Learning from Their Daughters:
Family Exposure to Gender Disparity and Female Representation in Male-Led Ventures

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Abstract. We build on recent studies on daughter-to-father influence to explore how male founders' fatherhood of daughters impacts female representation in their ventures. We find that, conditional on the total number of children, fathering an additional daughter vs. a son is associated with a 4% (11%) increase in female director (employee) representation. This daughter-to-father effect gradually matures as daughters grow up and socialize in schools and workplaces, and increases as daughters age, suggesting that male founders vicariously learn from their daughters about the constraints women face throughout the daughters' lifecycles. Heterogeneity analyses (regarding founder cohort, divorce status, and social class), combined with qualitative evidence, further substantiate the plausibility of vicarious learning as a potential yet understudied mechanism underlying daughter effects. In addition, daughter effects on employee recruitment are concentrated in microbusinesses (number of employees $\leq$ 10) where the founder is close in decision authority to all employees. These findings add important nuances to our understanding of daughter effects in organizational contexts, and extend theory of gender homophily in organizations.

1. Introduction

Female joiners – women employed by the founders of new firms (Rocha and van Praag 2020) – remain underrepresented in entrepreneurial settings (International Labour Office 2016). An often-suggested cause of this disparity is gender homophily in recruitment: most ventures are male-led, and male founders associate more with male joiners when growing their ventures (Ruef et al. 2003).[1] Since homophily is routinely assumed as a "gravity-like force" among individuals (Leszczensky and Pink 2019: 395), scholars and policymakers often advocate gender-neutrality interventions, such as gender quotas or diversity policies, to break the gender homophily cycle in business.

Nevertheless, recent research has revisited the assumption that gender homophily tendencies are impossible to change by individuals themselves. This research stream, known as 'daughter effects' studies (Washington 2008), shows that fathering daughters often nudges male decision-makers' gender-egalitarianism to hire more women in the firm's upper echelons (Calder-Wang and Gompers 2021; Dasgupta et al. 2018; Wang et al. 2021), pay female employees better relative to male colleagues (Dahl et al. 2012), or launch more women-friendly CSR initiatives (Cronqvist and Yu 2017). This literature indicates that homophily tendencies are not as uncontrollable as previously assumed, but can be regulated by individuals themselves, and that such regulation is conditioned by decision-makers' situational characteristics, such as fatherhood of daughters.

Despite the growing prominence of the daughter effects perspective, an important question remains regarding the mechanisms underpinning such effects, and how they might affect gender homophilous recruitment in organizations at large. Extant work centers on the average effects of fathering daughters on gender-related decisions in organizations (Calder-Wang and Gompers 2021; Cronqvist and Yu 2017; Dasgupta et al. 2018; Wang et al. 2021), leaving *when* these daughter effects manifest largely

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[1] Homophily includes both induced homophily (people associate with similar others due to the structural unavailability of dissimilar others in their context) and choice homophily (the tendency to associate with similar others even if dissimilar others are available) (Lawrence and Shah 2020). As it is unlikely that all male-led ventures suffer from induced gender homophily, we focus on male founders' choice homophily tendencies. For simplicity, we use *homophily* and not *choice homophily* throughout.

understudied (an exception is Ronchi and Smith 2021).[2] The timing of daughter effects is important to help distinguish between distinct theoretical mechanisms explaining the effects. The primary theoretical mechanism adopted in the literature is the female socialization hypothesis: a male decision-maker's homophily regulation is triggered by the critical event of *fathering* a daughter, bringing him closer to and socially identifying with women, adjusting his preferences and values. In this perspective, the change in gender-related behaviors in hiring should occur almost upon the birth of a child (Dahl et al. 2012). Yet another possibility is that the regulation of homophily tendencies is mainly triggered by *rearing* a daughter, exposing men to the challenges and disadvantages that women face. In this perspective, self-regulation of homophily tendencies in hiring would require certain exposure occurring when daughters reach a certain age (Glynn and Sen 2015). Thus, beyond examining the effects of fathering daughters on men's decision-making in organizations, identifying *when* such effects manifest is important to probe the theoretical mechanisms that can explain *why* men change their behavior after fathering a daughter.

Our study aims to address this gap. Since the existence of daughter effects on male decision-makers' behavior is well documented, we do not develop new hypotheses. We instead explore detailed Swedish registry data on families and firms to add richness to the cumulative knowledge at the intersection of gender homophily and daughter effects research. In our exploratory analysis, we focus on male-led ventures (as opposed to established firms) for two reasons. First, given our focus on homophilous recruitment, the decision-maker's probable involvement in personnel decisions represents an important scope condition. In new ventures, founders typically serve as key decision-makers who frequently get involved in nearly all types of personnel decisions (Shepherd et al. 2020), be it board members or employees. Yet, in established firms, personnel decisions may be spread across a variety of decision-makers, depending on the level of recruitment (Breaugh 2013). Thus, a focus on new ventures is more appropriate for our exploratory analysis. Second, much of the debate on gender disparity has focused on established firms, but such disparity is likely to have roots in the early days of a firm, given key decision-

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[2] See Section "5. The Timing of Daughter Effects: An Event Study Analysis" for differences between our event study analysis and Ronchi and Smith's (2021).

makers' strong homophily preferences that drive personal decisions (Gorman 2005). If certain events can shape the recruitment patterns in young firms, these events may place firms on a different trajectory in terms of diversity and inclusion. Thus, studying how male decision-makers' family situations shape their personal decisions in the workplace could help us understand the variation in organizational demographic compositions and shed light on why some firms reproduce inequalities (via hiring) more than others (Amis et al. 2020).

In our exploratory analysis, we first build on the daughter effects literature to leverage the naturally exogenous assignment of the sex of a male founder's child (Washington 2008) to explore daughter effects on female joiner representation in male-led ventures. The analysis of the full population of Swedish ventures founded by solo male founders between 2004–2017 suggests that, conditional on the total number of children fathered, one additional daughter is associated with a 4% (11%) increase in female director (employee) representation, given the average level of female joiner representation. The effects remain robust when focusing on female representation in meaningful positions that require substantial expertise and that are highly paid. A further contingency analysis suggests that daughter effects on female employee representation only manifest in microbusinesses (number of employees ≤ 10), but disappear in larger ventures where male founders may be less involved in lower-level employee recruitment, whereas daughter effects on female director representation hold in both microbusinesses and larger ventures. This suggests male decision-makers' probable involvement in personnel decisions is an important scope condition of daughter effects on homophilous recruitment.

Second, we exploit the longitudinal nature of our data to explore when daughter effects manifest through an event study analysis with a difference-in-differences regression specification. The event in focus is the birth of the *first* child, whereby male founders who father a daughter are randomly assigned to the treatment group, and those fathering a son constitute the control group.[3] Although we observe parallel trends in the pre-birth period between the treatment and control groups in recruiting men or women to the

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[3] For a detailed justification of why we focus on the birth of the first child, see Section "5. The Timing of Daughter Effects: An Event Study Analysis".

board or as employees, we find null results of daughter effects in the post-birth period, namely the [-5, 4] time window in the event study. This might reflect that daughter effects do not appear immediately after childbirth, an implicit assumption in much of the literature. Given the limited time window in this sampling period, we explore the dynamics of daughter effects over a longer period in a cross-sectional analysis focusing on founders with only one child, using the child's age as proxy of the post-birth period to investigate when daughter effects emerge. This analysis suggests that daughter effects manifest after school-entry age, becoming stronger as the daughter grows up. This timing challenges the logic that the regulation of male founders' homophily tendencies is triggered by the critical event of *fathering* a daughter, instead suggesting it is mainly triggered by *rearing* a daughter. We derive two theoretical implications from these analyses. First, daughter effects take years to mature and develop gradually. Second, the discontinuous but progressively increasing effect suggests a vicarious learning mechanism whereby a male founder may gradually learn from his daughter about the constraints that women face.

Third, we explore the heterogeneous effects of the daughter-to-father influences to further probe the existence of a vicarious learning mechanism. If vicarious learning acts as an operating mechanism, we would expect a larger effect among male founders who tend to hold gender-traditional views and thus have more to learn from daughters about the constraints that women face. We find supportive evidence when exploring the heterogeneous effects across (1) early-cohort founders that grew up in less gender-egalitarian times, (2) divorced founders with shared custody (compared to married founders), and (3) founders who originate from lower-class families. These heterogeneous effects further suggest that vicarious learning is potentially an understudied mechanism in daughter effects research.

Fourth, we conduct interviews with 13 male founders to illustrate our empirical findings. This qualitative evidence further speaks to the plausibility of vicarious learning as a mechanism explaining daughter effects. In particular, founders with daughters differ from their peers with only sons in their views of the opportunities afforded to their children in life. Founders with daughters informed us that they observed and worried about the constraints their daughters have or will face, but founders with only sons

emphasized the equal opportunities in Sweden for women and men. Such different views are also reflected in how the two types of founders make gender-related decisions in their ventures.

In sum, our exploratory research suggests that while men by themselves may be 'invulnerable' to gendered norms in society, they can be vicariously exposed (and thus vulnerable) to such norms via the presence of a daughter in the family. This exposure prompts male founders to gradually learn about the constraints that women face, ultimately nudging their gender egalitarianism, despite prevalent homophily tendencies. Given the abductive nature of our inferences, we acknowledge that this vicarious-learning mechanism is just one interpretation of our empirical findings. We thus outline avenues for future research to further test the plausibility of this theoretical mechanism.

Our study offers insights into the growing body of research on daughter effects in the context of organizations. The findings challenge two existing beliefs about daughter effects. First, much effort has gone into exploring daughter effects on a variety of organizational decisions, including recruitment (Calder-Wang and Gompers 2021), promotion (Ronchi and Smith 2021), compensation (Dahl et al. 2012), and CSR policy (Cronqvist and Yu 2017). Despite the great strides made, this line of work implicitly assumes that fathering a daughter will have an immediate effect on men's decision-making. Our findings challenge this assumption by providing new evidence that daughter effects take time to mature, emerging discontinuously as daughters socialize into schools and workplaces. Second, extant research tends to view daughter effects as a ubiquitous phenomenon, implicitly assuming daughter effects manifest across a wide range of organizational decisions. Our findings of firm size as an important scope condition stand in stark contrast to the ubiquitous view of daughter effects, suggesting that daughter effects on employee recruitment may be concentrated among male decision-makers in small ventures who are close in decision authority to all employees. By challenging these two beliefs of daughter effects, our work suggests that daughter effects might be more limited than previously thought because they not only take time to develop but also appear concentrated in certain organizational processes.

Our work also makes an integrative contribution by synthesizing gender homophily and daughter effects research. Despite their common goal to understand gender-related behaviors, these research

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streams have evolved largely in parallel (for a rare exception, see Calder-Wang and Gompers 2021). This integrative approach provides theoretical leverage by accommodating individual agency into homophily conceptualization, illuminating when such agency is likely to manifest, in which situations, and with what implications. Our analysis of the change in male founders' recruitment behaviors following the birth, rearing, and early adulthood of their daughters suggests gender homophily tendencies are conditional on decision-makers' situational characteristics and can be overruled when men are vicariously exposed to gender disparity via their daughters. We also probe the implications of cross-context interfaces on homophilous associations (Lawrence and Shah 2020), providing an account of how individuals' social interactions in one context (family) may influence their sense of homophilous behaviors in another (work). This highlights the salience of considering the cross-context interdependency in studying homophily tendencies, suggesting that a stimulus in one context may trigger changes in homophilous behaviors in another.

Our study also has implications for management policies. Female venture joiners represent a significant proportion of the active labor market, and understanding a causal antecedent of shifting men toward actively promoting gender equality is a crucial step in fostering a more equal society. In contrast to gender quotas and other externally focused approaches, our study suggests that men's family exposure (via daughters) to gender disparity can innately engage them in gender egalitarianism. Policymakers seeking to exogenously nudge male decision-makers' gender egalitarianism in recruitment may benefit from reminding men to consider the society facing their female offspring, and that as decision-makers, they can influence society via their own decisions.

2. Theory Background

2.1. Gender Homophily and Gender-Neutrality Interventions

Homophily – the tendency to associate with similar others based on shared characteristics such as gender – is a central force in the formation of human relationships (Lawrence and Shah 2020). While commonly observed in the corporate domain, gender homophily is especially noticeable in small groups, such as new

venture teams, where key decision-makers tend to be attracted to, and thus hire, similar others (Ruef et al. 2003). In contrast to intentional forms of gender bias, gender homophily tendencies are unconscious. As Elliott and Smith (2004: 369) explain, "people tend to make sense of their social world by categorizing others into in-groups and out-groups; and… this normal information processing occurs largely outside conscious control". While bottom-up gender movements, combined with top-down gender quotas, have nudged gender egalitarianism in society at large, individual decision-makers may still exhibit unconscious behavioral tendencies driven by gender homophily when employing talent in their firms (Gorman 2005).

Homophily on the organizational level has substantial implications on the societal level (Amis et al. 2020). Since many firms are male-led, gender homophily has been identified as a root cause of hiring patterns that result in persistently low female representation in new organizations (Ruef et al. 2003), either as board members or employees. Scholars refer to these societal implications of gender homophily as the "homosocial reproduction" of organizations driving gender disparities in society (Rivera 2013).

To address these homophily-driven gender disparities, policymakers have introduced various gender-neutrality interventions in the hope of breaking the cycle of gender homophily in male-led firms, including government-mandated gender quotas and union-led workplace diversity policies. Despite the debatable effectiveness of these initiatives (Kalev et al. 2006), gender-neutrality interventions almost exclusively focus on established firms, leaving new ventures unconstrained in terms of coercive pressures. Unsurprisingly, new ventures remain a heavily male-dominated field in which female joiner representation is persistently low (Rocha and van Praag 2020).

Despite the powerful theoretical narratives of homophilous recruitment processes, and the absence of gender-neutrality interventions that target new ventures, there is wide heterogeneity in female joiner representation in male-led ventures (Rocha and van Praag 2020). The scarce but growing daughter effects literature shows the relevance of daughter-to-father influence on gendered decisions in the workplace (Cronqvist and Yu 2017; Dahl et al. 2012; Dasgupta et al. 2018; Ronchi and Smith 2021; Wang et al. 2021), suggesting that human tendency toward gender homophily might not be as uncontrollable as previously assumed (Calder-Wang and Gompers 2021).

2.2. Daughter Effects on Gender-Related Decisions in Organizations

In her study on daughter-to-father influence on gendered decisions in politics, arguing for a female socialization process, Washington (2008) demonstrates that fatherhood of daughters increases a congressperson's feminist sympathies. Adopting a between-subject design using the naturally random assignment of a child's sex to a fathering congressman, she found that, conditional on the total number of children, each daughter increases a congressman's propensity to vote liberally on bills regarding women's issues. This pioneering work was subsequently extended to the juridical and political decisions among federal judges and US Constitutional Convention delegates (Glynn and Sen 2015; Pope and Schmidt 2021), and the voting and criminal decisions of private individuals (Dustmann and Landersø 2021; Oswald and Powdthavee 2010).

