Progress on gender diversity for corporate boards: Are we running in place?

Catherine H. Tinsley

McDonough School of Business

Georgetown University

tinsleyc@georgetown.ydu

James Wade

Goizueta School of Business

Emory University

james.b.wade@emory.edu

Brian G. M. Main

Edinburgh University Business School

Edinburgh University

Brian.Main@ed.ac.uk

Charles A. O'Reilly

Graduate School of Business

Stanford University

coreilly@stanford.edu

May 2014

Progress on gender diversity for corporate boards: Are we running in place?

Despite rhetoric supporting the advancement of women on corporate boards, there is meager evidence of significant progress over the last decade in the US and other countries that do not have mandated gender quotas.   We use archival board data (approximately 3000 U.S. publicly traded firms) from 2002-2011 to show that a significant predictor of a female being appointed to a corporate board is whether a woman has just left that board.   When a man leaves, there is a similar propensity to reappoint another man, although the effect is smaller than for women. This "gender matching heuristic" was replicated in follow up lab studies, which also showed that although respondents appear to be selecting candidates based on gender matching they deny using gender as an important factor. We suggest this gender matching is, for most people, a subconscious heuristic process stemming from the more general status-quo bias.

Introduction

Across the globe, corporations are under pressure to increase the number of women on their Boards of Directors. In the U.S., although women comprise roughly 47 percent of the labor force and 51 percent of the management and professional occupations (Bureau of Labor and Statistics, 2012), women hold only about 16 percent of corporate board seats (Catalyst, 2013). Other country's profiles are similar (setting aside, for the moment, countries whose mandated gender quotas have already gone into effect). For example, in Australia, although women comprise 46 percent of the labor force and 31 percent of managerial positions (Australian Bureau of Statistics, 2012), they hold just over 9 percent of ASX 500 Board of Directors seats (Catalyst, 2013). In Canada, the numbers are 48 percent of the labor force, 37 percent of management positions, and 14 percent of board seats (Statistics Canada, 2012, Catalyst, 2013). Similarly, in Europe, the percentage of women on corporate boards ranges from only 2 percent in Portugal to 13 percent in the Netherlands (Italy is 5 percent, Switzerland and Belgium are 9 percent, the U.K. is 11 percent, and Germany is 13 percent) (Governance Metrics International, 2012).

Given the paltry percentages of women board members, it is not surprising that many actors in government, academia, and in the organizations themselves are pushing for more gender parity on corporate boards (e.g., Bilimoria, 1995; Daily & Dalton, 2003; Valenti, 2007; Westphal & Milton, 2000). For example, in 2012 Spencer Stuart, a U.S. based executive search consulting firm, sent a survey to 697 directors on the *Corporate Board Member* Research Panel and to 1,850 Governance/Nominating committee members and chairs of U.S.-based publicly traded companies, which asked respondents if they were aware of policies that their companies had implemented in the previous 3 years to promote boardroom diversity. Fully three quarters of respondents said that their company had instituted such policies (ranging from having a general

statement supporting diversity to proactively including boardroom diversity as a meeting agenda topic to having specific criteria and attributes for the boards as a whole). Moreover, an overwhelming majority of the respondents (80%) believed that diversity in the boardroom generally created value for shareholders.

Given that many espouse the advantages of board diversity and yet diversity remains low, an important policy question seems to be *how* to best increase the percentages of women on corporate boards. There are two broad methods with which different countries have experimented: legislative (regulatory) and voluntary. Legislative methods are rules (usually quotas) that are passed by a government body of elected officials or passed by a governmental administrative body that oversees company conduct. Voluntary methods can involve non-legally binding pledges (that can include targets) signed by organizations to signal a public commitment to board diversity. Although the U.S. Securities and Exchange Commission did rule (SEC, 2009) that U.S. publicly traded companies must disclose their policy on boardroom diversity and that nominating committees must consider diversity during their nomination process, the U.S. remains a voluntary method country. Hence, the approaches companies have taken here tend to rely on policies such as requiring a slate of candidates for every open board seat, having the CEO identify diverse candidates from within the company, and asking search firms to include diverse external candidates (Aguilar, 2010).

Our research examines whether these voluntary methods will be sufficient for producing gender equality within any reasonable time frame. Although quotas may create their own issues (Ahern & Dittmar, 2012), we argue that voluntary efforts towards gender parity may falter, even when people are highly motivated towards diversity, because of a "gender matching heuristic." Gender matching in this context is the propensity to select a female candidate when a female

board member departs and to select a male candidate when a male board member departs.   We argue that this is largely a sub-conscious matching process - sub-conscious to the extent that when asked to articulate why they selected a particular candidate, people generally offer other reasons for their selection. Yet, when controlling for these other reasons, the gender of the departing candidate still plays a powerful role in determining the gender of the candidate selected.

Across both field and laboratory data, we find strong evidence that, when people are asked to choose a replacement board member from a slate of candidates, they do so by matching the gender of the candidate to the gender of the board member who is departing.   Moreover, our experimental data allow us to ask participants to explain their candidate selection and shows that participants typically invoke other criteria to explain their selection (such as prior board experience and the number of other boards on which the candidate sits). In addition, when asked specifically to judge the importance of gender vis-à-vis other attributes, decision makers declare gender as significantly less important than several other criteria.   Although the reasons articulated by participants did have some explanatory power in predicting which candidates would be selected, the gender of the departing candidate continued to explain a significant part of the variance in the board selection process even after these reasons were controlled for. Owing to this gender matching heuristic, the percentage of women on the boards may not increase as substantively over time as might be expected.

Given that public rhetoric champions the importance of increasing women's representation on boards, we also test different interventions that might lead to more female candidates being selected. Surprisingly, we find that reminding participants about the importance of diversity does not increase the probability that a female candidate will be chosen.

Decreasing the female-to-male ratio of incumbent board members offers a slight increase in the probability that a female candidate will be chosen (but in the experimental data, this effect goes away when the gender of the departing candidate is considered).   In contrast, increasing the ratio of female-to-male board candidates does increase the probability that a female candidate will be selected. Nonetheless, even with this intervention, a strong and significant gender matching effect remains.

Our results suggest that the glacial pace at which women's participation on boards is increasing may stem from a sub-conscious heuristic that guides people's decisions towards using the gender of the departing director as a cue to the appropriate choice of a replacement.   In this study we contribute to the literature on board diversity by showing that valuing diversity may not be sufficient to increase boardroom gender diversity. We also add to the literature on gender by offering a new heuristic that explains significant variance in how top-level candidates are selected. Finally, our results have implications for research in decision-making by offering evidence that the cognitive process underlying these selection judgments is consistent with the dual process model of cognition (Evans, 2008; 2010; Kahneman & Fredrick, 2002; Sloman, 1996; Stanovich, 1999; Chaiken & Trope, 1999). As we explain in the discussion section, our results suggest that participants combine a conscious, deliberative cognition process using criteria such as candidate board experience with a heuristic matching between candidate gender and departing board member gender that for most participants appears to be subconscious. We conclude by discussing the implications of our findings for developing these literatures and for organizations and policy makers concerned with increasing female board representation.

