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Gender and Dynastic Political Recruitment

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Abstract

Throughout history and across countries, women appear more likely than men to enter politics at the heels of a close relative or spouse. We provide a theoretical explanation for this dynastic bias in gender representation that integrates political selection with informational inequalities across social groups. Legislator-level data from twelve democracies and candidate-level data from Ireland and Sweden support the idea that dynastic ties help women overcome a vote disadvantage in elections, and that the quality of predecessors may be more relevant in the recruitment of female successors than their male counterparts. Moreover, the role of informational inequalities in explaining the dynastic bias in gender representation is empirically supported by a declining gap over time, and following the introduction of a gender quota in Sweden.

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1 Introduction

The descriptive representation of women is on the rise. The proportion of women in legislatures around the world has more than doubled over the last two decades—from roughly 11 percent in 1997 to 23 percent in 2017.¹ Among heads of state and government, women have also made inroads. In early 2017, roughly 10 percent of all political executives were women, and 38 percent of countries had experienced a woman as head of state or government for at least one year (in most cases since the 1990s).²

The slow but steady inflow of women into political power has been accompanied by a heightened research interest in the topic of gender representation—not only in descriptive terms, but also in substantive and symbolic terms.³ Existing theoretical frameworks for explaining women's (under)representation in politics include the "supply and demand model" (e.g., Norris and Lovenduski, 1995), and more recently, "feminist institutionalism" (e.g., Krook, 2010; Krook and MacKay, 2011). A large body of empirical work has focused on institutional explanations, showing that women's descriptive representation is higher under proportional representation (PR) electoral systems, and when parties or countries adopt gender quotas with placement mandates (e.g., Rule, 1987; Salmond, 2006; Krook, 2006).⁴ A separate stream of the literature has focused on which women tend to seek and win office (e.g., Sanbonmatsu, 2006; Escobar-Lemmon and Taylor-Robinson, 2009; Lawless and Fox, 2010; Schwindt-Bayer, 2011).

Yet one of the most striking pathways to power for women remains relatively underexplored: political dynasties. In a recent and growing literature on dynastic political selection—that is, the entry of new politicians who are close relatives of current or former politicians—it has been observed that female politicians are more often dynastic than

¹The reported proportion of women in legislatures is based on data from the Inter-Parliamentary Union (www.ipu.org).

²According to the Pew Research Center (http://www.pewresearch.org/fact-tank/2017/03/08/women-leaders-around-the-world) and the World Economic Forum (http://reports.weforum.org/global-gender-gap-report-2016).

³Indeed, entire journals—Gender & Politics and the Journal of Women, Politics & Policy—are now devoted to these research areas.

⁴See also Matland (1998), Reynolds (1999), and Roberts, Seawright and Cyr (2013).

their male counterparts (e.g., Dal Bó, Dal Bó and Snyder, 2009; Smith and Martin, 2017; Chandra, 2016; Geys and Smith, 2017). An example from the United States is Hillary Clinton, whose political career followed that of her husband, former President Bill Clinton. Prominent examples from other countries include Indira Gandhi in India, Cristina Fernández de Kirchner in Argentina, Corazon Aquino in the Philippines, and Park Geunhye in South Korea. Nevertheless, the theoretical underpinnings of this dynastic bias in gender representation have yet to be rigorously explored.

We conduct a systematic review of the literature on dynastic recruitment in politics with the purpose of aggregating previous descriptive evidence on the relationship between gender and dynasties. To further explore this relationship, we assemble a new panel data set covering twelve democracies from 1945 to 2016 to provide descriptive statistics across countries and over time. Two motivating empirical patterns emerge from this overview:

(1) female politicians are more likely to be dynastic than their male counterparts, and (2) the dynastic gender gap appears to have shrunk over time.

Our main contribution is to propose and test a theory to explain these patterns. This theory has two important components. The first is that the selectorate for political positions, e.g., political elites and voters, have less accurate—and in some cases downward-biased—information about the qualifications of female candidates. The second component is that this informational disadvantage can be at least partly overcome by dynastic family ties. Qualifications are inferred from the dynastic senior to the dynastic junior. For women who are juniors, this helps to overcome the informational disadvantage and leads to a larger proportion of dynastic women than dynastic men in political office. A clear prediction from the theory is also that the competence of the dynastic senior predicts the entry of a dynastic female junior, but not the entry of a dynastic male junior.

The basic theoretical component about the informational disadvantage for female political candidates also helps us understand why the gender gap in dynastic ties would shrink over time. Over time, more women enter into the political system, and in particular

into the ranks of the party elite who influence recruitment. This helps to close the gap that creates the informational disadvantage in the first place: network and homosocial advantages in the communication of skills for men relative to women. As the selectorate's perception of women's competence becomes more accurate—or less negatively biased—the gender-differential role of dynastic family ties is reduced.

In our empirical analysis, we focus on testing the core prediction of inferred competence from senior dynasts, but we also test the temporal implications. For the core prediction, we use candidate-level data from two country cases: Ireland and Sweden. These two countries have quite different histories, cultures, and institutions, but share the benefit of offering excellent candidate-level data with information on gender and dynastic ties.⁵ The two cases also feature distinct electoral contexts and selectorates: a candidate-centered, single-transferable vote (STV) system in Ireland where voters are ultimately responsible for electing individual politicians into office, and a more party-centered context of list PR in Sweden, where candidate-level preference voting is optional for voters, but initial party list rank is most important in determining who gets elected.

In the candidate-centered electoral context of Ireland, we find that much of the apparent vote disadvantage for a female candidate is erased if she is dynastic. We also find that voters appear to impute candidate quality from dynastic seniors to dynastic juniors in the case of women, but less so for men, as inferred from more similar vote shares between female dynastic juniors and their predecessors. Even stronger evidence for the hypothesis is found for Sweden, where the recruitment of dynastic women can be tied to four different measures of the quality of the dynastic senior. These relationships are absent, in all four cases, for male dynastic juniors. Hence, the utilization of a dynastic senior's quality to evaluate women appears to occur both among voters in Ireland's candidate-centered system, and among party elites in Sweden's party-centered system.

To test if the role of dynastic ties in gender-differential recruitment changes over time,

⁵For Ireland, the data are based on carefully researched biographical information. For Sweden, we make use of government-maintained personal identification codes (akin to social security numbers); these codes perfectly measure all types of family ties within the universe of Swedish politicians within our time frame.

we use variation in the exposure of party elites to female politicians via the introduction of a gender quota in Sweden. Gender quotas are now ubiquitous, having been introduced in over 75 countries and 130 political parties (Krook, 2009).⁶ Research on gender quotas has often touched upon the topic of dynastic recruitment (e.g., Dahlerup, 2006; Franceschet and Piscopo, 2008; Vincent, 2004; Zetterberg, 2008), but quantitative studies are rare due to the lack of high-quality, high-coverage data on family ties between politicians. In addition, most quotas were only recently adopted, and thus offer scarce opportunities to evaluate post-reform patterns.⁷ The introduction of a quota delivers a shock to the selectorate, which is forced to increase the proportion of nominated (or elected) women by some margin. Gender quotas also help women enter into the ranks of the party elite (O'Brien and Rickne, 2016).

According to our theory, the greater the proportion of women who have to be recruited, the larger the growth in the dynastic bias in gender representation. Over time, however, the inflow of female politicians should result in improved information about women as politicians and, in turn, a reduction in the difference in dynastic ties across genders. In Sweden, the Social Democratic Party (SAP) introduced a zipper quota across 290 local parties in 1994, obligating these parties to alternate male and female names on their ballot. The substantial number of post-reform years of data now available, and the fact that the quota was introduced by the Central Party Board, whose hand was forced by a break-out feminist party, offers an excellent opportunity to study the causal impact of the quota on women's recruitment at the local level (Besley et al., 2017; Folke, Freidenvall and Rickne, 2015; O'Brien and Rickne, 2016). Our analysis indicates that the introduction of the quota led to a quantitatively small, but positive increase in the recruitment of dynastic women. However, we also find that this effect was temporary, with recruitment patterns reversing to their pre-quota level within two elections after the quota.

Our theory and empirical findings make novel contributions to several research liter-

⁶See also the Quota Project (www.quotaproject.org).

