's sermons. Further, while women and men differ in terms of positivity, there is no significant difference in negative sentiment across the sermon arc.

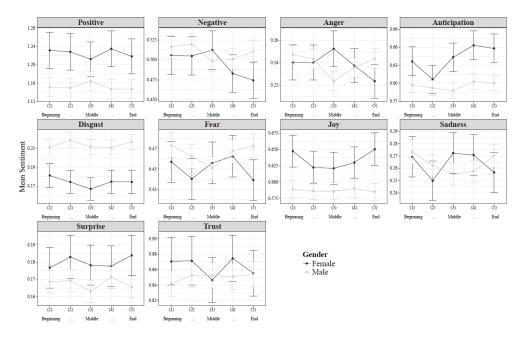


Figure 7 – Differences in Sentiment over Sermon Arc

In terms of emotion, there is little difference in the use of anger between men's and women's sermons, save for the middle of the sermon where women, contrary to what might be expected given how conveying anger can potentially work to women's disadvantage, use significantly more anger than men (p < 0.01) and, in fact, increase, on average, the amount of anger conveyed while men appear to ramp down, on average, the amount of anger they convey. Women also use significantly more words associated with anticipation (such as "adventure" or "investigation") than men at the beginning of their sermons (p < 0.05), and they increase the frequency with which they used words associated with anticipation relative to men from the middle to the end of their sermons.

As for the male pastors in our sample, they appear to convey significantly more disgust than women throughout their sermons (p < 0.001) with little variation in the amount expressed from beginning to end. Men also convey significantly more fear than women (p < 0.05); however, this difference, it is important to note, is observed at the

end of sermons, the point of a sermon when pastors may choose to have an alter call or invitation time. Even more, whereas men appear to increase the amount of fear they use at the close of sermons, women, on average, appear to decrease the amount of fear they use.

Finally, women appear to use significantly more joy than men throughout their sermons. This effect is most significant and the greatest at the beginning and tail ends of their sermons (p < 0.001 in each instance) while its magnitude and significance declines slightly in the middle and just after the beginning of sermons (p < 0.05 in each instance).

The findings here suggest that there are real and important differences in the communication styles of female and male clergy. While the men in our sample convey more disgust throughout their sermons and more fear at the close of their sermons, the women in our sample build anticipation throughout their sermons more so than men, convey more anger than men in the middle section of their sermons, and express more joy than men, particularly at the beginning and end of their sermons. Furthermore, while men and women use negative sentiment with similar frequency, women use significantly more positive sentiment throughout their sermons no doubt have important implications for how audiences receive messages and also suggest differences in communication strategies taken by male and female clergy when in the pulpit. Women, for example, may emphasize positive emotions, particularly at the close of a sermon, recognizing that congregants will receive this differently from how they would receive it from a male pastor.

Discussion

The communication literature has provided numerous insights into gendered differences in communication, word choice, and sentiment; however, rarely have these insights been applied in the context of the church sermon (for an exception see Wurgler 2017). The sermon exists as one of the few instances in modern life when a speaker has the (somewhat) undivided attention of a large number of people for a significant period of time. However, while the sermon contains a great amount of potential for a member of the clergy, it is tempered with a tremendous degree of peril, as well. Understanding how women and men approach the precarious problem of how to maintain good relationships with their congregants while also exhorting them to change their beliefs and behavior can be a homiletical tightrope. We find evidence here that men and women walk this tightrope differently.