Gender Matching

Organizational decision makers are bounded not only in their rationality, but also in the number of issues to which they can devote attention (Simon, 1991). Employee selection can be a particularly difficult decision problem because there are usually a large number of criteria on which various candidates can differ. Although the classic decision approach calls for a multi-attribute decision model in which candidates are selected by delineating the appropriate criteria, weighing their relative importance, judging how well each candidate fulfills each criteria, and combining these judgments to discover the best candidate (von Neumann & Morgenstern, 1944; Weber, 1985; Keeney & Raiffa, 1976), there is very little evidence that people actually select candidates in this manner (Schmidt & Hunter, 1998). Some lament that selection processes are not more systematic, arguing that our "stubborn reliance" on factors such as intuition or gut feeling leads to a large number of poor selection decisions (Highhouse, 1998). Others advocate for a more systematic approach using decision aids such as linear modeling (Meehl, 1954; Dawes, 1971; 1979).

Despite the evidence that these methods outperform experts' intuition, particularly when selection criteria are well defined (Dawes, 1971), people tend to reject prescriptions such as linear modeling. Instead professionals who select personnel for a living (such as HR managers and executive head-hunters) tend to believe they obtain better outcomes by making unaided decisions than by using any tools (Colbert, Rynes, & Brown, 2005), and increased experience only heightens this conviction (Camerer & Johnson, 1991).

One reason that, in reality, unaided decision makers (even experts) perform more poorly than analytical models is because the complexity of the decision problem encourages reliance on

decision rules or heuristics that reduce cognitive effort (Kahneman, Slovic, & Tversky, 1982; Tetlock, 2005). Experts rely on these heuristics even though they may not be immediately accessible in conscious thought (Kahneman, 2003); that is, such heuristics are often subconscious cognitive processes. These heuristics have been documented as operating in the boardroom in matters of executive pay determination (e.g., O'Reilly, Main & Crystal, 1988; Shin, 2013), and it is clearly possible that they are also operating when it comes to director selection (e.g., Westphal & Zajac, 1995). One well-established phenomenon in the psychology of reasoning is a matching bias (Evans, Legrenzi, & Girotto, 1999), which is the tendency to make selections based on a categorically based cue that is matched between the stimulus and the choice selected. We believe this categorical-based matching may also occur in personnel selection tasks and have a powerful effect[1]. Indeed, in distilling the vast literature on how experts predict outcomes (and thus whom selection professionals might choose), Hastie and Dawes (2001) note that experts tend to rely on a few pieces of information in forming their judgments.

In this study we argue that gender is a salient cue that people rely on in the board selection process, particularly given the current climate regarding the value of promoting gender diversity (Westphal & Milton, 2000; Westphal & Zajac, 1995). Thus, an important aspect of matching in board selection decisions may be based on gender, in which the gender of the candidate selected will tend to match the gender of the departing board member. Indeed, in a sample of about 300 Fortune 500 firms from 1990 to 1999 Farrell and Hersch (2005) show that when an individual leaves the board, their replacement is more likely to be of the same gender

---

[1] We prefer the term gender matching *heuristic* over *bias*, however, because unlike in deductive logic tasks, in our selection task there is no one normatively correct answer.

and that this effect is stronger when women leave the board[2]. We extend their work by showing

that this pattern continues to persist in a more recent time period (2002 to 2011) using a sample

of ten times as many firms. Further, in a series of experiments we explore the underlying

mechanisms that drive this effect. One possible reason for this effect is that there may be a norm

that has evolved over time of maintaining at least a minimal level of diversity. There may be an

underlying belief that such diversity is needed for firms to signal that they are conforming to the

prevailing diversity norms in the larger environment (Meyer and Rowan, 1977; DiMaggio, and

Powell, 1983).

For this reason, rhetoric about promoting gender diversity may not increase the overall

representation of women on boards. Although concerns about diversity may make people aware

of gender representation, another powerful force, the status quo bias, can operate against large

changes in the overall gender composition of the board. The status quo bias is simply a

preference for the current state, whatever is in existence now, rather than for making a change

(Kahneman, Knetch, & Thaler, 1991). For example, drawing on system justification theory (Jost

& Banaji, 1994), Kay and his colleagues (Kay, Gaucher, Peach, Laurin, Friesen, Zanna &

Spencer, 2009) have shown that the status quo bias can lead people to judge the current

sociopolitical system as being the most desirable and reasonable state of affairs. They

demonstrated how this bias can maintain gender inequality and hinder social change. The status

quo bias, coupled with the matching heuristic discussed above, is likely to produce gender-

matching in that those departing from the board will tend to be replaced by someone of the same

gender. There is a large literature that looks at how the status quo bias influences selection

---

[2] Such a situation can be quite stable over time and need not result in any radical departure from the status quo gender distribution on the board. A simple Markov Chain illustration of this point is available from the authors upon request.

decisions in the context of personal finance (where to invest your money) (Benartzi & Thaler, 2001; Kempf & Ruenzi, 2006; Samuelson & Zeckhauser, 1988). Here, we investigate how the status quo bias influences personnel selection. Though the status quo bias may be at work in other demographic dimensions (such as age, ethnicity, functional specialty) we focus here on gender. Gender has been argued to be the most visible and essential social category (Prentice & Miller, 2007) and, as noted above, current discourse emphasizes the importance of gender parity on corporate boards (Westphal & Milton, 2000; Westphal & Zajac, 1995).

Several explanations for status quo bias have been advanced and received some empirical support. One idea is that the status quo is the reference point against which change is measured. Since prospect theory suggests that losses are more psychologically salient than gains (Kahneman &Tversky, 1979), the potential loss associated with a change becomes more salient than the potential gain from change, creating a preference for the current state of affairs (Samuelson & Zeckhauser, 1988). A related notion is regret avoidance; since people experience greater regret for action than for inaction (Kahneman, Tversky, & Slovic, 1982), they will tend to maintain the status quo. There is also evidence for an existence bias in that simply being in an existing state suggests that state is a good one (Eidelman, Scott, & Crandall, 2012). This is reminiscent of the adage, "if it's not broken, don't fix it." These biases seem particularly relevant in the context of corporate boards where there is a premium among directors on maintaining cordial relations (Krawiec, Conley, & Broome, 2013; Lorsch & MacIver, 1989; Westphal & Zajac, 1995).

Our research is not designed to sort out the nuances of these different explanations, but rather to show in the context of personnel selection that the status quo bias can inhibit change. Indeed, evolutionary psychologists have argued that preference for the status quo does not

necessarily lead to poor decision-making because outcomes from any decisions (such as the performance of a board based on the decisions of who was selected) are uncertain. Therefore staying with a current state can be good as long as previous decisions were good enough (Haselton & Nettle, 2006).