More recently, management research has extended Washington's (2008) findings to gender-related decisions in organizations. Dahl et al. (2012) were among the first scholars to systematically explore the impact of a male CEO's fatherhood on his management style, investigating how a CEO's transition to fatherhood influences his employees' wages. Drawing on the broader daughter effects literature, they found that male CEOs pay employees less generously after fathering a child, and that the birth of a daughter has a less negative impact on salaries than the birth of a son. Cronqvist and Yu (2017) subsequently generalized daughter effects in the context of socially responsible investment decisions of CEOs at Standard and Poor's (S&P) companies. They found that CEOs with daughters are more likely to commit resources to corporate social responsibility practices. In sum, these studies show daughter effects on the generic *economic* decisions of male decision-makers in organizations.

Several studies also explore whether daughter effects are especially pronounced in *gender-related hiring* decisions in organizations. Using a sample of S&P companies, Dasgupta et al. (2018) found that CEOs with daughters are more likely to have women join the board than CEOs with sons, while in a sample of Chinese publicly traded firms, Wang et al. (2021) found that CEOs with daughters tend to hire more female executives than CEOs with sons. Similar patterns are found in the studies of Calder-Wang and Gompers (2021) in the context of recruiting female partners in U.S. venture capital firms, and Ronchi

and Smith (2021) with regard to female employees in male-managed establishments. Although these studies provide a more direct understanding of the contexts in which daughter-to-father effects influence gender-related hiring decisions in organizations, much work remains to be done.

For instance, few studies attend to the critical question of *when* daughter effects emerge, which is particularly pertinent to identify the underlying mechanisms that can explain these effects. Extant work primarily relies on Washington's (2008) female socialization hypothesis to explain why daughter effects occur (e.g., Cronqvist and Yu 2017; Dahl et al. 2012; Dasgupta et al. 2018; Wang et al. 2021). According to this hypothesis, decision-makers in organizations adapt their values and preferences, acquiring more feminine values (i.e., other-regarding) when they father a daughter. The female socialization hypothesis suggests an immediate change in men's gender-related views (i.e., an effect due to *fathering* a daughter). Dahl et al. (2012: 671) explain this rapid response as, "having a child … affect[s] a CEO's values because it is one of the most momentous events that can occur in a man's life".

Another plausible hypothesis that has received less research attention concerns men's exposure to gender differences in the opportunities and challenges their daughters face (Glynn and Sen 2015). In this perspective, the birth of a daughter would not lead decision-makers to alter gender-related behaviors in their organizations, instead requiring exposure to their daughter's life experiences when she gets older (i.e., an effect due to *rearing* a daughter). The timing of daughter effects and the exposure-based mechanism have thus far received limited attention, a gap our study aims to fill.

3. Research Design

3.1. Data

We analyze the full population of newly incorporated ventures established by solo male founders in Sweden from 2004 to 2017.[4] Sweden is an ideal context for our study, as it is one of the most gender-equal countries (The Economist 2020), and was first in the world to introduce gender-neutral paid

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[4] In co-founded ventures, it is impossible to discern whether female presentation is driven by the fathering founder's fatherhood, non-fathering founders' behavioral changes triggered by their co-founder's fatherhood, or a combination of the two. We thus focus on new ventures with single founders.

parental-leave in the 1970s. Today, roughly 90% of Swedish fathers take paternity leave (The Economist 2014). These early experiences of fatherhood may be the first to stimulate daughter effects nudging a father's gender egalitarianism. Further, while the public sector in Sweden has achieved gender equality, the private sector remains male-dominated.[5] The low representation of women in the private sector stems from factors such as gender homophily in recruitment, since deliberate gender discrimination in the workplace has been illegal since 1980. Yet, female representation is heterogeneous among private businesses, providing sufficient variation to explore the drivers of female representation in male-led ventures.

Our data derive from three matched longitudinal datasets of the labor market, board of directors, and family members in Sweden. The first is the Longitudinal Integration Database for Health Insurance and Labor Market Studies (Swedish acronym: LISA) maintained by Statistics Sweden. LISA includes records on all individuals over age 16 residing in Sweden on December 31st of each year, starting from 1990. Statistics Sweden assigns each individual, family, business entity, and workplace a unique identifier. LISA also contains demographic and financial information on all individuals and firms in the country. The second data source is the Swedish Companies Registration Office (SCRO) with information on all boards of directors from 2004. The third data source is the Population Register (Swedish acronym: RTB), with information on all nuclear family members or co-habitants with children. These data sources have been widely used in organizational research (e.g., Balachandran et al. 2019; Ertug et al. 2020).

Using LISA to identify new ventures and their founders, board members, and employees, we define a legal entity as a new venture if it is an independent, privately owned, non-financial corporation that did not exist in prior years. The unique identifier of a legal entity ensures that ventures are independent and not subsidiaries, allowing us to avoid misidentification problems due to changes in venture name or legal form over time. We follow all ventures with at least one employee. We excluded five new ventures with more than 500 employees at founding because they are likely spinoffs.

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[5] https://sweden.se/society/gender-equality-in-sweden/

Among new ventures, we identify male founders as those with the employment status "entrepreneurs in own business". New venture employees are identified with the status "employees" when hired in the venture. We use SCRO data on all boards of directors to define individuals as directors (excluding employee representatives) if serving on the venture board on November 30th when SCRO publishes its yearly register (Balachandran et al. 2019). We identify founders' children, their age, and sex using RTB.

Our final sample includes 200,154 venture-year observations, corresponding to 51,223 unique new ventures. About 32% (39%) of all observations have no female board members (employees), echoing that the Swedish private business sector is male-dominated. Female-dominated ventures also exist even when sampling ventures with male founders: 0.1% (17%) of our observations have no male board members (employees). 48% of all founders exited during the observation window. The exit rate is similar for founders with more/fewer daughters and sons (two-sided T-test: $p = 0.90$), suggesting that fathering more daughters is not related to continuing in entrepreneurship or not. Since our sample can recover the natural ratio of sex at birth, founders fathering daughters do not appear to self-select into entrepreneurship. Thus, our sample is unlikely to be biased with regard to self-selection into or out of entrepreneurship.

3.2. Variables

3.2.1. *Dependent Variables*. We focus on two key types of female joiner representation in male-led ventures: board members and employees.[6,7] According to SCRO, a limited company must have a board of directors,[8] and every new venture will hire employees at some point following its establishment. Thus, these two types of joiners will grant us sufficient variation in female representation. We measure female board (employee) representation as the number of female directors (employees) each year divided by the total number of directors (employees). Since it is common in Europe for firms to have employee

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[6] Following Roach and Sauermann (2015), we distinguish between joiners and leaders in new ventures based on whether the individuals are *employed* by the founder-owner and are not co-owners themselves.

[7] We also considered including managers, but managerial positions are rare in new ventures. Founders typically function as owner-managers in their ventures (Wasserman 2017), and in our data, less than 6% of all observations have a managerial position. Given the limited variation in managerial positions, we restrict our focus to board members and employees.

[8] https://bolagsverket.se/en/bus/business/limited/2.1147/board-of-directors-1.8631

representatives on their boards, we focus exclusively on non-employee directors when measuring female

director representation.

3.2.2. *Independent Variable***.** *Founder's number of daughters* is measured as each founder's number

of female children each year. As the assignment of a child's sex to a father is naturally random,

conditional on the total number of children, a father's number of daughters is exogenous (Washington

2008). We offer a detailed justification of this naturally random variable in the "3.3. Identification

Strategy" section below. The average founder age in our sample is around 48 years, similar to prior

research (e.g., Azoulay et al. 2020). Thus, most founders in our sample started their businesses after

fatherhood. Although with a significantly smaller sample, in the 'Event Study Analysis' section, we

leverage the observations of founders experiencing the birth of their first child in our sampling period to

explore the timing of daughter effects, which helps shine additional light on the potential mechanisms that

drive daughter effects.

3.2.3. *Control Variables.* At the founder level, we control for *marriage* (1 if married, 0 otherwise), and

education (1 = pre-upper secondary education under nine years; 2 = pre-upper secondary education nine

years; 3 = upper secondary education; 4 = post-secondary education under two years; 5 = post-secondary

education two years or more; 6 = postgraduate education). At the venture level, we control for *venture*

performance (net sales in thousand euros) and *venture size* (number of employees). We follow prior

research by lagging each venture-level control by one year to account for their effects on venturing

decisions (e.g., Dahl et al. 2012).[9] We include industry-year dummies in all analyses to account for time-

varying industry-specific trends in female-friendly recruitment, retention, and turnover.

3.3. Identification Strategy

Adopting Washington's (2008) research design, we use the natural experiment of a child's sex to explore

the causal effect of parenting daughters on female joiner representation in male-led ventures. The natural

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[9] Since childbirth happens throughout the year, and female representation is a statistic measured on the last day of the year, it is not necessary to lag our independent variable to prevent reserve causality. Nonetheless, our results remain similar if we lag all independent and control variables.

experiment we exploit here essentially constitutes a between-subject design: a male founder has a child, and the sex of the child is naturally random. The causal effect identification is between two male founders, each with one *additional* child, the first a girl, the second a boy. The difference in female joiner representation between the two founders' ventures yields an estimate of the *relative* effect of having an additional daughter compared to an additional son.

This natural experiment setup has several advantages. First, since a between-subject design compares female joiner representation in new ventures whose founders have the same number of children, a causal effect revealed via our identification strategy captures the effect of the additional child's sex rather than the effect of having an additional child. Second, the natural randomization of variance in a child's sex helps balance out potential confounders between the treatment (additional child = girl) and the control group (additional child = boy), including heterogeneity in the supply-side availability of potential female employees (Barbulescu and Bidwell 2013) as well as heterogeneity in male founders' exposure to female role models prior to their entrepreneurship (Rocha and van Praag 2020). Even if such heterogeneity is unobserved, it does not pose inferential threats. The natural experiment in our data is estimated as:

$$\textit{Female joiner representation}_{i,k,t} = \alpha + \beta \times \textit{daughters}_{i,t} + \gamma \times \textit{controls}_{i,t-1} + \eta_{i,t} + \delta_{k,t} + \varepsilon_{i,k,t} \qquad (1)$$

where i is an index for ventures, k for industries, t for years, *female joiner representation* is the outcome variable, *daughters* is the number of daughters a male founder parents, *controls* is a set of control variables, η is a set of fixed effects for the total number of children, δ is a set of industry-year fixed effects, and ε is the error term. We cluster standard errors at the founder level and use OLS regressions.

Our identification strategy assumes that conditional on the total number of children, the number of daughters is exogenously given (Washington 2008). This presupposes parents are not practicing gender selection or following any fertility-stopping rules; we probe this identification assumption below. If our identification assumption holds, β will identify the causal effect of interest. Since we condition on the total number of children, the number of daughters and number of sons are linearly dependent, and we cannot distinguish whether a male founder's gender-egalitarian behaviors are driven by parenting an

additional daughter, not parenting an additional son, or a combination of the two. Thus, β is interpreted as the *relative* impact of parenting an additional daughter compared to parenting an additional son.

3.4. The Validity of the Identification Strategy

Our identification strategy assumes that conditional on the total number of children, the number of daughters is randomly assigned by nature (Washington 2008). This assumption would be violated if individuals practiced any type of sex selection or sex-based fertility stopping rules. Sex selection is possible under the condition of abortion or in vitro fertilization (IVF) (Cronqvist and Yu 2017). Our empirical setting helps ensure neither case is likely. First, sex-related abortion is illegal and extremely rare in Sweden. Midwives, nurses, and doctors have no obligation to reveal the sex to pregnant couples and follow strict rules not to do so if they suspect abortion is being considered in relation to the sex of the fetus. Second, since the average age of founders in our data is 48, the vast majority did not have access to IVF at the time they had children. Even if junior founders had access to IVF, they would use it to overcome infertility rather than for sex selection (Hjelmstedt et al. 2003), as the same legal conditions apply here, in addition to IVF being costly, time-consuming, and medically cumbersome. To rule out the possibility of sex selection, we compare the daughter ratio to what is naturally expected. The natural male-to-female birth ratio is about 105–106 men to 100 women (Lazarus 2002), and according to the United Nations Population Division,[10] 106/100 in Sweden. The T-test suggests that the mean daughter ratio in our data is not statistically different from the natural sex birth ratio (girl ratio = 48.5%) in the Swedish population ($\Delta p = 0.12$); this is also true when conditioned on the total number of children (see Table A1-1 in Appendix 1). Reflecting the natural sex birth ratio suggests that sex selection is unlikely in our data.

   Next, we need to rule out the possibility that founders in our data follow sex-based fertility stopping heuristics documented in studies on, for example, wealthy couples (Yavorsky et al. 2020). If parents employ heuristics to keep having children until parenting at least one son, those having a first-born

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[10] https://data-worldbank-org.eur.idm.oclc.org/indicator/SP.POP.BRTH.MF?view=map

daughter (vs. a first-born son) would be more likely to have more children. To assess this possibility, we follow Washington (2008) to regress the log-transformed total number of children on a first-born daughter, restricting our sample to ventures whose founders have at least one child. We find no significant relationship between a first-born daughter and total number of children (see Table A1-2 in Appendix 1), suggesting that founders in our data do not appear to follow sex-based fertility stopping heuristics.

4. Daughter Effects in Male-Led Ventures

4.1. Descriptive Statistics

Table 1 shows the summary statistics for founder and venture characteristics, with Panel A showing the distribution of *founders' number of children*: most founders (98.3% of our founder-year observations) have fewer than four children (including four). The most common number of children is two (42.6%), followed by three (20.5%), one (15.5%), zero (14.0%), and four (5.6%). Panel B in Table 1 shows the summary statistics for founders' *number of daughters*. The most common number of daughters is one (39.0%), followed by zero (36.5%), two (19.7%), three (4.0%), and four (0.7%). Panel C in Table 1 shows the summary statistics for *founder characteristics*: 57% of founder-year observations concern married founders. On average, founders have an education level between upper secondary school and university, 1.94 children and 0.94 daughters (48.5% of founders' children). Panel D shows the summary statistics for *venture characteristics.* Average sales are 7.21K euros, but with significant variations. The average venture has 6.16 employees, with 86% of all observations having fewer than 10 employees; only four out of 51,223 ventures managed to scale up to more than 250 employees, a threshold to distinguish small-and-medium-sized (SMEs) and larger firms. Panel E shows the summary statistics related to *female joiner representation*; women are underrepresented relative to male peers, resonating with prior research on homophily-driven outcomes (Lawrence and Shah 2020; Rocha and van Praag 2020). We refer to these numbers when we discuss the estimated effect sizes of founders parenting an additional daughter (vs. an additional son).