Our results provide some preliminary confirmation of a number of prior findings, while also providing contradictory evidence in other cases. For instance, regarding differences in word usage, we note here that women use first-person pronouns with greater frequency than their male counterparts. In addition, if one takes a more careful look at those first-person pronouns, the ones that are predominantly used by women are more inclusive words such as "our" or "we", while the more singular words such as "me" and "I" are used at the same frequency by both genders. In this way, we see that women use these first-person pronouns in a way to include other people in their message, whether it be the local church or the local community. This could be indicative of a different worldview being expressed through the sermon. However, whether such dynamics are truly at play in this sample is only speculation at this time. In the area of tentative speech, results buttress previous findings by communication scholars: we find that women use tentative speech at a greater frequency than males. The most obvious interpretation of this is the one that prior literature provides: that women's communication styles evince lower levels of certainty than their male counterparts. That same interpretation seems appropriate here as well—however with a theological twist. We know that there are very few evangelical female pastors in the United States as most evangelical churches strictly prohibit women from gaining roles in leadership (Ammerman 1980). At the same time, the general consensus among scholars of religion is that biblical literalism is a hallmark of evangelical Christianity (Hackett and Lindsay 2008). On the other hand, mainline denominations, which are also more open to female pastors also teach an approach to the Bible that is less sure of its meaning and interpretation (Roof and McKinney 1987). As such, this reluctance to declare what the Bible says in direct and certain terms might be more prevalent among female pastors because this is what many of them were taught in divinity school.

This mainline vs. evangelical distinction could also play a role in the political speech of clergy; however, whether religious tradition drives up a certain type of word choice is not easily ascertained. For example, it is impossible to know, based on our analysis alone, why women are much more likely to use terms like "government" and "vote," two words that are politically neutral, while two other politically neutral words, "president" and "America," are used equally by both genders.

Some other differences may be more clearly explicated, though. In general, women were more likely to use terms referring to sexual orientation like "gay" or "LGBT," which could be a product of the mainline tradition which has been much more amenable to LGBT rights than their evangelical counterparts (Olson, Cadge, and Harrison 2006). On the other hand, women in our sample steered completely clear of abortion, while men, to the contrary, appeared less reluctant to discuss the issue-albeit somewhat infrequently. This finding is particularly interesting. As highlighted earlier, female clergy have to contend with concerns that engaging with politics from the pulpit can be easily dismissed by congregants who believe that a woman is speaking from a specific feminine perspective that does not include the entire body of believers. Because of this concern, perhaps women avoid direct mention of abortion for fear that some congregants may immediately dismiss their statements or find the discussion alienating. Even so, the women in our sample do not appear to shy away from discussion of other broader political issues, such as voting and the government, and divisive issues for a number of denominations like homosexuality. Obviously, these results paint a nuanced picture of how gender, religious tradition, and congregational context lead pastors to tailor their messages in specific ways.

There may be echoes of this mainline/evangelical divide in the sentiment results, as well. Our analysis indicates that female speakers, on average, use words that are more positive and more joyous compared to their male counterparts. On the other hand, male speakers are more likely to use fear in their sermons. However, despite the suggestion of prior work that expressions of anger place women at a disadvantage relative to men, our results show that the level of anger used by men and women in sermons is not statistically different, save for the middle portion of sermons where we observe a dip in the level of anger expressed by men and a spike in the level of anger expressed by women. This is an interesting rhetorical tactic that deserves further analysis. And it further represents an interesting puzzle given that fire and brimstone messages delivered from pulpits are by

and large the product of an evangelical theology that places a great emphasis on converting souls for Christ, no matter what tactic must be employed. It is therefore surprising that women, who tend to be from majority mainline denominations, appear to rely on anger as much as, and more than, men.

Another notable difference between women's and men's sermons is the frequency with which we found each group relied on words associated with anticipation (e.g. "eager" or "await"). Women more often relied on words associated with anticipation than men throughout their sermons, particularly in the last three fifths of an average sermon. This pattern suggests a different discursive style between men and women-women seem to build anticipation leading up to the end of their sermons, perhaps as a way to keep their audience interested while also communicating Biblical lessons or instilling hope in congregants. However, like with many of the differences found between men's and women's sermons, we have no way to determine if these differences result from gendered differences in communication styles or denominational differences. Moreover, as already noted, women clergy tend to, on average, have higher levels of education relative to their male counterparts-and this education likely encompasses teaching about homiletical style and effective preaching. Thus, while perhaps women rely on anticipation more frequently than men for reasons rooted in gender or even denomination, it is also possible that differences in training explain some of the variation in reliance on anticipation as well.