At the same time, however, in the context of board selection, the status quo bias might be costly to companies since there has been an increasing emphasis on the importance of gender representation. As a result, companies are under increasing normative pressure to display some evidence that they are making a good faith effort to increase diversity, even if such efforts are primarily symbolic (Meyer and Rowan, 1977). There is a substantial expectation that the board will serve a symbolic role by signaling to outsiders aspects of the organization that are unobservable owing to asymmetry of information (Connelly, Certo, Ireland & Reutzel, 2011; Miller & Triana, 2009, Westphal & Zajac, 2013). Conformance to changing norms of boardroom diversity may serve as a signal of good corporate governance (O'Reilly & Main, 2010; Rhode & Packel, 2010). The empirical evidence for the impact of boardroom diversity on company performance remains mixed, with some studies finding statistically positive significant effects (Ben-Amar, Francoeur, Hafsi & Labelle, 2013; Carter et al., 2003; Jurkus, Park & Woodward, 2008), some finding no effects (Carter, D'Souza, Simkins & Simpson, 2010; Francoeur, Labelle & Sinclair-Desgagne, 2008; Gregory-Smith, Main & O'Reilly, 2014; Rose, 2007), and some finding negative effects (Adams & Ferreira, 2009; Ahern & Dittmar, 2012; Shrader, Blackburn & Iles, 1997; Wellalage & Locke, 2012). However, considerations of organizational reputation (Fombrun & Shanley, 1990; Musteen, Datta & Kemmerer, 2010; Rindova, Williamson, Petkova & Sever, 2005) and norms of providing all with equal opportunities might be expected to make at least some increase in diversity beneficial.

Rather than focusing on any possible performance effects of diversity, our purpose here is to simply document that the status quo bias leads to personnel decisions based on gender matching. We do this through the classic reversal test—when a woman departs, a woman should be more likely to be selected than a man; when a man departs, a man should be more likely to be selected than a woman (e.g., Bostrom & Ord, 2006). Further, we aim to show that this gender matching is largely a subconscious process, which makes it difficult to overcome. Indeed, given the gender matching heuristic, we argue that other interventions are needed to increase the representation of females on corporate boards.

Proposing a gender matching heuristic as a subconscious process for most people leads to the following Hypotheses:

H1: Exits of female directors will have a positive impact on the probability of appointing a female board candidate, whereas exits of male directors will have a negative impact on the probability of appointing a female board member.

H2: When people are asked to explain the criteria that they used in selecting new board members and these conscious explanatory factors are included in analysis, the gender of the departing board member will continue to have a significant influence on the gender of the candidate selected.

H3: When people are asked to judge the importance of a number of different decision criteria, they will declare gender as significantly less important than other criteria.

Study 1 – Archival Field Study

In Study 1 we test Hypothesis 1, namely that the exits of male directors will increase the probability that a male candidate will be selected and that the departure of female board members will increase the likelihood that a female board candidate will be selected. As noted earlier, Farrell and Hersch (2005) found this effect in their sample of about 300 Fortune 500 companies during the period 1990 to 1999. In this study, we examine gender matching using a more recent and comprehensive sample of more than 3000 companies over the ten-year period from 2002 to 2011.

Method

We use data obtained from Equilar on more than 3000 companies between 2002 and 2011. Equilar collects data on the entire Russell 3000, which represents about 98% of the US equity market, as well as on many other companies that file a proxy with the SEC. We utilized fixed effect and random effects logistic analyses to predict whether a newly appointed director was female or male. Thus, each observation represented the appointment of a new director that had not previously been on a focal company's board. We controlled for each firm's lagged one-year market return, its size in assets, the number of directors on the board, and the percentage of women on the board. Our two key variables of interest were the number of females and males that exited the board. All independent variables were lagged by one year.

Analyses & Results

Table 1 shows the means and correlations of the variables in the study. Model 1 in Table 2 utilizes random effects clustered at the firm level. Firm size and the number of directors increase the chances of a woman being appointed while the percentage of females on the board

the previous year decreases it. Consistent with the findings of Farrell and Hersch (2005) and Hypothesis 1, the probability of a woman being appointed rises when women left the board in the previous year. Similarly, while the effect is smaller in magnitude, women are less likely to be appointed as the number of men who exited the board the previous year increases. In Model 2, which uses a fixed effects estimator, the effect of a male leaving remains about the same as in the random effects model, but the coefficient on female exits increases sharply from .6911 to about 1.115.

We investigated the strength of these effects by calculating the change in probabilities that would occur at the mean of the dependent variable when a male or female had left the previous year. On average 12.8 percent of new directors were women. In the random effects model (Model 1), if a male director exits the previous year it reduces the probability of choosing a female from 12.8 percent to about 10 percent. In contrast, if a female exits the previous year the chances of a female appointment increase from 12.8 percent to almost 23 percent. In the fixed effects model (Model 2), the change in probabilities associated with a male leaving the board do not appreciably change, but the likelihood of appointing a woman increases from the 12.8 percent cited above to almost 31 percent. Because the influence on board appointments of women of a female exit is greater than effect of a male exit, one might expect that the number of women directors would rise over time. However, this is counterbalanced by the preponderance of males on the board at the outset. The predominance of male directors results in a self-perpetuating outcome. The more women on the board the better the chance they will further increase their representation, but these estimates suggest that it is a slow process, and not a gender-neutral one.

We also wanted to investigate whether this differential appointment rate might be narrowed as more women join a board. Possibly, their greater numbers might give them more power and influence and lead to more female appointments. Model 3, which adds an additional variable in the form of the square of the percentage of women on the board, shows some preliminary support for this idea in that the main effect is negative while the squared effect is positive. However, the inflection point at which an increased percentage of women would start to increase the likelihood of female appointments does not occur until the percentage of women reaches about 87 percent, a percentage that is reached in only those companies well above the 99th percentile in the sample.

We repeated a similar analysis in which we used the number of female and male directors instead of the percentage of female directors. Model 4 shows that, as expected and consistent with the findings above, the exit of female directors increases the chance that the next board appointment will be a woman while the number of males exiting decreases it. It can also be seen here that the chances of a woman being appointed to the board are higher when there were more male board members, but that the negative effect associated with having more female board members is over six times larger. In Model 5, we add the squared effects for the number of male and female directors. Similar to our percentage measure, the number of women first reduces the chance of a female appointment but becomes weaker as more women are added. However, the inflection point at having another woman increasing the odds of appointing a woman occurs after seven women are on the board, which is outside the range in our sample. Interestingly, the positive impact of having more males on the board also fades over time although this effect is relatively weak.

