Reconciling Gendered Priors:
How Quotas Mitigate Backlash to Women in Politics

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Abstract

Gender quotas are expected to dampen or reverse the symbolic benefits of women's descriptive representation by challenging prevailing beliefs about legitimacy and merit. This paper argues that quotas can also play a reconciliatory role, mitigating backlash by reinforcing negative gendered priors, especially in gender-conservative societies where such priors are widely held. I test how quotas moderate the symbolic effects mechanism in India's low-information context, where citizens are largely unaware of their local representatives and of the quota policy despite decades of implementation. A visual experiment randomly exposes citizens to photographs of their actual local representative, whose gender is quasi-randomized by the quota. Women, but not men, who see a woman politician experience a decline in political efficacy. Supporting reconciliatory effects, randomized information about quota policy offsets this backlash. The paper contributes by theorizing and documenting the paradoxical reconciliatory effects of gender quotas in mitigating backlash to women's political presence.

Introduction

Seeing is believing. And seeing women in political office is considered to be one of the most enduring signal of women's political inclusion. A visible confirmation that politics is open to women and that government is equally receptive to women's interests (Mansbridge, 1999; Phillips, 1995; Young, 2002). Symbolic effects of women's descriptive representation are indeed a fundamental area of empirical research in politics (Barnes and Burchard, 2013; Beaman et al., 2009; Bohlken et al., Forthcoming; Campbell and Wolbrecht, 2006; Clayton, 2018a; Clayton, O'Brien and Piscopo, 2019; Hinojosa and Kittilson, 2020; Stauffer, 2021; Wolbrecht and Campbell, 2007, 2017), and beyond (Porter and Serra, 2020; Serra, 2025).

Yet, how is this signal interpreted in contexts where traditional gender norms remain deeply entrenched? In many gender-conservative societies, refereed to as the "classical patriarchal belt" (Kandiyoti, 1988), a majority of women themselves believe that men make better political leaders. According to public opinion survey data, 55% of women in Asia, 53% in Arab countries, and 61% in North Africa endorse this view, compared to only 20% in the Americas and 29% in Europe and Oceania.[1]

At the same time, gender quotas have fast-tracked women's entry into politics in precisely these gender-conservative settings (Bush and Zetterberg, 2021; Noh, Grewal and Kilavuz, 2024; Tripp, 2019), where concerns about backlash and political violence against women are growing. Not only is this backlash more frequent in such contexts, but it also tends to be more severe (Krook, 2020; Htun and Weldon, 2012). These developments raise the urgency of understanding how institutional interventions such as quotas reshape public interpretations of women's presence. This paper asks: Do symbolic effects of women's political representation manifest in contexts where support for gender egalitarianism is low? And more critically,

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[1]The figures refer to the percentage of women respondents who strongly agree or agree with the statement that men make better political leaders than women. Data come from the World Values Survey (6th wave) except for Arab countries, where data are drawn from the latest Arab Barometer (8th wave).

how do gender quotas shape public responses to women in office- do they intensify backlash, or can they mitigate it?

This paper advances our understanding of how quota policies moderate symbolic effects of women's political presence. I theorize expectations within a framework attuned to gender traditional contexts, where public support for women in political roles remains relatively low. Existing studies offer mixed evidence on symbolic effects, both in relatively gender-egalitarian and gender-conservative settings. Some studies find that the impact of exposure to women leaders on citizen's political behavior is concentrated mainly among young women (Campbell and Wolbrecht, 2025), fades after specific elections (Gilardi, 2015), or is limited to generating mild political interest (Foos and Gilardi, 2020), or to outcomes of democratic legitimacy and procedural legitimacy (Clayton, O'Brien and Piscopo, 2019; Kao et al., 2024), while others suggest it can worsen political attitudes and precipitate backlash (Beaman et al., 2009; Clayton, 2018a; Liu, 2018a). In contrast, gender quotas are more consistently viewed as having a "dampening effect," particularly for perceptions of legitimacy and merit (Dahlerup, 2006; Franceschet and Piscopo, 2008; Htun, 2016; Mansbridge, 1999). While few studies examine symbolic effects and gender quotas jointly, new evidence from Western democracies suggests that quotas indeed dampen positive symbolic effects (Clayton, O'Brien and Piscopo, 2025), and in more gender-conservative settings, they may exacerbate negative reactions to women's political presence (Clayton, 2015), mainly because they go against beliefs about legitimacy and merit. In summary, quotas tend to dampen or worsen responses to women's political presence because they challenge deeply held beliefs about legitimacy and merit.

I propose an additional theoretical layer: quotas can reduce negative responses to women leaders by playing a reconciliatory role, particularly in contexts where women's political presence is less preferred by men, women, or both. In such settings, learning about quotas may help accommodate negative gendered priors in two ways. First, it can signal that women's participation is not driven by personal ambition, for which women are disproportionately

socially sanctioned, but encouraged by progressive elites or opportunistic dynastic families, making their presence more consistent with traditional gendered expectations. Quotas may also portray women as less politically powerful: less able to influence resource distribution, implement policies, mobilize resistance, or disrupt traditional gender roles, thereby reducing the perceived threat they pose to traditional gendered identities and relations. Additionally, quotas can also exert a reconciliatory effect by signaling that women's participation is supported by policy efforts, aligning with weak but widespread beliefs that women need help to enter politics and thereby softening skepticism without challenging core assumptions. In summary, I argue that quotas can mitigate backlash by reinforcing, rather than challenging, existing gendered priors, thereby playing a reconciliatory role, especially in contexts where women are consider less fit for political leadership.

Empirically isolating the effects of quota-mandated representation from women's political presence in quota settings is challenging, while testing support for quotas in contexts without them is less realistic. At the same time, relying on vignettes or hypothetical profiles of women leaders is methodologically limited, as these are less effective at capturing real-world bias (Clayton et al., 2020). These challenges make it difficult to study the effects of quotas and attitudes toward women leaders in most settings. India's low-information environment, however, offers a unique opportunity to study both simultaneously. As my survey reveals, awareness of the gender quota policy is extremely limited, with only 2 percent of women in Delhi, the urban capital, familiar with it, and less than 1 percent could correctly identify the reservation status of their local constituency. Citizens also tend to have low knowledge of who their local representative is, with women being particularly less informed. An additional advantage of India's quota policy is its well-documented randomized implementation. Together, this combination of low citizen awareness and randomized assignment allows me to design a two-wave panel survey and a visual experiment at endline that exposes citizens to photographs of their actual representatives, rather than using hypothetical profiles or speech vignettes, as is common in prior studies, including the sole experimental study in

India (Beaman et al., 2009), as discussed in the theory section.

My empirical design allows me to test both the macro-level symbolic effects of women's representation by exploiting the natural experimental assignment of quotas (in line with existing studies), as well a more direct test of exposure to women politicians through the visual experiment. The experiment I designed was part of a city-wide representative panel survey on politics generally and not on gender, which was embedded within the natural experiment of gender quotas in New Delhi. The survey's first wave collects baseline data on political efficacy (PE) measures. Using the natural experiment of gender quotas, I can examine the effects of gender reservations on citizens' political efficacy as measured in this first wave (the macro test). Conducted just three weeks later, the second wave exposes the same respondents to the photograph of their representative and measures respondents' PE immediately after they see their representatives' photograph (the direct experimental test). Citizens' exposure to a man or woman politician's photograph is in turn determined by as-if-randomly assigned gender reservations. This setup enables to measure the change in political efficacy and to examine the effect of exposure to a man or woman photograph on the change in citizen's PE.

This within-subject design offers several advantages. Because the outcome is measured as a difference, this high-powered setup holds all invariant respondent-level characteristics constant. No major or minor events occurred during the three weeks between survey waves, and outcomes were measured immediately after exposure, ensuring that changes in political efficacy can be attributed solely to seeing the politician's photograph. Moreover, the control group was shown the name and photograph of a male politician, rather than no photograph. This choice has two advantages. First, exposure to male politicians reflects the status quo, making it the appropriate baseline for comparison. Second, simply providing respondents with a politician's name and photograph, regardless of the politician's gender, increases political knowledge which in turn can increase political efficacy. Using male politicians as

the baseline ensures that all respondents receive equivalent political information, isolating the effect of exposure to a woman politician from the effect of receiving (new) political information.

The results are paradoxical, revealing a backlash among women but symbolic effects among men (albeit noisier), both of which gender quotas wipe out. I briefly unpack these findings here. Firstly, the macro test, where I regress citizen's baseline measures of political efficacy on the gender reservation status of their local constituency (in line with the literature on symbolic effects), uncovers a weakly positive effect of gender reservations on women's PE. This weakly positive symbolic effect can be a result of descriptive representation, but also several other mechanisms, such as, improved perceptions of public services (substantive), or interaction with party activists (mobilization). Probing observationally, I find that gender reservations do not affect the respondent's performance rating of the councilors, nor citizen's knowledge of who is the councilor, weakening support for both the descriptive and the substantive mechanism. Further, experimentally testing the symbolic effects mechanisms using the visual experiment, I find that women respondents who see a woman politician's photographs experience a decline in PE (negative change), compared to women who see a man's photograph. On the other hand, contrary to existing expectations, men experience a substantively positive change which is statistically noisy. Providing support for the reconciliatory effects of gender quotas, I find that providing information about gender reservations, neutralizes this backlash among women, suggesting women had negative priors about women in office that quotas accommodate. Further corroborating the theory, I find that both backlash and the reconciliatory effects of quotas are concentrated among women with traditional gender beliefs, who are most likely to have worse priors about women.

This paper makes several important contributions to our understanding of how citizens respond to women politicians and affirmative action policies. These are issues of growing global significance as women assume larger public roles and inclusion measures expand across

diverse democracies. These developments unfold against a backdrop of increasing polarization, not only political but also along gender lines, with widening divisions over women's roles in public life and citizen perceptions that women have made greater progress than men over recent decades.

