

The Rise and Impact of Muslim Women Preaching Online

Richard A. Nielsen*

May 12, 2020

Abstract

Female Muslim preachers are on the rise online, including in some conservative Islamic traditions such as the Salafi movement. The prevailing wisdom is that religion norms are the key factor explaining the increase and impact of women's preaching. In this view, religious ideas about gender segregation create a need for female preachers who preach about so-called "women's issues" to exclusively female audiences. This chapter argues instead for a social movement logic: female preachers help Islamic social movements reach new audiences of both women and men. In this view, religious ideas prohibiting gender mixing are not the cause of women's preaching, but rather a normative constraint that female preachers circumvent by preaching online. Data from a large Islamic website show that female preachers are reaching mixed gender audiences and eliciting positive reactions, especially from men, supporting the social movement logic.

Keywords: Islam, gender, Salafism, social movements, text matching.

For the *Oxford Handbook of Politics in Muslim Societies*, Melani Cammett and Pauline Jones, eds.

Word Count: 7,959

*Associate Professor, Massachusetts Institute of Technology. Many people have helped commented on this chapter and my related research published elsewhere. Thanks to Melani Cammett, Pauline Jones, Lisa Blaydes, Mark Tessler, Peter Krause, Lindsay Benstead, Sarah Mohamed, Steven Brook, Amaney Jamal, Tarek Masoud, Marc Lynch, Mirjam Künkler, Ana Weeks, Marsin Alshamary, Rebecca Nielsen, Bruce Rutherford, Zehra Arat, Henri Lauzière, Aaron Rock-Singer, Ari Schriber, and Malika Zhegal, and audiences at the Oxford Handbook workshop, the NYU Center for Data Science, the University of Connecticut, the Northeast Middle East Politics Working Group, the 2016 AALIMS conference, the 2016 MESA conference, and the Salafiyya Workshop held at Harvard on 11 March 2016. This publication was made possible by a grant from the Carnegie Corporation of New York, supporting me as an Andrew Carnegie Fellow. The statements made and views expressed are solely my responsibility. The data and code to replicate all analyses in this chapter are available on the Harvard Dataverse Network, at: <https://doi.org/10.7910/DVN/SVTH0W>

1 Introduction

Female religious authority is on the rise in many Muslim societies (Bano and Kalmbach, 2012). Women now occupy official positions in the state-run religious hierarchies in Morocco (Rausch, 2012), Turkey (Hassan, 2011), and elsewhere in the Muslim world. This transformation of Islamic authority is also happening in transnational communities of Muslims, such as the Salafi social movement. Salafi Islam is a global revivalist movement that seeks to return Islam to what it believes were the practices and beliefs of the *salaf*, the first few generations of Muslims during and after Muhammad's lifetime. Doctrinally, the Salafi movement espouses patriarchal values and appears to have very little space for women's religious authority. Yet, recent research documents the rise of female preachers among the Salafi movement's ranks (Al-Rasheed, 2013; Le Renard, 2012; Nielsen, 2020).

The prevailing view is that that religion is the key factor explaining the increase and impact of women's preaching. According to this view, women's preaching follows a logic based on religious norms. Religious ideas about appropriate gender relations, such as doctrines forbidding public cross-gender interactions, create a need for female preachers who preach about so-called "women's issues" to exclusively female audiences (Le Renard, 2012; Al-Rasheed, 2013). In this chapter, I argue instead that the rise and impact of female preachers in conservative Islamic settings follows a social movement logic. In my view, female preachers help Islamic social movements reach new audiences of both women and men, potentially enlarging the movement. In my view, religious ideas prohibiting gender mixing are not the cause of women's preaching, but rather a normative constraint that female preachers circumvent by preaching online.

In this chapter, I investigate the impact these female preachers are having on their online audiences, and by extension, on society and politics. Assessing the impact of female preachers is complicated by the difficulty of surveying Muslim publics about potentially sensitive gender issues in many of the countries where these female authorities are finding audiences. Instead, I look at patterns of voluntary online engagement with female preachers using digital trace data. Some of the websites where these women publish their writing allow users to interact with the writing through comments. I collect and compare these reactions to examine how reader engagement differs depending on the gender of the author. My statistical tests answer the question: If a reader encounters online preaching by a woman, do they respond differently than if they had encountered similar preaching by a man?

First, I examine *who* is engaging with the online writing of female preachers. I test whether female preachers get more or less engagement relative to their male counterparts. I collect data on the gender make-up of those who respond to writing by female preachers. Previous scholarship has concluded in other Islamic contexts that “women are confined to female audiences. . . because believers by and large still prefer male religious authorities” (Kloos and Künkler, 2016, 488). If at least some men are paying attention to online preaching by women, this represents an important shift.

Second, I examine *how* lay Muslims are engaging with the preaching of female preachers. Using the content of online comments, I test whether there is any indication that female preachers are changing readers’ perceptions about the role of women in religion and society by looking for evidence of admiration and criticism.

My results show that many lay Muslims are responding positively to the online preaching of female preachers. I find that writing by women garners more comments from website readers, and that the majority of these commenters are men. Compared to comments on a similar set of documents by men, the writings of women elicit more praise, although some commenters do become critical when female preachers challenge patriarchal norms. The comments on women’s writing also come from more diverse geographic locations than comments on comparable writing by men. Taken together, these findings support the argument that social movements might selectively promote female authorities in contravention of their patriarchal norms because they engage new audiences.

More broadly, my findings have implications for the acceptance of female authorities in Muslim societies, though my conclusions on this point are necessarily speculative. Religious authority in Islam has generally been held by men, so the rise of female Muslim preachers on the Internet may be fundamentally change in the nature and impact of religious authority in Muslim societies. Although these women would likely claim they are not political actors, when women gain authority in society, it is necessarily political. The trends I document in this chapter have the potential to fundamentally change the gender politics of many Muslim societies.

2 Female Authority in Islam

Although there have always been some female authorities in Islam (Nadwī, 2007; Bano and Kalmbach, 2012), Islamic authority has historically been dominated by men. Yet women are gaining authority, both in state-sponsored “official Islam” and in Islamic social movements such as Salafism.