Discussion

Overall, we find very strong support for gender matching. When someone leaves the board, a new board appointment is more likely to be a female when a female board member has left than when a male board member has left. In a gender-neutral world, it might be expected that the gender of the appointee and the gender of the retiring member would be independent of each other. The exact probability of appointing a male or a female might depend on the gender mix of the qualified talent pool, but whatever the mix is, the chances of a woman being appointed should be the same irrespective of the gender of the person stepping down. While the effect of females exiting the board is stronger than that for male exits, this is unlikely to lead to significantly more female representation on the board because as the number and percentage of women on the board increase, the chances of a female appointment decline. Even though this effect fades as more women are board members, the inflection point at which an additional female board member increases the appointment chances of female appointments is almost outside the sample range. Lack of much progress in increasing diversity is confirmed by Figure 1, which shows the percentage of female board representation from 2002 to 2011 for firms that were in our sample for the entire ten years. While the percentage of women on the board increases slightly over the period, the percentage of women remains quite low (well below 15 percent). In the next three studies, we attempt to uncover the underlying mechanisms that drive the gender matching process.

Laboratory Studies

Given the field evidence supporting a gender-matching selection process, whereby exits of female directors prompted female appointments and exits of male directors had the opposite

effect, we sought to explore why this effect occurred by replicating this situation in the lab. Specifically, we wanted to: 1) examine people's explanations for why they selected certain candidates, 2) test whether gender of the departing candidate is still significant when controlling for these explanations, and 3) test the relative importance of gender versus other criteria by having participants rank the importance of 10 salient attributes of the candidates and the board members.

Methodological Overview

Participants were asked to assume the role of the chair of a corporate board's nominating committee and were told that it was their job to select a replacement for a departing board member (who was variously male, female, or no gender given). Participants were given information about the current nine member board in terms of member: age (45-68), gender (3 females and 6 males), functional area (varied), years of board experience (5-17), number of other board memberships (1-5), and whether the member was an insider (a corporate officer) or an outsider. They were told that the company had hired a team of recruiters who had reviewed possible candidates and was going to present the participant with a slate of six candidates. See Appendix 1 for the exact text.

Participants then received six different resumes that had the following information about the candidate: name, title, company, age, years of board experience, and the number of other corporate boards on which she or he sat. Their names were either female (Ellen, Margaret, Sandra, or Karen) or male (John, Mark, William, or Robert). Their titles were either: Executive Vice President (EVP) of Operations, EVP of Marketing, EVP of Purchasing, EVP of Federal Relations, EVP of Distribution, or EVP of Sales (specifically chosen to denote functional area).

The candidates' companies were respectively named Slidell Company, Larkspur Industries, Nelicore Inc., Krendle Inc., Halfiax Corp., or Euclides Company (all fictitious). Candidate age was randomly varied between 45 and 68; years of board experience was randomly varied between 5 and 17; and the number of other corporate boards was randomly varied between 1and 5. Participants were tasked with selecting a candidate and then were asked to explain in their own words why they had chosen that candidate. After they responded, they were asked to rate the importance of various decision criteria, and finally to answer some attention filters and demographic questions. Their responses were all completed online.

Study 2: Pre-test on the questionnaire order and departing candidate's gender

Age, board experience, and the number of boards could all be assigned via a random number generator, but title and company name could not (unless we generated several more titles and companies) because the last one assigned would be constrained by the others previously chosen (if we specified sampling without replacement). We also thought participants might become suspicious if two or more candidates had either the same title or the same company (if we specified sampling with replacement). In order to avoid having to construct a 2 (gender of departing candidate) X 6 (order of resumes) X 6 (functional area) X 6 (company name) design, we ran a pre-test to check whether there were any effects for resume order, functional area, or company name. Instead of presenting the resumes of the candidates with names, we simply labeled them Candidate A, B, C, D, E and F (see Appendix 2) and gave no gender information on the candidates. The design was a between-subjects design that manipulated whether a male or female board member was departing.

Participants. Participants (N=200) were recruited through Amazon's Mechanical Turk (mturk) website and were paid $0.50 for their participation. Mturk has been found to be a reliable non-student source of data (Buhrmester, Kwang, & Gosling, 2011; Paolacci, Chandler, & Ipeirotis, 2010). The subjects' demographics were as follows: 53% male, 80% white, 48% had completed college, 37% had an income of at least $50,000, their average age was 30.4 (s.d. =10.2); they were 44% Democrat, 11% Republican, and 38% Independent.

Procedure and Measures. After reading a short description of the study and clicking their consent, participants received the information in Appendix 1 about the task. They then received the resumes presented in Appendix 2. The dependent variable was their choice (Candidate A, B, C, D, E, or F). After selecting their choice, they responded in their own words why they had selected that candidate. They then were asked an attention filter question to measure whether they were actively involved in task (how many total board members are there at any one time?) and for demographic information.

Analyses and Results.   The attention filter was passed by 74% of the participants. Using these participants (N=143), there was no overall order effect (Candidate A chosen 18% of the time, B=19%, C=13%, D=17%, E=15%, F=18%). Moreover, no one candidate dominated based on the gender of the departing candidate ($\chi^2_{(5)}$ =3.4; p=.6). This result relieves us of the need to vary the order of the resumes in terms of functional area or company name.

Study 3: Testing gender matching

Design and Participants. In this study we varied whether the gender of the departing board member male, female, or no gender information was given (the control group). The participants (N=232) were undergraduate business students of a large, private East Coast

University who voluntarily participated in the exercise in exchange for course credit. Ours was one of a battery of exercises they completed during an hour session. They were 53% male and, on average, were 20 years old (s.d. = 2.0).

Procedure and Measures. Just as in the pretest, the participants received the information in Appendix 1 about the task after reading a short description of the study and clicking their consent. They clicked on the next screen to receive the six resumes that now had names (and thus gender information). They were then presented with two female candidates and four male candidates. Again, the primary dependent variable was their choice of candidate, specifically whether they chose a male or a female candidate. After selecting their choice, they responded in their own words as to why they had selected that candidate. On the next screen they were asked to rate (on a five point Likert scale with 1 = not at all to 5= very important) the importance of 12 criteria: the candidate's corporation, the candidate's functional expertise, the candidate's age, the candidate's gender, the candidate's years of board experience, the candidate's other board memberships, the mix of corporations on the board, the mix of functional areas on the board, the mix of ages on the board, the mix of genders on the board, the mix of years of board experience on the board, and the mix of number of other board memberships on the board. They then answered the attention filter, a manipulation check (gender of departing candidate) and provided demographic information.

Analyses and Results. Seventy percent of the participants passed the attention filter and were retained for the analyses (Male left N=50; Female left = N=63; control N=50). The manipulation was successful in that those who said a female left were mostly in the female exit condition (94%), those who said a male left were mostly in the male exit condition (56%), and those who said no gender information was given were mostly in the control condition (77%).

20

We first tested Hypothesis 1 (that the gender of departing board member will match the gender of selected candidate) with a chi-squared test. When there was no gender information on the departing candidate (control), 50% of participants selected a female candidate. When the departing board member was female, 68% of participants selected a female candidate; when the departing board member was male, 58% of participants selected a male. These differences are significant ($\chi^2_{(2)}$ = 8.55, p=.01), supporting H1.