Theoretically, I advance understanding of how gender quotas shape the signal of women's political presence by adding a reconciliatory dimension to existing frameworks. While prior research demonstrates that quotas can dampen positive symbolic effects or intensify backlash against women's political presence (Beaman et al., 2009; Clayton, 2015; Clayton, O'Brien and Piscopo, 2025; Liu, 2018a), my findings reveal that quotas can also mitigate backlash by reconciling citizens' exposure to women in office with their gendered priors about women's political roles. This reconciliatory mechanism helps explain how quotas can simultaneously produce both dampening and ameliorative effects. (Barnes and Córdova, 2016; Bush and Zetterberg, 2021; Noh and Shalaby, Forthcoming; Clayton, O'Brien and Piscopo, 2025), by showing that quota policies can neutralize backlash against women politicians, even in gender conservative societies where these questions remain less studied (Kao et al., 2024).

This paper also provides one of the first realistic experimental tests of the symbolic effects mechanism, a foundational area of research in political science (Beaman et al., 2009; Barnes and Burchard, 2013; Bauer, 2017; Boussalis et al., 2021; Schneider, Bos and DiFilippo, 2022; Wolbrecht and Campbell, 2007). It contributes to the gender and comparative politics literature by clarifying the conditions under which the effects of women's political representation fail to materialize (Clayton, Forthcoming). In the spirit of mechanism-focused experiments (Barnett, Jamal and Monroe, 2020; Grewal et al., 2019; Ludwig, Kling and Mullainathan, 2011), the paper offers comparable point estimates from the natural experiment alongside the experimental results and demonstrates an approach to studying bias that is otherwise difficult to elicit through hypothetical scenarios or without resorting to deception (Clayton et al., 2020).

Although India's quota policies have been extensively studied, this paper is the first to draw attention to the widespread lack of public awareness of these policies and to test how citizens react to receiving information about them. Using open-ended measures of political knowledge about quota policies, I find that there is a low awareness of national and subnational quotas in general, and low-level quotas in particular, even in an urban megacity decades after their implementation. More broadly, these findings challenge a common assumption in empirical research that underpins the interpretation of results, namely, that citizens are aware of policies like gender quotas, or are knowledgeable about their local representatives (Stauffer, 2021). Such assumptions warrant greater theoretical scrutiny and empirical examination. More broadly, they point to the need for a deeper understanding of how public knowledge, or the lack thereof, shapes the functioning and legitimacy of descriptive representation and affirmative action policies.

1 Reconciling Gendered Priors: How Gender Quotas Moderate Symbolic effects

The global rise of gender quotas has significantly expanded women's descriptive representation, especially in authoritarian and gender-conservative settings (Noh and Shalaby, Forthcoming). Yet, their impact on symbolic effects, how women leaders are perceived in office, remains under-theorized. This section begins by first defining symbolic effects and briefly reviewing existing theoretical expectations on how citizens will react to women in political office. I then develop a framework examining how gender quotas moderate symbolic effects through two distinct mechanisms: dampening effects, which have been identified in prior research, and reconciliatory effects, which I introduce as a novel theoretical contribution to understand how quotas may facilitate acceptance of women's political leadership, particularly in gender conservative settings.

Symbolic effects refer to the psychological responses that increase women's political efficacy when they see themselves represented in leadership roles, typically measured as attitudinal or behavioral changes triggered by the presence of women in politics (Mansbridge, 1999). Traditionally, such effects have been understood as accruing primarily to women, through mechanisms such as role modeling (Wolbrecht and Campbell, 2007), perceptions of fair and effective representation (Schwindt-Bayer and Mishler, 2005), reinforcing women's belief in the value of political action (Alexander, 2012; Barnes and Burchard, 2013; Campbell and Wolbrecht, 2006). Visibility also confers legitimacy on decision-making processes, fostering institutional trust and attachment to the polity among women (Clayton, O'Brien and Piscopo, 2019; Hinojosa and Kittilson, 2020), which in turn can enhance efficacy. More recent work suggests that men, too, may experience positive symbolic effects when women's presence signals greater institutional legitimacy and responsiveness for all citizens (Stauffer, 2021). The visibility of women in leadership, often through vivid and emotionally resonant cues, is thus a cornerstone of how descriptive representation generates its symbolic impact (Mansbridge, 1999; Phillips, 1995; Young, 2002).

A large empirical literature has examined symbolic effects, primarily in the American context (Atkeson, 2003; Atkeson and Carrillo, 2007; Broockman, 2014; Costa and Wallace, 2021; Campbell and Wolbrecht, 2006; Clayton, O'Brien and Piscopo, 2019; Lawless, 2004; Stauffer, 2021; West, 2017; Wolbrecht and Campbell, 2017), and, in other industrialized democracies (Foos and Gilardi, 2020; Gilardi, 2015; Verge, Wiesehomeier and Espírito-Santo, 2020; Wolbrecht and Campbell, 2007), and to a lesser extent in developing countries (Beaman et al., 2009; Kao et al., 2024; Liu, 2018a). Findings from this literature are best described as mixed, raising ambiguous expectations about either positive or negative findings.

In Western contexts, where quotas are relatively less common, symbolic effects tend to be concentrated among young women (Campbell and Wolbrecht, 2025), fade after specific elections (Gilardi, 2015; Dolan, 2006), weaken when awareness is low (Stauffer, 2021), or

even accrue to men rather than women (Costa and Wallace, 2021), though evidence is more positive for institutional trust and legitimacy (Clayton, O'Brien and Piscopo, 2019), including in non-Western contexts (Hinojosa and Kittilson, 2020; Kao et al., 2024). In contrast, studies in developing and gender-conservative contexts have highlighted backlash among both men and women to women's political presence, often attributing it to traditional gender norms (Beaman et al., 2009; Benstead, Jamal and Lust, 2015; Liu, 2018a; Mabsout and van Staveren, 2010). Based on this literature, two competing hypotheses emerge regarding citizens' reactions to women's political presence:

H1 (Positive Symbolic Effects): Citizens will react positively to women's political presence, experiencing enhanced political engagement, trust, and representation due to the symbolic value of seeing women in leadership roles.

H2 (Backlash Effects): Citizens will react negatively to women's political presence, particularly in developing contexts, due to traditional gender role expectations and resistance to changing power structures that challenge established social norms.

The literature suggests that H1 (positive symbolic effects) are more likely to occur, while H2 (negative backlash effects) represents a significant but less probable alternative outcome that may be more pronounced in gender conservative societies.

How do gender quotas moderate the signal that women's political presence sends to citizens? While existing research has established that women's descriptive representation can generate both positive symbolic effects and backlash, the specific role of gender quotas in shaping these outcomes remains theoretically less developed. The mixed empirical findings across different contexts suggest that the institutional pathway through which women enter office, whether through competitive electoral processes or quota mechanisms, may fundamentally alter how citizens interpret and respond to women's political presence. This paper addresses this gap by developing a theoretical framework that examines how gender quo-

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tas moderate symbolic effects through two complementary mechanisms: dampening effects, which cut against deeply held beliefs of merit and legitimacy, and reconciliatory effects, which facilitate acceptance by reinforcing gendered priors. These mechanisms may operate simultaneously, creating complex patterns of citizen response that depend on the interaction between widely held beliefs about quotas and women's role in public life.

1.1 Dampening effects hypothesis: Cutting against priors

There is a consensus in existing research, that gender quotas, despite successfully boosting women's descriptive and substantive representation (Chattopadhyay and Duflo, 2004; Goyal, 2024; Catalano Weeks, 2022), often carry negative symbolic consequences (Htun, 2016). In either words, all else equal, there exists a quota penalty. Quota policies are perceived as violating meritocratic principles and as an unfair handout to women (Clayton, O'Brien and Piscopo, 2025). As a result, women elected under quota systems frequently face skepticism and hostility, being branded as "quota women," unwelcome actors whose abilities and legitimacy are questioned regardless of their performance (Htun, 2002), by citizens (Dahlerup, 2006), and bureaucrats alike (Purohit, 2021). This stigma has also been documented across diverse country contexts (Franceschet, Krook and Piscopo, 2012; Weeks and Baldez, 2015; Franceschet and Piscopo, 2008), and is more generally applicable to quota candidates in other spheres such as in business and in education (Pande and Ford, 2012).

Gender quota policies can also provoke broader backlash in public attitudes and political engagement, effectively making things worse for women's empowerment in some settings. Existing studies document that quotas do not automatically enhance, and may even undermine, the perceived legitimacy of governing bodies and women's engagement with politics. For example, cross-national analyses find mixed or negative effects of quotas on citizens' political participation. Kittilson and Schwindt-Bayer (2012) report that introducing quotas in countries like Uruguay and France yielded only limited gains in women's political

engagement. Similarly, Zetterberg (2009) found no overall increase in women's political activity after quota adoption in Latin America. These null findings suggest that simply adding women via quota mandates does not necessarily inspire greater public confidence or involvement, challenging the notion that quotas boost women's symbolic representation in society.

In some instances, quotas appear to actively dampen political engagement among the very groups they intend to help. A striking case comes from Lesotho's quota experiment for local councils. Clayton (2018a) found that communities assigned a female councilor via a quota experienced a significant backlash: women in those areas became less politically active, with lower meeting attendance and participation rates. Qualitative evidence indicated this was driven by perceptions that the quota was illegitimate – a top-down imposition rather than an organic democratic choice. Because the female officials were seen as quota appointees, female constituents disengaged, feeling the process was inauthentic. In other words, the quota made things worse" by eroding the promise of women's symbolic power. Furthermore, Kim and Kweon (2022) found that gender quotas remain unpopular among young men in South Korea, a group believed to be open to diversity relative to older generations. Their findings raise the concern of long-term challenges to inter-group relations and social stability among gender-conservative societies.