This speaks to a larger issue that arises when comparing the theological or political outlook of male clergy and female clergy. While it is relatively easy to find mainline clergy of both genders, it is not possible to do the same for those from an evangelical background. As such, this data collected may say more about the differences in evangelical and mainline homiletical styles than women vs. men, specifically. Take, for instance, the difference in word counts. We find that women deliver sermons that are 600 words less, on average, compared to men. As we have noted, this could be more of a function of differences in worship styles among mainline and evangelical religious traditions than any sort of gendered difference. The most appropriate way to explore this hypothesis would to be collect sermons from all male speakers (to control for gender) from both mainline and evangelical churches. However, this task is made exceedingly challenging by the fact that it can be somewhat difficult, if not impossible, to identify a church's religious tradition from information available online. Many churches may lack an online presence. Moreover, there may be inconsistencies in how individual congregations self-report their denominational affiliation.

This research speaks to two concerns that are likely understudied by scholars of religion: how and why individuals chose to become ministers in the first place and how congregants respond to certain types of sermons. Regarding the first, while there has been a tremendous amount of work on how clergy behave once they are leading the congregation (Hadden 1969; Quinley 1974; Olson 2000; Djupe and Gilbert 2003; Olson, Crawford, and Deckman 2005), there has been a paucity of work that describes why individuals pick the religious tradition that they would like to lead, much less any work that has addressed how an individual's gender shapes his or her choice about which denominational tradition to lead. Obviously, a great deal of this would be tied up in the tradition an individual was raised in, but how do women who were raised Southern Baptist (a denomination that remains largely opposed to female clergy) find their calling to ministry and also find a new religious tradition to immerse themselves in? These

questions are of great consequence to clergy generally, and women in ministry specifically. It is our hope that this research becomes the first of many to understand how those theological and political issues surface in the pulpit.

Regarding the second question, it is incredibly important to understand how congregants receive the messages they hear from the pulpit, particularly when it comes to explaining congregants' political views and behaviors. As recent work by Wurgler (2017) suggests, politicking in sermons often comes wrapped in a partisan package. Thus the more effectively a pastor can communicate his or her message, the more sway he or she may have over the political views and behaviors of listeners. Furthermore, if gendered differences relate to different types of political messages and emphases, then understanding how men's and women's sermons differ in terms of word usage and discursive style is incredibly important—if women convey even a subtly different message than men (for example, one that is focused more on social justice rather than the moral depravity of society), then the ramifications for congregant behavior outside the church (perhaps at the ballot box) may be incredibly important.