We coded participants' open-ended responses to why they had selected a particular candidate by creating seven different decision attributes: age, board experience, number of boards, or other (such as functional area). Participants could mention the attribute either in reference to the candidate (e.g., candidate's age), the board (the mix of ages), or both. Because gender was our primary focus, we further coded for whether participants mentioned gender diversity ("She is someone different from the majority, so she could bring a fresh perspective"), gender matching ("A male to replace a leaving male"), or just some other gender-based reason ("She's female" or "I wanted to choose a woman"). Responses were not mutually exclusive as many participants listed more than one reason ("He has a lot of experience and he has fewer other board obligations"). Two coders blind to conditions and hypotheses coded responses (Cohen's kappa =.9).

Across all conditions 51% of responses mentioned board experience as a factor, followed by 31% mentioning number of other boards, 10% age, 6% mentioned gender diversity, 5% mentioned gender matching, 23% some other gender-based reason ("because she was a woman"), and 15% some other factor (usually functional area or something generic like "most qualified"). There were marginally significant differences across conditions for both the gender diversity ($\chi^2_{(2)}$ = 4.88, p=.08) and the gender matching ($\chi^2_{(2)}$ = 4.69, p=.09) being articulated

more often as a reason when a female board member departed. In addition, female participants were more likely to mention gender diversity than male participants ($\chi^2_{(1)}$ = 4.22, p=.04).

To test Hypothesis 2, that the gender of the departing board member will continue to exert an influence on candidate selection after controlling for the participants' stated reasons for their choice, we used logistic regression. The dependent variable was whether a female candidate was chosen. We first entered participant demographics, then the randomly varied candidate attributes (e.g., average age, board experience, number of other boards of the current male and female board members), then participants' articulated reasons, and finally the study manipulation (the gender of departing candidate). To test whether the condition mattered we used Helmert contrasts because our treatment groups (male versus female departing) were nested within a larger question of whether having gender information at all differs from having no gender information (control). Following standard procedure (Judd & McClelland, 1989) the first contrast is control (=2) contrasted with having gender information of departing board member (Male departed=-1; Female departed =-1). The second contrast is female leaving (-1) versus male leaving (1) (where control = 0).

Results, shown in our completely specified model (model 4) in Table 3, support Hypothesis 2. When controlling for participant demographics, candidate attributes, and participants' articulated rationale for their selection, gender information in and of itself had only a marginally a significant effect on whether a female candidate was chosen (Contrast 1). However, compared as shown in Contrast 2, as expected by our gender matching Hypothesis, when a female board member departed rather than a male, a female candidate was significantly more likely to be chosen. Interestingly, participants' own stated diversity-based or gender-

matching explanations do not contribute significantly to the variance in selecting a female (after controlling for other variables).

To test Hypothesis 3, which posited that when subjects were asked to judge the importance of a number of different decision criteria, they would rate gender as significantly less important than the other criteria, we looked at participants' ratings of the 12 decision factors we provided. Descriptive statistics of these ratings are shown in Table 4. The candidate's board experience, other board memberships, and the mix of years of board experience are the top three reasons. The candidate's gender is ranked eighth out of 12 in importance, and the mix of gender is ranked seventh both of which are significantly below the top three reasons. A t-test between the mix of board experience on the board (ranked third) and the mix of genders on the board showed that they were significantly different ($t_{(162)} = 4.40$, p<.001); a t-test between the mix of board experience and gender again showed significant differences ($t_{(162)} = 5.15$, p<.001). These results support Hypothesis 3.

Discussion. In this experiment, we successfully replicated the gender matching selection process found in the field data whereby a female was significantly more likely to be chosen than a male candidate if a female, rather than male, board member was departing. This occurred despite what might be a weak manipulation (recall that while the majority of respondents in each condition correctly identified their condition, only 56% of respondents in the male exit condition remembered that a male had left). Given this controlled environment, we were able to ask participants to articulate their rationale for selection and very few mentioned gender matching (5%). Although female participants were more likely than male participants to consciously articulate a gender-based rational for their choice (diversity), they were not more likely than males to mention gender matching. Most mentioned the candidate's prior board experience and

other board memberships. Moreover, when these articulated reasons were controlled for, the

departure of a female board member still significantly increased the probability that a female

candidate would be selected providing support for gender matching. For most participants, this

gender matching process is not consciously articulated as a rationale. This subconscious gender

matching may help explain why the rate of increase of female participation on boards is so low,

despite the voluminous public discussions about the importance of increasing female

representation.

One difference between this study and the field data was the participants' overall

tendency to select a female candidate. In all conditions, students selected a female more often

than in the field data and more than the base rate representation of female candidates (33%). For

example, in the control condition, participants selected a female 50% of the time. Despite this

overall shift in favor of selecting a female, we still found evidence of gender matching, whereby

a female was selected significantly more often when a female board member departed (68%)

than when a male board member departed (42%). Moreover, the criteria that participants

declared they used (such as board experience and other board memberships) were generally not

related to their selection, whereas the gender of the departing board member was.

Interventions to Increase Female Representation on Boards

Given that gender matching will tend to retard the achievement of gender parity on

corporate boards, we tested three mechanisms that might prompt participants to increase the

number of female board members by selecting a female candidate regardless of the gender of the

departing board member. In the first intervention, we make the issue salient by reminding

participants of the importance of diversity and why diverse perspectives can enhance the board's

decisions. Recall in the 2012 Spencer Stuart report, 75% of respondents said their companies

had instituted measures such as a corporate statement supporting diversity or including diversity

as a topic in board meetings. Recall, too, the SEC's recent ruling (SEC, 2009) that U.S. publicly

traded companies must disclose their policy on boardroom diversity and nominating committees

must consider diversity during their nomination process. Thus, we heightened the salience of

diversity to see if it affected candidate selection. In the second intervention, we not only

reminded them of the importance of diversity but also decreased the ratio of women on the

existing board, aiming to make the gender imbalance even more salient. Having a larger gender

imbalance may offend participants' general sense of equity and the diversity prime would then

give them justification for selecting more female candidates. In the third intervention, we not

only included these first two interventions but also increased the number of women in the

candidate pool. We had no a priori theory on which to derive robust hypotheses but expected

more female selection as our interventions were additive and the propensity to choose a female

might be expected to become larger.

Study 4: Testing interventions

Design and Participants. To test the three mechanisms outlined above, we employed a 2

X 3 design where either a female or male was departing the board and either there was: 1- a

diversity prime; 2- a diversity prime and a decrease to only 2 existing female board members (of

9 total); or 3- a diversity prime, a decrease to only 2 existing female board members, and an

increase to 4 female candidates (of 6 total). Participants (N=944) were recruited from Amazon's

Mechanical Turk[3] and paid $0.50 for their responses. They were 58% male, 78% white, 50%

had at least a college education, 40% made at least $50,000. Their average age was 31.6 (s.d.

=10.8) and they were 39% Democrat, 16% Republican, and 34% Independent.