The study most closely aligned with this paper's aim is Clayton, O'Brien and Piscopo (2025), which directly theorizes and compares public support for gender-balanced institutions achieved with and without quotas. The authors argue that, all else equal, quotas slightly reduce perceptions of the legitimacy of political decisions and processes compared to gender balance achieved without quotas. Using survey experiments in 12 Western democracies, they find empirical support for these claims. While they find a small "quota penalty", it is smaller in countries with high-threshold quota policies, where such measures signal stronger institutional commitment to gender inclusion. While existing research has advanced our

understanding of how quotas can dampen symbolic effects, I argue that quotas can also serve a reconciliatory function. This perspective helps explain why the quota penalty may be smaller in certain contexts—particularly in gender-conservative settings, and offers a framework for interpreting the mixed findings across countries and sub-groups.

1.2 Reconciliatory effects: Reinforcing priors

I propose an additional theoretical layer: gender quotas can mitigate negative responses to women leaders by playing a reconciliatory role, especially in contexts where women's political presence is contested. While existing research emphasizes quota thresholds and institutional design (Hughes et al., 2019; Clayton, O'Brien and Piscopo, 2025), my framework focuses instead on the congruence between quotas and citizens' prior beliefs about women's leadership. The central claim is that quotas do not always challenge existing beliefs as underlies dampening effects. In some settings, they may reinforce priors by signaling institutional or dynastic endorsement and by aligning women's presence with prevailing social norms. When this reinforcement occurs, quotas can reduce the perceived cultural or material threat posed by women in office and promote greater acceptance.

This argument builds on psychological research on confirmation bias (Nickerson, 1998), which shows that people tend to feel more at ease when their expectations are confirmed. When positive beliefs are affirmed, the emotional response may be joy or validation. When negative beliefs are confirmed, the response may be relief or reduced anxiety. Both types of confirmation can meaningfully reduce resistance to women's political presence. Ultimately, the key distinction lies in whether quotas reinforce existing beliefs, triggering reconciliatory effects, or cut against them, producing dampening effects. These dynamics are not mutually exclusive and may operate simultaneously.

In gender-conservative settings where citizens are seen to hold deeply negative priors about women politicians, seeing them as overly ambitious, inauthentic and pushed into pol-

itics by dynastic families, less competent, or counter-stereotypical. Indeed evidence suggests that citizens, men and women, hold worse priors about women leaders. More broadly, public opinion data from the World Values Survey show that a sizable proportion of both men and women tend to view men as more effective political leaders than women. Globally, 34.9 percent of respondents agree or strongly agree with this view, with majority support concentrated in gender-conservative countries where such beliefs are especially widespread.

Experimental evidence also arrives at similar conclusion.[2] For example, Beaman et al. (2009) find that both men and women in West Bengals' Birbhum district, rate female leaders as less effective than male leaders in the hypothetical speech and vignettes. Further, they find that gender stereotypes strengthen among women constituents in the short term, with an explicit backlash occurring among both men and women citizens in the long run. For example, they note: *"The distaste for female leaders is not ameliorated by exposure...For male villagers, the effect is also significantly positive, suggesting that their relative explicit preference for male leaders (compared to female leaders) is strengthened in GPs that have experienced a gender quota. These results suggest that affirmative action does not, in the short to medium run, alter voter taste for female leaders"* (1531). They conclude that, *"Social norms that militate against female leadership, combined with same gender preferences, could also explain the absence of consistent results across explicit and implicit attitudes for female villagers"* (1532).

In such contexts, learning about quotas may serve to accommodate these priors through two key processes. First, by presenting quotas as the institutional reason for women's political entry, they re-frame women's presence as sanctioned by political elites or dynastic families rather than ambition-driven. This alignment between policy and prior beliefs can

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[2] The only notable exceptions are conjoint experiments, which consistently show that women are preferred over men for political office across diverse settings worldwide with only a few exceptions (Schwarz and Coppock, 2022). While this may appear to contradict broader evidence of bias against women leaders, it could reflect the conjoint method's limited ability to elicit or capture underlying prejudice (Clayton et al., 2020).

reduce perceived cultural or material threat and make women politicians appear more acceptable, as fulfilling a demanded social activity, thereby mitigating negative reactions to politics more broadly.

Second, psychological research on negativity bias demonstrates that humans react more strongly and persistently to negative stimuli than positive ones (Norris, 2021). Confirming negative expectations often brings relief, a powerful emotion that alleviates anxiety, more than the modest validation experienced when positive beliefs are confirmed. Consequently, when quotas confirm negative priors, this can generate a stronger emotional recalibration that helps mitigate backlash more effectively than would occur by reinforcing positive beliefs. As a result, the reconciliatory effect of quotas may be especially powerful in contexts where resistance to women's political participation is more widely shared and socially accepted.

Furthermore, gender quotas may recast women politicians as less politically threatening, portraying them as actors with limited autonomy, influence, or disruptive capacity to mobilize elites or citizens. By signaling that women have entered politics not through personal ambition, but through institutional facilitation, quotas may reduce perceptions of women as agents of radical change who want to alter existing gender relations. This portrayal can make them appear less capable of challenging entrenched gender hierarchies, redistributing resources, or mobilizing support for their preferred policies. In doing so, quotas align women's presence in politics with existing gendered expectations, particularly in conservative contexts where adherence to traditional roles are strongly expected. This alignment lowers the symbolic threat women politicians may otherwise pose and helps ease discomfort among those who view their presence as transgressive or counter-stereotypical. As a result, quotas can again serve a reconciliatory function, not by empowering women, but by rendering their presence more socially acceptable to skeptical citizens - thereby mitigating backlash.

Beyond confirming prior beliefs, quotas may also exert a reconciliatory effect through a softer adjacent mechanism, particularly when citizens hold skeptical but relatively weak

priors about women's pathways to political power. For example, some citizens may believe that women in politics are not genuine leaders but have been pushed forward by their families. These descriptive beliefs, unlike deeply rooted gender norms or other causal beliefs, are often grounded in social observation rather than ideological conviction, making them more malleable. In such cases, quotas do not contradict or challenge the belief that women require external support, but instead replace familial backing with institutional support. This substitution complements existing views, offering a more legitimate explanation for women's political presence without directly challenging the core assumption that women need help to succeed. By reinforcing the idea that women need support to enter politics, now offered by the state rather than families, quotas can soften skepticism and foster a more accepting view of women leaders. Furthermore, if citizens believe that both men and women should have equal political rights (as many do globally) but also believe that women require some form of assistance to enter politics, whether through family ties or policy intervention, quotas are less likely to clash with their beliefs about political legitimacy.

Taken together, these mechanisms suggest that quotas do not only dampen symbolic effects by clashing with prior beliefs about legitimacy or merit, as emphasized in existing research, but may also reconcile women's political presence with prevailing beliefs. By reinforcing or complementing citizens' views, whether through confirmation of negative expectations or by complementing existing information, quotas can reduce the threat presented by women's political presence. This reconciliatory role is likely to be most powerful in gender-conservative societies, where skepticism toward women's leadership is more widespread but citizens are also more emotionally responsive when their prior beliefs are affirmed. To conclude, while citizen responses to women in politics may be positive or negative (or mute), theoretical expectations about quotas point to the potential for both dampening and reconciliatory effects.

2 Research Design

2.1 The natural experiment of gender quotas in Delhi

To test the symbolic effects mechanism and the moderating role of gender quotas, I conducted a visual experiment was conducted in the natural experiment of gender quotas in Delhi. [3] As of Census 2021, Delhi has a population of 23 million —greater than that of Norway, Denmark, and Finland combined.

For several reasons Delhi can be considered a less likely case for the theory within the Indian context. Seeing women in high-profile political and leadership positions is a norm in Delhi, making it less likely that seeing women politicians provokes backlash. Unlike most other Indian citizens, Delhi citizens have enjoyed a long history of seeing women in powerful leadership positions ranging from Party President and City Mayor to Chief Minister, the top-most state-level political position. Delhi had the longest-serving female Chief Minister of any Indian state, who served for a period of 15 years from 1998 until 2013. Additionally, the presence of world leaders such as, Sonia Gandhi, ex-President of the Indian National Congress, and her daughter Priyanka Vadera is prominent with their residence in Delhi. Furthermore, negative priors about women in politics are less common in Delhi than in many other Indian states. According to the World Values Survey (6th wave), while 57 percent of citizens nationwide agree or strongly agree that men make better political leaders than women, the corresponding figure in Delhi is notably lower at 43 percent.

In addition to high-profile women leaders, women are prominently present in Delhi's civic body, called the Municipal Corporation of Delhi (MCD), which is amongst the largest mu-

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[3]The experimental design was pre-registered and the relevant section is attached in the Appendix A3. I pre-registered the expectation that citizens would be largely unaware of the quota policy and the aim to test a two-tailed hypothesis on how men and women respond to photographs of women politicians and information about the quota policy follows directly from the design. I specified using a within subject design/ difference-in-difference outcomes. Sub-group analyses within the sample of women were not pre-registered, are exploratory, and are not central to the paper's core aim.

nicipal bodies in the world. Crucially, the MCD features randomized reserved-seats gender-quotas which enables causal inference. India's centralized gender reservation policy mandates only women can contest elections in constituencies "reserved" for women which are selected as-if-randomly to be reserved. Unreserved constituencies, known as "general" or "non-reserved" constituencies, are open to both men and women. The MCD has 272 constituencies called "wards" that each elect a single representative called "councillor" every 5 years through plurality rules. Figure 1 shows the 2017 reservation status of Delhi's municipal constituencies. Delhi implemented gender quotas in 1997, and 2017 therefore represents the fifth cycle of reservations. Appendix section A.1 and A.2 provides checks that bolster support for the internal validity of the design.

Figure 1: Gender reservation in Delhi's MCD 2017

Despite the high presence of women in local politics, public awareness of the gender quota policy remains extremely low, and few citizens can name their local representative. My survey finds that only 10 percent of men and just 3 percent of women are aware of the quota policy.