⁷For example, a 30% quota for female candidates was adopted in 2016 for Ireland, but it is difficult to determine the effects given a single election and the small size of the Irish parliament. We therefore focus our empirical test on the Swedish case, where more data are available.

atures, but most importantly to the literature on political recruitment. Our theoretical framework introduces the mechanism of informational differences at the selectorate level as a cause of lagging political representation of political minorities such as women. More importantly, it links research on women's disadvantages in political recruitment to research on the advantages of dynastic ties to produce insights into the gender differences in dynastic recruitment seen in various contexts around the world. Our theory of dynastic ties as a signaling device for candidate quality not only helps to explain this gender bias, but also the persistence of dynastic recruitment in modern democracies. As such, it can offer a useful point of departure for future studies of the entry of other political minorities that have made inroads into the political arena, but differ in access to dynastic signals, such as young people and members of underrepresented ethnic or racial minorities.⁸

2 The Dynastic Bias in Gender Representation

Across multiple countries and hierarchical levels of politics, women appear more likely than men to have close family ties to a previous or current politician. This difference has been noted in passing in the literature on dynasties, as well as occasionally in the more general literature on gender representation. In this section, we review the existing literature that touches upon the relationship between gender and dynasties, and then use panel data from twelve democracies to document gender differences in dynastic recruitment across countries and time.

2.1 Existing Evidence

The earliest studies of the connection between family ties and gender representation arose from the observation that many of the first women to be elected to the United States Congress were the wives of deceased members, who entered through the so-called

⁸When it comes to young politicians, for example, an analogy might be made to patterns of greater investment in young firms who enjoy better inter-organizational networks (Stuart, Hoang and Hybels, 1999).

"widow's succession" (Werner, 1966; Kincaid, 1978), often in by-elections. Until 1976, half of the women who had served in Congress were related to a former male member. Gertzog (1980) notes that widows as successors were more likely to follow men who had served in leadership positions. By the late 1990s, one third of female members, but only one tenth of the men, were dynastic (Dal Bó, Dal Bó and Snyder, 2009), and daughters and other relations have become more common.

In India, an average of 57 percent of women elected to the Lok Sabha (lower house) in the three elections between 2004-2014 were dynastic, compared to just 20 percent of men (Chandra, 2016). Basu (2016, p. 151) conjectures that the higher level of dynastic ties among women may be due to the deterrent effect of the violence and crime in Indian politics (from which dynastic women may be better protected), gender biases within parties, and the absence of reserved seats for women in national and state legislatures. In the case of Ireland, Smith and Martin (2017) observe that women made up 18 percent of the dynastic members of the Dáil (lower house) from 1944-2016, but only 7 percent of the non-dynastic members. With historical data from the United Kingdom, Van Coppenolle (2017) finds that women in the House of Commons were roughly 2 percentage points more likely than men to be dynastic in the 19th century.

There is also evidence of a dynastic bias in gender representation at the local level. Labonne, Parsa and Querubin (2017) examine the selection of dynastic women and men in mayoral elections in open-seat races in the Philippines following the imposition of term limits. Between 1988 and 2010, two thirds of the women elected in these races were relatives of a term-limited incumbent, compared to less than a third of the men. A similar descriptive account is given by Bragança, Ferraz and Rios (2015), whose heterogeneity analysis shows that in closely-contested mayoral elections in Brazil in 2004 and 2008, dynastic mayors were twice as likely to be women (26 percent) compared to non-dynastic mayors (12 percent). Examining dynastic ties among local politicians in Italy, Geys (2017) also finds that such ties are more common among women (19 percent) than among men (15 percent).

Finally, Jalalzai and Rincker (2016) analyze biographical data for all political executives from 2000-2015 in five world regions (Sub-Saharan Africa, Latin America, Asia, Europe, and North America). Among 939 executives in the data, 61 are women (6%). Of the women, 18 are found to possess family ties to former leaders (29.5%), while the same is true for just 88 of the men (10%). Noting than many female executives in Latin America and Asia followed their husbands or fathers into politics (often after their deaths), Jalalzai (2013) suggests that such women might derive their political identities through their close male relatives, and are expected to continue or further the political goals of the men they follow into office. In other words, such women might be expected to serve as proxies, or "leaseholders," for their male political successors.

2.2 New Comparative Evidence

New panel data from twelve democracies provide additional documentation of the dynastic bias in gender representation across countries and time. We compiled a cross-country data set that cover all national-level legislators (members of parliament or congress) elected between 1945-2016 in Australia, Canada, Finland, Iceland, Ireland, Israel, Italy, Japan, New Zealand, Norway, Switzerland, and the United States. For bicameral systems, we focus only on the lower chamber. A dynastic junior is defined as a legislator who was preceded into national office by a relative, either by blood or marriage. Preceding relatives may include upper chamber members, cabinet ministers or presidents, but not local-level politicians. Information on dynastic ties are drawn primarily from official biographical information available through parliamentary libraries or online biographical dictionaries.⁹

To examine the dynastic bias in women's political representation, we compute the ratio of dynastic legislators among the women and men in each post-election legislative period. We then average these ratios across all periods and compute the difference, i.e., the proportion of dynastic women among all women, minus the proportion of dynastic

⁹Further details about the data sources for each country are available in Online Appendix Section A.

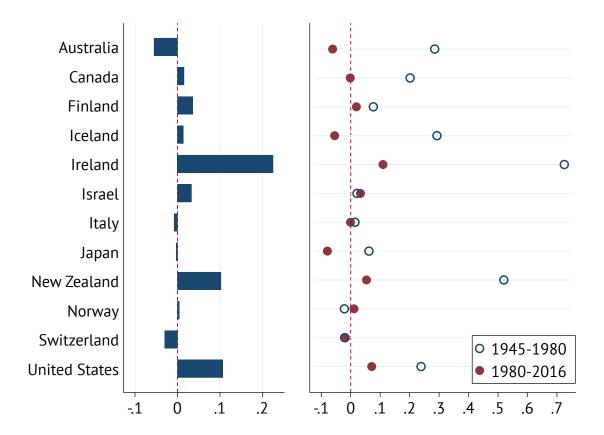


Figure 1: The dynastic bias in women's political representation in twelve democracies, 1945-2016.

Note: The dynastic bias is measured as $\left(\frac{\text{Number of dynastic women}}{\text{Number of all women}}\right) - \left(\frac{\text{Number of dynastic men}}{\text{Number of all men}}\right)$. Data sources are explained in Online Appendix Section A, which also contains plots of the time trend in the dynastic bias within each country in Online Appendix Figure A.1.

men among all men: $(\frac{\text{Number of dynastic women}}{\text{Number of all women}}) - (\frac{\text{Number of dynastic men}}{\text{Number of all men}})$. These differences are plotted on the left side of Figure 1. On the right side, we give a stylized description of the variation over time by dividing the data into two time periods: 1945-1980 and 1981-2016.

The left side of the figure shows that dynastic ties have been more common among women than among men in eight out of the twelve countries. Splitting the data into two time periods, however, the right side of the figure shows that the average dynastic bias decreased between these two time periods in all but three countries—Israel, Norway, and Switzerland—all places where the dynastic bias in gender representation was already comparatively small.

In sum, the existing empirical evidence and our own evidence from comparative panel data both point to two general patterns. First, female politicians are more likely to be dynastic than their male counterparts. Second, the dynastic bias in gender representation appears to have shrunk over time. In the next section, we outline our theoretical framework to explain these patterns in the dynastic bias in gender representation.

3 A Theory of Gender and Dynastic Recruitment

Our theory combines elements from labor economics, political science, and sociology—in particular, empirical and theoretical insights about the role of gender and information in recruitment and selection. The model posits that dynastic ties mediate political selection in a context of imperfect information about the quality of men and women.¹⁰

3.1 The Selectorate and Screening Discrimination

The group of actors at the core of our theory is the selectorate. Following Bueno De Mesquita and Smith (2005), we assume that a sub-group of citizens, the selectorate, evaluates the qualifications of candidates and determines if they are selected or not. The composition of the selectorate differs somewhat between electoral systems. In party-centered systems with closed or semi-closed ballots, party members and party elites play a greater role. These groups rank candidates on the party ballot and the rank order determines who is elected as seats are counted from the top of the list. In candidate-centered systems, party elites remain important for candidate selection, but voters also play a direct role in determining which candidates get elected into office. Regardless of the electoral system, the selectorate can be assumed to prefer candidates with higher

¹⁰Our theory focuses on the demand side of political selection (i.e., by the selectorate). Supply-side factors may include political ambition, capital, policy motivations, or a family history in politics (Norris, 1997). Nevertheless, the empirical patterns uncovered in our study do not suggest that a supply difference across genders, propelled by family histories in politics, is likely to be a key explanation for the dynastic bias in gender recruitment. We discuss this issue further in Section 6.

¹¹The selectorate can be expanded when the process is "democratized" to include party-level primaries, as in countries like Israel (Hazan and Rahat, 2010).