Materials, Procedure, Measures. The materials were slightly altered from Study 3 in that

we gave more information about the departing director so that gender was not the only piece of

information participants had about him or her. We recognize this slight variation in our materials

makes the data less strictly comparable to Study 1, but we wanted to construct a more

conservative test of whether or not participants might select new board members based on gender

matching. Thus we also assigned each departing director a title (Chief Financial Officer), a

company name (Acatel Industries), an age, years of board experience, and the number of other

boards on which they serve (all of which were averages of the focal board).

We then created 3 conditions. For condition 1 (Diversity Prime) participants read:

Because a diverse mix of people on a Board (who bring different skills and perspectives)

is good for the company, you have asked the recruiting team to bring you a slate of six

different candidates from which you can choose. Their resumes are summarized on the

next screen.

The diversity prime was created after consulting with a female who serves on three Fortune 1000

boards for the language she hears at board meetings on the importance of diversity. For

condition 2 (with two current female board members), participants read the diversity prime and

were told that the initial board had two females and seven males. For condition 3, participants

---

[3] To ensure that mTurk participants behave similarly to the students we first ran a study (N=248) comparing mTurk responses to student responses and found no significant differences on propensity to select females depending on male versus female board member departure. Details available upon request.

read the diversity prime, were told that the initial board had two females and seven males, and were presented with a slate of four female candidates and two male candidates.

The rest of the materials, measures, and procedure were identical to Study 3.

Analyses and Results. Seventy two percent of the participants passed the attention filter and were retained for the analyses (N=681). The manipulation was successful; in the male exit condition, 88% of the remaining participants correctly identified that a male had departed; in the female exit condition, 89% of participants correctly identified that a female had departed. Consistent with Hypothesis 1 (that the gender of departing board member will influence the gender of the selected candidate), the results showed that when a female departed, 72% of participants selected a female candidate, and when a male departed, only 54% of participants selected a female ($\chi^2_{(1)}$ = 33.00, p=.001).

To examine how conscious the influence of gender might be, we again looked at the reasons participants gave for their choices. Across all conditions 75% of responses mentioned board experience as a factor, followed by 54% mentioning number of other boards, 22% age, 16% mentioned gender diversity, 9.5% mentioned gender matching, 12% some other gender-based reason, and 20% some other factor. There were no differences in any of the gender-based rationales, across any of the different diversity enhancing conditions (diversity prime, only two female board members, and four female candidates). There were significant differences across the gender-based rationales depending on whether a male or female left. Diversity rationales were offered more often when a male departed (20.7% of the time) than when a female departed (11.6%) ($\chi^2_{(1)}$ = 10.42, p<.001). Gender matching was articulated as a reason more often when a female departed (16.5% of the time) than when a male departed (2%) ($\chi^2_{(1)}$ = 40.44, p<.001).

And the residual "other gender-based rationale was articulated as a reason more often when a female departed (16.5% of the time) than when a male departed (7.5%) ($\chi^2_{(1)}$ = 12.44, p<.001). Finally, female participants were more likely to mention gender diversity than male participants ($\chi^2_{(1)}$ = 12.9, p<.001) and were less likely to mention age ($\chi^2_{(1)}$ = 5.4, p=.02).

To test Hypothesis 2, namely that the gender of the departing board member will continue to exert an influence on candidate selection even after controlling for participants' stated reasons for their choice, we again used a stepwise binary logistic regression. Just as in Study 3, the dependent variable was whether a female candidate was chosen. We first entered participant demographics, then randomly varied candidate attributes (age, board experience, number of other boards), then participants' articulated reasons, and finally the gender of the departing candidate.

Results, shown in Table 5, offer support for Hypotheses 1 and 2. When controlling for participant demographics, candidate attributes, and participants' articulated rationale for their selection (see model 4), the gender of the departing board member still had a significant effect even after we prime diversity, decrease the number of female board members, and increase the number of female candidates[4]. When a female board member departed, a female candidate was more likely to be chosen. Again, diversity reasoning does not contribute significantly to the variance in selecting a female (after controlling for other variables). However, participants' gender matching rationale and their other gender-based reasoning does contribute to the variance in selecting a female, but even when this is included, the departure of a female Board member still remains positive and significant.

---

[4] While these analyses pool all of our diversity manipulations, we will investigate in subsequent analyses whether the effect of the gender of the departing board member varies between these different conditions and from Study 3 which had no diversity manipulations.

To test Hypothesis 3, that when asked to judge the importance of a number of different decision criteria, participants will rate gender as significantly less important than other criteria, we again looked at participants' ratings of the twelve decision factors we provided. Just as in Study 3, the candidate's board experience, other board memberships, and the mix of years of board experience are the rated the highest. The mix of genders is ranked sixth and the candidate's gender is ranked eighth; both criteria again significantly lower than the third ranked criterion (mix of years of board experience) ($t_{(680)}$= 10.5, p<.001 for Mix of Genders, $t_{(680)}$ = 13.9, p<.001 for Candidate Gender), supporting Hypothesis 3[5]. There were no significant differences in ratings of these criteria across any of the different diversity enhancing conditions (diversity prime, only two female board members, and four female candidates). Both the candidate's gender and the mix of genders on the board were rated as more important when a female departed than when a male departed [candidate gender (female left: mean=3.06, s.d.=1.48; male left: mean = 2.50, s.d. = 1.41, $F_{(1,679)}$ = 25.4, p<.001, eta^2 = .04); mix of genders (female left: mean = 3.23, s.d. = 1.42; male left: mean = 2.79, s.d. = 1.36, $F_{(1679)}$ = 16.8, p<.001 eta^2 =.02)].

To determine whether any of the interventions will increase the overall rate at which women are selected (regardless of who exits), we created dummy variables for each condition (D1= diversity prime, D2= two female board members, D3= four female candidates) and compared these data to those of Study 3. We also created interactions between the condition primes and whether or not a female exited to see if the influence of the departing board member's gender was weakened or strengthened by any of the diversity interventions. Results are shown in Table 6. Model 4, which adds a dummy variable for the first intervention

---

[5] Detailed descriptives and t-tests of differences among all twelve decision criteria for this study are available upon request.

(reminding people of the importance of diversity), creates no net benefit in adding more female board members. This Model also shows that the second intervention (also decreasing the initial female board members to 2) creates no significant change in participants' tendencies to select a female candidate. However, the third intervention (that also increased the number of female candidates to 4) does significantly increase participants' proclivity to select a female candidate [6] Model 5, however, confirms that even after priming participants in these various ways, the gender matching heuristic continues to play a significant role in explaining the gender of the replacement director ('Departing Female'). As Model 6 in Table 6 shows, there were no interaction effects, meaning that the departing board member's gender was no less of an influence on the gender of the candidate selected with any of the diversity interventions.

Discussion. Reminding participants of the importance of diversity was not enough to induce participants to select more female candidates. Having a diversity prime as well as decreasing women's current proportional representation (from 3/9 to 2/9) also did not shift people's sensibilities towards wanting to add more females. Perhaps these interventions were too subtle; our prime highlighting the benefits of diversity may have been too skills focused rather than demographic diversity focused. What did significantly increase participants' tendency to select a female candidate was when the number of female candidates in the pool was also increased. This confirms the common sense notion that with a wider choice of female candidates then more women will be selected. However, even here the gender matching heuristic continues to play a significant and undiminished role.