Why is this rise in female authority happening? It is likely that there are several root causes that may vary from one context to another. To explain the existence of female Salafi preachers, Al-Rasheed (2013) argues that religiously-based gender norms created demand for gender-segregated preaching and rising levels of religious education among women have produced a supply of capable female preachers. I agree that this is part of the story, but in my own work, I argue that male Salafi movement leaders are increasingly promoting female authorities because they attract new audiences that men cannot reach (Nielsen, 2020). The spread of the Internet has created the conditions for this to happen. As Le Renard (2014, 38) points out, the Internet allows women to preach while technically following conservative social norms prohibiting so-called “gender mixing.” It also creates conditions where a movement faces a lower cost of rapidly expanding its audience through mass communication. My contention is that male leaders of the Salafi movement remain skeptical about women’s authority in principle, but they have accepted it in practice because it increases the influence of their movement.

How are these women carving out space for their exercise of authority in domains that are not always permissive? Le Renard (2012, 113-116) argues that scholarly expertise and charisma are important features of the preaching she observes in the study circles of female clerics. If these factors help women gain authority, then perhaps the “how?” of women’s preaching is not particularly distinctive from men, because men also rely on expert training and charisma to preach. Other accounts emphasize aspects that are unique to women’s preaching. Ben Shitrit’s (2016) account emphasizes *frames of exception* that women deploy to justify behaviors that would ordinarily be transgressions. By casting their activism as a temporary necessity to meet the needs of exceptional times, the women she studies in several religions carve out space to exercise greater authority than before. My own research shows that female preachers rely on *identity authority* when establishing their authority (Nielsen, 2020). While male Salafi preachers typically use citations to establish the authority of their arguments, female preachers use citations far less, even when writing on the same topics as men. Instead, they are more likely to support their arguments by appealing to their identities

as women, a finding that echoes Ben Shitrit's observations about the "motherhood" frames women use to justify certain forms of activism.

Less is known about the impact of increasing women's authority in Islam, either for those exposed to their preaching or society more generally. Ethnographers describe a certain awe and respect among the participants in face-to-face preaching (Le Renard, 2012; Ben Shitrit, 2016). However, the reception of online preaching by women could be very different than the face-to-face reception of their devoted followers. As far as I know, my recent analysis of Twitter reactions to the writing of female Salafi preachers on the website *saaid.net* is the only systematic analysis of the effects of women's online preaching in Islam (Nielsen, 2020). I find that writing by women prompts more engagement from women. It also brings in more individuals who otherwise have never engaged with the content of the website, suggesting that women reach new audiences. At the same time, I find that women are not only preaching to women. In fact, almost 75 percent of the Twitter reactions to female preachers writings come from men. However, these Twitter reactions — "retweets" and "favorites" — reveal very little about what impact this preaching is having.

3 Online Engagement with the Writing of Female Preachers

In this chapter, I look at a more substantive form of engagement: online comments by readers of women's preaching. Many of the major Islamic websites permit users to interact with the content posted on the website in various ways: "likes," ratings, and in some cases, comments. The major benefit of studying comments is that they are genuine, natural, in situ reactions to women's preaching. There are no concerns about respondents giving responses that they think will please researchers. Yet although comments are a very immediate indicator of impact, but the data cannot speak directly to many of the pressing questions around women's preaching. Does experiencing female religious authority change people's attitudes about the appropriateness of women having religious authority? Might this spill over to affect their attitudes about the suitability of women for political office? Their attitudes about the roles of women in society writ large? I cannot answer these questions because I am not able to survey respondents about their attitudes after exposing them to women's preaching. Such a survey would be fascinating, but is challenging in the places where these women's preaching is primarily consumed: Saudi Arabia, Egypt, Algeria, and Morocco.

There are other forms of engagement such as page view counts that I examine briefly but do not empha-

size. I focus on comments because they are the richest form of engagement I can find. In some cases, I find examples of dialogue between preachers and their followers in the comments section. Likes and other thin indicators of engagement do not convey as much information about how the teaching is received.

What do I expect to find? The religious norms logic, exemplified by Al-Rasheed (2013), argues that female preachers are writing almost exclusively on women's issues to female audiences. Kloos and Künkler (2016, 488) conclude that Muslims by and large still prefer male authorities. These prevailing arguments in Islamic studies suggest the expectation that female preachers will be less popular than men and that they will exclusively serve female audiences. This would suggest that documents written by female preachers will receive fewer page views than similar documents written by men. Women's documents should also receive fewer comments if readers are more interested in male authorities. And when female preachers do receive comments, they will be almost exclusively from women. Men will be largely ignore women's preaching, or perhaps express hostility.

The social movement logic I espouse makes contrasting predictions. If the strategic considerations of social movements explains the rise and impact of female preachers, I expect to find that women get as many page views as men, or perhaps more on subjects for which women might be viewed as particularly authoritative because of their gender identity. I expect that female preachers will get more comments than their male counterparts and that these comments will come from a more diverse set of people because the role of these female preachers is partly to attract new audiences. I expect that the writing of female preachers will garner comments from more women than similar writing by male preachers. Nevertheless, I also expect that female preachers will get a substantial portion of their comments from male readers and that these comments will be positive.

To summarize, the key empirical question that distinguishes the social movement logic from the logic of religious norms is this: Is there is a receptive male audience for female preachers?

4 Data and Design

My prior work examined the writing of 43 female Salafi preachers and 172 of their male counterparts on the Salafi missionary website *saaid.net* (Nielsen, 2020). In that research, I sought to understand the impact of these specific female preachers because they are members of a patriarchal social movement in Islam that

is suspicious of women's authority. But saaid.net does not permit the types of engagement I would like to study; I cannot tell from the website who is engaging with the texts beyond some basic information who interacts with the website's official Twitter feed. From my earlier analysis, I know that these female Salafi preachers are reaching new audiences of both men and women. However, these Twitter users don't tend to comment as they like or repost writings from saaid.net, so it is difficult to tell whether these reactions indicate positive or negative reception.

To find reactions with more substance, I turn to the website alukah.net, a large Islamic aggregator site in Arabic that allows users to comment on writings, with moderation from the website managers. The website gets a lot of traffic: I record over 1.55 billion page views over the life of the website (since October 2006). Although the website is not focused exclusively on Salafism, it contains writings by about half of the female Salafi preachers on saaid.net. It also contains writing by many other female authors, though not all of these authors are preachers. The process by which writing appears on the website is opaque, but the website welcomes submissions, and I expect that this is the primary way that articles come to be on the website.¹ Submissions must be made by the author, must be in modern standard Arabic, must be not previously published elsewhere online (but this is frequently violated), and must be "sensitive to the teachings of our true religion and Sunni doctrine."