"valence" (Stokes, 1963; Groseclose, 2001; Besley, 2005), a composite characteristic of skills and integrity (Galasso and Nannicini, 2011; Dal Bó et al., 2017).

Research from outside the world of politics shows that selectorates are generally less accurate in assessing women's job qualifications relative to those of men (e.g., Cornell and Welch, 1996; Pinkston, 2003; Bjerk, 2008; Morgan and Várdy, 2009). Dob recruitment is theorized to suffer from "screening discrimination," a type of statistical discrimination whereby recruiters are better at distinguishing between good and bad candidates among some groups (such as men) more than others (women). The main reason for this pattern is that selectorates tend to be dominated by men, who—even if they see women and men as equally qualified on average—may possess less accurate information about the women. This lower accuracy leads to a smaller reliance on individual valence in the perception of a job candidate, and a greater reliance on information about the average valence among all women. Naturally, this creates a disadvantage for women with above-average valence, who are perceived as less qualified than above-average men.

Politics is, in theory, a sector where screening discrimination should be prevalent because the underlying quality of candidates is important for the job, but is at the same time difficult to observe (e.g., Cornell and Welch, 1996). A successful career in politics is not dependent on any specific qualification, educational degree, or background; selectors are instead forced to evaluate qualifications that are gained over life paths that are often diverse. Further complicating the assessment is the difficulty in evaluating valence from previous experience in political office. Individual contributions to political outcomes are often hard to disentangle and assess (Mattozzi and Merlo, 2015), and other traits, such as party loyalty or integrity, are observable over time and through repeated interactions, but not easily reportable on a CV.

Existing work on the mechanisms behind screening discrimination is helpful for understanding its role in political selection. For example, seminal work on demographic

 $^{^{12}}$ Empirically, studies such as Pinkston (2003) find strong evidence that employers receive less accurate initial signals of competence from women than from men, even when comparing men and women in the same job.

homosociality shows that networks are more likely to form between people in the same social categories (Williams and O'Reilly, 1998; McPherson, Smith-Lovin and Cook, 2001). Within organizations, networks tend to be segregated by gender (e.g., Ibarra, 1992), something that is obvious for the political sector and illustrated by, for example, the prevalence of women's wings within political parties (DiMeco, 2017). Gendered network structures bias information flows; but even for the same amount of information, socialized norms of communication and language is expected to give lower clarity in opposite-sex versus same-sex communication of skills (see for example, Pinkston, 2003). Finally, a separate strand of research adds that the fact that women are often newcomers in various sectors of work can be an important mechanism behind screening bias (Altonji and Blank, 1999; Altonji and Pierret, 2001; Goldin, 2014).

Research on political parties shows that selectors are indeed less informed about women than men as candidates. For example, Sanbonmatsu (2006) finds that political elites in the U.S. believe there to be more uncertainty about female than male candidates. Crowder-Meyer (2013) studies political recruitment at the local level in the U.S., and finds that women have the largest disadvantage when party recruiters are male and rely on internal party networks to get information on viable candidates. Among voters as well, women have been observed to have lower access to political resources, including time, money, organizational affiliations, and connections (e.g., Brady, Verba and Schlozman, 1995; Norris and Inglehart, 2006), the latter of which are important channels for information.

The screening discrimination that results from these inequalities in information across gender may result in the underestimation of valence for above-average women. This effect is particularly relevant for the political sector given that there is positive selection into politics from the population, i.e., the average candidate has better qualifications than the average citizen (e.g., Dal Bó et al., 2017). Indeed, most of the candidates who are reviewed by the selectorate will have true qualifications that exceed the average qualifications of their respective gender.

We should note, however, that the underestimation of women's qualifications could also stem from sources of gender discrimination that hurt all women. Selectors could be biased against women candidates due to taste or negative stereotypes. A considerable body of research shows that voters tend to have a negative view of female politicians (e.g., Huddy and Terkildsen, 1993; Norris and Lovenduski, 1995; McDermott, 1997; Sanbonmatsu, 2002; Anzia and Berry, 2011). As a result, female candidates often must be more qualified and work harder at constituency work than their male counterparts in order to reach the same level of support from voters and parties, at least until they have a chance to prove their true quality (e.g., Anzia and Berry, 2011; Beaman et al., 2012; Folke and Rickne, 2016).¹³ This type of gender discrimination is not a necessary precondition for the theoretical role of dynastic ties that we suggest below. To the extent that a negative bias or stereotype against women might matter in a particular context, it will only strengthen the gender bias in recruitment and, hence, add to the importance of the role that dynastic ties can play in bridging this disadvantage.¹⁴

In sum, screening discrimination will create a situation where the average male candidate will receive a better evaluation than the average woman. This happens because the evaluation of women's qualifications will be pulled down more by the group average, while the average man will be judged more according to his own valence. In addition, the more the selectorate relies on the group average as an informational shortcut for women, the greater the disadvantage for women. To the extent that information about women is less accurate because of their relative newness to politics or the dominance of men among (party) selectors, a reduction in either is expected to reduce this bias.

¹³A negative bias against women as candidates within parties, both by male politicians and party selectors, has also been identified (Niven, 1998; Esteve-Volart and Bagues, 2012; Casas-Arce and Saiz, 2015; Gagliarducci and Paserman, 2012). This bias may in part be due to an anticipation of gender bias in the electorate.

¹⁴In addition, a framework that relies more on informational inequalities than on taste-based discrimination is more translatable to other political minorities.

3.2 Signaling via Dynastic Ties

We can think of a candidate as dynastic if he or she is related by blood or marriage to another politician currently or formerly holding political office. The important definitional constraint is that the relative *preceded* the candidate into office (see Geys and Smith, 2017). In what follows, we develop the basic idea that the selectorate can draw on information already gained about the qualifications of an incumbent politician to infer the individual qualifications of the potential dynastic junior, i.e., the new candidate who is linked to the incumbent via family ties. This behavior—we will argue—helps women to overcome some of the disadvantages caused by screening discrimination in assessing the true qualifications of candidates across genders.

The idea of inferred quality from dynastic seniors to dynastic juniors was recently formalized in the theoretical model of Besley and Reynal-Querol (2017). It also corresponds to the general idea that (more competent) predecessors—those who have made better policy decisions, or accumulated larger donor networks, financial war chests, or channels to deliver public spending to a district—create advantages in resources and reputations for future family members who run for office (e.g., Feinstein, 2010; Asako et al., 2015).

We argue that the selectorate is able to observe, and recall reasonably well, the qualifications of those who have held political office within a given family. This perception can be thought of as the average of the selectorate's previous evaluations of the dynastic seniors, and is hence derived from, but is not an exact average of, the competence of the senior dynastic politicians. Two things should be noted about the inferred competence of the dynastic seniors. First, because of the positive selection into politics (Dal Bó et al., 2017), the average competence of these former politicians will lie above the perceived average competence of both men and women in the population. Second, it is reasonable

¹⁵An expanded model could allow the evaluation of the dynastic senior(s) to be positively related to their number of periods in elected office. This would correspond to the competence operationalization in previous work (e.g., Hirano and Snyder, 2014), as well the finding that a longer tenure facilitates the subsequent entry of dynastic juniors (e.g., Dal Bó, Dal Bó and Snyder, 2009; Rossi, 2017; Querubin, 2016). Although this extension could deliver additional testable hypotheses, space constraints require that we leave it for future work.

to assume that qualifications for political office, like education and human capital accumulation, are correlated across generations and within couples. There is hence a positive correlation between the individual's true qualifications and the dynastic signal from that person's dynastic seniors.

When the selectorate has imperfect information about a candidate's true qualifications, it can make use of the fact that—in the case of dynastic juniors—it nevertheless has additional information through the evaluation of his or her dynastic senior(s). In other words, an informational shortfall can be replaced with information about the politician's family members who are (or were) themselves incumbent politicians. Being dynastic makes up for some of the ignorance about the candidate's true competence.¹⁶

What implications does this dynastic signal have for the recruitment of women and men to politics? For women, whose true qualifications are less known, and more likely to be obscured by screening discrimination, being dynastic increases the judged competence by a larger margin than it does for men. In other words, the revealed information about the quality of the dynastic senior(s) helps women to overcome some of the informational inequalities vis-à-vis men.¹⁷ As a result, it will be easier for women with dynastic ties to enter, and rise, in the political arena than their non-dynastic counterparts, which results in a larger proportion of dynastic ties among elected women than among elected men.

Two points are worth noting. First, the larger the informational inequality between men and women, the larger the dynastic bias in gender representation. The less the selectorate knows, the more weight it will place on the valence of the dynastic seniors and, in turn, the larger the advantage of dynastic women relative to non-dynastic women.