<center>(Table 1 about here)</center>

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Table 2 reports the variable correlations, while Figure 1 shows the binned scatterplots of the raw data for the relationship between female joiner representation and founders' number of daughters, conditional on total number of children. The figure indicates the founders' number of daughters is positively associated with female joiner presentation, providing initial evidence that fatherhood of daughters appears to nudge a male founder's gender egalitarianism.

(Table 2 and Figure 1 about here)

4.2. Daughter Effects on Recruitment

Table 3a reports the OLS regressions predicting female director representation. Model 1 shows the results with only two variables of interest: number of daughters and child number fixed effects. Parenting one additional daughter (vs. one additional son) is positively associated with female director representation (β = 0.013, $p < 0.001$). This effect of 1.3 percentage points corresponds to a 4% increase given the sample mean. Results remain robust when adding industry-year fixed effects (Model 2), additional controls (Model 3), examining founders with children (Model 4), founders with 1–4 children (most common range in our data; Model 5), founders with only 1 child (sex-based fertility stopping heuristics impossible; Model 6), and limiting our sample to non-family ventures (Model 7).[11] We find similar results when modeling female employee representation (Table 3b). Practically speaking, fathering one additional daughter leads to a 3.6 percentage point increase in female employee representation, corresponding to an 11% increase given the sample mean. The results remain qualitatively unchanged over several robustness checks with alternative measures of key variables, models, and sample (see Table A1-3 in Appendix 1).

(Tables 3a and 3b about here)

4.3. Recruitment into Meaningful Positions

While an increase in female director representation suggests that male founders are more likely to assign women to meaningful positions after fathering a daughter, we next probe at the employee level whether female employees are also more likely to be assigned to meaningful positions. First, we narrow our focus

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[11] Family ventures are those where any board members share family ID with the founder.

to positions that require (1) management work, (2) work that requires specialization with an in-depth university qualification, and (3) work that requires a university education. We then recalculate the ratio of women holding these positions. Fatherhood of daughters consistently predicts female employee representation in these positions (Models 1 and 2 of Table 3c). Second, we narrow our focus to positions with above-median pay, and calculate the female ratio among these positions. Since ventures in our sample have 6 employees on average, this analysis focused on above-median pay helps us understand the average gender composition among the three top-paid employees. We find empirical support for hiring female employees into positions with above-median pay (Models 3–4 of Table 3c). We then replicate the same analysis by focusing on the most highly paid positions in the top tertile to help us understand female representation among the two top-paid employees, and find similar results (Models 5–6 of Table 3c). The result remains robust when focusing on whether *the* most highly paid employee is a woman or not (Models 7-8 of Table 3c). This evidence of female representation in meaningful positions suggests that daughter effects result in gender egalitarianism rather than a male founder's benevolent sexism.[12]

<div align="center">(Table 3c about here)</div>

4.4. Boundary Condition of Daughter Effects on Recruitment

Despite the empirical support for daughter effects in our sample, we make an implicit assumption that founders will get involved in both director and employee recruitment. This assumption likely holds because ventures in our sample have only 6.16 employees on average, so founders will likely get involved in personnel decisions at all levels. However, as ventures scale up, founders may still get involved in personnel decisions at a higher level (director recruitment), but may not get involved in personnel decisions at a lower level (employee recruitment) (Duchesneau and Gartner 1990). Thus, venture size may be a crucial boundary condition for daughter effects on recruitment in new ventures.

To explore this boundary condition, we follow the European Commission's (2003) recommendation to define a venture as a microbusiness if it employs fewer than 10 people, otherwise defined as larger

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[12] Benevolent sexists often hold attitudes toward women that seem positive in tone but nonetheless view "women stereotypically and in restricted roles" (Glick and Fiske 1996: 491).

ventures. As Table 4 shows, daughter effects on director recruitment differ statistically, but the economic significance of this difference is marginal, whereas daughter effects on employee recruitment only manifest in microbusinesses and disappear in larger ventures. As such, daughter effects appear to be concentrated only among male founders' close employees, namely directors who advise founders regardless of venture size or employees when the ventures are still small.

(Table 4 about here)

This nuanced finding has crucial implications. First, despite this gender egalitarianism nudged by daughter effects, male founders in larger ventures do not appear to enact their gender egalitarianism in recruitment policies, consistent with prior research finding that as firms scale up, founders do not appear to influence the organizational formalization of hiring practices (Baron et al. 1996). This makes sense because in scaled-up ventures founders may not be the only decision-makers in setting up firm policies over which investors may have significant influence.

Second and relatedly, it also speaks to Gorman's (2005) distinction of interactional vs. structural mechanisms in overcoming gender homophily tendencies, wherein interactional mechanisms refer to decision-makers using their insights from social encounters to inform their gender-related recruitment decisions, whereas structural mechanisms refer to decision-makers formalizing organizational policies and practices that may generate gender differences in the workplace. The fact that daughter effects on employee recruitment seem to be solely concentrated among male founders in microbusinesses where close day-to-day contact is more common suggests that daughter effects might work via interactional rather than structural channels. In other words, male founders with daughters may not (be able to) change the policies of their firms, but might be less likely to hew to gender stereotypes when interacting with female employees. This would suggest that daughter effects on recruitment may not "scale" across larger organizations.

5. The Timing of Daughter Effects: An Event Study Analysis

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We next exploit the longitudinal nature of our data to investigate within-founder changes in female representation among their ventures in an event study analysis.[13] The event we focus on is the birth of the first child where the child's sex among fathering founders is exogenously given. Thus, founders that experienced fatherhood of daughters are randomly assigned to the treatment group, and those that experienced fatherhood of sons are assigned to the control group.[14] This event study design lends itself to a difference-in-differences analysis where we observe whether female representation in male-led ventures exhibits parallel trends in the pre-birth period, and probe when daughter effects appear in the post-birth period. As founders in our sample are on average 48 years old, the first-childbirth events we observe are rather infrequent. Our final sample for the event study analysis comprises 773 unique birth events, corresponding to 773 unique founders (375 fathering a daughter and 398 fathering a son) and 4,525 venture-year observations.[15] The average (median) age of founders in this event study analysis is 36 (35).

We estimate the following regression to explore the timing of daughter effects:

$$\textit{Female joiner representation}_{i,t} = \alpha + \sum (\beta_j \times \textit{treatment}_i \times \textit{post-childbirth}_{i,j}) + \gamma \times \textit{controls}_{i,t-1} + \varphi_t + \theta_i + \varepsilon_{i,k,t} \quad (2)$$

where *i* indexes ventures, *j* indexes event time (i.e., years relative to childbirth),[16] *t* indexes year, *female joiner representation* is the outcome of interest, *treatment* indicates founders who experienced fatherhood of a daughter (binary: 1 if yes), *post-childbirth* indicates the post-occurrence of fatherhood (binary: 1 if yes in a given year), *controls* is a set of control variables,[17] φ is a set of year fixed effects, θ is a set of venture fixed effects, and ε is the error term. We again cluster standard errors at the founder level and use OLS models to specify our regressions.

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[13] We are indebted to the *Management Science* review team for pointing this out.
[14] We do not focus on childbirths after the first, since categorizing these into the treatment and control groups is ambiguous. A founder would be considered already-treated if he had a daughter before having a son. In this case, the event of a newborn son would not assign this founder to the control group given his already-treated status, potentially biasing the event study analysis.
[15] This is an unbalanced sample where we observe 1+ years prior to the event (birth) and 1+ years after the event.
[16] We denote the year in which a founder experiences childbirth as event time $j = 0$.
[17] We employ all the control variables used in the exploration of the between-founder effect.

Event time j runs from 5 years before childbirth to 4 years after childbirth, omitted when $j = -5$.[18]
Coefficient β_j, for each event time, is the estimate of daughter effects for within-founder change (post minus pre) in female representation in the treatment group (founders who experienced fathering a daughter) net of the within-founder change (post minus pre) in female representation in the control group (founders who experienced fathering a son), and is the main coefficient of interest in our event study analysis.

As a balance check, at event time $j = -1$ (one year prior to childbirth), founders in the treatment (child = daughter) and control (child = son) groups do not differ in terms of founder marital status ($\Delta p = 0.12$), founder education ($\Delta p = 0.34$), venture size ($\Delta p = 0.63$), venture performance ($\Delta p = 0.42$), industry distribution (see Table A2-1, Appendix 2), female director representation ($\Delta p = 0.66$), or female employee representation ($\Delta p = 0.79$). Table A2-1 in Appendix 2 provides more details of these statistics.

Figure 2 plots the coefficients β_j for event time window [-5, 4], with two implications. First, we find evidence of parallel trends in the years preceding the birth event, as the coefficients β_j do not differ significantly from zero in these years. This reinforces the exogeneity of a child's sex and the identification assumption. Second, Figure 2 also suggests that daughter effects do not appear within the event window in our analysis.[19] This finding hints at two possibilities: (1) null results are found when using a within-subject design (event study analysis) that differs from the conventional approach in the daughter effects literature, or (2) daughter effects may need a relatively long time to mature rather than manifesting immediately after the birth event.[20]

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[18] We choose the event time window [-5, 4] because it allows us to observe at least 100 distinct founders/ventures at each point in time. Figure A2-1 in Appendix 2 provides an overview of the distribution of observations at the level of event time. Our results remain similar when we use a narrower event time window.

[19] For the difference-in-differences regression results, see Table A2-2 in Appendix 2.

[20] To our best knowledge, only Ronchi and Smith (2021) use an event study analysis to explore the dynamics of daughter effects in organizations. Examining Danish single-manager establishments, they find that a positive effect on female employment appears after the birth of a manager's daughter, but the effect vanishes in two years. In a cross-sectional analysis, they find daughter effects on female employment when the daughter is 0–5 years old, an effect largely driven by managers with 1-year old daughters (combining the insights from Figures 4 and 5 in their working paper versioned October 27th, 2021). Despite the effects vanishing when daughters are 2–5 years of age, they seem to re-emerge when daughters are older than 5 years (Figure 5 in their working paper). The authors do not offer an explanation for why the effects appear, disappear, and reappear, but simply claim that the effects persist over time. In Note A2-1 of Appendix 2, we discuss why the differences in our results and those of Ronchi and Smith (2021) may be due to "incidental truncation" (Greene 2002) in their sampling of daughters.

(Figure 2 about here)

The relatively short post-birth event window may not be sufficient for daughter effects to manifest. We therefore explore the dynamics of daughter effects over a longer period in a cross-sectional analysis where we focus on founders with only one child, using the child's age as proxy of the post-birth period. We use the age threshold for education in Sweden to categorize daughters into five groups:[21] preschool age (0–6 years old), elementary school age (7–15 years old), high school age (16–18 years old), university age (19–21 years old), working age (older than 22). As shown in Table 5, daughter effects gradually emerge when daughters start entering school and workplaces, becoming stronger as daughters grow up.

(Table 5 about here)

The event-study and cross-sectional analyses together shed some light on the potential mechanisms at play: daughter effects emerge sometime after childbirth and develop gradually, suggesting some type of vicarious learning mechanism in that a male founder may progressively learn from his daughter about the constraints women face. In addition, the more daughters are socialized into the world outside family boundaries (proxied by entering school, college, workplaces, etc.), the greater the daughter effects. This provides additional evidence of the plausibility of a vicarious learning mechanism, as the intense socialization of a daughter into society mirrors the intensity of gendered information that a male founder can learn from his daughter. The discontinuous and gradually increasing daughter effects that we find in the event-study and cross-sectional analyses, combined with an interpretation of a vicarious learning mechanism, is a novel finding given that extant research has routinely assumed daughter effects as an immediate change in men's preferences, ignoring *when* daughter effects emerge.

6. Heterogeneous Effects across Cohort, Divorce Status, and Social Class

Our analysis thus far suggests a potential vicarious learning mechanism underlying daughter effects. In this section, we probe the plausibility of this under-recognized mechanism by exploring the

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[21] https://en.wikipedia.org/wiki/Education_in_Sweden

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heterogeneous effects among male founders. A key premise of vicarious learning is that not every male founder equally understands the constraints that women face, suggesting a larger effect among those who have *more* to learn. We identified three such contingencies: cohort, divorce status, and social class.

6.1. Founder Cohort

To differentiate cohorts, we exploit the chronological progression of the Swedish gender-equality movement. While gender equality is today a strong social norm in Sweden (The Economist 2020), it has not always been so. Workplace gender discrimination was prevalent before being banned in 1980 and still exists, although reportedly decreasing over time.[22] Thus, male founders in our sample were exposed to different societal gender norms depending on when they grew up. Early-cohort founders growing up in a more gendered environment may often take gendered practices for granted, despite the recent progress in gender equality (West and Zimmerman 1987). If vicarious learning is a plausible explanation, we expect to see larger daughter effects in early-cohort founders who have more to learn from their daughters to update their gendered views about the constraints that women face.

Since early-life exposure to societal norms is known to impact what is deemed appropriate in adult life (Marquis and Qiao 2020), we differentiate cohorts based on their early-life exposure to weaker vs. stronger gender-egalitarian norms in Sweden. We follow prior research using age 15 as the upper threshold to define early-life exposure to gender-egalitarian norms in Sweden (Bernile et al. 2017).[23] Hence, those exposed to gender discrimination must have been born before 1965, since it was outlawed in 1980. We create a dummy variable, *gender-egalitarian cohort* (1 if birth year $\geq$ 1965, 0 otherwise), and repeat our analysis in a split sample separating the two cohorts.

We find daughter effects to be significantly larger among early-cohort founders (Models 1–4 of Table 6a, Chow test $p < 0.001$). To check whether this heterogeneous effect is due to daughters among early-cohort-founders being much older than among late-cohort-founders, we limit both subsamples to founders

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whose eldest daughters are already of working age (older than 22). In this restricted sample, founders in different cohorts should have similar information channels to learn about the constraints that women face. Results remain qualitatively unchanged (Models 5–8). Thus, the heterogeneous effects across cohorts lend additional support for vicarious learning as a plausible mechanism.

(Table 6a about here)

6.2. Divorce Status

A male founder's divorce status provides another contingency, allowing us to probe the relevance of vicarious learning as an explanation of daughter effects. Misunderstanding is a top cause of divorce (Baer 2017), and recent research shows that unequal housework arrangements are associated with gender-traditional relationships, lower quality of marital relationships, and higher divorce rates (Ruppanner et al. 2018). Men with gender-traditional views often place the burden of household work on their partners (Sorenson and Dahl 2016), and in gender-traditional couples, the risk of divorce is higher when the wife experiences a job promotion (Folke and Rickne 2020). Thus, men holding a gender-traditional view are more likely to experience divorce than men holding a gender-equal view. [24]

If a vicarious learning mechanism is salient, we would expect stronger daughter effects among divorced founders who have more to learn from their daughters to update their gender-traditional views about the constraints facing women. In Sweden, divorced couples share custody of children since 1998,[25] i.e., joint physical custody where the child shares his/her time equally between the two custodial parents' homes. Thus, most divorced male founders will care for their children equally alongside their mothers, resulting in more one-to-one time with their children. A nationwide study on Swedish children shows that "compared with children living with two parents in the same household, children with shared residence reported more often that their father had time for them" (Fransson et al. 2018: 869). In an interview study,

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[24] This claim, seemingly counter to the notion that traditional views are more conducive to stable marriages (Becker 1991), is supported by modern research on gender differences in marital dissolutions. While studies of wives often find a negative relationship between egalitarian gender role views and marital stability, studies of husbands find that traditional rather than egalitarian views are more predictive of marital dissolution (for a review, see Kaufman 2000). The recent study of Ruppanner et al. (2018) using data related to our own confirms this pattern.