Website visitors can leave comments on any document on the website using a standard web form at the bottom of each page. This form requires that readers enter an email address (though it need not be a valid), a name, and a title for their comment. It also permits readers to specify their country (open response) and to write as much as they want in the text of the comment. After submitting a comment, a message reads "Thank you. We will publish your comment after it a review by the administration. You may comment again by returning to this page." The nature of this review is unclear, and my request for clarification from the website administrators went unanswered. I found that my comments were generally posted within ten minutes, but I only tested with short positive, comments reading "Thank you" because I did not want to disturb this religious training environment (Nielsen, 2015).² In my reading of thousands of comments from hundreds of articles, I found critical comments but never crude or openly derogatory comments. It appears

¹Submissions can be made through <https://www.alukah.net/contribute.aspx> or <https://www.alukah.net/researches/contribute.aspx> depending on whether the submission is "scholarly."

²Authors would be rightfully annoyed if I randomly left profane and critical comments on their articles in my attempts to probe the limits of the comment moderation.

that a combination of moderation and social norms keeps the comments on this website more civil than many Internet forums.

I collect all of the Arabic-language writings from the website, resulting in an initial data set of 114,892 documents by 11,677 authors. Along with these texts, I get the number of times each document had been viewed (median = 3,917 views), the time it was posted, the text of the document, the number of comments (31,020 total comments), and the first page of comments for each document.³

The gender of authors is not indicated on the website, except through their name, and in some cases, through a biography as well. I coded my perception of the gender of the author based on Arabic naming conventions. Of the 11,677 authors, I code 671 (5.7%) as women and 7,013 (60%) as men. The remaining 3,993 (34%) are ambiguous, difficult to code, or entities that are not individual authors. I discard the documents by these 3,993 from the data set because the effort to determine the gender of each far outstrips the usefulness of additional data. The documents for which I can readily code the gender of the author provide plenty of data to observe how readers respond to men's and women's writing, and I do not believe there are serious threats to my inferences below by omitting the more ambiguous cases. My coding procedures retain the authors in the data that are most readily classified as men and women based solely on names, which is ideal for testing my arguments. However, I should note that I can't provide evidence about the effect of ambiguous perceptions of author gender.

I exclude documents that must be downloaded because extracting text from them is difficult and website visitors engage them differently than documents that render in a web browser. I also exclude any documents that have fewer than 30 characters. These exclusions leave 49,192 documents by 442 female authors and 4,386 male authors.

My goal is to estimate the how readers' perceptions of an author's gender change their reactions while holding the writing constant. My strategy for doing so is to find female and male authors who write similar documents and compare the comments they receive. This strategy is inspired by its experimental audit studies, in which respondents react to comparable documents (often resumes), where the name is randomized to convey information about gender, race, or some other characteristic. Because of the challenges of surveying the target population for this preaching, it is not feasible to carry out an audit study in this context, but my

³Subsequent pages of comments must be collected by hand, a feature of the website that shapes my analysis strategy below.

aim is to design an observational study that that mimics the logic of an audit design. I assume that if I can compare documents in which male and female authors write very similarly, any differences in the comments are due to the perceived gender of the author rather than differences in the content of the writing.

Prior qualitative and quantitative research shows that female preachers generally write on different topics than men (Al-Rasheed, 2013; Nielsen, 2020). Because of this, I cannot simply compare the comments on all documents by women to the comments on all documents by men; differences in the content are likely to be the cause of most of the differences in the comments. Instead, I identify documents by women and men that have similar content using a combination of matching procedures and regression adjustment. The strength of this design is that any cross-gender differences in the comments on these documents are more likely to be the effect of perceived author gender, rather than spurious correlation from differences in content. But the design has weaknesses too. Not all documents by female authors have comparable documents by men, and vice versa. This means my results cannot answer questions such as how would readers react if women were to write on topics that are currently only discussed by men.

To identify comparable documents by female and male preachers, I use text matching, introduced by Roberts, Stewart and Nielsen (2020). I condition on the text to find subsets of documents in which men and women write on similar topics. Specifically, I estimate a structural topic model (Roberts et al., 2014) with the author gender as a covariate. This produces 15 estimated topics that I use to match documents with similar topical content to each other.

In addition to facilitating my efforts to match similar documents to each other, this topic model gives a sense of the general themes of documents on alukah.net. Figure 1 summarizes the 15 topics using topic numbers randomly assigned by the model, labels I assign, and key words generated by the model. On the right, I plot the proportion of women's and men's writing devoted to each topic using black and white disks.⁴ These estimates show that women heavily favor the three topics at the top, which I have labeled Family, Lived Experience, and Children. Men favor the remaining topics, especially those at the bottom relating to Islamic law, doctrine, and sacred texts. To reiterate, the reason for comparing documents with similar topic proportions is that I anticipate an article primarily about lived experience and family problems to draw different reactions from readers than an article primarily about sin and Islamic law.

⁴I also plot 95% confidence intervals, but these are so narrow that they are obscured by the disks showing the point estimates.