---

[6] Our results are unchanged if we run simpler models that exclude either candidate attributes, participant demographics and/ or participants' articulated rationales for their selection.

Indeed, with all of these interventions, the departing board member's gender continues to have a significant influence on the gender of the candidate who was selected. The effect of gender matching remained strong even when controlling for all manipulated candidate attributes (such as age and years of board experience) and for all participants' articulated rationales. Given that fewer than 10% of participants articulated the influence of gender matching, we believe this heuristic operates out of most participants' awareness.

General Discussion

Overall, we find strong evidence for gender matching in board selection. Consistent with Hypothesis 1, both our field and experimental data show that selection of a (fe)male board member is significantly influenced by departure of a (fe)male[7]. Our lab studies suggest that this process is largely a subconscious process in that participants claim other criteria to be more important than gender and very few explicitly mention gender matching. Yet, when controlling for all these other criteria, gender matching remains a large significant predictor.

Gender matching will slow progress towards gender parity on boards. In an effort to encourage participants to select more female candidates, we tried three interventions. Two failed to show any increase in female selection-- a smaller proportion of women on the board, which might be thought to call subjects' attention to the lack of diversity, and priming diversity prior to respondents' candidate selection did not increase female selection. Only by also including more women in the candidate pool were participants more likely to select a female candidate although again the effect of gender matching remained strong. Future research should test whether this

---

[7] It is worth noting that these field data represent a comprehensive sample of the board of directors for almost all public companies operating in the U.S. over the past decade.

intervention alone (without a diversity prime) will similarly increase female candidate selection. Below we discuss the implications of our results for the literature and for practice.

Although our study was not designed to test the existence of a dual processing model of cognition (Chaiken & Trope 1999; Evans, 2008; 2010; Kahneman & Fredrick, 2002; Sloman, 1996; Stanovich, 1999) our findings are consistent with this research. Dual process theories posit that individuals have two information-processing systems that work together to produce judgments. There are many variants of dual process theories but they generally agree that one cognitive process (Type 1), which may be called intuitive, operates rapidly, automatically, and without much effort or conscious awareness. Type 1 cognition is also associative in that it relies on categorical-based judgment operating by principles of similarity. The other process (Type 2), which may be called reflective, is more deliberative, and thus conscious and effortful. It requires manipulation of explicit representations in working memory to produce decisions based on more abstract rules of logic or evidence (see Kahneman, 2011 for a review of this literature).

Our data suggest that board selection is the product of conscious, articulated factors such as candidate age and board experience and therefore manifests evidence of Type 2 processing. However, our data also demonstrate that when controlling for these Type 2 criteria, board selection is also significantly influenced by gender matching and therefore manifests evidence of Type 1 processing. In the absence of an associative matching trigger like gender of the candidate (which occurred in pretest Study 2), decisions were dominated by Type 2 processing, where no one candidate prevailed because the Type 2 decision criteria (such as board experience) had been randomly assigned across candidates. Yet in the other studies, the gender of the candidate and that of the departing board member served as an associative trigger suggesting a Type 1 categorical matching, which was visible in decision outcomes over and above the Type 2 criteria.

That both types of criteria (and thus both information-processing systems) influence behavior, suggests these two cognitive processes work in concert. We acknowledge that debate exists as to whether our minds house two different cognitive architectures that operate in parallel to each other (Evans, 2010; 2012; Sloman, 1996) or merely two different cognitive modes that operate sequentially (Kahneman & Fredrick, 2002; Stanovich, 1996). What our research demonstrates is that these cognitive systems are both operational in complex decision-making.

The gender matching process appeared to be a mostly subconscious process in that it was not articulated as a rationale for most participants. When asked to rank the importance of gender or gender mix on the board as decision criteria, these criteria were rated as significantly less important than other criteria. Thus, our gender matching results contribute to more recent theorizing that heuristics often operate out of conscious awareness (Kahneman & Fredrick, 2002; Evans, 2012). However, for a handful of participants, gender matching was a consciously articulated rationale. Prior research has focused on situational contexts that make heuristics more or less conscious; our research points to a future need to investigate individual differences in the consciousness of heuristics and what experiences might have cultivated these individual-based differences.

Prior gender research discusses a "think manager think male" (TMTM) heuristic that is argued to dominate promotion decisions (Eagly & Karau, 2002; Heilman, Block, Martell & Simon, 1998), except in times of poor performance where people "think female" (Ryan & Haslam, 2005). We have another heuristic—gender matching—that operates during selection of board candidates. Future research should test for other personnel decisions. It could be that TMTM in the context of concerns for diversity is what creates this gender matching heuristic. Specifically, the TMTM heuristic may nudge people toward choosing a male, whereas diversity

implies a value for gender parity, nudging selection of a female. People might reconcile these

competing influences by opting for the status quo, since the status quo is often seen as less risky

(Eidelman, et al., 2012) Future research could explore more directly the ways in which such

competing prescriptions interact.

Other gender research discusses the discrimination women may face based on stereotypic

beliefs that may limit women's exposure to challenging assignments such as board appointments

(King, Botsford, Hebl, Kazama, Dawson & Perfins, 2012). Similarly, other research has

suggested that, gendered expectations for female behavior to be communal rather than agentic

(O'Neill & O'Reilly, 2010) may put them at a disadvantage for being seen as leaders (Eagly &

Karau, 2002; O'Neill & O'Reilly, 2011), which is an important pathway to board membership.

Still other research suggests that female board members, lacking mentoring, are less likely to

learn and act in according to the "core norms" of the corporate elite and are thus less likely to be

reappointed (McDonald & Westphal, 2013; Stern & Westphal, 2010; Westphal & Stern, 2006).

In Studies 3 and 4 (conditions 1 & 2), the candidate pool contained 33% women and yet in all

cases the proportion selecting a female candidate was well in excess of this level (56% in Study

3, and 64% in Study 4 Conditions 1 and 66% in Study 4 Condition2). In Study 4 Condition 3,

where the candidate pool contained 67% women, the proportion choosing a female as a

replacement was 79%, again in excess of 67% base rate. Thus, there is little evidence of explicit

discrimination in the lab studies. While our research does not dispute the possibility of

discrimination in female appointments to board memberships in the real world, it does suggest

that some selection may simply reflect a non-conscious process that acts to preserve the status

quo. A related possibility is that the base rate of women being selected in actual board decisions

is low because there are very few women in the candidate pool. Our finding that more women in

the pool increased the selection of women lends some credence to this possibility. Future (perhaps qualitative) research that examines the selection process of new board members might be a fruitful avenue for future research.