¹⁶The relative importance of the dynastic signal is likely to depend on the particular institutional or historical context. For example, it might vary under different electoral systems or party organizational types, or campaign finance frameworks. The strength of the signal can also vary based on factors within a specific context, such as the time between the predecessor's exit and the dynastic candidate's entry; whether the dynastic candidate is running in a different district from his or her predecessor; the type of dynastic ties (widows, siblings, etc.). We leave hypotheses based on the strength of the dynastic signal to future research.

¹⁷Recent evidence from Argentina suggests that women do take advantage of their dynastic seniors as an informational signal. Rossi (2017) finds that married female political candidates are 48 percent more likely to use their husband's surname in their political campaign activities if it is recognizable than if it is not.

Hence, a declining informational inequality over time could explain the reduction in the dynastic bias in the recruitment of women documented in the cross-country empirical record. A second point is that being dynastic might not always give a net improvement in the evaluation of a candidate. If the dynastic senior is of lower perceived valence than the population average within the candidate's gender, then that candidate's evaluation will worsen as dynastic ties are considered.

We can now derive a simple hypothesis for the role of dynastic ties in the political recruitment of men and women. If our arguments are correct, and the selectorate relies more on the dynastic signal—the qualifications of the dynastic senior—when judging the qualifications of women compared to judging the qualifications of men, then:

Hypothesis 1: the selectorate's evaluation of the qualifications of a dynastic senior has a stronger correlation with its evaluation of a female dynastic junior than with its evaluation of a male dynastic junior.

A second implication of our theory is that the use of dynastic informational shortcuts to evaluate female candidates should be most stark in political markets where there are fewer female candidates and/or selectors. As more women enter politics, their true valence becomes more accurately evaluated. We will return to this implication, and test the differential impact of a gender quota, after presenting our empirical tests of the first hypothesis.

4 Testing the Signaling Theory in Two Country Cases

We test our first hypothesis on candidate-level data from two countries, one with a candidate-centered electoral system (Ireland) and one with a party-centered system (Sweden). In Ireland, candidates are elected using the STV electoral system in multi-member districts that range in magnitude (M) from three to five seats. Voters rank the candidates in order of preference. If a candidate receives enough votes to surpass the electoral quota, he or she is elected and his or her surplus votes are redistributed to the next-preference

candidate on each of the surplus ballots. The electoral quota (also known as the Droop quota, and not to be confused with the gender quota we will discuss later for the case of Sweden) is defined as $\frac{\text{Total votes cast}}{M+1} + 1$. If no candidate's preference votes reach the quota amount, then the candidate with the lowest number of votes is eliminated and his or her votes are re-distributed to the next-preference candidate on each voter's ballot. This process continues until all seats are filled. In Sweden, candidates are selected from multi-member districts using semi-open list proportional representation. Voters are permitted to cast a preference vote for a single candidate on their chosen party ballot, but in practice these votes rarely alter the ballot ranks determined by parties prior to the election. In what follows, we present the tests for each country separately.

4.1 Ireland

Our data for Ireland include all candidates in national parliamentary (Dáil) elections held between 1918 and 2016. The coding of dynastic ties is based on verified information from yearly political almanacs, biographical dictionaries, and newspaper reports. In cases where official biographical sources are lacking, census records and other sources were consulted.¹⁹ We use the same definition of "dynastic" as for the comparative data (i.e., a relation to a national-level elected politician).

In our empirical analysis, we restrict the sample to the post-1944 period to allow sufficient time for dynasties to emerge. We also restrict the sample to the three main parties (Fianna Fáil, Fine Gael, and Labour), as they have consistently nominated candidates across districts and time, accounting for roughly 60 percent of the total number of candidates. The final sample includes 5,618 candidates. Given Ireland's candidate-centered system, we focus on the role of voters in the selection of dynastic men and women, and

¹⁸Closed lists were used prior to 1998. In the semi-open list system used since 1998, a candidate must receive a number of preference votes equivalent to 5% of the party vote in order to be catapulted to the top of the ranking. Because this threshold is quite high, more than 99% of the elected politicians who pass the threshold would have been elected anyway thanks to their (already high) list rank.

¹⁹Such a case might result if the dynastic successor failed to get elected, and thus lacked any official biography. Many of these cases were nonetheless successfully identified based on newspaper reports and census records.

measure voters' evaluation of a candidate as the candidate's share of the electoral quota obtained with first-preference votes.

The analysis proceeds in two steps. First, we test whether being a dynastic junior is associated with a larger vote advantage among women than among men. Second, we test whether dynastic women's vote shares are more dependent than those of their male counterparts on the past vote shares of their senior predecessors. In the first step, we use a straightforward OLS regression to compare the share of the electoral quota obtained by dynastic and non-dynastic men and women (with first-preference votes). We interact a dummy variable for being a woman with a dummy variable for dynastic status, the goal being to evaluate whether the share of the electoral quota gets a bigger boost from the dynastic relationship for women than for men. Specification (1) pools all candidates across all years. Specification (2) includes party-year fixed effects, and specification (3) adds district-year fixed effects.²⁰

The results in Table 1 show that being a member of a political dynasty is decidedly an advantage, and that the effect is more important for women than for men. The latter is indicated by the positive and statistically significant estimate on the interaction term between gender and dynastic status. For women, being a member of a dynasty appears to "erase" part of the disadvantage faced by female candidates more generally. Substantively, the advantage of dynastic men over non-dynastic men is roughly 18 percentage points of the electoral quota; in contrast, roughly 27 percentage points separate dynastic women from non-dynastic women. Interestingly, when we add district-year fixed effects in specification (3), the size of the estimate on the interaction term between female gender and dynastic status is only slightly reduced. This suggests that the vote advantage of dynastic women is indeed driven by the voters, and not (mainly) by parties placing them in districts where the party gets more votes on average.

We now proceed to testing whether the evaluation of dynastic women is more closely

²⁰We lack full coverage for additional indicators of quality and resources that might be included as controls in the analysis, such as level of education or prior experience in local politics. However, such controls should also be considered "post-treatment" to dynastic status, and thus would be problematic to include even if it were possible.

Table 1: OLS estimates of the relationship between sex, dynastic status, and share of the electoral quota in Ireland.

	(1)	(2)	(3)	
Woman	-0.184***	-0.165***	-0.174***	
	(0.0148)	(0.0148)	(0.0172)	
Dynasty	0.176***	0.161***	0.189***	
	(0.0113)	(0.0113)	(0.0126)	
Woman*Dynasty	0.0852***	0.0681**	0.0513*	
	(0.0266)	(0.0265)	(0.0293)	
Observations	5,615	$5,\!615$	5,615	
\mathbb{R}^2	0.063	0.219	0.321	
Party-year FE	No	Yes	Yes	
District-year FE	No	No	Yes	

Notes: The dependent variable is a candidate's share of the electoral (Droop) quota obtained with first-preference votes. Sample restricted to candidates of the main parties (Fianna Fáil, Fine Gael, and Labour). Robust standard errors are shown in parentheses. *** p<0.01, ** p<0.05, * p<0.1. The number of observations is smaller than the total sample (N = 5,618) because three candidates were returned unopposed.

associated with the evaluations of their dynastic seniors than it is for their male counterparts. The evaluation of the dynastic senior(s), and that of the dynastic junior, are again measured by the politician's share of the electoral quota—for seniors, we average the share of the quota over all prior elections; for juniors, we focus on the share of the quota in the candidate's first election attempt.

Figure 4.1 plots the relationship between the selectorate's evaluation of the dynastic senior and that of the dynastic junior, splitting the sample by sex of the junior. As predicted, the plot shows a stronger positive relationship for women than for men. In comparing the slope coefficient (Online Appendix Table B.1), the relationship is roughly three times as strong for the female dynastic juniors compared to the males (0.619 compared to 0.195). Consistent with the prediction of our theory, it indeed appears that dynastic women's evaluations (in this case, by voters) are more closely related to the quality of their predecessors. In other words, women appear more dependent on the dynastic signal than men.

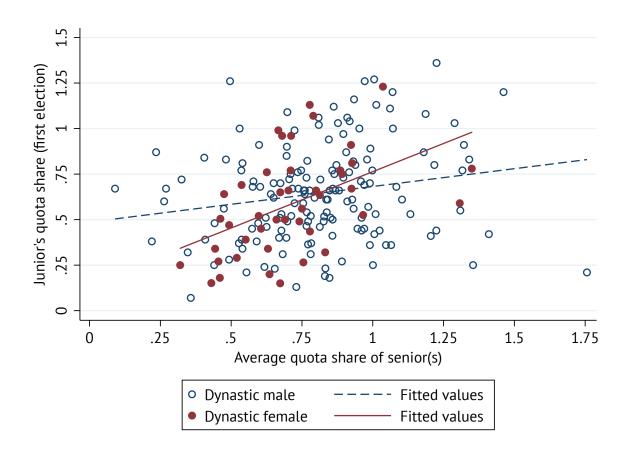


Figure 2: Relationship between the average share of the electoral quota obtained by dynastic senior(s) (x-axis) and the dynastic junior (y-axis) in Ireland, by gender of the junior.