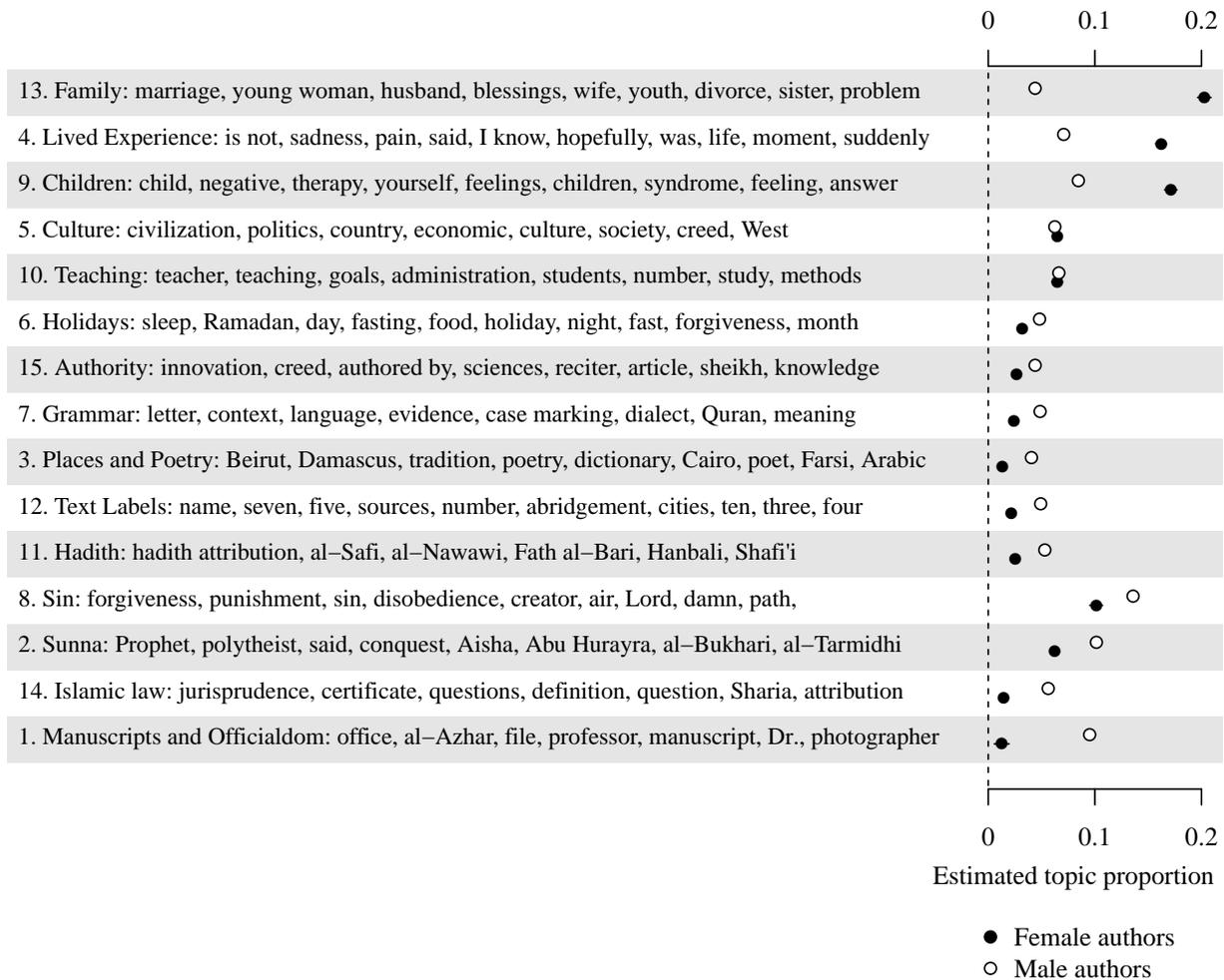


Figure 1: Male and female authors on alukah.net focus on different topics

Estimated topic proportions for female and male authors in the alukah.net corpus. Topics are ranked by the difference in proportions between women and men. I match documents on these topics to improve comparability in my analysis below.

I also match on other variables that are likely to influence reader engagement: the number of years since document was posted (measured in fractions) and the category of document listed in the website.⁵ For analyses where some aspect of the comments are the outcome variable, I also condition on the number of page views because these strongly predict the number of comments.

I use coarsened exact matching (Iacus, King and Porro, 2012) to construct two sets of matched documents.⁶ In the first set, I limit the female authors to the 17 authors (with 443 documents) that also appear on

⁵These categories are sharia (18,701), culture (6,767), library (5,462), literature_language (5,089), fatawa_counsels (3,704), social (3,694), spotlight (2,627), web (2,265), world_muslims (417), publications_competitions (73), and translations (27).

⁶Coarsened exact matching requires analyst-defined cut-points. For the 15 topics, I use breakpoints of 10% and 50%. I use

the saaaid.net website. This matched data set allows me to analyze the impact of the set of female authors that is most directly comparable to my prior analysis (Nielsen, 2020) and who I am certain are preachers. The matched data set contains 242 documents by women and 993 matched documents by men. The vast majority of the 44,000 men's documents in the full data set are dropped in the matching procedure, indicating that relatively few men's documents are similar to women's documents on all dimensions. Most of my analysis below concentrates on this matched data set.

The estimated topics show that men's and women's writing is quite different on average. Approximately 21% of writing by the 17 female preachers from saaaid.net is devoted to a topic on family (keywords: marriage, young woman, husband, blessings, wife, youth, divorce, sister, problem), while only 3% of men's writing is devoted to this topic. In the matched sample, I am able to make the portions of this topic roughly equal: 40% for women and 37% for men. On the other end, only 2% of these women's writing is devoted to a topic on *hadith*, the sayings of the Prophet Muhammad and his companions, while 8.5% of men's writing is on this topic (keywords: hadith attribution, al-Safi, al-Nawawi, Fath al-Bari, Hanbali, Shafi'i). In the matched sample, I am able to find comparison documents by men that devote only 1.8% of words to this *hadith* topic. No two texts are identical, so this text matching is only approximate. However, I find that the matching results in pairs of relatively similar texts. For example, when I sample pairs of matched texts, I cannot reliably predict which was authored by a woman without seeing the authors' names.

In the second matched sample, I attempt to find matches for all of the female authors appearing on alukah.net. This set of individuals is more varied and includes many authors who are unlikely to consider themselves preachers. I am able to match 2,264 documents by women with 7,754 suitably similar documents by men. Again, there are predictable differences between the topics that men and women emphasize. I am able to reduce those differences for all topics and eliminate the differences for some topics.

Matching improves balance substantially but significant imbalances remain in both data sets when I examine the mean differences between men and women in the matched samples. Because of these remaining imbalances I adjust for each of the matching covariates using parametric models (Ho et al., 2007).

The matching approach helps with another challenge of using data from alukah.net: collecting the full set of comments for each article. Comments appear in reverse chronological order, 10 at a time. When there

three evenly spaced cut-points for years since posting (0 to 3.25 years, 6.5 years, 9.75 to 13 years) and, when relevant, the number of page views (0 to 2226, 5282, and 13,132 to 4,562,169).

are 10 comments or less, they all are rendered in the html of the website, but if there are more, then they are only accessible through javascript and I can only download them by hand. Matching restricts the sample so that collecting the complete set of comments by hand is feasible.

In addition to collecting some comments by hand, I also have to hand-code my perception of the commenter gender, their self-reported location, and whether they identify themselves as the author of the article. Again, by limiting the sample, a matching strategy makes this herculean task feasible. However, it commits me to the particular matches I choose – I can't just change the matching strategy to see how the results might change. This is a strength of my analysis, rather than a weakness. There are fears that flexibility to select matched samples after looking at the results allows for p-hacking (Miller, 2013), but I have no such flexibility because I only collect many of the outcome variables after deciding on matched set.