Bibliography

- Ammerman, Nancy T. 1980. "The Civil Rights Movement and the Clergy in a Southern Community." Sociological Analysis 41 (4):339–50. https://doi.org/10.2307/3709888.
- Andersen, Jon Aarum. 2004. "Vicars vs. Managers: Do Vicars Differ From Managers In Terms of Leadership Behaviour?" Journal of Management, Spirituality & Religion 1 (2):201–23. https://doi.org/10.1080/14766080409518556.
- Becker, D. Vaughn, Douglas T. Kenrick, Steven L. Neuberg, K. C. Blackwell, and Dylan M. Smith. 2007. "The Confounded Nature of Angry Men and Happy Women." *Journal of Personality and Social Psychology* 92 (2):179–90. https://doi.org/10.1037/0022-3514.92.2.179.
- Brescoll, Victoria L., and Eric Luis Uhlmann. 2008. "Can an Angry Woman Get Ahead? Status Conferral, Gender, and Expression of Emotion in the Workplace." *Psychological Science* 19 (3):268–75.
- Brunette-Hill, Sandi, and Roger Finke. 1999. "A Time for Every Purpose: Updating and Extending Blizzard's Survey on Clergy Time Allocation." Review of Religious Research 41 (1):48. https://doi.org/10.2307/3512426.
- Bureau of Labor Statistics. 2016. "Labor Force Statistics from the Current Population Survey." United States Department of Labor. https://www.bls.gov/cps/cps_aa2016.htm.
- Burge, Ryan P., and Paul A. Djupe. 2014. "Truly Inclusive or Uniformly Liberal? An Analysis of the Politics of the Emerging Church." *Journal for the Scientific Study of Religion* 53 (3):636–51. https://doi.org/10.1111/jssr.12129.
- Burris, Christopher T., and Lynne M. Jackson. 2000. "Social Identity and the True Believer: Responses to Threatened Self-Stereotypes among the Intrinsically Religious." *British Journal of Social Psychology* 39 (2):257–78. https://doi.org/10.1348/014466600164462.
- Buss, Arnold H., and Robert Plomin. 1975. A Temperament Theory of Personality Development. Wiley-Interscience.
- Campbell, Ernest Q., and Thomas F. Pettigrew. 1959. Christians In Racial Crisis A Study Of Little Rocks Ministry. Nabu Press.
- Christopherson, Richard W. 1994. "Calling and Career in Christian Ministry." Review of Religious Research 35 (3):219. https://doi.org/10.2307/3511890.
- Djupe, P.A., and C.P. Gilbert. 2002. "The Political Voice of Clergy." The Journal of Politics 64 (02):596-609.
- ———. 2006. "The Resourceful Believer: Generating Civic Skills in Church." The Journal of Politics 68 (01):116–127.
- ———. 2008. "Politics and Church: Byproduct or Central Mission?" Journal of the Scientific Study of Religion 47(1): 45-62.
- Djupe, Paul A. 2014. "The Effects of Descriptive Associational Leadership on Civic Engagement: The Case of Clergy and Gender in Protestant Denominations." *Journal for the Scientific Study of Religion* 53 (3):497–514. https://doi.org/10.1111/jssr.12133.
- Djupe, Paul A., Ryan P. Burge, and Brian R. Calfano. 2016. "The Delegational Pulpit? Clergy Identifying as Congregational Political Representatives." *Representation* 52 (1):43–69. https://doi.org/10.1080/ 00344893.2016.1244112.