While I expected low levels of political knowledge, these figures from the urban capital are striking. Similarly, only 35 percent of men and 11 percent of women could correctly name their local representative. Although comparable surveys are limited, a useful benchmark comes from Iyer and Mani (2019), who surveyed rural citizens in Uttar Pradesh, one of India's largest and poorest states, and found higher levels of political awareness there than in urban Delhi. These especially low levels of knowledge among women make the experimental design particularly compelling: exposure to a woman representative's photograph and to information about the quota policy is likely to be novel and therefore more likely to elicit a meaningful response. In higher-information settings, such experiments risk ceiling effects. By contrast, the low-information context of this study provides a cleaner test of the hypothesized effects.

2.2   Design of the visual experiment

To investigate the mechanism linking seeing women in politics to women's political efficacy, this paper uses a visual experiment which collected data on outcomes of citizen's PE twice: in the baseline (wave 1) and endline (wave 2). Figure 2 plots the design of this two-wave panel survey. In the first survey-wave, 1664 randomly sampled Delhi citizens — 860 men and 804 women in 17 municipal constituencies , 9 reserved and 8 non-reserved constituencies — were interviewed in-person in Hindi during 21 November 2018 to 9 December 2018.[4] Three weeks later, the same respondents were provided the information in the box below and then exposed for 10-20 seconds to a photograph and data on the same PE outcome measures was recollected. 78% of the respondents were successfully re-interviewed in this second wave which was conducted during 12 December 2018 to 3 Jan 2019. The response rate / attrition is the same in reserved and non-reserved wards, suggesting that both survey

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[4]Municipal wards were randomly selected from three national level political constituencies in Delhi: North, South and North-East Delhi after excluding wealthy state level constituencies. The Appendix section A.1 and A.2 provides details about Delhi's municipal politics, reservation policy and the process of random selection of municipal wards.

waves are largely representative of the low to middle income citizens.

Figure 2: Design of the visual experiment
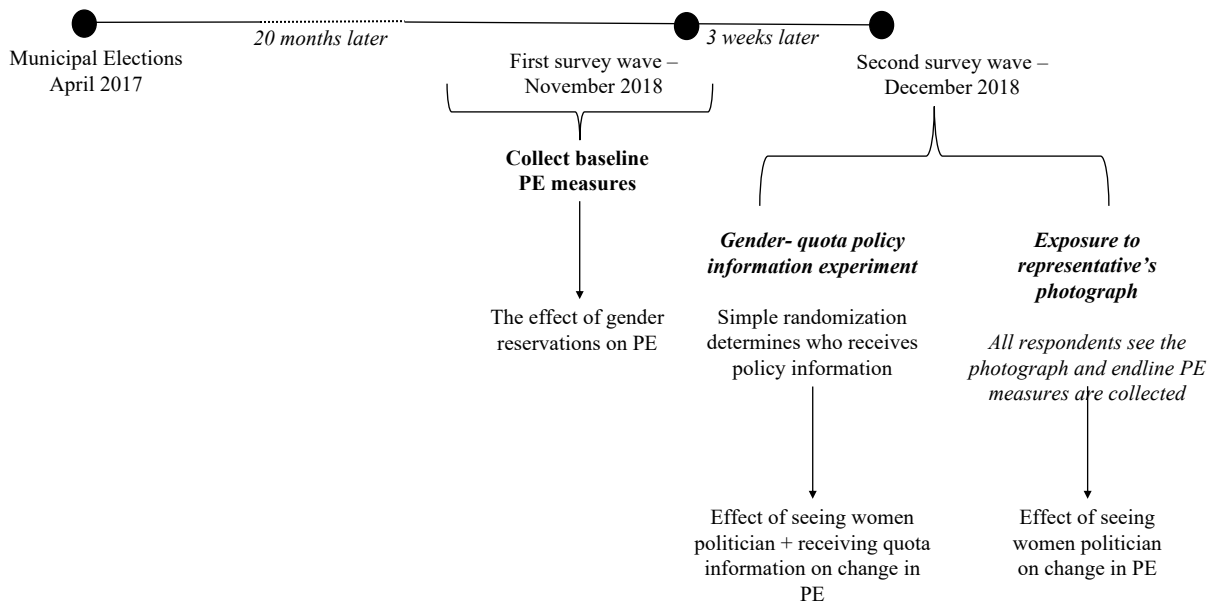
The design goal was to keep the experiment realistic and to expose citizens to photographs of their actual representatives without use of lies or deception. Towards this goal, all of the photographs were passport-like photographs and were taken from the candidates' affidavits available at the Delhi's Electoral Commission's website. The as-if random assignment of reserved seat gender quotas determines whether a constituency will get a man or woman representative, and consequently whether a respondent will see a man's or woman's photograph in all but one case. Digital tablets with pre-loaded survey software and photographs were used to conduct the experiment and collect the data. Appendix A.4 shows the photographs of the incumbents. A quick look suggests that the photos despite being of different politicians are largely interchangeable. In 10-20 seconds of exposure, gender is the clearest feature that stands out. This feature was qualitatively pre-tested with a pilot sample to ensure that the main information citizens absorbed from the photograph was the gender of the politician. In this pre-testing citizens were asked to share what they remembered after viewing these photographs and listening to the politicians name. Gender was the majority

response and was mentioned as the most salient aspect of the information. Note that other visible characteristics such as, caste, class, and religion, are balanced between the reserved and non-reserved groups and were hardly mentioned by citizens in the pre-testing. Even in the case where some councilors were wearing a party scarf, the majority of the citizens cited gender as the salient attribute. This pre-testing allays concerns that different photographs or names may signal different information to citizens.

The survey conducted two experiments: the visual photograph experiment and the gender quota information. This design is summarized in Table 1. In addition to seeing the photograph, respondents are also randomized to either receive information about the gender quota policy or no information —as summarized in the Box 1 below. This policy information was assigned through simple randomization conducted live on the digital tablet.

Table 1: 2 × 2 experimental design

	Randomized policy prompt	
Natural experimental assignment to photos	No Policy	Policy
Non-reserved → Men politician's photograph (control)	A	C
Reserved → Women politician's photograph	B	D

After respondents saw the photographs and the policy prompt (if randomly assigned), they answered five questions on political efficacy, each of which directly link with distinct aspects of legitimacy, trust, and feelings of inclusion that are outlined in the political theory of descriptive representation (Mansbridge, 1999). The theory suggests that seeing women in politics increase perceptions of approachability of and engage in *"enhanced communication"* with the representative (approach the councillor), creates an *"ability to rule"* (contest elections and voting is important) and have influence (influence in municipal politics and performance evaluations matter). In both waves, respondents are asked the questions in the same order and the text of the questions is available in Appendix section A.3.2;

I want to share some information about how the MCD is organized. I will then give you some information about your MCD ward. Perhaps you may also know some of this already. Delhi MCD is composed of 272 wards. In 2012, MCD was divided into three bodies - EDMC, SDMC and NDMC - each of which serve the East, South and North of Delhi respectively. MCD has elections every 5 years and any Delhi resident can vote in these elections.

Randomized policy prompt - *"In addition, as you may know, Delhi's MCD has gender reservation, that is in 50% of all wards only women can contest elections, while rest of the wards are open for both men and women to contest. In 2017, women wards were reserved through a random process - for all wards based on their geographic location they are given a serial number and every other ward was reserved for women. The benefit of this process is that no politician can influence whether their ward can be reserved or not. Every ward has an equal chance which is 50:50 chance of getting reserved."*

Your MCD ward is called [***ward name***]. This ward is part of [***EDMC / SDMC / NDMC***]. The name of your MCD councillor [***show photograph***] is [***read full name of councillor***].

Respondent sees the photograph for a brief moment - Now I will ask you some questions about your ward, should we proceed?

Box 1: The experimental setup and policy text

2.3   Empirical estimation

To estimate the effect of gender reservations on respondents PE, I estimate the following equation using data from the first survey wave. Because mostly women win for office in reserved constituencies, this reduced form effect closely follows what would be obtained by instrumenting for women's gender by a constituency's reservation status. For example, in 2017, only 5 women won from 136 non-reserved seats.[5] Therefore, I follow convention to report reduced form results (Chattopadhyay and Duflo, 2004) and run the follow regressions:

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[5]In the randomly sampled set of constituencies in the survey, there is one such case of non-compliance where a woman wins from a non-reserved constituencies. I follow the literature to report reduced form results. However, results, although noisier, are substantively unchanged using actual gender or excluding this constituency from the sample.

$$PE_{wj} = \beta_0 + \beta_1 R_{wj} + \epsilon_1 \tag{1}$$

where, PE_{wj} (Y_{mj}) are PE measures for a woman w (man m) respondent in constituency j, R_{wj} is the treatment and refers to the respondent's constituency's reservation status.

To estimate the effect of exposure to the name and photograph of the politician, I estimate the following equation for respondents in two sub-groups. To recover the effect of only seeing the photograph, I estimate the below equation for the subgroup that is treated only with the photograph. To recover the effect of photograph and the policy information, I estimate the below equation for the subgroup that is treated with both the photograph and the quota policy.

$$\triangle PE_{wj_{wave2-wave1}} = \beta_0 + \beta_1 R_{wj} + \epsilon_1 \tag{2}$$

where, $\triangle PE_{wj_{wave2-wave1}}$ ($PE_{mj_{wave2-wave1}}$) is the difference in the PE outcome between two waves for a woman (man) respondent in constituency j, which means, all individual level variables that do not change in three weeks are held constant. R_{wj} is the treatment and refers to the respondent's constituency's reservation status.