5 Findings

Before turning to the findings, I reiterate what I expect to find and how it contrasts with the predictions of alternative explanations for the rise and roles of female Muslim preachers. I argue that a social movement logic dominates. Female preachers serve a particular role in the Salafi movement: to engage new audiences online that male preachers are unable to reach. This theory predicts that women are likely to garner more engagement from a more diverse audience of both men and women and that this engagement will be positive. In contrast, the prevailing view of these female preachers follows a religious norms logic in which women preach primarily to women, and male lay Muslims strongly prefer male preachers instead. If this view is correct, then I expect to see less engagement with women's writing, and that what engagement there is will be almost exclusively from female readers. If men react to women's preaching, their reactions may be negative. However, because the website I examine moderates comments, an absence of negative comments may simply reflect the choices of website moderators to screen criticism. Even with comment moderation, this alternative theory would not predict that women should get more positive comments than men.

I summarize the key findings in Figure 2; the details of each calculation follow in the sections below. I find that female authors get fewer page views (panel 1), get more comments (panel 2), get the majority of their comments from men (panel 3), draw comments from a more geographically diverse audience (panel 4), and receive more praise in comments (panel 5). This pattern of results shows that writings by women are

viewed less frequently than comparable writing by men, but women’s writing elicits more engagement and praise from readers. These results largely align with my expectations based on a social movement logic.

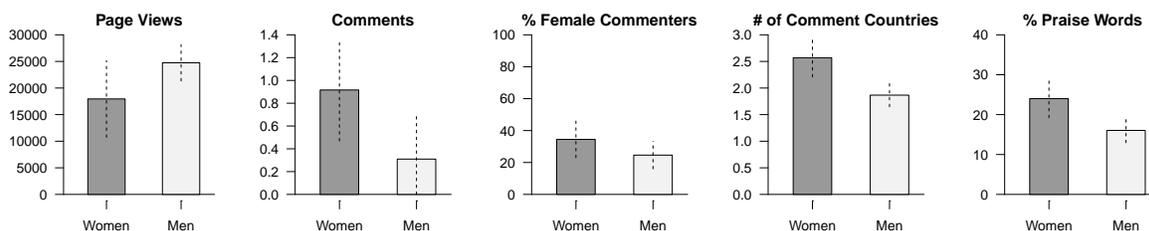


Figure 2: *Summary of Findings: Female authors get fewer page views but deeper engagement.*

Each panel summarizes the result of a regression model in the following sections. I find that female authors get fewer page views (panel 1), get more comments (panel 2), get the majority of their comments from men (panel 3), draw comments from a more geographically diverse audience (panel 4), and receive more praise in comments (panel 5). Bar heights indicate regression predictions and dashed lines indicate 95% confidence intervals. All results are based on the first matched sample of women from saaid.net, containing 242 documents by women and 993 matched documents by men, that collectively receive 983 comments.

Women get fewer page views

I find that articles by women get fewer page views than similar articles by men. This is true for both the matched sample of saaid.net women and the larger matched sample of all the women on alukah.net. It is also true in the unmatched samples, so matching does not make much of a difference in this analysis. The outcome variable in this analysis, page views, is highly skewed, so I also estimate models using the natural log of page views as the outcome variable. If I use the untransformed page view variable, the estimates indicate that the saaid.net women received over 5,000 fewer page views than comparable documents by men, but this is likely influenced by the extreme skewness. Using log transformed page views as the outcome variable, I estimate that the saaid.net women got 23% fewer page views than their male counterparts. These same estimates are roughly comparable when comparing all of the women on alukah.net to the matched men: they receive 4,400 fewer page views, or about a 7% decrease.

This finding contradicts my expectations from the social movement logic and offers preliminary evidence in support of the religious norms logic. However, the results below suggest that once I look at substantive engagement through comments, rather than thin engagement through page views, the social

movement logic finds more support.

Women get more comments

Although women get fewer page views, I find that they get more comments. Documents by the female preachers from saaid.net get on average 0.6 more comments than comparable documents by male preachers, this estimate remains statistically significant if I use a quasi-poisson generalized linear model to account for the over-dispersed counts in the outcome variable.⁷ In the full sample of women, the effect is not as large but is still statistically detectable. On the whole, women on alukah.net get 0.3 more comments on average than men. I find no statistically detectable difference in the length of comments left on documents by men and women.

These numbers may sound small, but they are large relative to the baseline number of comments. The modal number of comments in both matched samples is zero, and the mean number of comments for articles by men is around 0.3. My best estimate is that women are getting at least 100% more comments on average than comparable documents by men.

What drives this deeper engagement with writing by women? At first, I assumed that comments would increase proportionally with the number of page views, and indeed I find that page views are a very strong predictor of the number of comments a document will get. This makes sense: the more people who read document, the more people who will comment on it. A model fit to the unmatched data suggests that the base rate of comments is low, and increases approximately linearly. The average document gets 1.6 additional comments for every one hundred thousand page views. However, this can't explain why women get more comments than men, because women are getting fewer page views on average.

If women get fewer views, but more comments, it suggests that women are more efficient at converting thin engagement (page views) into thick engagement (comments). How? My investigation of the data suggests that female authors are more likely to engage with visitors that leave comments, and this interaction increase the number of comments. Both male and female authors can leave comments on their own documents, but I find that women are more likely to do so. My data only allow me to quantify this trend for the female preachers from saaid.net and the male authors matched to them, because this is the only set

⁷I remove comments by the authors themselves from this analysis.

for which I have extracted the names of commenters to determine which comments are from the authors themselves. Commenting by authors is common; out of 983 comments in this matched sample, 136 are from the authors. Sixty-seven percent of these author comments are by women, even though women authors make up only twenty percent of this matched sample. I find that these author comments are an important predictor of reader engagement. When I account for author comments in my statistical model, I find that each author comment is associated with 1.7 additional comments from website visitors and author gender no longer predicts the number of comments.

These results suggest that female authors get deeper engagement from readers because they offer deeper engagement as authors. To get a sense of how these engagements unfold, I read 35 exchanges between female authors and their readers, and a handful of exchanges with male authors for comparison. Most of these exchanges are complimentary to the authors. In many cases, commenters simply offer their congratulations and praise for publishing the piece and the authors respond with short expressions of gratitude. In some cases, commenters seek specific advice from the authors on topics related to the article, or seek clarification on some aspect of the writing. In six of the 35 exchanges, the commenter adopts a critical tone, either criticizing the ideas or writing of the author. In some cases, these critical commenters claim some authority and offer advice for how the female author might improve her writing for the future.