Note: N = 155 male juniors, 43 female juniors. For juniors with multiple seniors, we average across all of them. In cases of partially concurrent service, we include only observations prior to the junior's first attempt in generating the senior's average. Results in table format are presented in Online Appendix Table B.1.

4.2 Sweden

The Swedish data come from the whole universe of politicians in 290 municipal councils, 17 county elections, and the national parliament. The data set covers nine elections over a 30-year period (1982-2010). Our analytical focus is on the municipal councils, which hold substantial political power and offer a large sample size for testing our model. Each council has between 31-101 elected politicians and local political parties make autonomous decisions on their candidate nominations.

A complete record of every politician's personal ID code allows us to anonymously match each person to his or her 1) siblings, 2) parents, and 3) spouse, using highly accurate register data. We can thus define a dynastic politician as a person with a close family member who held political office at the local, county, or national level before they themselves were elected. While our measurement of family ties is extremely accurate, it suffers from a time truncation because we can only verify politicians as dynastic if they had a relative in office in 1982 or thereafter. The most accurate measurement of dynastic politicians will thus exist in the more recent election(s) in the sample, but the truncation will be less important when we compare dynastic men and women at any given point in time. The Swedish data also contain detailed background variables from administrative records for every person in the data set, most importantly the person's education level and, for the men, evaluations of IQ and leadership abilities from the Swedish military enlistment process (further discussed below).

Since Sweden was not among the twelve democracies in the comparative data presented in Section 2 (owing to the time truncation), we begin by establishing that 1) there is a smaller proportion of women than men in elected office, but that 2) dynastic politicians account for a larger fraction of the elected women than the elected men. Both of these conditions are shown in Figure 3, which draws on data from all elected municipal councilors from 1998-2010. We exclude the five earliest elections from the empirical tests to sidestep the influence of measurement error in dynastic status from the time truncation issue.

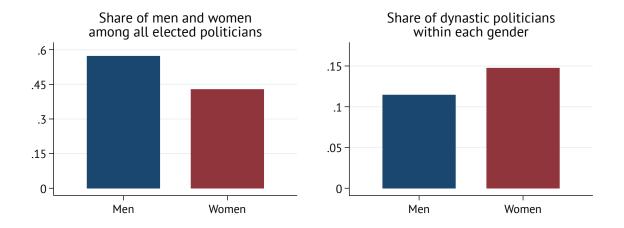


Figure 3: The distribution of women and men among local councilors (left) and the proportion of dynastic politicians among men and women councilors (right) in Sweden.

The next step of the analysis is to assess if the quality of a dynastic senior matters more in the selectorate's evaluation of female politicians than it does for male politicians. In other words, we will again test our first hypothesis. The municipal party organization is the main selectorate. Each local party implements its own procedure for ranking candidates on the ordered ballot, usually with internal nominations by party clubs within the municipality (in parties on the left of the ideological spectrum), or by internal primaries (in the center-right parties).

We use two approaches to measure the quality of the dynastic senior in the Swedish case. These two approaches are complementary in the sense that each addresses a relative weakness in the other. First, we use the highest rank-order on the electoral ballot achieved by each politician during his or her political career. This measure captures the party's evaluation of the person's suitability for top posts, since the rank-order on the ballot approximates the internal power structure within the party. The higher (lower numerically in terms of list position) that a candidate has reached, the more favorable he or she has been viewed by the party. However, using the position in the party hierarchy to measure the evaluation of a politician comes with the drawback that power and influence could have an independent effect on the evaluation of a politician's dynastic

junior. If there is a gender difference in this potential impact, we risk confounding our measurement of the selectorate's evaluation with the politician's power.

The second (set of) measures capture the dynastic senior's individual qualifications in terms of education and personal traits, each of which has previously been shown to predict internal success within a party (see Dal Bó et al., 2017). When using these measures, we can hold list rank constant, controlling for the political power of the senior. The first qualification measure is *years of education*, the most common proxy for qualifications in empirical political science, argued to broadly capture enhanced practical skills, signaling ability, and civic engagement (e.g., Besley and Reynal-Querol, 2011; Franceschet and Piscopo, 2008).

The second and third measures come from Sweden's military enlistment register and capture scores of the recruits' 1) cognitive ability and 2) leadership skills. The cognitive score is similar to the armed forces qualifying tests (AFQT) in the United States and is commonly perceived as a good measure of general intelligence. The leadership score is based on an interview with a certified psychologist, aimed at capturing a conscript's psychological capacity to deal with military duty and armed combat, principally his ability to cope with stress and to contribute to group cohesion. A conscript obtains a high score if he is considered to be emotionally stable, persistent, socially outgoing, willing to assume responsibility, and able to take initiatives. Operationally, both scores are measured on a discrete 1-9 scale that is approximately normally distributed with a mean of 5. For Swedish men born between 1952-1980, military enlistment was mandatory and non-compliance punished by jail time. The vast majority of each male cohort enlisted and had large incentives to perform well on the tests.²¹

We test our hypothesis by relating the quality of the (potential) dynastic senior to the probability of having a female dynastic junior or—in a separate regression—a male dynastic junior. This means that we capture the evaluation of the selectorate with a dummy

²¹A third possible approach to measuring the quality of the dynastic senior could have been to use their tallies of preference votes, similar to our measure for the Ireland case. However, since semi-open lists were first introduced in 1998, we lack this information for most seniors in our data.

variable for whether a dynastic junior was elected to a municipal assembly sometime after the senior politician served. The regression equation is:

$$Y_i = \alpha_m + \alpha_t + \alpha_p + \beta C_i + \epsilon_{it}, \tag{1}$$

where Y_i is a binary indicator of whether a relative or spouse of the politician (the dynastic junior) enters into a local council at any point in time after the senior's own first term in office. Politicians who married their dynastic senior at any point after being nominated for political office are not included in this definition.²² The estimate of interest, β , captures the relationship between the qualifications of the senior politician, C_i , and the event of having a junior of each specific gender. The vectors of intercepts α_m , α_t , and α_p are fixed effects for municipality (m), election period (t), and political party (p).

We estimate three specifications of Equation 1 and report the results in Table 2. The first specification for each gender (columns 1 and 4) includes only the senior's qualifications, C, and the fixed effects. In columns 2 and 5, we add controls for a large set of individual control variables for the dynastic senior.²³ In columns 3 and 6, we add fixed effects for the senior's highest list rank during his career. This third specification is an attempt to control for the political power of the senior (but note that we could also expect a positive correlation between quality and power, so the estimate on quality will likely have a downward bias after including this control).

The results for each of the four quality measures are contained in a separate panel in Table 2, starting with list rank, followed by years of education, the cognitive score, and finally the leadership score. Each provides support for our hypothesis. First, there is a strong negative correlation between list rank (the lower the value the higher the rank) and the probability of having a female follower, but not for having a male follower. Moving

²²Including these politicians makes the results stronger, likely because competent politicians are more likely to attract a spouse on the internal marriage market of the local party.

²³These include five age categories, and binary indicators for being born in a foreign country and for having at least one foreign-born parent, and fixed effects for the interaction for the first election year of the politician and election period.

Table 2: OLS estimates of the relationship between the qualifications of the dynastic senior and the event of having a male dynastic follower (left) or a female dynastic follower (right) in Sweden.