- Djupe, Paul A., and Brian R Calfano. 2009. "Justification Not by Faith Alone: Clergy Generating Trust and Certainty by Revealing Thought." *Politics and Religion* 2 (1): 1–30.
- Djupe, Paul A., and Brian R. Calfano. 2013. "Divine Intervention? The Influence of Religious Value Communication on U.S. Intervention Policy." *Political Behavior* 35 (4):643–63. https://doi.org/10.1007/s11109-012-9211-3.
- Djupe, Paul A., and Christopher Gilbert. 2003. The Prophetic Pulpit: Clergy, Churches, and Communities in American Politics. Rowman & Littlefield Pub Inc.
- Edwards, Jonathan. 1992. Sinners in the Hands of an Angry God. First Edition edition. Phillipsburg, N.J: P & R Publishing.
- Finke, Roger, and Kevin D. Dougherty. 2002. "The Effects of Professional Training: The Social and Religious Capital Acquired in Seminaries." *Journal for the Scientific Study of Religion* 41 (1):103–20. https://doi.org/10.1111/1468-5906.00104.
- Goldsworthy, Graeme. 2000. Preaching the Whole Bible as Christian Scripture: The Application of Biblical Theology to Expository Preaching. 5/27/00 edition. Grand Rapids, Mich: Eerdmans.
- Guth, James L., John C. Green, Corwin E. Smidt, and Lyman A. Kellstedt. 1997. The Bully Pulpit: The Politics of Protestant Clergy. Lawrence, Kan: University Press of Kansas.
- Hackett, C., and D.M. Lindsay. 2008. "Measuring Evangelicalism: Consequences of Different Operationalization Strategies." *Journal for the Scientific Study of Religion* 47 (3):499–514.
- Hadden, Jeffrey K. 1969. The Gathering Storm in the Churches. [1st ed.] edition. Doubleday.
- Harley, Heidi, and Elizabeth Ritter. 2002. "Person and Number in Pronouns: A Feature-Geometric Analysis." Language 78 (3):482–526. https://doi.org/10.1353/lan.2002.0158.
- Haskell, David M. 2012. "The Theological Meaning of Jesus' Resurrection: A Content Analysis of Mainline and Conservative Protestant Easter Sunday Sermons." *Journal of Empirical Theology* 25 (2):205–35. https://doi.org/10.1163/15709256-12341247.
- Henley, Nancy, and Cheris Kramarae. 1991. "Miscommunication, Gender and Power'." Miscommunication and Problematic Talk, 18–43.
- Henley, Nancy M, and Marianne LaFrance. 1984. "Gender as Culture: Difference and Dominance in Nonverbal Behavior."
- Herring, Susan C., and John C. Paolillo. 2006. "Gender and Genre Variation in Weblogs." Journal of Sociolinguistics 10 (4):439–59. https://doi.org/10.1111/j.1467-9841.2006.00287.x.
- Hochschild, Arlie, and Anne Machung. 2012. The Second Shift: Working Families and the Revolution at Home. Revised edition. New York, N.Y: Penguin Books.
- Hunter, James Davison, and Kimon Howland Sargeant. 1993. "Religion, Women, and the Transformation of Public Culture." *Social Research* 60 (3):545–70.
- James, D. and J. Drakich. 1993. "Understanding Gender Differences in Amount of Talk: A Critical Review of Research." In *Gender and Conversational Interaction*. Ed. D. Tannen. New York: Oxford University Press.
- Lakoff, George. 1975. "Hedges: A Study in Meaning Criteria and the Logic of Fuzzy Concepts." In Contemporary Research in Philosophical Logic and Linguistic Semantics, 221–71. Springer.
- Lakoff, Robin. 1973. "Language and Woman's Place." Language in Society 2 (1):45-79.
- ———. 1977. "What You Can Do with Words: Politeness, Pragmatics and Performatives." In Proceedings of the Texas Conference on Performatives, Presuppositions and Implicatures, 79–106. ERIC.
- Leaper, Campbell, Kristin J. Anderson, and Paul Sanders. 1998. "Moderators of Gender Effects on Parents' Talk to Their Children: A Meta-Analysis." Developmental Psychology 34(1): 3-27.
- Leaper, Campbell, and Rachael D. Robnett. 2011. "Women Are More Likely Than Men to Use Tentative Language, Aren't They? A Meta-Analysis Testing for Gender Differences and Moderators." *Psychology of Women Quarterly* 35 (1):129–42. https://doi.org/10.1177/0361684310392728.
- Leaper, Campbell and Tara Smith. 2004. "A Meta-Analytic Review of Gender Variations in Children's Language Use: Talkativeness, Affiliative Speech, and Assertive Speech. *Developmental Psychology* 40(6): 993-1027.
- Maltz, Daniel N, and Ruth A Borker. 1982. "A Cultural Approach to Male-Female Miscommunication." A Cultural Approach to Interpersonal Communication: Essential Readings, 168–85.
- McDaniel, Eric. 2008. Politics in the Pews: The Political Mobilization of Black Churches. Ann Arbor: University of Michigan Press.
- McLoughlin, William G. 2004. *Modern Revivalism: Charles Grandison Finney to Billy Graham.* Reprint edition. Eugene, OR: Wipf & Stock Pub.