[25] Sweden adopted a policy promoting shared legal and residential custody in 1998 (Proposition 1997/98:7).

Swedish children in joint custody explained that they often get more attention and time from each parent when seeing one at a time (Berman 2015).

By taking sole care of their children half of the time, divorced male founders are more likely to be reintroduced to the constraints their daughters face when they grow up. In contrast, male founders in intact marriages with a more gender-equal view are perhaps already sympathetic to women's constraints in society. Vicarious learning through fathering a daughter should thus be more intense for those who are divorced than married. Indeed, results show that our daughter effect is significantly larger among divorced founders (Models 1–4 of Table 6b, Chow test $p < 0.001$).

(Table 6b about here)

6.3. Social Class

A third contingency factor that we think might be relevant is male founders' social class. Since lower-class families may have more gender-traditional views than upper-class families, male founders growing up in lower-class families may have more to learn about the constraints women face than those growing up in upper-class families. We use parents' education level as proxy of male founders' social class (Rubin 2012), defining a male founder's original family as upper-class when both his parents have a university or higher degrees, and a male founder's original family as lower-class when neither of his parents have a university or higher degree.[26]

We find empirical evidence that male founders growing up in lower-class families encounter daughter effects, whereas those growing up in upper-class families do not (see Table 6c), providing additional support for the plausibility of a vicarious learning mechanism.

(Table 6c about here)

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[26] We excluded two cases -- (1) father had university degree but mother did not; (2) father did not have university degree but mother had one -- because either case can be interpreted ambiguously. For example, Case 1 may indicate father could be gender-egalitarian, but it could also be interpreted that this father is more gender traditional since he married a woman with lower education than his own. Case 2 could signal the father is gender-traditional given his lower-level education, but this family could also be gender egalitarian because of the educated mom.

7. Alternative Mechanisms

Our analyses so far indicate the plausibility of vicarious learning as a potential mechanism. However, the link between the fatherhood of daughters and female joiner representation in male-led ventures might be theoretically complex and involve several mechanisms operating in tandem. We here explore other potential mechanisms in addition to vicarious learning. Table 7 provides an overview of several alternative mechanisms that might explain our findings, and the empirical tests conducted to examine the plausibility of these alternative interpretations.

(Table 7 about here)

There are undoubtedly many other potential mechanisms that we have not probed. For example, the employment of joiners is a two-sided matching process, though our paper assumes changes on the demand/founder side. Nevertheless, a supply-side mechanism could also explain our findings, at least theoretically. For example, women may be more willing to work for a founder with daughters, to the extent that he might be seen as more gender-egalitarian. Despite its theoretical plausibility, such a supply-side mechanism might not work in reality, since it is unlikely that male founders systematically disclose their fatherhood information in the job advertising and interview process. If founders do so, it is likely to be considered by female job candidates as fishing for their motherhood status, which is illegal. Hence, while we formally cannot assess a potential supply-side mechanism of daughter effects in organizational contexts, it might be practically difficult for such a mechanism to operate without violating the law.

Another reason why male founders might prefer not to have women in their ventures is that they perceive greater uncertainty in women's potential contributions to the firm, i.e., a type of statistical discrimination. Since new ventures have resource constraints and can rarely afford systematic mistakes in employing joiners, male founders may simply employ male joiners to avoid risking their limited positions to female job candidates. While fatherhood of daughters may help alleviate this uncertainty, we were unable to test it with the archival data. Future research may find it fruitful to explore this, for instance, developing surveys or vignette studies concerning this uncertainty mechanism.

8. Complementary Qualitative Evidence

To corroborate our empirical findings and illustrate the plausibility of a vicarious learning mechanism explaining daughter effects, we conducted post hoc interviews with 13 male founders in Sweden, seven of whom have fathered daughters,[27] the remainder only sons. For convenience when presenting the interview quotes, we refer to fathers with daughters as the 'treatment group' and fathers with *only* sons as the 'control group'. We sampled the founders from business-school contacts purposefully selected from ventures in a range of industries, such as services, technology, and retail. The 13 founders (anonymized) employ 3–10 individuals, roughly corresponding to the median and mean size of ventures in our quantitative data. See Table A4-1 in Appendix 4 for further details of the interview data.

To avoid misleading the interviewees, we adopted a sequential interview design chosen to partially alleviate desirability biases that could have arisen when respondents were asked to reflect on (1) their children's birth and upbringing, and (2) gendered recruitment practices. We conducted two-stage semi-structured interviews with each founder (see Table A4-2 in Appendix 4 for the interview protocol). The first-stage interview centered on general questions related to the family-work interface with an emphasis on how the founders envisioned their children's future, and whether and how fatherhood might be reflected in their attitude toward life and work. The second-stage interview focused on recruitment and reward behaviors in the venture. We deliberately set a one-week interval between the two interviews to avoid a priming effect of the first-stage interviews on the second-stage interviews.[28]

In the separately recorded interviews on the family-work interface, all founders reported that becoming a father had made a long-lasting impact. For example, one founder with two daughters and no sons provided us with a specific and detailed example of how having daughters affected him, how this was recognized by others, and the extent to which this experience affected how he ran his venture:

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[27] Treatment founders in our quantitative exploration are those with daughters, regardless of how many sons they have. Thus, in our qualitative corroboration, we follow the same spirit and assume founders with daughters are the focus of our treatment group, regardless of whether they have sons or not.

[28] Originally we only interviewed founders with daughters using the two-stage interview design, but an anonymous reviewer encouraged us to also interview founders with only sons as contrast. In these interviews, we followed the reviewer's suggestions to use the interview protocol in reverse order (first-stage on gendered practices in the venture, and second-stage on family-work interface), so as to avoid a priming effect of family-oriented questions on gender-and-work-oriented questions.

You mature a lot [after having children], since you don't just have yourself to take care of anymore. [Fatherhood] creates maturity in the eyes of different stakeholders; when they see that you are not alone anymore [but have a family], they look at you differently. And you behave consciously or unconsciously like a father, like a parent, and it projects some security, and it has actually influenced my company in a positive way. (Jon; treatment group)

Another founder, who has two sons and no daughters, also reflected on how his life outlook had changed after becoming a father, and how it influenced how he viewed his business:

You think more about the future. You get a different focus. You get a more future focus. Before having a child, you thought about 'what happens today? How can I improve my day today?'; once having a child, you start thinking about 'how can I improve the conditions and relationships at home in the future?' And it's fair to say this shift in focus is also noticeable at work. Before becoming a father, I focused more on the company itself, such as how to make the company grow for the sake of the company. Nowadays, my focus is more on 'how can I make the company work and grow for me (rather than for the sake of the company)?' So there's been a bit of a shift in focus. From the present to the future. (Erik; control group)

Although the transition to fatherhood influenced the male founders' general views of their own lives and their children's future, the conversations seem to indicate that the child's sex may trigger different changes in views. For example, a founder with roots in southern Europe who came to Sweden at the age of two shared the following personal view and what he vicariously learned from his friends:

My relatives in the south of Europe asked me [when they called me to congratulate me on the birth of my daughter] whether I got myself a son [these are my cultural roots, which value sons more than daughters]. But I have a friend who has four daughters, and he said that one has a completely different type of love for a daughter, and so it is, and so do I think. (Ulf; treatment group)

We further tracked this gender-related difference by asking founders to reflect on the opportunities offered or denied to their children, and what insights they learned from such observations. A founder with one daughter and one son reflected that while in the Swedish context opportunities may be equal when it comes to getting a job, opportunities for career advancement differ:

I think they [men and women] have the same opportunities, but they will experience different obstacles in their way. Opportunities to get a job—those are there. However, when you get a job, and your name is Anna, you may be very good at the job compared to Per who is 50, but Per will always look down

on you. So, opportunities are there, but if you take them, then there is a glass ceiling. That is what the problem is. So there are opportunities, but I want to teach my daughter that when Per who is 50 and has been in the industry for 20 years starts patronizing her, my girl should push herself forward and resist. (Dan; treatment group)

Another founder with two sons and no daughters appeared to have a fundamentally different view regarding equal opportunities for women and men:

Well, I think, in some ways, it [the gender equality movement] is way too over the top. It tilts in the wrong direction which makes the debate uninteresting… I think it goes wrong when, instead of talking about competence and so on, you talk about there being equal numbers. If you look at the formation of the government, there should be one more woman than men. But you don't look at competence. Then you lose focus. I can feel that in my eyes, women would be looked down on even more, because you select them based on such merits [equal numbers] instead of competence merits. And that's where the focus goes wrong. (Erik; control group)

Other founders with sons raised similar points. For example, two founders with only sons also expressed concerns over hiring women for the sake of gender equality:

You are forced to hire a woman even if she doesn't have the right skills. You take her just because you have to. That is not right. It's the same thing with gender quotas on boards in some countries. (Fredrik; control group)

Well, to be quite honest, I think competence is more important than gender. I think it's gone a bit too far with "it has to be 50/50". I mean, if it's the case that there's higher competence among women, fine, then maybe it's 70% women and 30% men. Or if it's the other way around... When I was recruiting, I didn't think about it [gender] at all. (Nils; control group)

These anecdotes illustrate that male founders with daughters seem deeply aware of the career constraints that women face, but founders with only sons less so. The founder who mentioned the career constraints women face also mentioned that he had recently learned more about gender inequalities in society, for example, when taking his children to sports practice. He also reflected that this was not something he would have noticed in his social surroundings previously, even if it had existed. This increased awareness of gender inequalities from rearing a daughter nudges male founders to emphasize gender equality in business decisions:

We have a sports club for girls [in town] and their A-team [elite team] was in the top tier in Sweden, but nobody knows about it … If you go and ask which is the best team in town, people will think of the other [male] team. And this female A-team dropped out of the top tier, since they didn't have enough resources … My firm will now be sponsoring them. In our firm, we only sponsor female [adult] teams and female youth sports teams, we don't sponsor male teams. (Dan; treatment group)

Gender-egalitarianism in business decisions was also mentioned by another founder with one daughter and one son. This founder perceived the homogeneity of his board of directors, in terms of gender and age, to be particularly problematic, and explained how this perception informed his subsequent search for a female director.

I felt that the board was very male-dominated, fairly late middle-age, and very IT-oriented. Then I felt that I wanted someone both young and capable—preferably a woman… We contacted a recruitment company … and we also gave a clear message that at least one of the two final candidates would be a woman. That's what we said. At least one. (Lars; treatment group)

We also asked founders with only sons about their recruitment policies. None of them explicitly mentioned gender as a decision criterion. For example, a founder with only sons informed us that while there is relatively high female representation in his venture, it was not planned but simply stemmed from the fact that there are more women than men working in his (architecture) industry:

We're very much a female company [6 women to 4 men]. But it's just gone that way. It wasn't planned to go that way… There has been no discussion about it [gender as a recruitment criterion]. We don't want one or the other. We basically want to find a person who fits into the company so that we can do the job we want to do. Last time when we did the recruitment, female candidates were the absolute majority that applied for the jobs. And that is the reason why it looks like this at the moment. (Mikael; control group)

The above quote also made us wonder whether founders with daughters deliberately want to hire women even if there are fewer women than men in their industries. A founder with one daughter and one son confirmed this possibility. This founder, whose venture operates in the sports equipment industry, reflected that his venture would benefit from having women on site, even though labor market friction (e.g., lack of female mechanics) makes this difficult:

I see advantages with women in the company, especially in the industry I am in. We are in a male-dominant industry, so it is hard to find a woman who wants to work here… But I would really like to see more women [working in my company]. (Per; treatment group)

These and other anecdotal observations from our informants illustrate that rearing daughters makes male founders learn more about the constraints women face, and that such vicarious learning predisposes them to become more gender-egalitarian in venture decisions.[29]

9. Discussion

9.1. Interpretation

Our exploratory analyses aimed to answer an open question in the literature on daughter effects and gender homophily in organizations (i.e., when daughter effects emerge), with the hope of shedding new light on the mechanism(s) underlying daughter effects. Exploring Swedish registry data, we found that fatherhood of daughters leads to higher female joiner representation in male-led ventures, despite the pervasive homophily tendency. Yet, daughter effects do not emerge until daughters shift away from the family toward school and workplaces; the more advanced the stage of socialization, the larger daughter effects become. These discontinuous and progressively increasing effects suggest that male founders may gradually learn from daughters about the constraints that women face, a mechanism we label 'vicarious learning'. Furthermore, daughter effects appear stronger among early-cohort, divorced, and lower-class founders, all of whom may have a more gender-traditional than gender-equal view, and thus have more to learn from their daughters about the constraints that women face. These heterogeneous effects across cohort, divorced status, and social class, combined with the qualitative evidence, further substantiate the plausibility of vicarious learning as a potential yet understudied mechanism underlying daughter effects.

9.2. Contributions to the Daughter Effects Literature

This study makes two contributions to the daughter effects literature. Prior research on daughter effects relies on Washington's (2008) between-subject design (vs. within-subject design) by leveraging the

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[29] Table A4-3 in Appendix 4 contains an extensive list of quotes from both the treatment and control groups.

naturally random assignment of a child's sex to a father, implicitly assuming that fatherhood of daughters will nudge an immediate change in men's gender-related preferences. We challenge this assumption by exploring the timing of daughter effects through an event study analysis that captures the within-subject change before and after fatherhood. In so doing, we provide novel evidence on daughter effects: differently from what prior research assumes, daughter effects do not immediately appear following childbirth, but emerge only when daughters start socializing in school, college, and workplaces, and these effects become larger when daughters become older. The findings of such discontinuous and gradually increasing effects suggest a progressive, vicarious learning process throughout the lifecycle of daughters, a mechanism underlying daughter effects that has so far received limited attention.

Second, while much effort has gone into investigating the manifestation of daughter effects across a wide range of organizational decisions (e.g., Calder-Wang and Gompers 2021; Cronqvist and Yu 2017; Dahl et al. 2012), the boundary conditions of daughter effects have so far escaped scholarly attention. Our study uncovers that daughter effects on recruitment appear concentrated only among male decision-makers' close (as opposed to all) employees, suggesting an important yet understudied boundary condition. This indicates that daughter effects tend to manifest via interactional rather than structural channels, as male founders may have decision constraints in formalizing their daughter-nudged preferences in recruitment policies when the firm scales up. As such, daughter effects on recruitment might not "scale" across larger organizations.