	Male Junior			Female Junior		
	Average probabilty 4.2%			Average probabilty 6.4%		
	(1)	(2)	(3)	(4)	(5)	(6)
List Rank	0	0		-0.10**	-0.10**	
	(0.04)	(0.04)		(0.04)	(0.04)	
Observations	23,667	23,667		23,667	23,667	
Years of Education	n 0.01	-0.07	-0.08*	0.18***	0.14***	0.12**
rears of Education						_
	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)
Observations	23,327	23,327	23,325	23,327	23,327	23,325
Cognitive Score	-0.06	-0.11	-0.13	0.47*	0.44*	0.43*
	(0.20)	(0.20)	(0.20)	(0.24)	(0.24)	(0.24)
	5,927	5,927	5,926	5,927	5,927	5,926
Leadership Score	-0.05	-0.04	-0.08	0.37*	0.35*	0.34
	(0.17)	(0.17)	(0.17)	(0.21)	(0.21)	(0.21)
Observations	4,954	4,954	4,953	4,954	4,954	4,953
Individual Control		Yes	Yes	No	Yes	Yes
List Rank FE	No	No	Yes	No	No	Yes

Notes: Robust standard errors clustered at the level of the individual politician are reported in parentheses. *** p<0.01, *** p<0.05, * p<0.1. All regressions include fixed effects for election year. Control variables include five age categories (30-49 = reference), and binary indicators for being foreign born and for having at least one foreign-born parent, and fixed effects for the interaction for the first election year of the politician and election period.

up one position on the ballot is associated with a one percentage point (1.5 percent in relative terms) higher probability of having a dynastic female follower. Similarly, for all three competence measures we find a positive and statistically significant relationship with the event of having a female follower, but not with having a male follower. The estimates on the competence measures are barely affected when we control for the senior's list rank, suggesting that our main finding is not driven by the political power of the senior.

4.3 Summary

The findings in both of our case studies teach us something new about how a political selectorate evaluates male and female dynastic candidates for political office. For candidate groups who are newcomers to the political system—in this case women—the quality of a dynastic predecessor appears to be used as an informational shortcut. For groups whom the selectorate is accustomed to evaluating and therefore has better information about, in this case men, this informational shortcut is relatively less important (as in the Irish case), or not important at all (as in the Swedish case). The effect appears to exist regardless of the type of selectorate. The Irish results illustrate this process for voter evaluations and the Swedish results illustrate this process for evaluations made by party elites.

5 Gender Quotas and Dynastic Recruitment

Finally, in this section, we examine the implications of our theory for the impact of a gender quota on the dynastic recruitment of women. A point of departure for this discussion is the informational asymmetry in the selectorate's evaluation of men and women as candidates. The decrease in the dynastic gender bias over time, already evident in the comparative data in Figure 1, suggests that a reduction in informational inequalities (due to more women entering politics) can reduce the extent to which the selectorate must rely on the dynastic signal in evaluating (potential) female candidates. The reverse nat-

urally also applies. As discussed in the theory section, the more ignorant the selectorate is about the quality of women as candidates, the larger the relative reliance on dynastic ties in their recruitment. A second hypothesis thus also follows from our theory:

Hypothesis 2: the selectorate will rely more on the qualifications of a dynastic senior in its evaluation of a female dynastic junior relative to a male dynastic junior when female candidates are less common.

We can explore this hypothesis by evaluating the relative effect of the introduction of a gender quota across municipalities with varying existing levels of gender representation. It is a basic fact that quotas are introduced in organizations where women's initial presence is relatively low, i.e., where there is a perceived need to increase women's descriptive representation. From the intuition of our theory, we can also deduce that the fewer the women, the greater the relative ignorance about women's quality, and hence a larger reliance on the dynastic signal to fill the female-reserved seats that open up through the quota. We expect that, in the short run, a gender quota will lead to an increase in the probability that a recruited woman is dynastic. Notably, the quota should be unrelated to the probability that a recruited man is dynastic because the information about men's true qualifications was already known prior to the introduction of the quota and does not change with the reform. Because women's entry through the quota results in them having a presence in the organization—thus building information about their true qualifications—we expect the dynastic bias in gender recruitment to decrease in the long run following the imposition of the quota.

We test our second hypothesis using the same identification strategy as in O'Brien and Rickne (2016), which exploits the fact that Sweden's largest political party, SAP, introduced a zipper quota in the 1994 local elections.²⁴ This quota mandated local parties to alternate male and female names on their ballot, leading to near-equity because the electoral system is such that seats are counted from the top of the ballot. The smaller the

 $^{^{24}}$ See O'Brien and Rickne (2016) for a detailed explanation of the zippered ballot.

proportion of elected women prior to the quota, the larger the forced increase. The average local party increased its proportion of elected women by 10 percentage points (see Online Appendix Figure B.1). As the quota was imposed by the central party organization, whose hand was forced by an outside group that threatened to start a feminist political party, it created an exogenous shock to the local parties' recruitment practices.

We use a difference-in-difference specification that isolates the exogenous quota shock, restricting the data sample to the new (first-term) politicians in each election (1988-2010). The regression specification is estimated at the level of the individual, and takes the form:

$$Dyn_i = \alpha + \beta_t \Delta w_{1994-1991,m} * Election_t + \gamma_t Election_t + \theta_m Mun_m, \tag{2}$$

where the outcome variable Dyn_i is a binary indicator that takes the value 1 if the newly recruited politician was dynastic, and 0 if the person was not dynastic. The treatment is denoted $\Delta w_{1994-1991,m}$ and measures the change in the proportion of elected women in the local SAP in municipality m between the years 1991 and 1994. To estimate the effect of the quota, the impact measure is interacted with a dummy variable for each election between 1988 and 2010: $Election_t$. The 1991 election is used as the reference category. This means that the key vector of estimates β_t captures the difference in the probability that a newly elected politician is dynastic in the election year in question, for example in 1994 (the first year with the quota) compared to the reference year, 1991.

Figure 4 displays the estimates of β_t graphically (a table of estimates can also be found in Online Appendix Table B.2). To make the estimates more easily interpretable, we scale the quota impact variable so that the estimate is interpreted as the change in the probability that a politician is dynastic if the party were forced to increase the proportion of elected women by ten percentage points, an amount which corresponds to the average of the variable across all 290 municipalities.

The plotted estimates and confidence intervals in Figure 4 suggest that the quota increased the recruitment of dynastic women. The solid dots for the elections in 1994 and

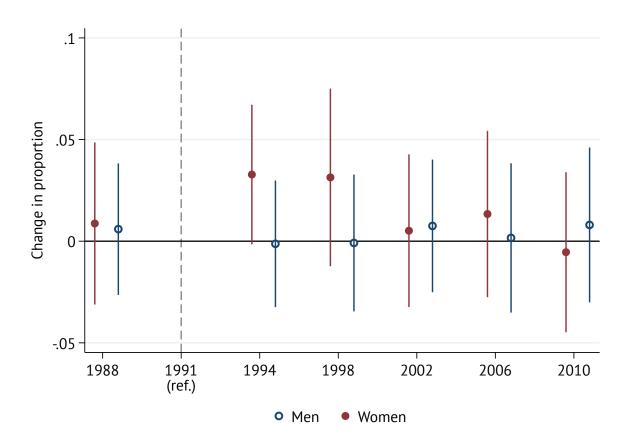


Figure 4: Impact of the quota-induced change in the proportion of elected women relative to the base year (1991) on the probability that a newly elected municipal councilor in Sweden is dynastic, by sex and election year.

1998 indicate that a 10 percentage point increase in the proportion of women, brought on by the quota, increased the probability that each recruited woman was dynastic by about 3 percentage points (but note that the 1994 estimate is just barely below significance level of 5 percent). For men (point estimates and confidence intervals represented with hollow dots), there is no corresponding change, in neither a positive nor negative direction, in dynastic recruitment.

The estimates for the latter election periods show that the impact of the quota on the recruitment of dynastic women was temporary. The estimates for the 2002, 2006, and 2010 elections are close to zero and have large standard errors. A temporary impact of the quota is an interesting empirical observation, but one that we cannot account for with our static model. It is, however, consistent with the spirit of our theory, in that the quota brings in more women as politicians, which should decrease the informational disadvantages and screening discrimination facing female candidates in the longer run. We relegate an in-depth investigation and potential explanations of this finding to future studies.

6 Discussion and Conclusions

Across many democracies, a dynastic relationship to a previous politician is a dramatically more prominent channel of recruitment into office for women than for men. In this study, we have provided comparative evidence across thirteen countries that women's recruitment is often characterized by this dynastic bias. Our theory to explain this pattern offers the novel hypothesis that socioeconomic groups who are newcomers in the political arena—such as women—are more reliant on signaling their qualifications via dynastic seniors who are already insiders. One way of understanding this claim is that selectorates, both voters and parties, want to avoid the risk associated with an unknown candidate and use shortcuts to impute missing information. Our theory provides a new perspective on dynastic recruitment, offers an explanation for the gender difference in

this recruitment channel, and also offers valuable predictions for the relationship between dynastic status and candidate quality, as well as for the impact of gender quotas.

We find clear empirical support for the signaling effect of dynastic ties in our empirical case studies of Ireland, a candidate-centered system, and Sweden, a party-centered system. Women's overall lower electoral strength can be bridged by having dynastic seniors, and the extent of electoral success enjoyed by such dynastic women is closely associated with that of their seniors. Illustrating the gender difference for the signaling channel, the same relationship between the quality of the dynastic senior and the electoral success of the junior is not as prominent among men. Similar patterns in the differential relationship between the quality of seniors and dynastic men and women prevail in Sweden.