A particularly interesting exchange happens in the comment section of Sara Bint Muhammad Hassan's article "Diary of an Exemplary Husband and a Grumpy Wife," which recounts the feelings of Amal, a Muslim wife whose neglectful husband announces to her that he has decided to take another wife.⁸ The social commentary in this article is biting and could be read as indirect criticism of the institution of polygamy. There are 46 comments on this article, many of them critical. For example, a comment left by Abu Abd Allah from Riyadh, Saudi Arabia, accuses the wife of jealousy and says "In order to judge, we need to hear the other side," to which the author retorts "I see that you are very biased against the sister."⁹ A more ambiguous commenter thanks her for her "impartial and objective" treatment of the issue, in a statement that appears complimentary but could be deeply sarcastic.¹⁰ Bint Muhammad Hassan replies "Brother Hisham,

⁸<https://www.alukah.net/social/0/9510>, accessed April 1, 2020.

⁹Comments made at 13-03-2010 06:24 AM and 18-07-2010 11:46 PM on <https://www.alukah.net/social/0/9510>, accessed April 1, 2020.

¹⁰Comment made at 19-02-2010 03:23 AM on <https://www.alukah.net/social/0/9510>, accessed April 1, 2020.

may God bless you, I did not think that I was objective, I thought I was biased towards women!”¹¹

Female preachers get substantial engagement from men

I code the gender of commenters by hand using the self-reported names they list when leaving comments. I am able to code the gender of 82 percent of the names commenters list for themselves (170 women and 421 men). The remaining 128 “names” are not strongly associated with one gender or are not proper names (e.g., “student of life”). Because this process is time-consuming, I only do this for the matched sample of women from saaid.net.

I expected to find that female authors would get more comments from women, because I found previously that these same female authors were got more responses from female user of the social media platform Twitter (Nielsen, 2020). I find only weak evidence of a difference. On average, the matched articles by men get approximately 23% of their comments from women, which is similar to the percentage of women’s comments on men’s documents in the unmatched sample (between 19% and 39% based on a random sample of 50 articles). Articles by women get an estimated 10 percentage points more comments from women, meaning that roughly 33% of their comments come from women. However, this increase is imprecisely estimated ($p = 0.176$) so this difference is not statistically different from zero according to conventional thresholds. I cannot conclude from these results that female authors get more comments from women.

Substantively, these results show that the majority of commenters on women’s posts are men, corroborating my finding in Nielsen (2020) that female preachers are garnering reactions from male audiences too. The willingness of female authors to engage in debates with male commenters undermines the notion that female Muslim authorities are writing solely for women.

Commenters on women’s documents are more geographically diverse

The comments on women’s writing comes from more diverse locations, even for the female preachers from saaid.net who themselves are mostly from Saudi Arabia. To show this, I match the location listed by each commenter to a country, which is possible for 914 of the 983 comments. Sixty-eight percent of commenters come from four countries: 25% from Saudi Arabia, 22% from Egypt, 13% from Algeria, and 8% from

¹¹Comment made at 18-07-2010 11:46 PM on <https://www.alukah.net/social/0/9510>, accessed April 1, 2020.

Morocco. The remaining 31% come from 32 other countries, with Iraq (4.7%) and the UAE (3.9%) at the top and Sweden, Senegal, Russia, Australia, Mauritania, Kenya, and Israel at the bottom with one comment each.

I measure the diversity of commenter locations in two ways. First, for each document, I count the total number of countries from which comments come. Second, I count the number of comments on each document that came from commenters not in the top four countries. Documents by male authors typically get comments from 1.8 countries, while documents by female authors get comments from 2.5 countries on average. The fact that a woman is the author doubles the average number of comments from outside of Saudi Arabia, Egypt, Algeria, and Morocco from 0.8 to 1.6. These results support the argument that a major role female preachers play is to reach out to new audiences who are more diverse.

Women get more positive comments than men

I examine the content of comments in two ways. First, I test whether the substance of the comments on women's and men's documents are different using a structural topic model. I find that there are notable differences, shown in Figure 3. The comments on women's documents discuss issues relating to relationships more, and use terms related to other aspects of Islamic doctrine and *hadith* citation less. Recall that all of the articles in this sample have been matched topically, so there are just as many articles devoted to family relationships by men. This suggests that religious norms are still influential. Commenters engage female authors more on so-called "women's issues," (family, children, and relationships) presumably because they are considered to have natural expertise in these areas by virtue of their gender.

The topic model produces two topics expressing positive sentiment. Topic 3 (Compliments) places high probability on words expressing positive sentiment in secular terms: "thank you for your article; what wonderful style." Commenters use these terms equally when reacting to the writing of men and women. Topic 1 (Praise) emphasizes words that express positive sentiment religiously, such as "May god reward you." Women's writing receives detectably more of this religious style of praise; 26% of words in comments on women's writing are praise, compared to only 22% for men's writing.

To further examine the tone of the comments, I use a dictionary-based approach. I look at the 179