Overall, daughter effects might be more limited than previously thought, as they take time to develop, and appear concentrated only among male decision-makers' close employees.

9.3. Contributions to the Homophily Literature

This study also provides two contributions to the homophily literature. First, extant research suggests it is very difficult for individuals to counteract homophily tendencies, given these are depicted as operating as a "gravity-like force" (Leszczensky and Pink 2019: 395) that decision-makers can hardly overcome on their own. Yet, our work suggests that a male founder's fatherhood of daughters can increase female

representation in his ventures, despite the prevalent homophily force. This finding is encouraging, as it indicates that the homophily tendency is indeed conditional on individual characteristics, rather than "ubiquitous across a wide range of contexts" (DiMaggio and Garip 2012: 98), as prior research routinely suggests. This highlights that different conclusions might be drawn about the possibility of homophily regulation, depending on the theoretical space homophily research grants to accommodating *inwardly oriented agency* in the homophilous association. This represents the core contribution of our work to the homophily literature, as research in this area traditionally assigns limited agency to individuals. We hope our findings help substantiate the value of accommodating individual agency in homophily conceptualizations, spurring scholarly interest in behavioral conceptualizations of homophily, i.e., how inwardly oriented agency helps break the cycle of homophilous associations and yields more positive outcomes for demographic minorities who would otherwise be subject to its adverse consequences.

Second, our study provides an account of how men's social interactions with others in one context influence their sense of homophilous associations in another. This has implications for the homophily literature that tends to view homophily as "ubiquitous", implicitly assuming the independence of social interactions across contexts. Our findings challenge this assumption by substantiating that social interaction in a primary social context (family) can affect men's gender-homophilous behaviors in another context (work). This thus highlights the theoretical salience of the *interdependence* of social interactions between different contexts in understanding homophily tendencies (Lawrence and Shah 2020). Since people are involved in multiple social contexts, the interdependence of social interactions across multiple social contexts might hold the key to explaining the wide heterogeneity in homophilous associations that cannot be justified with the existing homophily framework.

9.4. Limitations and Future Research

Our analyses are not without limitations, some of which will hopefully motivate future research. First, we undertake a detailed analysis in a relatively gender-egalitarian context. Despite the benefits of high granularity and internal validity, our focus on Swedish ventures also alerts us to the generalizability of our

findings to other contexts. The economic significance of daughter effects identified in a gender-egalitarian context such as Sweden should be conservative, and effects may be stronger in countries with gender-inequal norms. Therefore, future work might benefit from exploring the generalizability of our findings in other contexts.

Another limitation points to the potential distal nature of our variables and the working mechanisms we have purported. This is a common limitation among studies of founder characteristics, but substantive nonetheless. When interpreting the discontinuous and gradually increased daughter effects, we make a strong assumption that fatherhood of daughters nudges a male founder to vicariously learn from his (socialized) daughters about the constraints that women face. Although we find support for this assumption with our heterogeneous-effects exploration and post-hoc qualitative evidence, it remains a strong assumption. Future research could explore its validity using psychometric, attitude-based, or experimental decision data.

Building on our study, future research could also extend the boundaries of daughter effects and assess whether and how exposure to the gender disparity of other family members (e.g., sisters, mothers, wives), and individuals in one's social or relational surroundings (e.g., friends, local support network), might nudge a male founder's gender egalitarianism. Interesting questions that scholars could address include what type of exposure (besides exposure to daughters) could nudge male decision-makers' gender egalitarianism? When in their private or professional life, and how long should such exposure last?

9.5. Implications for Practice

Despite much of society today advocating gender equality, gender disparity is still instinctively invisible to men who benefit from it, as "privilege is invisible to those who have it" (Coston and Kimmel 2012: 97). If men do not see homophily-driven gender disparity as a problem, they cannot be actively engaged in solving it. Our work indicates that men are more likely to start learning vicariously from their family exposure to gender disparity about the constraints women face. Like earlier studies, we cannot directly substantiate this vicarious learning mechanism in terms of perceptions or social cognition. However, we

find tentative support for a larger learning effect among men who tend to hold gender-traditional views on women, such as early-cohort, divorced, and lower-class men. If substantiated, exposure-based vicarious learning might thus hold significant potential in promoting gender egalitarianism among economic decision-makers in more gender-traditional contexts.

While our findings center on rearing daughters, we by no means suggest using family interventions as a practical recommendation for engaging men in building a gender-equal workplace and society. The broader idea that our work wants to convey is the following: when proximate others – daughters and potentially other loved ones – are vulnerable to gender disparity, men are physically and socio-emotionally embedded in the social collectivity of those who are vulnerable, which primes them for recruitment to the gender equality cause. Those seeking to cultivate a more gender-egalitarian economy may benefit from highlighting the personal stakes and responsibilities of male leaders in helping build a gender-equal society for *their* loved ones and not only for women in general.

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Table 1. Summary Statistics

Panel A. Founder's number of children			Panel B. Founder's number of daughters		
	Frequency	Percentage (%)		Frequency	Percentage (%)
0	28,054	14.02	0	73,104	36.52
1	31,112	15.54	1	77,953	38.95
2	85,256	42.60	2	39,443	19.71
3	41,083	20.53	3	8,059	4.03
4	11,216	5.60	4	1,359	0.68
5 or more	3,433	1.71	5 or more	236	0.11
Total:	200,154	100	Total:	200,154	100
Panel C. Founder characteristics					
	Count	Mean	S.D.	Min	Max
Founder married	200,154	0.57	0.49	0	1
Founder educated	200,154	3.24	1.01	1	6
Founder's number of children	200,154	1.94	1.16	0	14
Founder's number of daughters	200,154	0.94	0.90	0	8
Panel D. Venture characteristics					
	Count	Mean	S.D.	Min	Max
Venture performance (lagged)	200,154	7.21	15.28	-0.14	797.60
Venture size (lagged)	200,154	6.16	14.38	1.00	2039
Panel E. Female representations					
	Count	Mean	S.D.	Min	Max
Female director representation	200,154	0.33	0.23	0.00	1.00
Female employee representation	200,154	0.34	0.38	0.00	1.00

Table 2. Correlations

	1	**2**	**3**	**4**	**5**	**6**	**7**
1. Female director representation							
2. Female employee representation	0.07						
3. Founder married	0.24	0.11					
4. Founder educated	-0.02	0.27	0.07				
5. Venture performance (lagged)	-0.04	0.01	0.02	-0.04			
6. Venture size (lagged)	-0.03	0.01	0.00	-0.04	0.50		
7. Founder's number of children	0.13	0.00	0.27	-0.03	0.02	0.02	
8. Founder's number of daughters	0.11	0.05	0.17	0.00	0.02	0.01	0.63

N = 200,154. Correlations > |0.01| significant at $p < 0.01$

Table 3a. OLS Models Predicting Female Director Representation

	M1 Full sample	M2 Full sample	M3 Full sample	M4 All founders with children	M5 Founders with 1-4 children	M6 Founders with 1 child	M7 Non-family ventures
Founder's number of daughters	0.013***	0.013***	0.013***	0.013***	0.014***	0.032***	0.022***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.01)	(0.00)
Founder married			0.103***	0.100***	0.100***	0.112***	-0.057***
			(0.00)	(0.00)	(0.00)	(0.01)	(0.00)
Founder educated			-0.008***	-0.007***	-0.007***	-0.009**	-0.009***
			(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Venture performance (lagged)			-0.001***	-0.001***	-0.001***	-0.001*	-0.000***
			(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Venture size (lagged)			-0.000	-0.000	-0.000	-0.000*	-0.000
			(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Constant	0.247***	0.401***	0.380***	0.410***	0.409***	0.222***	0.195***
	(0.00)	(0.00)	(0.01)	(0.01)	(0.01)	(0.04)	(0.02)
Industry-year FE	Excl.	Incl.	Incl.	Incl.	Incl.	Incl.	Incl.
Child number FE	Incl.	Incl.	Incl.	Incl.	Incl.	Incl.	Incl.
R squared	0.03	0.03	0.08	0.06	0.06	0.07	0.03
Observations	200,154	200,154	200,154	172,100	168,667	31,112	80,652

Standard errors (in parentheses) are clustered by founder; $^*p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$

Table 3b. OLS Models Predicting Female Employee Representation

	M1 Full sample	M2 Full sample	M3 Full sample	M4 All founders with children	M5 Founders with 1-4 children	M6 Founders with 1 child	M7 Non-family ventures
Founder's number of daughters	0.036***	0.033***	0.032***	0.032***	0.032***	0.049***	0.028***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.01)	(0.00)
Founder married			0.057***	0.051***	0.051***	0.073***	0.040***
			(0.00)	(0.00)	(0.00)	(0.01)	(0.01)
Founder educated			0.039***	0.040***	0.040***	0.036***	0.041***
			(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Venture performance (lagged)			0.000***	0.001***	0.001***	0.001	0.000**
			(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Venture size (lagged)			-0.000***	-0.000***	-0.000***	-0.001*	-0.000
			(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Constant	0.343***	0.667***	0.511***	0.505***	0.505***	0.024	0.062*
	(0.00)	(0.01)	(0.01)	(0.01)	(0.01)	(0.05)	(0.03)
Industry-year FE	Excl.	Incl.	Incl.	Incl.	Incl.	Incl.	Incl.
Child number FE	Incl.	Incl.	Incl.	Incl.	Incl.	Incl.	Incl.
R squared	0.00	0.23	0.25	0.26	0.26	0.26	0.23
Observations	200,154	200,154	200,154	172,100	168,667	31,112	80,652

Standard errors (in parentheses) are clustered by founder; $^*p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$

Table 3c. Models Predicting Female Employee Representation in Meaningful Positions

	Substantial positions		Highly-paid positions: above median[a]		Highly-paid positions: top tertile[b]		The most highly paid	
	M1	**M2**	**M3**	**M4**	**M5**	**M6**	**M7**	**M8**
Founder's number of daughters	0.004***	0.004***	0.014***	0.013***	0.007*	0.006*	0.017***	0.016***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Founder married		0.019***		0.029***		0.021***		0.058***
		(0.00)		(0.00)		(0.00)		(0.00)
Founder educated		0.024***		0.035***		0.028***		0.034***
		(0.00)		(0.00)		(0.00)		(0.00)
Venture performance (lagged)		0.000*		0.000***		0.000**		-0.001***
		(0.00)		(0.00)		(0.00)		(0.00)
Venture size (lagged)		-0.001***		0.000*		0.000**		-0.003***
		(0.00)		(0.00)		(0.00)		(0.00)
Constant	-0.010***	-0.092***	-0.009	-0.140***	-0.008	-0.114***	-0.003	-0.104***
	(0.00)	(0.00)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Industry-year FE	Incl.	Incl.	Incl.	Incl.	Incl.	Incl.	Incl.	Incl.
Child number FE	Incl.	Incl.	Incl.	Incl.	Incl.	Incl.	Incl.	Incl.
R squared	0.14	0.15	0.22	0.22	0.20	0.21	0.10	0.13
Observations	200,154	200,154	149,112	149,112	116,527	116,527	200,154	200,154

[a] This OLS analysis only includes ventures with at least two employees.
[b] This OLS analysis only includes ventures with at least three employees.
Standard errors (in parentheses) are clustered by founder; $^*p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$

Table 4. Boundary Condition of Daughter Effects on Recruitment: Venture Size

	Female director representation		Female employee representation	
	M1	**M2**	**M3**	**M4**
	Microbusinesses	**Larger ventures**	**Microbusinesses**	**Larger ventures**
Founder's number of daughters	0.013***	0.015***	0.036***	0.007
	(0.00)	(0.00)	(0.00)	(0.00)
Chow test	p <0.001		p <0.001	
Founder married	0.104***	0.094***	0.062***	0.010
	(0.00)	(0.01)	(0.00)	(0.01)
Founder educated	-0.008***	-0.006	0.040***	0.014***
	(0.00)	(0.00)	(0.00)	(0.00)
Venture performance (lagged)	-0.001***	-0.001***	0.000	0.000
	(0.00)	(0.00)	(0.00)	(0.00)
Venture size (lagged)	-0.002***	0.000	-0.011***	0.000*
	(0.00)	(0.00)	(0.00)	(0.00)
Constant	0.395***	0.302***	0.607***	0.211***
	(0.01)	(0.04)	(0.01)	(0.04)
Industry-by-year FE	Incl.	Incl.	Incl.	Incl.
Child number FE	Incl.	Incl.	Incl.	Incl.
R squared	0.08	0.06	0.25	0.47
Observations	173022	27132	173022	27132

Standard errors (in parentheses) are clustered by founder; $^*p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$

Table 5. OLS Models Predicting Female Representation: Founders with Only One Child

	M1 Director	**M2 Employee**
Founder with a daughter of pre-school age: [0,6]	-0.013	-0.003
	(0.01)	(0.01)
Founder with a daughter of grade-school age: [7,15]	0.021*	0.011
	(0.01)	(0.01)
Founder with a daughter of high-school age: [16,18]	0.039***	0.089***
	(0.01)	(0.02)
Founder with a daughter of college age: [19,21]	0.054***	0.086***
	(0.01)	(0.02)
Founder with a daughter of working age: [22,+)	0.083***	0.114***
	(0.01)	(0.01)
Founder married	0.106***	0.066***
	(0.01)	(0.01)
Founder educated	-0.006	0.040***
	(0.00)	(0.00)
Venture performance (lagged)	-0.001*	0.001*
	(0.00)	(0.00)
Venture size (lagged)	-0.000	-0.001*
	(0.00)	(0.00)
Constant	0.216***	0.015
	(0.03)	(0.05)
Industry-year FE	Incl.	Incl.
Child number FE	Incl.	Incl.
R squared	0.08	0.27
Observations	31,112	31,112

Standard errors (in parentheses) are clustered by founder; $^*p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$