- Mohammad, Saif and Peter Terney. 2013. "Crowdsoucing a Word-Emotion Association Lexicon." Computational Intelligence 29(3): 436-465.
- Mulac, Anthony, and Torborg Louisa Lundell. 1994. "Effects of Gender-Linked Language Differences in Adults' Written Discourse: Multivariate Tests of Language Effects." Language & Communication, Special Issue Language Attitutes, 14 (3):299–309. https://doi.org/10.1016/0271-5309(94)90007-8.
- Newman, Matthew L., Carla J. Groom, Lori D. Handelman, and James W. Pennebaker. 2008. "Gender Differences in Language Use: An Analysis of 14,000 Text Samples." *Discourse Processes* 45 (3):211– 36. https://doi.org/10.1080/01638530802073712.
- Nie, Norman H., and Sidney Verba. 1987. Participation in America: Political Democracy and Social Equality. Chicago: University of Chicago Press.
- Olson, Laura R. 2000. Filled With Spirit and Power: Protestant Clergy in Politics. Albany: State University of New York Press.
- Olson, Laura R., Wendy Cadge, and James T. Harrison. 2006. "Religion and Public Opinion about Same-Sex Marriage*." Social Science Quarterly 87 (2):340–60. https://doi.org/10.1111/j.1540-6237.2006.00384.x.
- Olson, Laura R., Sue E. S. Crawford, and Melissa Marie Deckman. 2005. Women with a Mission: Religion, Gender, and the Politics of Women Clergy. University of Alabama Press.
- Owens, Michael Leo. 2007. God and Government in the Ghetto: The Politics of Church-State Collaboration in Black America. Chicago: University Of Chicago Press.
- Palomares, Nicholas A. 2009. "Women Are Sort of More Tentative Than Men, Aren't They?: How Men and Women Use Tentative Language Differently, Similarly, and Counterstereotypically as a Function of Gender Salience." *Communication Research* 36 (4):538–60. https://doi.org/10.1177/0093650209333034.
- Perl, Paul, and Patricia M.Y. Chang. 2000. "Credentialism Across Creeds: Clergy Education and Stratification in Protestant Denominations." *Journal for the Scientific Study of Religion* 39 (2):171–88. https://doi.org/10.1111/0021-8294.00014.
- Quinley, Harold E. 1974. The Prophetic Clergy: Social Activism among Protestant Ministers. New York: John Wiley & Sons Inc.
- Roland, Daniel. 2012. "The Information Behavior of Clergy Members Engaged in the Sermon Preparation Task: Wicks Revisited." Journal of Religious & Theological Information 11 (January):1–15. https://doi.org/10.1080/10477845.2012.673112.
- Roof, W.C., and W. McKinney. 1987. *American Mainline Religion: Its Changing Shape and Future*. Rutgers University Press.
- Rothbart, Mary Klevjord, and Douglas Derryberry. 1981. "Development of Individual Differences in Temperament." Advances in Developmental Psychology.
- Sunukjian, Donald. 2007. Invitation to Biblical Preaching: Proclaiming Truth with Clarity and Relevance. Unknown edition. Grand Rapids, Mich.: Kregel Academic & Professional.
- Tannen, Deborah. 1994. Gender and Discourse. Oxford University Press.
- Thomas, Alexander, and Stella Chess. 1977. Temperament and Development. Brunner/Mazel.
- Tiedens, Larissa Z. 2001. "Anger and Advancement versus Sadness and Subjugation: The Effect of Negative Emotion Expressions on Social Status Conferral." *Journal of Personality and Social Psychology* 80 (1):86.
- Titon, Jeff Todd. 1988. Powerbouse for God: Speech, Chant, and Song in an Appalachian Baptist Church. 1st edition. Austin: Univ of Texas Pr.
- Trawick, Michelle W., and Stephen E. Lile. 2007. "Religious Market Competition and Clergy Salary: Evidence from SBC Congregations in the South." *American Journal of Economics and Sociology* 66 (4):747–63. https://doi.org/10.1111/j.1536-7150.2007.00538.x.
- Verba, S., K.L. Schlozman, and H.E. Brady. 1995. Voice and Equality: Civic Voluntarism in American Politics. Harvard University Press.
- Warshay, Diana W. 1972. "Sex Differences in Language Style." Toward a Sociology of Women, 3-9.
- Wood, Julia T. 2012. Gendered Lives. 10th Edition. Boston, MA: Cengage Learning.
- Wurgler, Emily. 2017. "Shepherds, Sheep, and the Flock: Pulpit Politicking in an American Congregation." Ph.D. Dissertation, Indiana University.

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