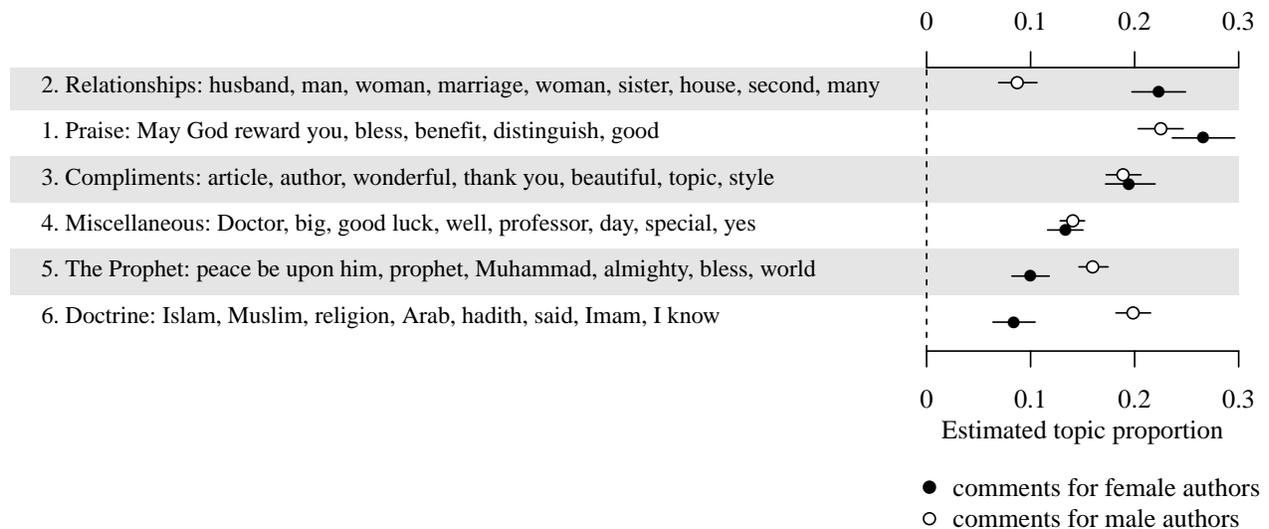


Figure 3: *Comments on documents by male and female authors differ*

Estimated topic proportions for comments left on documents by female and male authors on the alukah.net website. Topics are ranked by the difference in proportions between women and men.

words in the document-term matrix for the comments and classify 15 of them as praise words.¹² I then count the number of times these praise words are used in the comments on each article. I find that female preachers get more positive comments than male preachers, measured either as the number of praise words per comment or the proportion of each comment that is praise. Intriguingly, when I analyze comments by men and women separately, I find that this praise for female authors appears to come especially from men, although the statistical models do not give enough precision to be confident of this conclusion at traditional statistical significance thresholds.

From my reading of exchanges between commenters and authors, the vast majority of this praise is sincere, and is accepted sincerely by the authors. The only example of sarcastic or patronizing praise I have come across is the ambiguous comment on the article “Diary of an Exemplary Husband and a Grumpy Wife,” which I discussed above.

I find little evidence of backlash negativity from men (or women) on this platform. I do find critical comments, but these tend to be substantive rather than insulting or derogatory. This is presumably because comments are moderated for negativity, though I received no response when I tried to confirm this with the

¹²The 15 praise words are: thank, thank, good, good luck, wonderful, benefit, good, good, beautiful, reward, reward, bless, blessings, most beautiful. Duplicates are due to translation from Arabic to English.

website administrators.

6 Discussion

Taken together, my findings paint a picture of how lay Muslims are responding to the rise of online female preachers. Users of a major Islamic aggregator website are somewhat less likely to click on the writings of female authors, suggesting that Arabic-speaking Muslim audiences worldwide are less interested in women as religious authorities than men. Despite this lower level of general interest, it is worth noting the sheer quantity of people who read the writings of these women: 83.6 million page views for all of the women on website. Even if many Muslims still prefer male authorities, it is hardly plausible that these women have no influence.

Although female preachers have lower readership numbers, once website users click on the writings of women, they are often more engaged. Readers leave more comments on documents by women, and those comments contain more praise. This increase in comments appears to be driven by the propensity of female authors to engage more with their readers in the comment section. Especially notable is the fact that men differentially praise female authors more in their comments. Presumably, selection effects are at play; the type of man who would criticize a female authority in the comments is opting simply not to click. But this is very different from many open forums on the Internet where women claiming some authority or expertise are heaped with sexist abuse. And it suggests that there is a large segment of the male Muslim population worldwide that views female religious authority in a positive light.

There is no way to be sure that the gender ratio in the comments matches the gender ratio of page views, but if it does, then the writings of these women have reached upwards of 40 million men since 2006, and it is truly remarkable that almost none of them have taken to the comments to complain. Comments on the website are moderated, so I am not surprised that there is no name-calling that I can find, but there is certainly criticism, especially when women articulate views that challenge patriarchal norms. The fact that this criticism remains a minority of comments, and that on the whole, men are more likely to praise female authors than male authors, is remarkable. Further research might investigate reactions to women's Islamic writing on unmoderated websites and forums to see if they elicit significant backlash there.

All of this matters because attitudes about the appropriate roles for women in society remain very con-

servative in the Arab world. The Arab Barometer surveys from 2018-2019 show ostensible support for the idea that a woman can be head of state with every country surveyed agreeing at 50% or more except Algeria.¹³ But this agreement masks a stark difference in men's and women's attitudes. Among men, support for women's access to the highest office is reliably 15 points lower than among women, and falls below 50% in about half of countries surveyed. Moreover, these numbers do not fully capture the depth of patriarchal attitudes in that becomes apparent when Arab Barometer respondents answer other questions about gender (Benstead, 2020).

My findings lead me to wonder whether Muslims interacting with authoritative preaching by women online might begin to change their views about women in positions of authority, even if the content of the preaching itself supports patriarchal values. These results show that some men may be interested in women's religious writing, hinting that the preconditions may be in place for large shifts in the gender norms of Muslim societies. My results also suggest that the Internet might contribute to shifting ideas about the proper roles of women in society that could have far-reaching effects. However, while these trends could presage increasing space for women's authority in the Arab Muslim world, they may represent an evolution of patriarchal norms, rather than the abandonment of those norms. Patriarchy can come in many flavors. As Benstead (2020) shows, different measures of gender attitudes in the Arab Barometer produce markedly different pictures of patriarchy in the region. There are "varieties of patriarchy" across contexts (Blaydes and Platas, 2019; Kandiyoti, 1988), and these results may signal a shift from a patriarchy that forbids women from entering the religious sphere to one that allows certain women to have authority while pedestalizing and constraining them. Male support for women's writing may be conditional on whether women present "acceptable" messages. Although I find that female authors get significantly more praise on average, it revealing that the most critical, negative comments I found are in response to a female author, Sara Bint Muhammad Hassan, who implicitly criticizes patriarchal practices.¹⁴

Yet even if the online environment I study in this chapter is patriarchal in many ways, it allows significant space for women's agency. My assessment from reading some of these articles and the exchanges between readers and authors in the comments is that female authors generally find publishing Islamic writing to be

¹³https://www.arabbarometer.org/wp-content/uploads/AB_Women_August2019_Public-Opinion_Arab-Barometer.pdf and https://www.arabbarometer.org/wp-content/uploads/AB_WomenFinal-version05122018.pdf.