Table 6a. Heterogeneous Effects: Cohort as a Contingency

	All founders				Founders with at least one working-age daughter			
	Female director representation		Female employee representation		Female director representation		Female employee representation	
	M1 **Early cohort**	**M2** **Late cohort**	**M3** **Early cohort**	**M4** **Late cohort**	**M5** **Early cohort**	**M6** **Late cohort**	**M7** **Early cohort**	**M8** **Late cohort**
Founder's number of daughters	0.021***	0.004	0.047***	0.014***	0.027***	0.005	0.045***	0.025*
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.01)	(0.01)	(0.01)
Chow test	*p < 0.001*		*p < 0.001*		*p = 0.074*		*p < 0.001*	
Founder married	0.114***	0.086***	0.056***	0.046***	0.108***	0.092***	0.053***	0.024
	(0.00)	(0.00)	(0.00)	(0.00)	(0.01)	(0.01)	(0.01)	(0.01)
Founder educated	-0.008***	-0.006**	0.039***	0.040***	-0.008***	0.001	0.042***	0.032**
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.01)	(0.00)	(0.01)
Venture performance (lagged)	-0.001***	-0.000**	0.001***	0.001***	-0.001***	-0.001	0.000	0.001**
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Venture size (lagged)	-0.000	-0.000	-0.001***	0.000	-0.000	0.000	-0.001***	-0.001
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Constant	0.411***	0.209***	0.565***	0.090**	0.460***	0.519***	0.572***	0.434***
	(0.01)	(0.02)	(0.01)	(0.03)	(0.01)	(0.03)	(0.02)	(0.04)
Industry-year FE	Incl.	Incl.	Incl.	Incl.	Incl.	Incl.	Incl.	Incl.
Child number FE	Incl.	Incl.	Incl.	Incl.	Incl.	Incl.	Incl.	Incl.
R squared	0.08	0.08	0.26	0.23	0.07	0.08	0.27	0.24
Observations	100,458	99,696	100,458	99,696	45344	5170	45344	5170

Standard errors (in parentheses) are clustered by founder; $^*p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$

Table 6b. Heterogeneous Effects: Divorce as a Contingency

	Female director representation		Female employee representation	
	M1	**M2**	**M3**	**M4**
	Founders divorced	**Founders married**	**Founders divorced**	**Founders married**
Founder's number of daughters	0.043***	0.008***	0.047***	0.033***
	(0.00)	(0.00)	(0.01)	(0.00)
Chow test	$p < 0.001$		$p < 0.001$	
Founder educated	-0.002	-0.009***	0.037***	0.039***
	(0.00)	(0.00)	(0.00)	(0.00)
Venture performance (lagged)	-0.001**	-0.001***	0.001***	0.001***
	(0.00)	(0.00)	(0.00)	(0.00)
Venture size (lagged)	-0.000	-0.000	-0.000	-0.001***
	(0.00)	(0.00)	(0.00)	(0.00)
Constant	0.229***	0.500***	0.095	0.609***
	(0.05)	(0.01)	(0.06)	(0.01)
Industry-year FE	Incl.	Incl.	Incl.	Incl.
Child number FE	Incl.	Incl.	Incl.	Incl.
R squared	0.03	0.02	0.26	0.26
Observations	22,389	114,833	22,389	114,833

Standard errors (in parentheses) are clustered by founder; $^{*}p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$

**Table 6c.** Heterogeneous Effects: Social Class as a Contingency

	Female director representation		Female employee representation	
	M1	**M2**	**M3**	**M4**
	Founders from upper-class families	**Founders from lower-class families**	**Founders from upper-class families**	**Founders from lower-class families**
Founder's number of daughters	0.012	0.015***	0.022	0.031***
	(0.01)	(0.00)	(0.01)	(0.00)
Chow test	$p < 0.001$		$p = 0.044$	
Founder married	0.073***	0.106***	0.038*	0.055***
	(0.01)	(0.00)	(0.02)	(0.00)
Founder educated	0.004	-0.007***	0.049***	0.039***
	(0.01)	(0.00)	(0.01)	(0.00)
Venture performance (lagged)	-0.000	-0.001***	0.001	0.000***
	(0.00)	(0.00)	(0.00)	(0.00)
Venture size (lagged)	-0.001*	-0.000*	-0.001	-0.000***
	(0.00)	(0.00)	(0.00)	(0.00)
Constant	0.117	0.382***	0.049	0.527***
	(0.11)	(0.01)	(0.20)	(0.01)
Industry-by-year FE	Incl.	Incl.	Incl.	Incl.
Child number FE	Incl.	Incl.	Incl.	Incl.
R squared	0.12	0.08	0.23	0.25
Observations	7526	166580	7526	166580

Standard errors (in parentheses) are clustered by founder; $^{*}p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$

**Table 7.** Alternative Mechanisms Underpinning Daughter Effects

Mechanisms	Explanations	Empirical tests
1. Female socialization	Exposure to female family members can induce an attitudinal shift that increases men's feminist sympathies and other-regarding preferences.	Vicarious learning and female socialization can overlap and are thus difficult to disentangle. For example, if female socialization occurs, vicarious learning is also likely to occur, and both can explain why we see greater daughter effects among founders with older daughters. A fundamental premise of female socialization is the immediate change in feminist sympathies and other-regarding preferences upon *fathering* a daughter (Cronqvist and Yu 2017; Dahl et al. 2012), while a fundamental premise of a vicarious learning mechanism is gradual changes in a man's gender attitudes as he *rears* a daughter. The fact that daughter effects only emerge after school-entry age indicates that female socialization alone is unlikely to explain our results.
2. Mission change	Parenting a daughter could also change the founder's worldview and induce broader strategic changes in the firm toward greater responsibility or a better balance of social vs. economic goals; becoming more gender-egalitarian could be just one of the aspects through which founders engage in this broader transition.	We constructed two new dependent variables, minority director representation (percentage of directors underrepresented with respect to the country of origin) and minority employee representation (percentages of employees underrepresented with respect to the country of origin). We define a director (employee) as a minority if s/he originally comes from a country (1) other than Sweden, (2) other than European, (3) Asian or African. We then replicated our between-founder analysis and found that fatherhood of daughters is not associated with minority representation in the venture (see Table A3-1 in Appendix 3), suggesting that daughter effects do not seem to engender a broader change in missions but a specific change in gender egalitarianism.
3. Social networks	Founders with daughters may simply know more women, to the extent that children will probably be involved in gender-typed activities and women will more likely manage activities geared toward girls.	We focus on female employee representation and categorize it into mom-employee representation (number of female employees that have at least 1 child, divided by total number of employees) and non-mom-employee representation (number of female employees that have no children, divided by total number of employees). The empirical analysis suggests that fatherhood of daughters is positively and similarly associated with both types of female representation (see Table A3-2 in Appendix 3). This social-networks explanation does not seem to drive our main findings.
4. Self-selection into female-typed business	Founders may opt into female-typed industries because the fatherhood of daughters makes them more aware of business opportunities related to women, thus getting involved in industries where women are the dominant workforce.	We use the full population of Swedish firms (i.e., the overall economy) to calculate the female representation in each industry each year, i.e., occupational sex segregation in the economy. We define an industry as female-dominated if female representation in the industry is 50% or more, using the split sample approach to explore whether daughter effects only manifest in female-dominated industries. Result suggests that daughter effects are almost identical in female- and male-dominated industries (Models 1–4 in Table A3-3, Appendix 3). Our results remain robust when we limit our sample to atypical industries with often low female representation (female representation < 10%; see Models 5–6 in Table A3-3 in Appendix 3). We also limit the sample to industries that provide gender-neutral products or services, including (1) agriculture, forestry, and fishing, (2) energy supply, and (3) construction activities. Our results remain unchanged (see Table A3-4 in Appendix 3). Overall, self-selection into female-dominated industries thus does not seem to be a mechanism explaining our main findings.

Figure 1. Binned Scatterplots of Female Representation and Founder's Number of Daughters
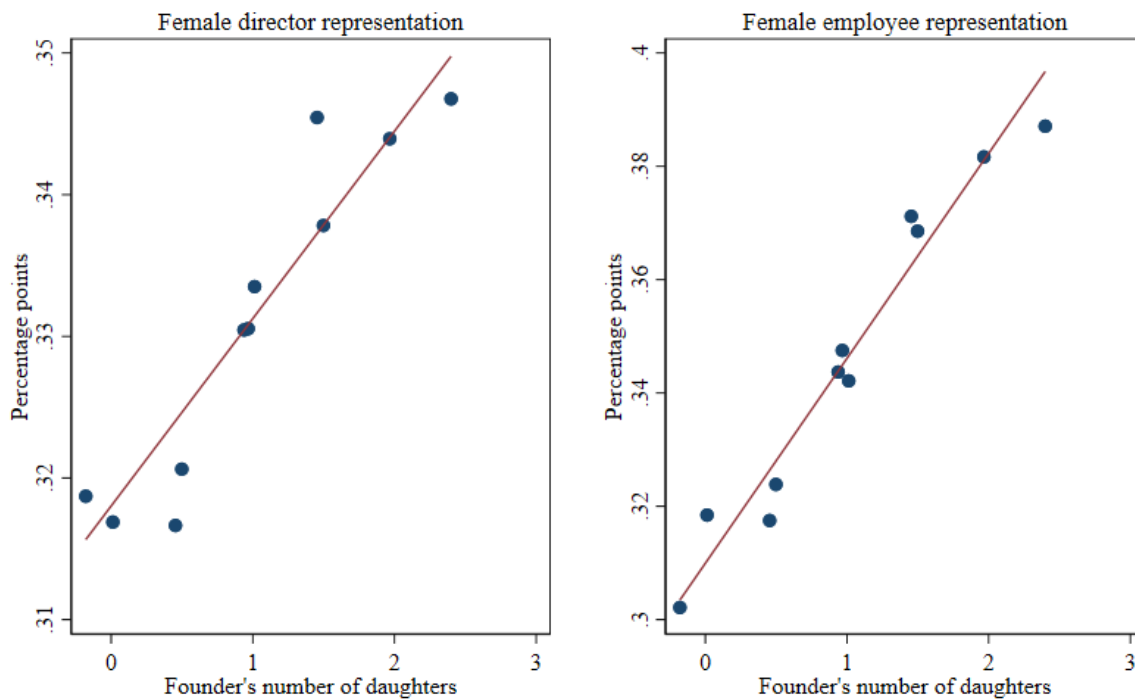
Note: All relationships are conditional on the total number of children. Founder's number of daughters consists of zero and positive integers. The binned scatterplots suggest negative and non-integer values of founder's number of daughters because Stata command binscatter uses y-residuals and x-residuals rather than the actual y value and x value to create the scatterplot (see Stepner 2013).

Figure 2. The Dynamics of Daughter Effects
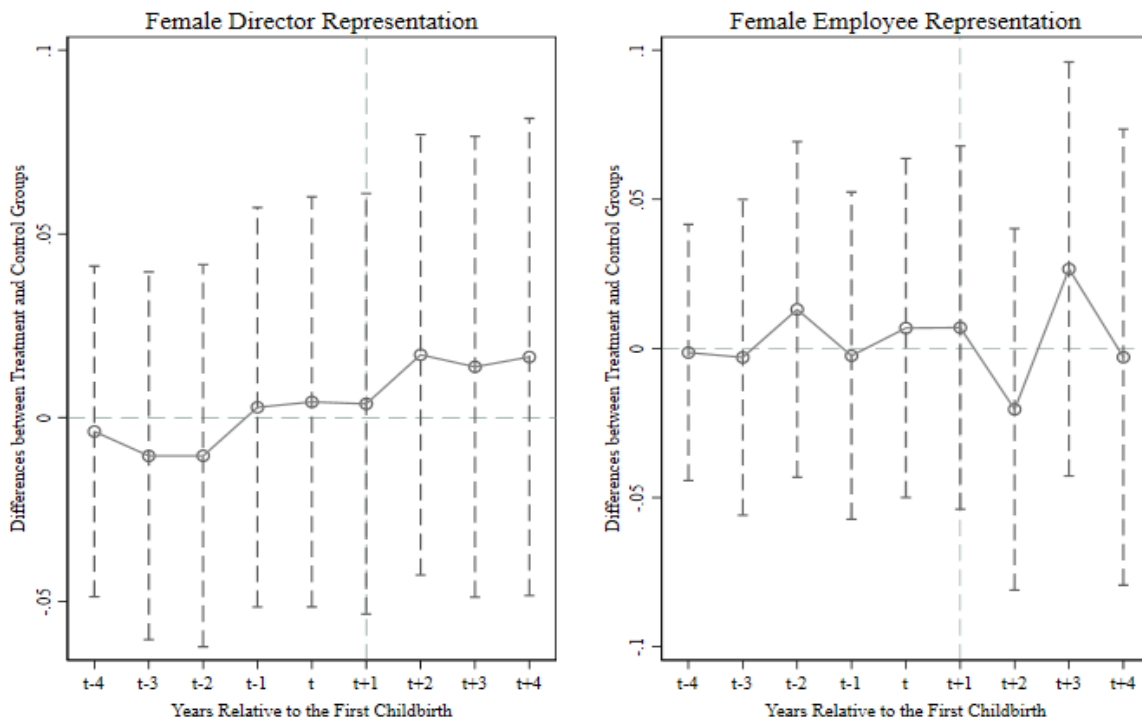
Note: t-5 is omitted due to multicollinearity.

<div align="center">**Online Appendix**</div>

<div align="center">**Learning from Their Daughters:**
Family Exposure to Gender Disparity and Female Representation in Male-Led Ventures</div>

Appendix 1. Supplementary Tables of the Main Analysis

Table A1-1. T-Test Results

Panel A. Full sample				
Year	Obs.	Mean	Diff.	P-value
2005	7,317	0.487	0.002	0.674
2006	8,038	0.486	0.001	0.890
2007	9,217	0.485	0.000	0.951
2008	10,122	0.485	0.000	0.931
2009	11,248	0.488	0.003	0.421
2010	12,062	0.487	0.002	0.644
2011	13,051	0.484	-0.001	0.834
2012	14,103	0.486	0.001	0.722
2013	15,415	0.482	-0.003	0.386
2014	16,582	0.483	-0.002	0.440
2015	17,524	0.482	-0.003	0.252
2016	18,322	0.480	-0.005	0.086
2017	19,099	0.480	-0.005	0.062

Panel B. Conditional on total number of children = 1					Panel C. Conditional on total number of children = 2				
Year	Obs.	Mean	Diff.	P value	Year	Obs.	Mean	Diff.	P-value
2005	1,370	0.484	-0.001	0.938	2005	3,632	0.488	0.003	0.647
2006	1,462	0.488	0.003	0.837	2006	3,999	0.484	-0.001	0.872
2007	1,710	0.481	-0.004	0.759	2007	4,501	0.490	0.005	0.367
2008	1,854	0.481	-0.004	0.704	2008	4,958	0.487	0.002	0.717
2009	2,048	0.491	0.006	0.605	2009	5,535	0.490	0.005	0.252
2010	2,185	0.481	-0.004	0.741	2010	5,956	0.494	0.009	0.057
2011	2,346	0.472	-0.013	0.218	2011	6,454	0.491	0.006	0.193
2012	2,542	0.477	-0.008	0.407	2012	6,990	0.491	0.006	0.172
2013	2,777	0.476	-0.009	0.345	2013	7,630	0.487	0.002	0.611
2014	2,988	0.488	0.003	0.719	2014	8,286	0.483	-0.002	0.586
2015	3,135	0.482	-0.003	0.708	2015	8,748	0.482	-0.003	0.359
2016	3,271	0.485	0.000	0.956	2016	9,112	0.479	-0.006	0.116
2017	3,424	0.488	0.003	0.749	2017	9,455	0.479	-0.006	0.069