Our descriptive evidence shows that the dynastic bias in gender representation has decreased over time in most democracies. Our theoretical model implies that this change may be driven by a lower reliance on information shortcuts once the true qualifications of women become more known (Lawson and Lenz, 2011). Further studies of this process could be expanded to investigate recruitment patterns for other political minorities and newcomers, such as young persons (who also appear to have a large dynastic bias), ethnic minorities, immigrants, openly LGBT politicians, etc. Our findings also suggest an avenue for future work on the quality of male and female dynastic juniors. Previous studies have conjectured that dynastic women might be relatively un-qualified and controllable "proxies" (e.g., Jalalzai, 2013), though evidence is mixed (Labonne, Parsa and Querubin, 2017). It is possible that dynastic ties help parties select more qualified women when high-quality seniors provide a signal of high-quality daughters, sisters, or wives.

Our findings regarding gender quotas also have important implications for both academics and advocates of women's political representation. Our results indicate that a gender quota is likely to lead to a disproportionate inflow of dynastic women, but only in the short term. Dynastic ties appear to play a role in the recruitment of women when parties are forced to raise women's descriptive representation by affirmative action. This may be somewhat surprising in the Swedish case, given that the local SAP parties

had an average proportion of elected women that already exceeded 30 percent before the quota, and strong women's branches acting as a pipeline for female candidates. An inflow of dynastic women under these circumstances of a healthy supply of female candidates suggests that the same consequence would likely occur in other contexts.

As a summary comment on all of our findings, we raise the caveat that dynastic ties could have an asymmetric impact on the supply of politicians across genders. If a high-quality senior is more inspiring to his or her female relatives than to male relatives, possibly because of lower initial ambitions among women, this could be an omitted variable both in our theory and our empirics. Although we cannot fully dispel this alternative explanation, we can clearly say that it is not operating in the Irish case. In that case, we established the gendered signaling effect among individuals who had already entered the system and become candidates for office, sidestepping an impact via the entry decision. Nevertheless, the potential impact of an active or passive role of dynastic seniors in shaping the ambitions of their relatives merits attention in future studies.

Another important way to extend our understanding of gender and dynastic recruitment could be through in-depth studies of countries with different political institutions, party practices of recruitment, and norms and traditions. In addition, although we have focused on how dynastic ties operate as a signaling device in the recruitment and election processes in advanced democracies, the process and patterns may differ in new or developing democracies. Another promising avenue for future research would be to explore the introduction of institutional reforms, such as quotas, term limits, or new electoral rules, that force parties to shift their recruitment behavior, or—with an eye to the theoretical narrative presented here—reforms that change the ability of candidates to showcase their true qualifications to voters.

Finally, the normative implications of our theory and empirical results merit further exploration. Our results paint a picture of a political recruitment process where women need compensating resources to help pave the way to political power. Even with these resources, the pathways to politics are still unequal. We should therefore view gender

differences in the recruitment and promotion of dynastic politicians as an important symptom of a much larger problem in the political system.

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A Supporting information: data

A.1 Cross-country MP-level data

The following lists the data range and primary sources of the cross-country MP-level data. In cases of uncertainty, Wikipedia biographies and the personal webpages of individual MPs were also consulted in addition to the primary sources. For some country cases, MP observations commence with the first parliament session. For other country cases, observations are limited to post-World War II parliaments. However, any dynastic ties to pre-1945 politicians are coded, as are ties to politicians in proto-parliaments and pre-independence parliaments.

In the analysis in the main text, we use only the post-1945 data. Junior MPs are those who have family members who served in parliament (either chamber in the case of bicameral systems), the cabinet or presidency, or proto-parliaments, and served prior to the MP's own service. Relationships to local-level politicians are not included. By-election winners are included, grouped with the previous general election.

Australia

Time Period:

1901 (1st House of Representatives) to 2013 (44th House of Representatives); 44 sessions. $Data\ Sources$:

- (1) ParlInfo Archive (http://parlinfo.aph.gov.au/).
- (2) Australian Dictionary of Biography (http://adb.anu.edu.au).
- (3) Lumb, Martin (2012). "Parliamentary relations: political families in the Commonwealth Parliament." Commonwealth of Australia Parliamentary Library.

Canada

Time Period:

1867 (1st House of Commons) to 2011 (41st House of Commons); 41 sessions. *Data Sources*:

(1) ParlInfo Archive (www.parl.gc.ca/parlinfo/).

Finland

Time Period:

1907 (1st Eduskunta) to 2011 (36th Eduskunta); 36 sessions.

Data Sources:

(1) Web archive of the Eduskunta:

(http://www.eduskunta.fi/thwfakta/hetekau/hex/hx6700f.htm).

Special Notes:

MPs whose relatives served in the Privy Council or Diet of the Grand Duchy prior to Finnish independence are coded as junior.

Iceland

Time Period:

1949 (1st postwar Althingi) to 2013 (20th postwar Althingi); 20 sessions.

Data Sources:

(1) Web archive of the Althingi (http://www.althingi.is).

Ireland

Time Period:

1918 (1st Dáil) to 2016 (32nd Dáil); 32 sessions.

Data Sources:

- (1) Elections Ireland (http://electionsireland.org).
- (2) Houses of the Oireachtas Archive biographies (http://www.oireachtas.ie).
- (3) Gallagher, Michael (1993). Irish Elections 1922-1944.
- (4) Gallagher, Michael (2002). Irish Elections 1948-1977.
- (5) Nealon's Guide, various years from 1981-2011.
- (6) Magill Book, various years from 1982-1987.
- (7) Irish Dictionary of Biography (http://dib.cambridge.org).
- (8) Irish Election Literature (http://irishelectionliterature.wordpress.com).

Israel

Time Period:

1949 (1st Knesset) to 2015 (20th Knesset); 20 sessions.

Data Sources:

(1) Web archive of the Knesset (https://www.knesset.gov.il/mk/eng/family_eng.asp).

Italy

Time Period:

1946 (Constituent Assembly) to 2013 (17th Legislature); 18 sessions.

Data Sources:

- (1) Web archive of the Chamber of Deputies (dati.camera.it).
- (2) Cotta, Maurizio and Luca Verzichelli. "PARLIT46_92: Members of the Constituent Assembly, Members of the Lower Chamber of the Italian Parliament: An electronic biographic archive of the Italian parliamentary elite." CIRCaP (Center for the Study of political change), Università degli Studi di Siena. of the Italian Parliament
- (3) Chirico, Danilo and Raffaele Lupoli (2008). Onorevoli Figli di: i Parenti, i Portaborse, le Lobby Istantanea del Nuovo Parlamento. Italy: Rinascita.

Special Notes:

MPs whose relatives served during the Kingdom of Italy (Regno d'Italia), in the National Council (Consulta Nazionale), or in the Senate are coded as junior.

Japan

Time Period:

1947 (23rd House of Representatives) to 2014 (47th House of Representatives); 25 sessions.

Data Sources:

Reed-Smith Japanese House of Representatives Elections Dataset (JHRED).

New Zealand

Time Period:

1853 (1st House of Representatives) to 2014 (51st House of Representatives); 51 sessions. Data Sources:

- (1) New Zealand parliament library data archives (http://www.parliament.nz/).
- (2) Encyclopedia of New Zealand (http://www.teara.govt.nz/).
- (3) New Zealand History (http://www.nzhistory.net.nz/).
- (4) Geni.com (http://www.geni.com/).

Norway

Time Period:

1945 (142nd Storting) to 2013 (160th Storting); 18 sessions.

Data Sources:

- (1) Storting Archive of Biographies (www.stortinget.no).
- (2) Norwegian Social Science Data (NSD) Archive (http://www.nsd.uib.no/polsys/storting/).

Switzerland

Time Period:

1848 (1st Federal Assembly) to 2011 (49th Federal Assembly); 49 sessions.

Data Sources:

(1) Swiss Parliament Archives

(http://www.parlament.ch/e/suche/Pages/ratsmitglieder.aspx).

- (2) Historical Dictionary of Switzerland (http://www.hls-dhs-dss.ch/index.php).
- (3) Biographie-Portal (http://www.biographie-portal.eu/search).
- (4) Information on the Borella family comes from: Arcobello, Francesca Mariani (2008). Socialista di frontiera: L'avvocato Francesco Nino Borella (1883-1963). Bellinzona: Fondazione Pellegrini Canevascini.