¹⁴See my discussion above of Sara Bint Muhammad Hassan's article "Diary of an Exemplary Husband and a Grumpy Wife," available at <https://www.alukah.net/social/0/9510>, accessed April 1, 2020.

an empowering experience. Female authors appear to take pleasure in sharing their writing with an engaged, mixed gender audience. While reading through the comments, I find that female authors often thank their readers for commenting, which in turn further increases reader engagement. Even when comments become critical, I find that female authors feel empowered to push back against aggressive disagreement from male readers. The tone is always civil, with frequent references to shared Islamic values of respect between fellow Muslims, but these women do not generally acquiesce when a male reader tells them they are wrong. This corroborates previous findings that women can enjoy increased autonomy, agency, and pleasure while participating in and supporting patriarchal social organizations (Kandiyoti, 1988; Mahmood, 2005; Deeb, 2011; Ben Shitrit, 2016; Inge, 2017; Ulrich, 2017).

It is important to begin to understand the effects of visible female preachers on Muslim societies. Female preachers are already working in various official capacities in a number of other countries, including Morocco and Turkey, and Saudi Arabia has flirted with employing official female muftis, potentially hiring some of the women I study here. Unfortunately, the evidence in this chapter is not sufficient to say with confidence how these societies might respond when these governments appoint women to positions of religious authority. All of the preaching I study here is mediated through the Internet, as are the comments, which are moderated. Would the same reactions prevail if these women were preaching in person to mixed-gender audiences? Is moderation of some sort necessary to induce positive reactions to women's preaching? Will women garner positive reactions no matter what topics they preach on, or is audience praise conditional on women confining their preaching to "women's issues?" I cannot yet definitively answer any of these questions, and further research is needed. However, my analysis of reactions to women's preaching online suggests reasons for optimism. If a significant number of lay Muslims react positively to female preachers on the Internet, female Muslim authorities may eventually enjoy a wide and positive reception in other spheres.

References

- Al-Rasheed, Madawi. 2013. *A Most Masculine State: Gender, Politics, and Religion in Saudi Arabia*. New York: Cambridge University Press.
- Bano, Masooda and Hilary Kalmbach, eds. 2012. *Women, Leadership and Mosques: Changes in Contemporary Islamic Authority*. Leiden: Brill.
- Ben Shitrit, Lihi. 2016. *Righteous Transgressions: Women's Activism on the Israeli and Palestinian Right*. Princeton: Princeton University Press.
- Benstead, Lindsay J. 2020. "Conceptualizing and Measuring Patriarchy: The Importance of Feminist Theory." *Mediterranean Politics* pp. 1–13.
- Blaydes, Lisa and Melina R. Platas. 2019. "Religion, Patriarchy and the Perpetuation of Harmful Social Conventions: Explaining Women's Attitudes toward Female Genital Cutting in Egypt." Available at <https://blaydes.people.stanford.edu/sites/g/files/sbiybj1961/f/fgm1.pdf>, accessed 4/3/2020.
- Deeb, Lara. 2011. *An Enchanted Modern: Gender and Public Piety in Shi'i Lebanon*. Princeton: Princeton University Press.
- Hassan, Mona. 2011. "Women Preaching for the Secular State: Official Female Preachers (Bayan Vaizler) in Contemporary Turkey." *International Journal of Middle East Studies* 43(3):451–473.
- Ho, Daniel E., Kosuke Imai, Gary King and Elizabeth A. Stuart. 2007. "Matching as Nonparametric Preprocessing for Reducing Model Dependence in Parametric Causal Inference." *Political Analysis* 15(3):199–236.
- Iacus, Stefano M., Gary King and Giuseppe Porro. 2012. "Causal Inference Without Balance Checking: Coarsened Exact Matching." *Political Analysis* 20 (1):1–24.
- Inge, Anabel. 2017. *The Making of a Salafi Muslim Woman: Paths to Conversion*. New York: Oxford University Press.
- Kandiyoti, Deniz. 1988. "Bargaining with Patriarchy." *Gender & Society* 2(3):274–290.
- Kloos, David and Mirjam Künkler. 2016. "Studying Female Islamic Authority: From Top-down to Bottom-up Modes of Certification." *Asian Studies Review* 40(4):479–490.
- Le Renard, Amélie. 2012. From Qur'anic Circles to the Internet: Gender Segregation and the Rise of Female Preachers in Saudi Arabia. In *Women, Leadership, and Mosques: Changes in Contemporary Islamic Authority*, ed. Masooda Bano and Hilary Kalmbach. Leiden: Brill pp. 105–126.
- Le Renard, Amélie. 2014. *A Society of Young Women: Opportunities of Place, Power, and Reform in Saudi Arabia*. Stanford, California: Stanford University Press.
- Mahmood, Saba. 2005. *Politics of Piety: The Islamic Revival and the Feminist Subject*. Princeton: Princeton University Press.
- Miller, Michael K. 2013. "The Uses and Abuses of Matching in Political Science." Available at <https://sites.google.com/site/mkmtwo/Miller-Matching.pdf>, accessed 4/8/2020.

- Nadwī, Muammad Akram. 2007. *Al-Muaddithāt: The Women Scholars in Islam*. Interface Publications.
- Nielsen, Richard A. 2015. Ethics for Experimental Manipulation of Religion. In *Ethics and Experiments: Problems and Solutions for Social Scientists and Policy Professionals*, ed. Scott Desposato. London: Routledge pp. 42–65.
- Nielsen, Richard A. 2020. “Women’s Authority in Patriarchal Social Movements: The Case of Female Salafi Preachers.” *American Journal of Political Science* 64 (1):52–66.
- Rausch, Margaret J. 2012. Women Mosque Preachers and Spiritual Guides: Publicizing and Negotiating Womens Religious Authority in Morocco. In *Women, Leadership and Mosques: Changes in Contemporary Islamic Authority*, ed. Masooda Bano and Hilary Kalmbach. Brill pp. 59–83.
- Roberts, Margaret E., Brandon M. Stewart, Dustin Tingley, Christopher Lucas, Jetson Leder-Luis, Shana Kushner Gadarian, Bethany Albertson and David G. Rand. 2014. “Structural Topic Models for Open-ended Survey Responses.” *American Journal of Political Science* 58(4):1064–1082.
- Roberts, Margaret E., Brandon M. Stewart and Richard A. Nielsen. 2020. “Adjusting for Confounding with Text Matching.” *American Journal of Political Science* .
- Ulrich, Laurel Thatcher. 2017. *A House Full of Females: Plural Marriage and Women’s Rights in Early Mormonism, 1835-1870*. New York: Knopf.