Panel D. Conditional on total number of children = 3					Panel E. Conditional on total number of children = 4				
Year	Obs.	Mean	Diff.	P value	Year	Obs.	Mean	Diff.	P-value
2005	1,741	0.484	-0.001	0.845	2005	434	0.491	0.006	0.639
2006	1,939	0.483	-0.002	0.770	2006	482	0.489	0.004	0.715
2007	2,245	0.477	-0.008	0.220	2007	585	0.485	0.000	0.965
2008	2,460	0.481	-0.004	0.454	2008	641	0.487	0.002	0.839
2009	2,697	0.480	-0.005	0.402	2009	733	0.487	0.002	0.864
2010	2,912	0.479	-0.006	0.259	2010	764	0.476	-0.009	0.362
2011	3,167	0.481	-0.004	0.390	2011	826	0.484	-0.001	0.884
2012	3,354	0.483	-0.002	0.750	2012	924	0.484	-0.001	0.888
2013	3,681	0.477	-0.008	0.098	2013	1,025	0.483	-0.002	0.825
2014	3,877	0.478	-0.007	0.135	2014	1,107	0.480	-0.005	0.518
2015	4,129	0.482	-0.003	0.542	2015	1,172	0.477	-0.008	0.327
2016	4,350	0.479	-0.006	0.193	2016	1,230	0.475	-0.010	0.193
2017	4,531	0.478	-0.007	0.081	2017	1,293	0.476	-0.009	0.206

Note: Diff = sample mean – natural sex birth ratio (0.485)

Table A1-2. Identification Assumption Test: OLS Regressions Predicting Total Number of Children (Sample: Founders Have at least One Child)

	M1	M2
First child is a girl	0.002	0.003
	(0.00)	(0.00)
Founder married		0.088***
		(0.00)
Founder educated		-0.009***
		(0.00)
Venture performance (lagged)		0.000
		(0.00)
Venture size (lagged)		0.000*
		(0.00)
Constant	1.141***	1.320***
	(0.00)	(0.01)
Industry-by-year FE	Excl.	Incl.
R squared	0.00	0.03
Observations	172,100	172,100

Standard errors (in parentheses) are clustered by founder; $^*p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$

Table A1-3. OLS Models Predicting Female Representation: Robustness Checks with Alternative Measures, Model, and Sample

	Alternative measures of independent variables						Alternative measures of dependent variables[a]		Alternative model (Random effects)		Alternative model (Fractional logit)		Alternative sample (SME[b])	
	M1 Director	**M2** Employee	**M3** Director	**M4** Employee	**M5** Director	**M6** Employee	**M7** Director	**M8** Employee	**M9** Director	**M10** Employee	**M11** Director	**M12** Employee	**M13** Director	**M14** Employee
Daughter ratio	0.030***	0.065***												
	(0.00)	(0.00)												
Daughter-dominant founders			0.021***	0.047***										
			(0.00)	(0.00)										
Founders with at least one daughter					0.019***	0.046***								
					(0.00)	(0.00)								
Founder's number of daughters							0.109***	0.028***	0.010***	0.028***	0.060***	0.168***	0.089***	0.048***
							(0.01)	(0.00)	(0.00)	(0.00)	(0.01)	(0.01)	(0.00)	(0.00)
Founder married	0.103***	0.049***	0.103***	0.057***	0.103***	0.057***	0.035*	0.010*	0.062***	0.033***	0.476***	0.302***	-0.012***	0.022***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.02)	(0.00)	(0.00)	(0.00)	(0.01)	(0.02)	(0.00)	(0.00)
Founder educated	-0.007***	0.040***	-0.008***	0.039***	-0.008***	0.039***	-0.002	0.035***	-0.004***	0.047***	-0.036***	0.188***	-0.000***	0.000**
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.01)	(0.00)	(0.00)	(0.00)	(0.01)	(0.01)	(0.00)	(0.00)
Venture performance (lagged)	-0.001***	0.001***	-0.001***	0.001***	-0.001***	0.000***	-0.001*	0.001***	-0.000***	-0.000	-0.004***	0.002***	-0.017***	-0.010***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Venture size (lagged)	-0.000	-0.000***	-0.000	-0.000***	-0.000	-0.000***	-0.001	0.001**	-0.000***	-0.000***	-0.001	-0.002**	0.015***	0.026***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Constant	0.422***	0.469***	0.384***	0.520***	0.371***	0.490***	0.471***	0.142***	0.418***	0.498***	-0.571***	-0.055	0.266***	0.327***
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.10)	(0.02)	(0.01)	(0.01)	(0.03)	(0.04)	(0.04)	(0.06)
Industry-year FE	Incl.	Incl.	Incl.	Incl.	Incl.	Incl.	Incl.	Incl.	Incl.	Incl.	Incl.	Incl.	Incl.	Incl.
Child number FE	Incl.	Incl.	Incl.	Incl.	Incl.	Incl.	Incl.	Incl.	Incl.	Incl.	Incl.	Incl.	Incl.	Incl.
R (chi) squared	0.06	0.26	0.08	0.25	0.08	0.25	0.05	0.24	0.07	0.23	(18,024)	(40,226)	0.07	0.20
Observations	172,100	172,100	200,154	200,154	200,154	200,154	9,618	65,573	200,154	200,154	200,154	200,154	721565	721565

[a] DV = female ratio of newly hired directors/employees from year t to t+4; the number of observations significantly dropped because recruitment does not take place every year.
[b] Small and medium sized firms, including new and older ventures that employ fewer than 250 employees.
Standard errors (in parentheses) are clustered by founder; *$p < 0.05$, **$p < 0.01$, ***$p < 0.001$

Appendix 2. Supplementary Tables and Figures of the Event Study Analysis

Table A2-1. Balance Check in the Year Prior to Childbirth

Panel A. Key variables

	Treatment[a]	Control[b]	Statistical difference
Founder married	0.32	0.26	p = 0.12
Founder educated	0.25	0.22	p = 0.34
Venture size (lagged)	6.89	7.62	p = 0.63
Venture performance (lagged)	6.48	7.05	p = 0.42
Female director representation	0.23	0.22	p = 0.66
Female employee representation	0.29	0.28	p = 0.79

Panel B. Industry Distribution

Industry[c]	Frequency		Percentage (%)	
	Treatment[a]	Control[b]	Treatment[a]	Control[b]
01 Agriculture, forestry and fishing	0	8	0.00	2.07
02 Manufacturing and extraction	7	8	1.92	2.07
03 Energy production, water supply and waste management	1	0	0.27	0.00
04 Construction	12	13	3.30	3.37
05 Trade and communication	27	28	7.42	7.25
06 Financial activities and business services	13	14	3.57	3.63
07 Education and research	0	0	0.00	0.00
08 Health and care	1	0	0.27	0.00
09 Personal and cultural services	7	7	1.92	1.81
10 Public administration	0	0	0.00	0.00
G01 Agriculture, forestry and fishing	12	19	3.30	4.92
G02 Manufacturing and extraction	24	18	6.59	4.66
G03 Energy supply and environmental activities	0	0	0.00	0.00
G04 Construction activities	84	89	23.08	23.06
G05 Trade	70	56	19.23	14.51
G06 Transport and storage	19	28	5.22	7.25
G07 Hotels and restaurants	15	21	4.12	5.44
G08 Information and communication	16	17	4.40	4.40
G09 Finance and insurance business	0	0	0.00	0.00
G10 Real estate activities	6	2	1.65	0.52
G11 Business services	36	40	9.89	10.36
G12 Public administration and defense	0	0	0.00	0.00
G13 Education	2	3	0.55	0.78
G14 Health and social care; social services	3	7	0.82	1.81
G15 Cultural and personal services	9	8	2.47	2.07

[a] Number of observations: 364
[b] Number of observations: 386
[c] "01-09" are the industry categories used by Statistics Sweden before 2007 (inclusive); "G01-G15" are the industry categories used by Statistics Sweden after 2008 (inclusive).

Table A2-2. Difference-in-Differences Analysis: Predicting Female Representation

	Female director representation		Female employee representation	
	M1	M2	M3	M4
Treatment × Post-childbirth	0.010	0.008	0.015	0.012
	(0.01)	(0.01)	(0.01)	(0.01)
Founder married		0.015		0.043**
		(0.01)		(0.01)
Founder educated		-0.009		0.010
		(0.01)		(0.02)
Venture performance (lagged)		0.000		-0.000
		(0.00)		(0.00)
Venture size (lagged)		-0.000		-0.000
		(0.00)		(0.00)
Constant	0.202***	0.229***	0.271***	0.234***
	(0.01)	(0.01)	(0.02)	(0.06)
Year FE	Incl.	Incl.	Incl.	Incl.
Founder FE	Incl.	Incl.	Incl.	Incl.
R squared	0.02	0.02	0.00	0.01
Observations	4,525	4,525	4,525	4,525

Standard errors (in parentheses) are clustered by founder; $^{*}p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$

Figure A2-1. The Distribution of Founder-Year Observations in the Event Study Analysis
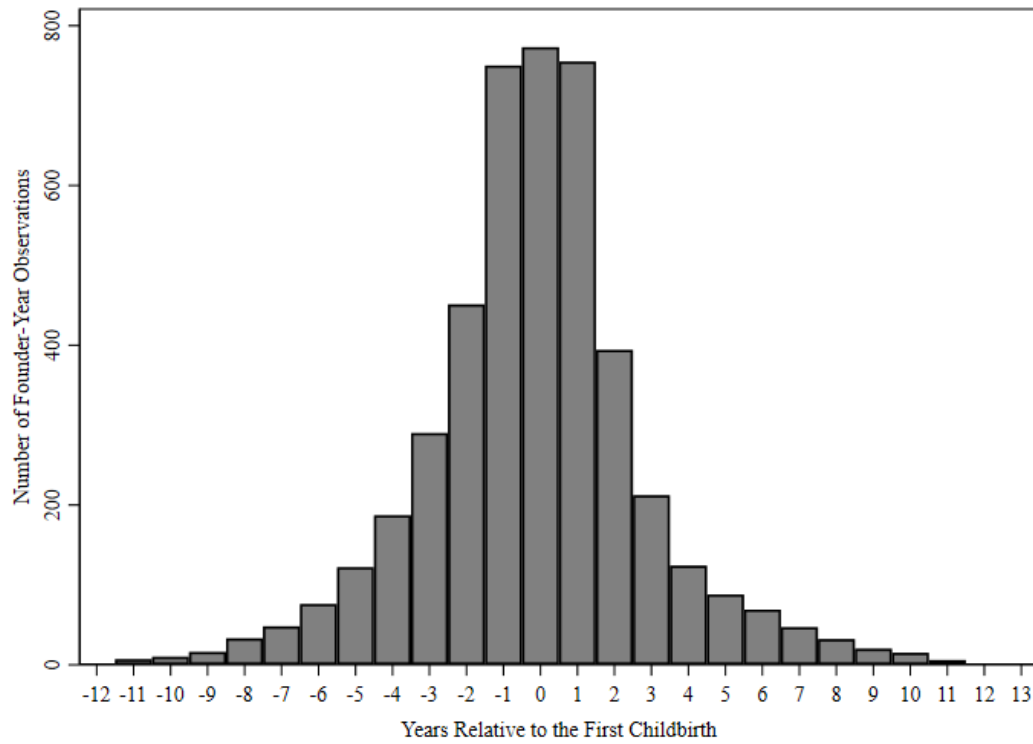
Note A2-1. Comparison of Our and Ronchi and Smith's (2021) Event Study Analysis Design

Our event-study analysis design differs from Ronchi and Smith's (2021) in one significant way, which may explain why our findings differ, namely they focus on the birth of the first *daughter*, while we focus on the birth of the first *child*.

With a selective focus on the birth of the first daughter (vs. the first child), Ronchi and Smith's (2021) sample is truncated with an upper bound in the number of daughters (i.e., one), but free of truncation in the number of sons. This may result in a type of sample selection known as 'incidental truncation' (Greene 2002: 780; Wooldridge 2002: 552). The establishment-year observations of female employment, wherein managers have more than one daughter, would be missing as a result of the truncation of daughter number at one.[30] This would result in a "truncated random variable" (Greene 2002: 757) with respect to the exogenous assignment of the child's sex to a male manager, ultimately inducing sample selection bias that is "likely to substantially change the estimated coefficients" (Greene 2005: 701), because "for the observed data, … the normal distribution assumed in [the exogenous assignment of the child's sex to a male manager]… is inappropriate" (Greene 2005: 698).

The focus on the birth of the first child avoids this problem, since we do not impose any sample selection bias related to gender. Our data can capture the natural sex birth ratio (see Panel B in Table A1-1 of Appendix 1), but this is absent in Ronchi and Smith (2021). Thus, selection bias due to incidental truncation may explain why Ronchi and Smith (2021) find daughter effects seemingly emerging right after birth (page 38, Figure 4; working paper version: October 27, 2021), vanishing when the daughter is 2–5 years old (page 38, Figure 4), and reemerging when the daughter is older than 5 years (page 39, Figure 5).

While our study also differs from Ronchi and Smith's (2021) in terms of country setting and type of male decision-makers (ours are founders in new ventures; Ronchi and Smith's are managers in establishments), these distinctions are unlikely to explain the different findings given that researchers have identified daughter effects in a variety of settings (e.g., Cronqvist and Yu 2017; Dahl et al. 2012; Wang et al. 2021) and among different types of male decision-makers (e.g., Calder-Wang and Gompers 2021; Glynn and Sen 2015; Washington 2008).

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[30] An intuitive example: observations of managers with two daughters (and zero sons) are missing in Ronchi and Smith's (2021) sample, yet observations of managers with two sons (and zero daughters) are included in their sample.