To identify the effect of exposure to quasi-randomly assigned man or woman name and photograph, the design makes an assumption that the change in political efficacy in between two waves is only due to the effect of exposure to the politician's name and photograph. Several factors suggest that this is a reasonable excludability assumption. Survey waves were conducted close to each other and no major national, state, or municipal event or outreach happened during the three weeks interim. The experiment introduces the stimuli in a matter-of-fact conversational form. The photographs were shown as part of introducing their own representative to the respondent, unlike showing them a prominent woman leader

or a hypothetical candidate, both of which makes gender explicitly salient. It is also unlikely that being shown a photograph of their representative makes the reservation status more salient to citizens and triggers carryover effects. Data from the first wave shows that very few women respondents — only 2.9 percent — were aware of the reservation policy and only 0.1 percent women could correctly identify the reservation status of their constituency.

Note that the control group is exposed to a man's name and photograph. Instead of a control where no photograph was shown, exposing women to a man's photographs has two advantages. First, in reality women and men are exposed to men politicians which is the status quo and therefore exposure to male politicians is the relevant baseline comparison. Second, simply providing information about the name and photograph of a politician, regardless of the politician's gender, can increases the respondent's political knowledge which can in-turn increase political efficacy. Using men photographs as a baseline comparison means that all respondents are also treated with the same amount of political information which accounts for this possibility.

3 Results

3.1 Women show marginally higher efficacy in reserved constituencies

Table 2 presents results from analyzing the effect of gender reservations on citizens' political efficacy using data from the first survey wave. Column 1 reveals a statistically significant but modest increase in women's political efficacy in reserved constituencies: the 0.306 percentage point increase represents a 4.56 percent improvement relative to the baseline mean. This positive effect is consistent with theoretical expectations of symbolic representation, where women's descriptive representation enhances their sense of political agency and connection to democratic institutions. In contrast, Column 2 demonstrates no significant effect

of gender reservations on men's political efficacy, suggesting that the benefits of women's political presence may be primarily concentrated among women themselves (Wolbrecht and Campbell, 2007), at least in this initial analysis.

While these positive outcomes for women are frequently attributed to symbolic effects that emerge from descriptive representation (Barnes and Burchard, 2013; Beaman et al., 2012), alternative explanations merit consideration. The observed increase in women's political efficacy could stem from improved substantive representation, if women councilors better address women's policy preferences, or from increased political mobilization during electoral campaigns in reserved constituencies (Goyal, 2024).

Table 2: Gender reservations marginally increase women's political efficacy

	PE index	
	Women respondents	Men respondents
	(1)	(2)
Gender reservations	0.306***	−0.091
	(0.087)	(0.146)
	p = 0.001	p = 0.533
Constant	6.709***	6.956***
	(0.056)	(0.117)
Wild bootstrap p-values	0.008	0.588
RI p-values	0.006	0.584
N	725	829

Notes: Standard errors are clustered at the treatment (constituency) level. *** p<0.01, ** p<0.05, * <0.10

To isolate the mechanism driving women's increased political efficacy, Table 3 examines three potential pathways in line with the literature on symbolic effects and quotas: substantive representation, descriptive representation awareness, and knowledge of gender quota policies. The substantive representation hypothesis receives no empirical support. Columns 1 and 2 show that neither men nor women perceive differences in their councilor's overall performance between reserved and non-reserved constituencies, effectively ruling out improved service delivery or policy responsiveness as explanatory mechanisms. Further corroborating that citizens are responding to exposure to the photographs and name, Appendix Section A6 shows that only women who are not aware of their local representative respond with

backlash, while only men who are aware of their local representative experience symbolic effects.

Similarly, the descriptive representation awareness mechanism finds little support. Columns 3 and 4 examine whether citizens' knowledge of their councilor, and by extension, their councilor's gender, differs across reservation status. The results indicate no significant difference in women's ability to identify their councilor, while men are marginally less likely to know their councilor in reserved constituencies (though this effect lacks statistical significance). This pattern suggests that the symbolic effects are not operating through enhanced visibility or recognition of women representatives.

Table 3: Substantive and descriptive representation cannot explain the increase in women's PE

| | Councilor's performance | | Know councilor's name | | Know gender quotas exist | |
| | Women respondents | Men respondents | Women respondents | Men respondents | Women respondents | Men respondents |
	(1)	(2)	(3)	(4)	(5)	(6)
Gender reservations	0.833	0.416	−0.007	−0.080*	0.045***	0.054**
	(0.633)	(0.501)	(0.027)	(0.044)	(0.009)	(0.023)
	p = 0.188	p = 0.407	p = 0.785	p = 0.070	p = 0.000	p = 0.018
Constant	4.675***	5.351***	0.126***	0.397***	0.006*	0.073***
	(0.557)	(0.378)	(0.017)	(0.034)	(0.003)	(0.010)
Wild bootstrap p-values	0.261	0.471	0.797	0.112	0.001	0.050
RI p-values	0.006	0.584	0.800	0.102	0.001	0.039
N	725	829	723	827	723	827

Notes: Standard errors are clustered at the treatment (constituency) level. *** p<0.01, ** p<0.05, * <0.10

The most promising explanation emerges from examining quota awareness. Columns 5 and 6 demonstrate that gender reservations significantly increase knowledge about gender quota policies among both women and men. The effects are substantial in relative terms. Gender reservations increase quota awareness by 4.5 percentage points for women and 5.4 percentage points for men, representing approximately 7.5-fold and 1.7-fold increases respectively from very low baseline levels. However, absolute awareness remains limited: only 5.1 percent of women and 12.7 percent of men in reserved constituencies are aware of gender quota policies, compared to 0.6 percent of women and 7.3 percent of men in non-reserved

areas.

These findings offer important insights into the mechanisms underlying symbolic representation effects. The increase in women's political efficacy appears most plausibly linked to quota awareness rather than to direct contact with or evaluation of women representatives. This pattern aligns with the reconciliatory effects mechanism outlined in the theoretical framework: gender quotas may enhance women's political efficacy by signaling institutional commitment to gender inclusion, even when citizens have limited direct interaction with their representatives.

The results provide qualified support for H1 (positive symbolic effects) among women, while offering no evidence for H2 (backlash effects) among men. However, several limitations constrain definitive interpretation. The observational design introduces potential post-treatment bias, particularly when examining whether women's increased political efficacy varies among those who know their representative's gender or are aware of quota policies. Additionally, the modest effect sizes and low overall awareness levels suggest that symbolic effects, while statistically detectable, may be substantively limited in this context.

To definitively adjudicate between competing mechanisms and test the robustness of these preliminary findings, experimental evidence is necessary. The observational results establish a foundation for understanding how gender quotas may influence citizen attitudes, but controlled manipulation of information about women's representation and quota policies will provide clearer causal identification of the pathways through which symbolic effects operate.

3.2 Exposure to women politicians provokes backlash among women

Table 4 presents the experimental results examining how exposure to representatives' names and photographs affects changes in political efficacy between survey waves. The find-

ings reveal a striking and counterintuitive pattern that challenges conventional expectations about symbolic representation effects. The control group results (constant terms) demonstrate that both men and women experience increases in political efficacy during the second wave, with women showing significantly larger gains (0.857 points) compared to men (0.297 points). This general increase likely reflects the combined effects of receiving political information and participating in a second interview (as discussed in the empirical section), with women responding more strongly due to their typically lower baseline political knowledge levels.

Table 4: Seeing women leaders lowers women's political efficacy

	Change in PE index	
	Women respondents	Men respondents
	(1)	(2)
Treatment	−0.467**	0.297*
	(0.205)	(0.179)
	p = 0.023	p = 0.099
Constant	0.857***	0.297***
	(0.179)	(0.095)
Treatment	Woman's name	Woman's name
	& photograph	& photograph
Wild bootstrap p-values	0.057	0.150
RI p-values	0.044	0.151
N	291	318

*p < .1; **p < .05; ***p < .01

Notes: Standard errors are clustered at the treatment (constituency) level. *** p<0.01, ** p<0.05, * <0.10

However, the treatment effects of exposure to only women's name and photograph, provides evidence against the symbolic effects hypothesis and support for backlash hypothesis among women, as expected in the literature on gender-conservative societies (Gottlieb, Grossman and Robinson, 2018; Liu, 2018a). When women are exposed to a woman representative's name and photograph, compared to exposure to a male representative, their political efficacy decreases by 0.467 points, a statistically significant effect (p = 0.023) that represents a substantial reduction. This negative response directly contradicts H1 (positive symbolic effects) and instead provides strong evidence for H2 (backlash effects), suggesting

that visual exposure to women in political leadership positions actually diminishes women's own sense of political agency.

The pattern for men presents a less expected contrast. Male respondents show a positive response to exposure to women representatives, with political efficacy increasing by 0.297 points compared to exposure to male representatives, providing support for symbolic effects hypothesis among men. This effect approaches conventional statistical significance (p = 0.099) and suggests that men may experience the positive symbolic effects traditionally expected from women's descriptive representation. However, this finding requires cautious interpretation, as the effect loses statistical precision under more robust testing methods including wild bootstrap and randomization inference procedures.

The finding that women experience backlash from seeing women in leadership positions while men show modest positive responses inverts conventional wisdom about who benefits from descriptive representation, and supports more recent studies that also find this paradoxical pattern (Costa and Wallace, 2021). This pattern suggests that the mechanisms underlying symbolic effects may be more complex and contextually dependent than previously theorized. The backlash effect among women could reflect several psychological processes. Exposure to women politicians might activate social identity threat, where women internalize societal skepticism about women's political competence. Alternatively, it could trigger cognitive dissonance between traditional gender role expectations and the reality of women in power, leading to reduced confidence in political participation. The positive response among men might indicate that women's political presence signals institutional inclusiveness and legitimacy without threatening their own political identity.

3.3   Quotas have reconciliatory effects among women

Table 5 examines whether gender quotas moderate citizens' responses to women's political presence through dampening or reconciliatory mechanisms. The experimental design

compares respondents who received information about both their representative's identity and the 50% gender quota policy in municipal government to those who received only representative information.