Special Notes:

The Swiss Federal Assembly has two chambers: the National Council (lower chamber) and the Council of States (upper chamber). Like the U.S. Congress, seats in the lower chamber are distributed in proportion to cantonal population in the lower chamber. In the upper chamber, each canton is represented by two members, with some exceptions. The executive is called the Federal Council.

United States

Time Period:

1788 (1st Congress) to 2014 (114th Congress); 114 sessions.

Data Sources:

- (1) ICPSR Study #7803.
- (2) Replication data for Dal Bó, Dal Bó, and Snyder (2009)
- (3) Biographical Directory of the United States Congress:

(http://bioguide.congress.gov/biosearch/biosearch). Special Notes:

Individuals whose relatives served in the Continental Congress or in the presidency or vice presidency are coded as junior. Senate terms are divided into two-year periods to overlap with House terms.

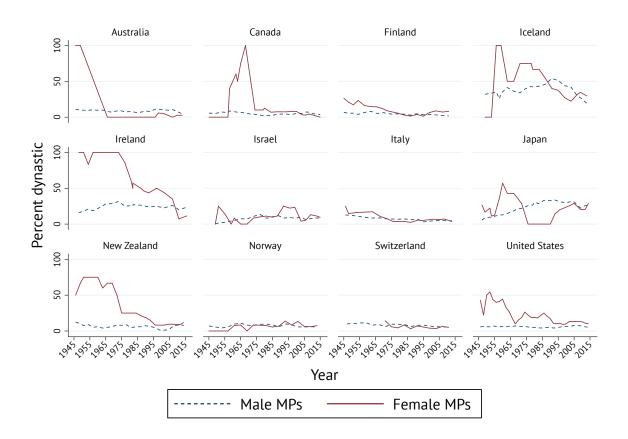


Figure A.1: The dynastic bias in gender representation for elected MPs across twelve democracies, 1945-2016.

Note: The dynastic bias is measured as $\left(\frac{\text{Number of dynastic women}}{\text{Number of all women}}\right) - \left(\frac{\text{Number of dynastic men}}{\text{Number of all men}}\right)$.

A.2 Candidate-level data: Ireland

The complete candidate-level data for Ireland contain 11,670 observations on 4,716 individuals across 32 general elections and 131 by-elections held between 1918-2016. For our analysis, we focus on the candidates and MPs from 1944-2016. The primary sources of the data on candidates, their parties, and votes, are Elections Ireland (electionsire-

land.org), Houses of the Oireachtas Archive biographies (http://www.oireachtas.ie), Gallagher (1993), and Gallagher (2009) for elections prior to 2011, and *The Independent* newspaper (online) for the 2011 and 2016 elections.

Information on the dynastic family ties of candidates and education level of elected MPs was carefully compiled from multiple sources, including Elections Ireland, the Dictionary of Irish Biography (dib.cambridge.org), various editions of almanacs such as the Nealon's Guide, Magill Book, and Thom's Commercial Directory, Irish Election Literature (http://irishelectionliterature.wordpress.com), newspaper reports, candidate websites, and census records.

A.3 Candidate-level data: Sweden

The Swedish dataset is a combination of data from three types of sources. The first is a list of all elected and non-elected individual candidates that ran for political office in either the national parliament, a county assembly, or a municipal assembly during the period of 1982-2010. Political parties must report their ordered ballots to the electoral agency, listing also the personal identification code of every politician. These lists are kept by Statistics Sweden and digitized by the authors for the earlier elections. Besides the political party and municipality or county where the list was on the ballot, we also know the list rank of every candidate. After the election, Statistics Sweden collects a record of all elected politicians for every party, and after 1998, the number of preference votes are also recorded.

The database of politicians is matched with variables from Sweden's administrative records using the personal identification code. This matching is done by Statistics Sweden and is subject to a process of ethics and judicial clearance. The matching is based on the unique and mandatory personal identification code, which is the basis for all public record-keeping. In the final dataset used by the authors, these codes have been anonymized, and the dataset can only be accessed via the secure server of Statistics Sweden.

Family ties are taken from two registers. The Multigenerational Register contains all

links between the personal identification codes of parents and children, which also lets us identify all siblings. These links are recorded at birth by Sweden's public health system. The marriage register contains links between the personal identification codes of present and previous marriages for every person who has entered such a union.

The full list of politicians, blood relatives of politicians, and spouses of politicians, are linked to their administrative records for the full time period (30 annual observations for each person). These records come from two main sources. Basic socioeconomic variables like gender, age, income, and education are taken from the Longitudinal integration database for health insurance and labor market studies (known as LISA by its Swedish acronym). This database contains annual observations for our full time period (1982-2010). For example, income is recorded by the Tax Agency based on annual tax records, and all educational institutions report on completed educational programs and/or courses on an annual basis. As explained in more detail in the main text, the second source of information is time-invariant measures of cognitive and leadership abilities recorded by the Swedish Defense Recruitment Agency's database.

B Supporting information: empirical analyses

B.1 Dynastic signaling analysis

Table B.1: OLS estimates of the relationship between predecessor's vote support and vote support of male and female dynastic followers in Ireland.

	(1)	(2)	
	Share of quota	Share of quota	
	(male junior)	(female junior)	
Senior's average share of quota	0.195* (0.102)	0.619*** (0.179)	
Observations	155	43	
\mathbb{R}^2	0.036	0.233	

Note: The dependent variable is a candidate's share of the electoral (Droop) quota obtained with first-preference votes in first election attempt. Sample restricted to candidates of the main parties (Fianna Fáil, Fine Gael, and Labour). Robust standard errors are shown in parentheses. *** p < 0.01, ** p < 0.05, * p < 0.1.

B.2 Quota analysis

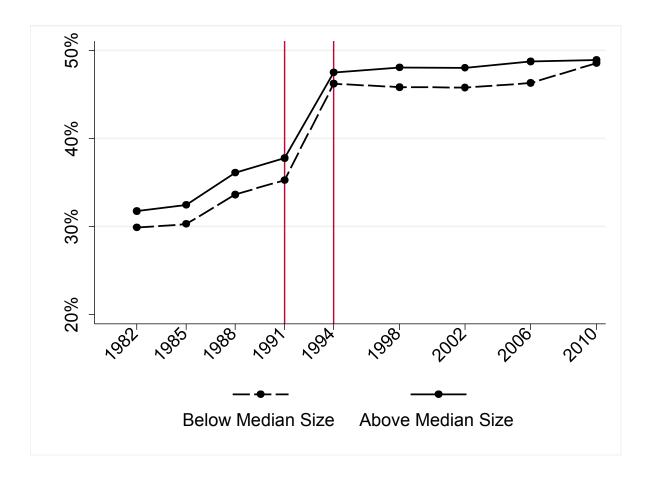


Figure B.1: Trends in women's numeric representation in local-level Social Democratic Parties in Sweden.

Note: Councils are divided by above- and below-median council size. The x-axis denotes election year and the y-axis shows the average percentage of seats on local assemblies held by women. The vertical lines mark the introduction of the zipper quota in 1994.

Table B.2: OLS regression models (with difference-in-difference estimation) of the quota impact on the proportion of dynastic elected women in Swedish municipalities.

	Including Non-Compliers			Excluding Non-Compliers		
	(1)	(2)	(3)	(4)	(5)	(6)
1991 = Reference	All	Women	Men	All	Women	Men
1988*Quota impact	0.03	0.09	0.06	0.08	0.11	0.07
	(0.13)	(0.2)	(0.16)	(0.15)	(0.23)	(0.2)
1994*Quota impact	0.14	0.33*	-0.01	0.07	0.27	-0.12
	(0.11)	(0.17)	(0.16)	(0.13)	(0.2)	(0.19)
1998*Quota impact	0.11	0.31	-0.01	0.07	0.32	-0.12
	(0.14)	(0.22)	(0.17)	(0.16)	(0.25)	(0.19)
2002*Quota impact	0.01	0.05	0.08	0.06	0.15	0.04
	(0.12)	(0.19)	(0.17)	(0.13)	(0.22)	(0.19)
2006*Quota impact	0.05	0.13	0.02	0	0.13	-0.13
	(0.14)	(0.21)	(0.19)	(0.15)	(0.24)	(0.21)
2010*Quota impact	-0.03	-0.05	0.08	-0.06	-0.06	-0.02
	(0.14)	(0.2)	(0.19)	(0.16)	(0.23)	(0.21)
Observations	12,017	6,232	5,785	9,347	4,924	4,423

Note: Robust standard errors clustered at the municipality-election period level in parentheses; *** p<0.01, ** p<0.05, * p<0.1. All regressions include municipality and year fixed effects.