Appendix 3. Supplementary Tables of the Exploration of Alternative Mechanisms

Table A3-1. OLS Models Predicting Minority Representation: Rejecting the Mission-Change Mechanism

	M1 Minority = non-Swedes	M2 Minority = non-European	M3 Minority = Asians and Africans
Founder's number of daughters	0.002	0.000	-0.000
	(0.00)	(0.00)	(0.00)
Founder married	0.029***	0.017***	0.015***
	(0.00)	(0.00)	(0.00)
Founder educated	0.015***	0.007***	0.006***
	(0.00)	(0.00)	(0.00)
Venture performance (lagged)	-0.000**	-0.000***	-0.000**
	(0.00)	(0.00)	(0.00)
Venture size (lagged)	0.001***	0.000***	0.000***
	(0.00)	(0.00)	(0.00)
Constant	-0.029***	-0.017***	-0.016***
	(0.01)	(0.00)	(0.00)
Industry-year FE	Incl.	Incl.	Incl.
Child number FE	Incl.	Incl.	Incl.
R squared	0.07	0.08	0.08
Observations	200,154	200,154	200,154

Standard errors (in parentheses) are clustered by founder; $^*p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$

Table A3-2. OLS Models Predicting Female Employee Representation: Rejecting the Social-Networks Mechanism

	M1 Mom	M2 Non-mom
Founder's number of daughters	0.018***	0.013***
	(0.00)	(0.00)
Founder married	0.029***	0.028***
	(0.00)	(0.00)
Founder educated	0.026***	0.014***
	(0.00)	(0.00)
Venture performance (lagged)	0.000***	0.000**
	(0.00)	(0.00)
Venture size (lagged)	-0.000	-0.000***
	(0.00)	(0.00)
Constant	-0.167***	0.678***
	(0.01)	(0.01)
Industry-year FE	Incl.	Incl.
Child number FE	Incl.	Incl.
R squared	0.13	0.11
Observations	200,154	200,154

Standard errors (in parentheses) are clustered by founder; $^*p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$

Table A3-3. OLS Models Predicting Female Representation: Rejecting the Self-Selection Mechanism

	Female dominated industries		Male dominated industries		Female atypical industries	
	M1	**M2**	**M3**	**M4**	**M5**	**M6**
	Female director representation	**Female employee representation**	**Female director representation**	**Female employee representation**	**Female director representation**	**Female employee representation**
Founder's number of daughters	0.010*	0.036***	0.014***	0.031***	0.016***	0.025***
	(0.00)	(0.01)	(0.00)	(0.00)	(0.00)	(0.00)
Founder married	0.107***	0.021*	0.103***	0.061***	0.108***	0.040***
	(0.01)	(0.01)	(0.00)	(0.00)	(0.00)	(0.00)
Founder educated	0.003	0.031***	-0.009***	0.040***	-0.003	-0.000
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Venture performance (lagged)	-0.001*	-0.001*	-0.001***	0.001***	-0.001*	-0.000
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Venture size (lagged)	0.000	0.000	-0.000*	-0.000**	-0.001*	-0.003***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Constant	0.213***	0.385***	0.384***	0.505***	0.247***	0.103***
	(0.03)	(0.04)	(0.01)	(0.01)	(0.01)	(0.01)
Industry-year FE	Incl.	Incl.	Incl.	Incl.	Incl.	Incl.
Child number FE	Incl.	Incl.	Incl.	Incl.	Incl.	Incl.
R squared	0.09	0.17	0.08	0.20	0.09	0.02
Observations	22,015	22,015	178,139	178,139	49,317	49,317

Standard errors (in parentheses) are clustered by founder; $^*p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$

Table A3-4. OLS Models Predicting Female Representation: Rejecting the Market-Position Mechanism

	M1 **Female director representation**	M2 **Female employee representation**
Founder's number of daughters	0.014***	0.024***
	(0.00)	(0.00)
Founder married	0.112***	0.039***
	(0.00)	(0.00)
Founder educated	-0.005	0.010**
	(0.00)	(0.00)
Venture performance (lagged)	-0.001**	-0.000
	(0.00)	(0.00)
Venture size (lagged)	-0.001*	-0.002***
	(0.00)	(0.00)
Constant	0.224***	0.180***
	(0.02)	(0.02)
Industry-year FE	Incl.	Incl.
Child number FE	Incl.	Incl.
R squared	0.09	0.03
Observations	57,093	57,093

Standard errors (in parentheses) are clustered by founder; $^{*}p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$

Appendix 4. Supplementary Material of the Qualitative Evidence

Table A4-1. Interview Information

	Panel A: Treatment group						
	Founder 1: Dan	**Founder 2: Jon**	**Founder 3: Ulf**	**Founder 4: Per**	**Founder 5: Martin**	**Founder 6: Lars**	**Founder 7: Johan**
Number of daughters (including age)	One 5-year old daughter	One 7-year old daughter and one 5-year old daughter	One 1-year old daughter	One 3-year old daughter	One 3-year old daughter and one 8-year old daughter	One 14-year old daughter	One 14-year old daughter
Number of sons (including age)	One 4-year old son	-	-	One 5-month-old son	-	One 12-year old son	One 12-year old son
Venture business	Accounting consultancy	Social services	Technical solutions	Sport equipment	Event management	IT supplier	Tour operator with a focus on sports trips
Venture industry	Financial services	Services	Technology	Retail	Business services	IT services	Tourism
Firm age	3 years	10 years	10 years	5 years	8 years	18 years	23 years
Total length of two-stage interviews	1 h 6 m	1 h 12 m	1 h 26 m	40 m	1 h 10 m	58 m	53 m

	Panel B: Control group					
	Founder 8: Erik	**Founder 9: Nils**	**Founder 10: Anders**	**Founder 11: Fredrik**	**Founder 12: Lucas**	**Founder 13: Mikael**
Number of sons (including age)	One 10-year old and one 6-year old son	One 19-year old son, one 16-year old son, and one 14-year old son	One 10-month-old son	One 13-year old son and one 11-year old son	One 50-year old son and one 42-year old son	One 21-year old son, 16-year old son and one 10-year old son
Venture business	Accounting consultancy	Private school	Architecture	Building services	Office supplies	Architecture
Venture industry	Financial services	Education	Services	Construction	Manufacturing	Services
Firm age	10 years	6 years	3 years	11 years	25 years	3 years
Total length of two-stage interviews	40 m	1 h 7 m	30 m	25 m	40 m	43 m

Table A4-2. Interview Protocol (Translated from Swedish)

1ˢᵗ Stage Interview on Family/Work Interface

1. Tell us about yourself and your company
   a. When did you start it, and how did it happen?
   b. What was your family situation back then when you started your business?
   c. What is your family situation now?
2. What does your typical workday look like?
3. What does your typical free time look like?
4. How would you describe your work habits?
5. What does your family think of your work and your work habits?
6. When your first child was born, how did you feel it affected your work situation?
   a. Do you think of your role as a business owner differently today than when you did not have children?
7. When your second child was born, how do you feel it affected your work situation? (if more than 2, ask questions about the 3rd, 4th, etc. children)
8. Have you taken paternity leave (formally/informally?)
9. How did the birth of your children affect your life in general?
10. Did you obtain any new insights when your daughter/son was born/growing up?
    a. What do/did their friendship patterns/circles look/looked like
    b. Opportunities in life
    c. How they are treated by others
    d. Thoughts about how their future might look like?
11. Did you take any of this into consideration in your business?

2ⁿᵈ Stage Interview on Recruitment and Development (on average, one week after 1st stage interview)

1. Tell us about your company's structure, who is responsible for which decisions?
2. When it comes to recruitment decisions, how involved are you? In which way?
3. What is it that you look for in candidates you recruit?
4. Have you always had this type of approach or you can see differences between now and some time back?
5. What about the remuneration and salary setting, how are these decisions made, and what parameters do you take into account?
6. If you look back in time, how has your approach to these matters changed/developed?
7. There is much discussion now about how gender equality and diversity should be taken into account in staffing and remuneration, what are your experiences/feeling about it?
8. Have these changed/developed over time?
9. Did you take any of this into consideration in your business?

Table A4-3. Sample Quotes

	Quotes from treatment group	Quotes from control group
Fatherhood affects one's view on life and work[31]	"Their [the children's] birth influenced my priorities; I started to think about my children first. Then I also started to think that the day [when] I no longer felt that I could prioritize my children, I would need to have an exit strategy and I should quit. I also started to think about what is important in my life. With the birth of my children, my goals in life became clear. Before they were born, I didn't really have any goals, and I didn't have any future outlook, as they were short-term goals [if any]." (Dan, with 1 daughter and 1 son) "My parents... I'm not saying they were poor but they just had regular wages; it's not like you could run around and do whatever you wanted. Everything I did not have when I was little, I would like my daughter to have, and a little more. In this way, it feels like you are living for someone else. That's my everything. My choice. It's a very cool feeling." (Ulf, 1 daughter) "I am at that age where almost everyone I know has children. It is clear that sometimes you just feel like 'I may not have wanted children', but I would never want fatherhood undone because it has changed my view on things a lot. Not a day goes by that I do not laugh with my three-year old [daughter]. They [the children] give me so much back. So, it is clear that a lot has changed so far. But I have a hard time putting into words exactly what it is... As I said, it always brings a smile to my face, every day. Many times a day, when I am with the kids." (Per, 1 daughter and 1 son) "Health and family must always come first. They have certainly been a part of my leadership towards those who have both worked in the past, but also those who remain that when you become a father, you understand the importance of being at home and being present and so on, is also a part of the package deal, so that you do not get too deeply involved in the job. And you do not make a job too important. Most important for me are health and the family. This was probably an insight I gained when I became a father myself." (Johan, 1	"Work becomes a little less important. I guess that's what you notice over time, that it becomes like that, all the time. The more personality he gets, the less important work becomes. Then my personality has changed so that I have become fonder of children since I had children myself." (Anders, 1 son) "I started to engage in a lot of activities with the kids. Often, it's their sports activities, it's driving to football matches somewhere, since they cannot get to these matches themselves during the winter. I work less often." (Mikael, 3 sons) "It has had a huge impact. You grow mature. You have to think about people other than yourself and how the decisions you make affect them. So I think that it has affected me as a person." (Nils, 3 sons) "The birth of my first son did not affect that [my work situation] much, nor the birth of my second son" (Erik, 2 sons)

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[31] There is an interesting asymmetry in that founders with daughters provided more reflections than those with only sons on how fatherhood affects their attitude in general, even though we asked them the very same questions.

	daughter and 1 son)	
	"When my daughter was born, I traveled less. I used to work overtime, but after my daughter's arrival, I worked from 8 am to 5 pm 5 days a week, I only worked my 40 hours." (Lars, 1 daughter and 1 son)	
	"You mature because you have a responsibility for them [the children], and you feel that you can take it and also need to help them to be as good as they can be, without clinging on or controlling them too much. I think that as a parent, you grow enormously by just having that role, absolutely!" (Martin, 2 daughters)	
Reflections on opportunities offered or denied to one's child(ren), and insights they learned from these observations	"If I think about my daughter, she already has some disadvantages in life because of being a girl. That's how I understand it, she is a girl... That will never change, but I want to make sure I do what I can so that she doesn't fall behind in any way. So a lot of what we do together, most of the games we play, revolve around learning." (Dan, with 1 daughter and 1 son) "It is clear that there is certainly a type of glass ceiling in all industries... Especially in the accounting industry. But also in other industries, I mean, it is completely impossible that there should be so many more men on decision-making boards in Sweden than there are women, so there is a glass ceiling somewhere." (Dan, with 1 daughter and 1 son) "I was nominated as among the top 40 in Sweden as a young entrepreneur. On that list there were like 4 women, the rest were guys. You can see that women have a very hard time getting ahead in this way." (Ulf, 1 daughter) "I feel safer to raise girls here in Sweden than if I had raised them abroad. Significantly safer. But if we are only to compare boys and girls in Sweden, I still think that boys have an advantage, even today. You could say that boys have a more powerful role. And I am very convinced that it is about this – partly that there are boys' clubs, there are connections where men recommend men to a greater extent than it happens among women." (Jon, 2 daughters) "I think there are many women or girls who go far and can work their way upward, but I think that it is easier for boys." (Per, 1	"I grew up in the countryside in a white middle-class family, so I've had all the opportunities in life. The only thing I feel I'm careful to give back to my son is a secure family and a country upbringing. Because that's what I've enjoyed the most. I think it [the opportunity] would have been the same for a daughter. Well, you might be a bit more worried about a daughter than you are about a son, but I do not think there is a big difference." (Anders, 1 son) "For me, gender equality is more about different genders having the same opportunities. Then there is a principle that you should favor women more than men. It doesn't feel like you're rewarding personalities, but rather gender. And all the gender quotas and such, I don't agree with all of them. Well, you should have a gender quota. But, gender equality should mean that there should be the same conditions for the sexes, I think." (Anders, 1 son) "I do not see opportunities differ between boys and girls in school. Looking at the school world, I imagine that maybe they're a bit too small for that [opportunity difference] to happen yet. I haven't seen anything like that yet, not as I understand it." (Erik, 2 sons) "I'm afraid that the education system is falling behind. That's my impression. We are failing, because you are more interested in nobody being offended [e.g., by gender inequality] than actually getting people to learn something and understand something" (Erik, 2 sons) "I really don't think [boys have different opportunities from girls]. Because I think, for example, my sons are very interested in flying because I'm flight crazy. As you've seen, I travel all over the world.

	daughter and 1 son) "I'm a little disappointed that I do not have more women in my organization, but I may not have had (as many) women who reached out to me… It has been almost only men who reached out to me [for jobs]." (Johan, 1 daughter and 1 son)	As soon as there's an airplane in the air, I'll check the app to see what kind of airplane it is. And my sons are the same way. But the thing is, my wife has become one too now. So I don't think it is linked to gender. It's the environment again. If you are indoctrinated or brainwashed long enough, you start to like the situation. And there's other stuff like this too, so I don't really think gender per se matters in that way." (Nils, 3 sons)
Gender as a factor (or not) in venture decision-making[32]	"I would probably rather give opportunities to women than to men, to be honest… I obviously think that pregnancy and things like being at home should not affect your salary, but that you should continue to receive that salary even if you have been at home for two years so that if you had 10,000 in salary before you went home, and in two years the salary in the company had increased by 30%, then you should have 13,000 when you come back. I think that's obvious." (Dan, with 1 daughter and 1 son) "Had the [gender equality] debate not existed, I would have just gone with my own instinct and thought 'Yes, but this is right, we're going for it." (Dan, with 1 daughter and 1 son) "It has only been with personal maturity perhaps that I have realized the value of having women in my company. Female colleagues who, perhaps to a greater extent, use a different side of the brain than men do. I have treasured female colleagues and always wanted a lot of women around me in this industry, because it's an industry where one takes care of others and it requires a lot of maternal instincts and so on. If you look at my management [team], there has only been one man besides me. The rest have all been women." (Jon, 2 daughters) "Women in leading roles, good competent women, in my experience can be so much better than competent men... They [competent women] have a better chance of being successful (Lars, 1 daughter and 1 son).	"I feel like the most important thing is to get the right people in. Then whether they are male or female doesn't matter in my opinion." (Anders, 1 son)" "The well-being of employees, that's the focus. The gender equality debate itself, I feel, must be outside of the company. Consequently, that's also the case when we recruit; normally we don't look at gender." (Erik, 2 sons) "I don't have anything like that in my profession because it's almost all men and we've never... Well, we've had a woman interviewed but it didn't work out. But I think this has gotten a bit out of hand in society. I'm a bit tired of it." (Fredrik, 2 sons) "Absolutely the number one priority is the person we felt was going to fit in the group." (Mikael, 3 sons) "The most important thing was qualifications." (Nils, 3 sons)

[32] In both the treatment and control groups, none of the founders prioritize gender as a top decision criterion; instead, nearly all prioritize personality, competence, etc. However, in the treatment group, founders tended to actively mention gender-related reflections, yet the control group seldom did. Thus, in this set of quotes, we report more gender-related reflections in the treatment group, and omit the reflections on personality, competence, and others (they are quite similar to the quotes in the control group).

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