The results provide compelling evidence for both theoretical mechanisms operating simultaneously but affecting different demographic groups. For women, the quota information produces a striking reconciliatory effect. When women receive information about gender quotas alongside exposure to a woman representative's name and photograph, the negative treatment effect observed in Table 4 completely disappears. The treatment coefficient becomes statistically indistinguishable from zero (-0.028, p = 0.849), indicating that quota information neutralizes the backlash effect that women experience when seeing women in political leadership. This finding strongly supports the reconciliatory mechanism: by framing women's political presence as the result of institutional policy rather than individual achievement, gender quotas reinforce priors and beliefs that women may hold about women's political presence.

Table 5: Quotas neutralize backlash among women

	Change in PE index	
	Women respondents	Men respondents
	(3)	(4)
Treatment	−0.028	−0.028
	(0.149)	(0.197)
	p = 0.849	p = 0.889
Constant	0.660***	0.468***
	(0.119)	(0.154)
Treatment	Gender quota policy + Woman's name & photograph	Gender quota policy + Woman's name & photograph
Wild bootstrap p-values	0.860	0.900
RI p-values	0.840	0.899
N	308	264

*p < .1; **p < .05; ***p < .01

Notes: Standard errors are clustered at the treatment (constituency) level. *** p<0.01, ** p<0.05, * <0.10

For men, the results demonstrate the dampening mechanism in operation, as expected in previous research (Clayton, O'Brien and Piscopo, 2025). The positive effect that men

experienced from exposure to women representatives (0.297 points in Table 4) is completely eliminated when quota information is provided (-0.028, p = 0.889). This pattern suggests that while men may initially respond positively to women's political presence as a signal of institutional inclusiveness, learning that this presence results from quotas rather than competitive merit diminishes the symbolic value they derive from women's representation.

These contrasting patterns illuminate the complex ways that institutional design shapes symbolic representation effects. The same quota information that helps women reconcile their exposure to female leadership simultaneously reduces the positive symbolic impact for men. This asymmetric response suggests that quotas operate through distinct psychological mechanisms for different groups: reducing identity threat among women while diminishing perceived legitimacy among men, and is a worthy direction for future research.

4   Corroborating evidence and future research

The experimental results provide evidence for reconciliatory effects among women and dampening effects among men. To further validate the theoretical framework, this section examines whether these effects vary systematically among subgroups who differ in their likelihood of holding traditional gender beliefs. This heterogeneity analysis provides corroborating evidence that the mechanisms operate through gendered priors.

Since direct measurement of attitudes toward women leaders risked priming respondents and contaminating treatment effects, I employ two established proxies for traditional gender beliefs drawn from prior research. In addition, because theoretical expectations differ by gender, I use men as a placebo group to further clarify the mechanism (Eggers, Tuñón and Dafoe, 2024).

First, higher caste status serves as an indicator of conservative gender attitudes. Research demonstrates that higher caste women face greater constraints from traditional gender norms

due to their role in maintaining caste purity through endogamy and behavioral restrictions, while scheduled caste women often display greater political assertiveness and openness to change due to economic necessity and weaker ties to traditional hierarchies (Chakravarti, 1993; Luke and Munshi, 2011; Bohlken et al., Forthcoming). These patterns also extend to men, as higher caste men have stronger investments in maintaining traditional gender roles that reinforce caste-based social structures through the regulation of women's behavior to enforce endogamy (Luke and Munshi, 2011).

To measure caste status, I rely on respondents' self-reported caste identity. Higher caste groups in the Delhi context consist of Forward castes such as Brahmins (priests) and Banias (merchants), as well as landowning communities—all of which maintain higher social status and stronger adherence to traditional gender norms. This classification captures meaningful variation in social position and cultural conservatism that theoretically shapes responses to women's political representation.

Second, the absence of extra-household social networks indicates women's embeddedness in traditional gender arrangements. Women with limited connections outside their immediate family typically reinforce conventional gender roles to secure access to intra-household resources and face greater coercive pressure to avoid political engagement (Agarwal, 1997; Doss, 2013; Prillaman, 2023; Anukriti et al., 2020). To measure social networks, I use respondents' self-reported accounts of whether they discuss politics with someone within their family/kinship ties versus outside these immediate relationships. This indicator captures the extent to which individuals' political conversations extend beyond traditional household boundaries. Because men's constrained social networks may not have such political effects that center their identity on family, these mechanisms are unlikely to be observed among men.

Appendix Section A7 presents results disaggregated by caste identity, revealing patterns that strongly support the theoretical predictions. Panel A, Column 1 demonstrates that the

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negative backlash effects from exposure to women politicians are concentrated exclusively among higher caste women, with no corresponding effect among higher caste men (Panel B, Column 1). The contrasting pattern among scheduled caste and tribal respondents provides additional theoretical support. Panel A and B, Column 2 show that both SC/ST women and men exhibit positive responses to seeing women politicians' names and photographs, though the effect reaches statistical significance only among SC/ST men. This suggests that symbolic effects operate most clearly among demographic groups with less traditional gender attitudes, particularly SC/ST men who may view women's political presence as signaling broader institutional inclusiveness without triggering identity threats.

The quota moderation effects further illuminate these mechanisms. Among higher caste men, quotas produce clear dampening effects, neutralizing any positive symbolic impact from women's representation. However, among SC/ST men, while the point estimate for quota effects remains positive, it lacks statistical precision, suggesting that dampening mechanisms may be weaker among groups with less investment in traditional gender hierarchies. These patterns extend the theoretical framework by demonstrating how gendered priors condition both the initial response to women's representation and the moderating effects of quotas.

Analysis using extra-household social network connectivity as an alternative proxy yields complementary findings. Appendix Section A7 reveals that negative reactions to women in politics occur exclusively among women without extra-household family connections, while women with broader social networks respond positively to female political representation. This pattern reinforces the interpretation that traditional gender beliefs, rather than social isolation per se, drive the observed backlash effects. The absence of meaningful patterns among men across network categories further supports the conclusion that these effects operate through gendered belief systems rather than general social connectivity differences.

These heterogeneous treatment effects provide compelling evidence that gender quotas exert reconciliatory effects by helping individuals with traditional gendered priors accommo-

date women's political presence within their existing belief frameworks. When women who hold conventional gender role expectations encounter female political leaders, quotas offer an institutional explanation that reinforces gendered priors.

The findings open several promising avenues for future research. Direct measurement of gender role attitudes across diverse populations could test the theoretical framework more precisely, while experimental variation in women leaders' profiles could illuminate which characteristics trigger stronger backlash or reconciliation effects. Additionally, studies manipulating information about quota design features, such as selection criteria, implementation mechanisms, benefits, could explore how different institutional arrangements shape the balance between dampening and reconciliatory effects. The theoretical framework and experimental methodology developed here provide a foundation for testing these additional predictions, particularly in contexts where public awareness of gender quotas and political representatives remains low.

5   Conclusion

Gender quotas are often viewed as double-edged interventions, boosting women's descriptive representation while diminishing their perceived legitimacy. Yet, this paper demonstrates that in gender-conservative settings, quotas can also serve a reconciliatory function: mitigating backlash by reinforcing, rather than challenging, widely held gendered priors. Drawing on a novel visual experiment embedded in the natural experiment of Delhi's municipal quota system, I show that women, when exposed to images of women politicians, experience a decline in political efficacy, contradicting expectations of positive symbolic effects (Clayton, 2018*b*; Liu, 2018*b*). However, this backlash is neutralized when women are simultaneously informed that the politician's presence is quota-mandated. These reconciliatory effects are strongest among women with traditional gender beliefs, suggesting that quotas can make women's political presence appear less threatening, less disruptive, and

more normatively acceptable.

This reconciliatory framework complements existing work that highlights the dampening effects of quotas on perceptions of legitimacy and merit (Clayton, 2015; Clayton, O'Brien and Piscopo, 2025; Htun, 2002). Rather than only eroding symbolic benefits, quotas may help citizens make sense of women's presence in politics by confirming their belief that women need support or by signaling that women are less politically threatening. While men in my study show modest positive responses to women politicians, perhaps viewing them as a signal of inclusive governance, these effects are dampened by quota information. Together, these findings suggest that quotas can both reconcile and dampen citizen responses, depending on their priors about women in politics as well as their beliefs about the legitimacy of quota policies.

These insights raise important avenues for future research. First, more work is needed to directly measure and manipulate gendered priors and beliefs about quota's fairness and legitimacy, particularly across diverse institutional contexts and designs of quota policy. Second, future studies could explore how the framing of quotas, in terms of fairness, necessity, or threat, shapes public reception and whether reconciliatory effects generalize beyond political representation to other forms of affirmative action. More broadly, this work challenges fundamental assumptions about citizen awareness and knowledge that underpin much research on descriptive representation, revealing that even decades-old policies like India's gender quotas remain largely unknown to the citizens they affect. As gender quotas continue to expand globally amid rising political polarization, understanding how aware citizens are of these institutional interventions and how these policies interact with deeply held social attitudes becomes essential for fostering inclusive democracies.

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Contents

A Appendix

A.1 Reservation policy and balance tests

To understand the reservation policy, it is important to note how Delhi is politically organized. Delhi has three levels of government: National, State and Local level. For the purpose of national level representation, Delhi is divided into 7 electoral units called the *parliamentary constituencies* (PCs) or *lok sabha shetras*, each of which selects a *Member of Parliament* (MP) to the National parliament. For the purpose of state-level governance, Delhi has a state assembly, which is headed by a Chief Minister and political representatives called the *Members of Legislative Assembly* (MLAs) that are elected from 70 electoral units called *Assembly constituencies* (ACs). Electoral units are geographically nested. ACs fit neatly into PCs, and each PC in Delhi is comprised of 10 ACs. 272 municipal constituencies fit neatly inside ACs, an on an average each AC has 4 municipal constituencies. The MCD is composed of three geographic sub-corporations: North, South, and East.

In municipal elections in 2017 one half of all municipal constituencies were reserved for women through an as-if random process, which very briefly put, involves reserving every 2nd constituency from a serially ordered list of municipal constituencies. Delhi has had five elections with the reservation policy in 1997, 2002, 2007, 2012, and 2017. 33% constituencies or seats were reserved for women until 2007, which was later expanded to 50% from 2012 and onwards. However, no electoral or spatial data is available for the elections and municipal boundaries prior to 2007.

The process broadly remains the same each election and is as follows:

1. India's national Election Commission first assigns serial numbers to state constituencies through a process which involves starting in the northernmost point in the state and moving anti-clockwise across units. Serial numbers are only changed or assigned during

border re-districting and were last assigned in 2008.

2. Delhi's state election commission follows the same process to assign serial numbers to municipal constituencies during delimitations. Municipal constituencies are serially ordered by starting in the assembly constituency with the lowest serial number within the sub-corporation and moving anti-clockwise. The serial numbers were last assigned in 2017.

3. In 2017, after serial ordering the municipal constituencies, proportional number of wards with highest scheduled caste (SC) population according to Census 2011 within each corporation are arranged in ascending order of the serial number and every other ward is reserved for SC women.

4. The remainder of the non-SC wards are also arranged in ascending serial order and every other ward is reserved for General women. Note that SC quotas are not assigned through the quasi-random process, but gender quotas are assigned quasi-randomly.

Using the official census data and reservation policy document, I could verify the process was followed. Furthermore, qualitative evidence for the probity of the randomization process comes from the fact that the each of these elections saw the reservation of the seats of several senior male and female senior politicians, which made headlines each electoral cycle.[6] Sitting councilors and party activists who lost their wards to reservation in 2012 took the process to Delhi High court and this process was verified in court to be free and fair from any tampering, irregularities or political bias.[7] Below, balance tests bolster support for the internal validity of this design. Note that past reservation status in 2007 does not predict reservations in 2012.

[6]See "Delhi MCD polls: Many senior municipal councilors lose seats post delimitation of wards, rejig of seats reserved for SC, women", The Hindustan Times March 06 2017.

[7]See "HC upholds reservation of municipal seats by EC", The Hindustan Times March 01 2012.

Table A1: Balance test using administrative data

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	BJP wins	INC wins wins	Margin	N Cand	% Female cand	% Female voters	Female turnout	% winner voteshare	Reserved 2012
Reserved (2012)	-0.077	0.059	0.230	-0.587	0.014	-0.054	0.451	0.778	
	(0.059)	(0.052)	(1.268)	(0.505)	(0.054)	(0.330)	(0.985)	(1.303)	
Reserved (2007)									0.022
									(0.064)
N	272	272	272	272	272	272	255	272	272
Ajd. R-sqr	0.002	0.001	-0.004	0.001	-0.003	-0.004	-0.003	-0.002	-0.003

Notes: The table displays robust OLS estimates of reservation status in 2012 (1 if reserved for women, 0 otherwise) regressed on lagged independent variables measured in 2007. *** p<0.01, ** p<0.05, * <0.10

Table A2: Balance using survey data

Variable	Reserved 2017 (1)	Non-Reserved 2017 (2)	Difference (1) - (2)	P-values T-test
Education	0.837	0.815	-0.021 (0.031)	0.488
Married	0.709	0.75	0.042 (0.027)	0.124
Age	36.946	36.103	-0.843 (0.958)	0.379
Born Delhi	0.534	0.52	-0.014 (0.046)	0.766
Employed	0.404	0.443	0.039 (0.036)	0.28
Parent	0.665	0.705	0.04* (0.023)	0.086
SC/ST	0.324	0.336	0.012 (0.066)	0.857
OBC	0.19	0.229	0.039 (0.05)	0.432
Muslim	0.151	0.163	0.011 (0.056)	0.843
Home-owner	0.803	0.81	0.007 (0.023)	0.758
Family size	5.593	5.767	0.175 (0.151)	0.248
Consumption items	0.063	0.055	-0.008 (0.108)	0.941
Enumerator gender	0.441	0.464	0.023 (0.018)	0.207

Notes: N = 1449 respondents in 17 clusters. Respondents with missing responses on any of the variables are dropped. Standard errors are clustered at the constituency level. *** p<0.01, ** p<0.05, * <0.10

A.2 Citizen survey: Sampling wards and survey sites

I explain the sampling procedure for selecting municipal constituencies / wards, for selecting survey sites within them and for sampling respondents within these sites. Municipal wards form the primary site where the survey was conducted. To arrive at the list of wards to include in the survey, three parliamentary constituencies in Delhi were selected. These

are North West, North East and South Delhi. These are amongst the largest constituencies (by population) and have been selected to get a broad geographic and neighborhood representation of Delhi. In this selected sample of 3 PCs there are 30 AC's from which 9 relatively wealthy ACs were excluded. This was done to avoid having an over-representation of wealthy population and neighborhood, as only 1-3% citizens of Delhi live in such neighborhoods.

Municipal wards were selected via a three step process, which is as follows: (1) three national level constituencies of North West, North East and South Delhi were purposively selected to maximize geographic variation. (2) Each of these 3 three national constituencies contains, 30 state level constituencies. To avoid oversampling wealthy and high-income areas, the sample was restricted to 21 state-level constituencies. (3) municipal wards were randomly selected such that each ward is from a different state-level constituency, blocked on reservation status, such that 9 of the municipal constituency that were selected were reserved for women and the rest 8 wards were non-reserved wards as per 2017 reservation status. Within each ward, three neighborhoods (survey sites), which are a cluster of serially ordered polling stations, were randomly sampled from the most recent voter list of the 2017 municipal elections. I describe the details below.

Each AC in Delhi is further subdivided into an average of 4 municipal constituencies. The sample of 21 ACs has 95 municipal wards. Out of these 95 wards, 45 wards are general and 50 wards are reserved for women. From this sample of AC-Wards, I randomly select 17 AC-ward combination such that I first select 9 wards reserved for women and 8 for general. The next step was to select three survey sites or neighborhoods per ward to conduct the interview. Within each ward, three enumeration blocks or neighborhoods (survey sites), which are a cluster of serially ordered polling stations, were randomly sampled from the most recent voter list of the 2017 municipal elections.

To ensure that the enumeration blocks or neighborhoods selected were geographically dispersed, each ward was divided into blocks of 1500 households, and one block of 1500 HHs

was randomly selected such that each household within the ward had an equal chance of being selected into the survey. That is, probability proportional to the size of the block as measured by the number of households in the block. On average, each ward was divided into 11 blocks and had approx. 18050 individual households as identified by unique house numbers. The next two blocks for two other teams were selected such that there was a gap of 3000 HHs between blocks to ensure geographical dispersion. For example, if a ward had ten blocks, and the first block was randomly selected. Then the fourth and seventh blocks were selected. Figure A1 shows the three neighborhoods visited in one of the sampled wards, called *Holambi Khurd.*

Each day one ward was visited by the survey team in three sub-teams to conduct interviews in the three respective neighborhoods within the ward. The respective field supervisor of the sub-team assigned each enumerator one polling station and the entire list of polling stations was attempted serial wise by the team until the end of the working day. Polling stations that were far off from the dominant cluster were de-prioritized or not attempted for practical concerns.

Enumerators were instructed to knock at every 3rd household on the street in the polling stations allotted by their field supervisors. Every person who agreed to be interviewed was eligible to be interviewed, if they were at least 18 years of age, had a mobile phone, were in Delhi over next 3 weeks and had lived in Delhi for at least 3 years. The team of 15 enumerators attempted a total of 4910 door knocks and interviewed 1664 respondents which gives a response rate of 34%. 18% door knocks were un-answered, and of the remaining 82% knocks that were answered - 60% were answered by females and 40% by male and 8.5% were answered by children. 48% of adults that answered the door agreed to be interviewed. The most common reason for refusal was that the respondent was busy (71%) followed by not interested in answering surveys (21%).

Figure A1: Sampling wards and localities

A. Delhi 2017 wards

B. Localities within a ward
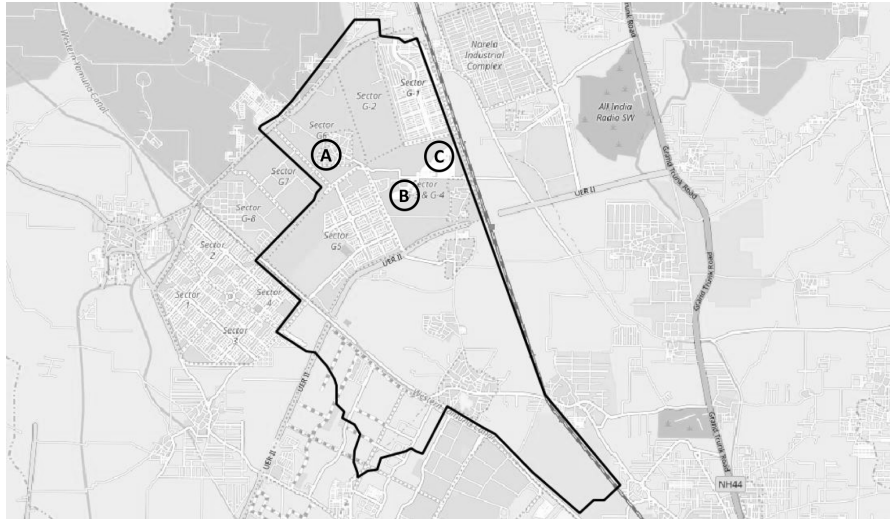
A.2.1 Principles and guidance for human subjects research

This section outline briefly how the data collection met the principles and guidance for human subjects research. The survey was part of the baseline survey of a field experiment. For this project, we trained the enumerators to explain the purpose of the research, the

source, and nature of the funding, professional affiliation, and to share with respondents that the study was reviewed by academic ethic review boards. The study did not use any deception or involve any harm or trauma, did not interfere with any political or electoral processes, nor did it violate any other exception outlined in the general principles in human subject research. The data collection was not conducted close to or during any elections.

The survey enumerators were professionals who worked in a reputed survey firm. Additionally, we trained them to take oral consent from the participants in the local language before they began the interview. Research assistants accompanied enumerators throughout the survey and random subsamples of the interview were audited to ensure that the enumerators followed the guidelines. The interviews were roughly 25-40 minutes long and the participants were made aware of the time, effort, and risk involved in participating - which was low. Respondents were also informed that the data will be stored in compliance with the legal requirements of the academic board and the host countries, and that only anonymous data will be shared publicly. All respondents were adults (over 18 years of age) and understood that they could refuse participation and request to delete their data at a later stage should they choose to do so, and without giving any reason. Respondents were given printed consent material and contact sheets and compensated with INR 100 for participation in the interview, which comes close to the minimum hourly wage in Delhi, and therefore, is reasonable for the given context and the time burden. This remuneration was shared in special envelopes that had the printed logo and image of the academic university to reinforce that the research was conducted by academics and not by others such as, journalists or political parties.

A.3 Pre-registration plan for the visual experiment

A.3.1 Summary : research design and hypothesis

In the end-line, I ask another series of questions on how people receive the information to participate, responses related to time, agency and resources to examine some of the causal mechanisms of why I expect treatment to improve political participation (please refer to excel sheet to see which question and outcome mapping). Moreover, based on qualitative interviews with political party workers, I hypothesise that people may still be unaware about reservation policy and the process through which reservation is implemented. In the end-line, I embed a survey experiment to prime this information to approximately half of the respondents. I ask the same questions from baseline again to see whether priming this information changes citizen's explicit perceptions of democratic legitimacy and trust in the democratic system. Asking the same questions again also enables me to use the diff-in-diff estimator along with obtaining a difference in means estimate for these particular series of questions that are asked twice.

A.3.2 Survey Experiment

I embed a survey experiment, where some respondents receive additional information (in italics) while some do not with a 50:50 chance of getting the additional information. They are asked the same battery of questions again as in the baseline.

I want to share some information about how Delhi MCD is organised. I will give you some information about your MCD ward. Perhaps you may also know some of this already. Delhi MCD is composed of 272 wards. In 2012, MCD was divided into three bodies - EDMC, SDMC and NDMC - each of which serve the East, South and North of Delhi respectively. MCD has elections every 5 years and any Delhi resident can vote in these elections. On a scale of 0-10 - How much would you say that the way MCD is organised allows people like

9

you to have influence in politics?

In addition, as you may know, Delhi MCD has women reservation, that is in 50% of all wards only women can contest elections, while rest of the wards are open for both men and women to contest. In 2017, women wards were reserved through a random process - for all wards based on their location they were given a serial number and every 3rd ward was reserved for women. The benefit of this process is that no politician can influence whether their ward should be reserved or not. Every ward has an equal chance which is 50:50 chance of getting reserved.

Your MCD ward is called X. This ward is part of [EDMC| SDMC NDMC]. The name of your MCD councillor is X. Now i will ask you some questions about your ward, should we proceed?

Questions:

1. On a scale of 0-10 - How important do you think it is that people go and vote in MCD elections? with 10 meaning very important and 0 meaning not important at all.

2. On a scale of 0-10 - To what extent do you think it is possible, if you want, for people like you to contest MCD elections? 10 means - completely possible, 0 means completely impossible.

3. On a scale of 0-10 - how much would you say that the way MCD is organised allows people like you to have influence/ say in politics? 10 means - a lot of influence, 0 means - no influence at all.

4. On a scale of 0-10 - how easy it is for people like you to contact or reach out to your MCD councillor? 10 means - very comfortable, 0 - means- not at all comfortable.

5. To what extent, on a scale of 0-10, do you think the quality of work or performance of your MCD councillor determines whether your councillor will get re-elected or not in the next elections? 10- performance will determine re-election fully, 0 - performance rating does not matter for re-election at all.

A.4 Incumbents photographs

Figure A2: Reserved constituencies

Sanju Rani
SDMC
94
Pul Pehladpur

Inder Kaur
SDMC
53
SadhNagar

RadhaDevi
NDMC
46
Mangolorpuri-D

Anita Tanwar
SDMC
70
Chhatarpur

Archana
NDMC
4
Holambi Khurd

Poonam
NDMC
29
Nangal Thakran

Shakila Begum
EDMC
42
Seelampur

Jyoti
NDMC
37
Nangloi

Sona Choudhry
NDMC
40
Nithari

Figure A3: Non-reserved constituencies

Prem
SDMC
74
Dakshin Puri

Kanhaiya Lal
EDMC
52
Joharipur

Surender Singh Khrub
NDMC
22
Bhalswa

Mahesh
SDMC
96
Molarband

Mohd. Tahir Hussain
EDMC
59
NehruVihar

Rinku
EDMC
32
Nand
Nagri

Parvesh Sharma
EDMC
37
Ram Nagar

Pramod Gupta
EDMC
45
Yamuna Vihar

12

A.5 Additional explanations: Prior political knowledge

Table A3: Only women without knowledge show lower PE on seeing women

	Do not know councilor (1)	Know councilor (2)	Do not know councilor (3)	Know councilor (4)
	Dependent variable: change in PE index			
	Panel A: Women respondents			
Treatment	−0.447*	−0.610	−0.059	0.075
	(0.244)	(0.421)	(0.171)	(0.404)
	p = 0.067	p = 0.148	p = 0.731	p = 0.853
Constant	0.895***	0.557	0.714***	0.392
	(0.216)	(0.389)	(0.142)	(0.244)
Wild bootstrap p-values	0.113	0.168	0.751	0.864
RI p-values	0.106	0.169	0.730	0.877
N	258	33	262	45
	Panel B: Men respondents			
Treatment	0.107	0.577**	−0.142	0.091
	(0.224)	(0.241)	(0.284)	(0.313)
	p = 0.633	p = 0.017	p = 0.616	p = 0.771
Constant	0.445***	0.090	0.628***	0.262
	(0.112)	(0.151)	(0.243)	(0.265)
Treatment	Photograph	Photograph	Quota Policy + photograph	Quota Policy + photograph
Wild bootstrap p-values	0.667	0.039	0.644	0.806
RI p-values	0.685	0.044	0.619	0.838
N	194	124	162	102
Treatment	Woman's name & photograph	Woman's name & photograph	Gender quota policy + Woman's name & photograph	Gender quota policy + Woman's name & photograph

Notes: Standard errors are clustered at the treatment (constituency) level. *** p<0.01, ** p<0.05, * <0.10

A.6 Women with traditional gender beliefs show stronger backlash and reconciliatory effects

Table A4: Subgroup analysis: Caste

	Forward & Dominant castes	Scheduled castes & tribes	Forward & Dominant castes	Scheduled castes & tribes
	Dependent variable: change in PE index			
	(1)	(2)	(3)	(4)
	Panel A: Women respondents			
Treatment	−0.764***	0.213	0.137	−0.189
	(0.293)	(0.388)	(0.252)	(0.308)
	p = 0.010	p = 0.583	p = 0.589	p = 0.539
Constant	1.052***	0.562***	0.700***	0.517***
	(0.230)	(0.214)	(0.113)	(0.189)
Wild bootstrap p-values	0.040	0.619	0.619	0.568
RI p-values	0.028	0.605	0.646	0.572
N	153	103	171	103
	Panel B: Men respondents			
Treatment	0.052	0.827***	−0.401*	0.632
	(0.214)	(0.279)	(0.224)	(0.404)
	p = 0.808	p = 0.004	p = 0.074	p = 0.118
Constant	0.331**	−0.059	0.663***	−0.037
	(0.141)	(0.204)	(0.171)	(0.284)
Wild bootstrap p-values	0.819	0.022	0.142	0.163
RI p-values	0.813	0.027	0.136	0.175
N	206	86	156	80
Treatment	Woman's name & photograph	Woman's name & photograph	Gender quota policy + Woman's name & photograph	Gender quota policy + Woman's name & photograph

Notes: Standard errors are clustered at the treatment (constituency) level. *** p<0.01, ** p<0.05, * <0.10

Table A5: Subgroup analysis: Networks outside the family

	Dependent variable: change in PE index			
	No extra-household connections	Have outside connections	No extra-household connections	Have outside connections
	(1)	(2)	(3)	(4)
	Panel A: Women respondents			
Treatment	−0.728***	0.952*	−0.074	0.259
	(0.231)	(0.488)	(0.165)	(0.420)
	p = 0.002	p = 0.051	p = 0.654	p = 0.538
Constant	1.035***	0.010	0.718***	0.284
	(0.187)	(0.236)	(0.130)	(0.294)
Wild bootstrap p-values	0.010	0.101	0.680	0.579
RI p-values	0.010	0.133	0.672	0.602
N	248	42	268	40
	Panel B: Men respondents			
Treatment	0.045	0.658**	0.163	−0.290
	(0.164)	(0.310)	(0.287)	(0.252)
	p = 0.786	p = 0.034	p = 0.570	p = 0.251
Constant	0.351***	0.231	0.304	0.694***
	(0.080)	(0.189)	(0.238)	(0.212)
Wild bootstrap p-values	0.803	0.065	0.615	0.318
RI p-values	0.796	0.073	0.582	0.338
N	188	128	159	104
Treatment	Woman's name & photograph	Woman's name & photograph	Gender quota policy + Woman's name & photograph	Gender quota policy + Woman's name & photograph

Notes: Standard errors are clustered at the treatment (constituency) level. *** p<0.01, ** p<0.05, * <0.10