Our research also demonstrates that to simply appeal to logical arguments for diversity is not likely to be sufficient for creating substantial changes in decision-making (and hence increasing the probability that a female candidate would be selected). We speculate this arises because these logical appeals stimulate only Type 2 processing, whereby people have to reason that diversity is good and then act on that reasoning in the face of other reasoning suggesting that one select the most qualified candidate based on criteria deemed important (such as years of board experience). What did prove to be effective in increasing the probability that a female candidate would be selected was to increase the proportion of women represented in the candidate pool. However, even in the presence of this common sense and non-discriminatory outcome the gender matching heuristic continued to play a significant role, ensuring that there was a disjoint in the probability of appointing a woman depending on whether a departing male or female director had created the vacancy. This subconscious matching may be analogous to Benartzi and Thaler (2001) finding that people matched their stock selection to the number of investment categories presented to them. Possibly people may simplify complex decisions by using a variety of matching criteria. Our studies showed this matching to manifest in a gender matching between departing and selected board member. Future research might explore other subtle matching substitutions as ways of nudging diversity.

One strength of our study is that it has high external validity, given that we were able to show that gender matching has a strong effect using both field and experimental data. The field data demonstrated that gender matching has powerful effects in the real world while the lab

studies enabled us to begin uncovering the underlying mechanisms that drive this effect. Of course, our research also has some significant limitations. Our lab studies suggested that participants for the most part did not seem to be consciously aware that gender matching had a powerful effect on their selection choice. Possibly, however, participants could have perceived that articulating this decision criterion might be viewed negatively by the experimenter since it involved a simple heuristic rather than a more deliberative decision process. We felt, however that this was relatively unlikely given that their responses were anonymous and we could think of few reasons why gender matching would be viewed negatively.

A more serious weakness, in our view, is that our experimental studies did not involve real board members but voluntary participants making hypothetical decisions. In future lab research, it would be beneficial to recruit actual board members and higher-level executives. Executive education programs might offer one avenue through which this could be accomplished. Having said this we do feel, however, that the fact that we find similar results in both our field and lab studies help mitigate this issue of demand effects (Orne, 1962).

Interestingly, we do see some gender asymmetry in that decision makers are more likely to articulate gender matching as a rationale for selection when a female leaves than when a male leaves. Thus, our data suggest this decision heuristic is probably more activated when a minority member leaves. Essentially, the strength of gender matching may be influenced by who leaves. To some extent, our field study reinforces this view in that the negative effect of the number of women on the board on the probability of selecting a woman reverses when the number or percentage of women becomes quite high (e.g., the majority). A fruitful avenue for future research would be to investigate this process in settings in which males are more likely to have minority status. Indeed, while we have focused on the selection of board members we believe

that gender matching may be a quite common phenomenon that influences selection processes in many other settings.

Conclusion

Both archival and laboratory data showed evidence that people use a gender matching heuristic when selecting new corporate board members. When a woman departs, she is likely to be replaced by a female and when a man departs, he is likely to be replaced by a male. This gender matching was not consciously articulated for the vast majority of participants, and is likely one important reason why, despite repeated calls for more gender parity on corporate boards, the representation of women on corporate boards has increased only at a very slow rate over the last 20 years.

References

Aguilar, Luis A. (2010) "Diversity in the Boardroom is important and, unfortunately, still rare". Speech given at the SAIS Center for Transatlantic Relations Conference on "Closing the Gender Gap: Global Perspectives on Women in the Boardroom". Washington DC (September). http://www.sec.gov/news/speech/2010/spch091610laa.htm

Ahern, K.R. and Dittmar, A.K. (2012). "The changing of the boards: The impact on firm valuation of mandated female board representation." *Quarterly Journal of Economics,* 127*:* 137-197.

Ben-Amar, W., Francoeur, C., Hafsi, T. and Labelle, R. (2013). "What makes better boards? A closer look at diversity and ownership". *British Journal of Management*, 24: 85-101.

Benartzi, S. and Thaler, R.H. 2001. "Naïve diversification strategies in defined contribution saving plans." *American Economic Review*, 91: 79-98.

Bilimoria, D. (1995). "Women directors: The quiet discrimination." *The Corporate Board, July/August:* 10-14.

Bostrom, N. and Ord, T. (2006). "The reversal test: eliminating status quo bias in applied ethics". *Ethics,* 116: 656–679

Buhrmester, M., Kwang, T. and Gosling, S.D. (2011). "Amazon's Mechanical Turk: A new source of inexpensive, yet high quality data." *Psychological Science,* 6: 3-5.

Camerer, C. F., and Johnson, E. J. (1991). "The process-performance paradox in expert judgment: How can experts know so much and predict so badly?" In K. A. Ericsson & J. Smith (Eds.), *Toward a general theory of expertise: Prospects and limits* (pp. 195–217). Cambridge, UK: Cambridge University Press.

Carter, D.A., D'Souza, F., Simkins, B.J. and Simpson, W.G. (2010). "The gender and ethnic diversity of U.S. boards and board committees and firm financial performance." *Corporate Governance*, 18, 396-414.

Carter, D.A., Simkins, B.J. and Simpson, W.G. (2003). "Corporate governance, board diversity, and firm value." *The Financial review*, 38: 33-53.

Chaiken, S. and Trope, Y. (1999). *Dual-process theories in social psychology*. New York: Guilford Press.

Colbert, A. E., Rynes, S. L., and Brown, K. G. (2005). "Who believes us? Understanding managers' agreement with human resource findings." *Journal of Applied Behavioral Science*, 41: 304–325.

Connelly, B.L., Certo, S.T., Ireland, R.D. and Reutzel, C.R. (2011). "Signaling theory: A review and assessment." *Journal of Management*, 37: 39-67.

Daily, C.M. and Dalton, D.R. (2003). "Women in the boardroom: A business imperative." *Journal of Business Strategy,* 24: 1-2.

Dawes, R. M. (1971). "A case study of graduate admissions: Application of three principles of human decision making." *American Psychologist*: 26: 180–188.

Dawes, R.M. (1979). "The robust beauty of improper linear models in decision making." *American Psychologist, 34:* 571-582.

DiMaggio, J. and Powell, W. (1983). 'The iron cage revisited: institutional isomorphism and collective rationality in organizational fields." *American Sociological Review*, 48*:* 147-160.

Eagly, A. H. and Karau, S. J. (2002). "Role congruity theory of prejudice toward female leaders." *Psychological Review,* 109: 573-598.

Eidelman, S. & Crandall, C.S. (2012). "Bias in Favour of the Status Quo." *Social and Personality Psychology Compass,* 3: 270–281.

Evans, J.St.B.T., Legrenzi, P and Girotto, V. (1999). "The influence of linguistic form on reasoning: the case of matching bias." *The Quarterly Journal of experimental Psychology,* 52: 185–216.

Evans, J. St. B.T. (2008). "Dual-processing accounts of reasoning, judgment, and social cognition." *Annual Review of Psychology,* 59*:* 255-278.

Evans, J. St. B.T. (2010). "Intuition and reasoning: A dual-process perspective." *Psychological Inquiry,* 21*:* 313-326.

Evans, J. St. B.T. (2012). "Questions and challenges for the new psychology of reasoning." *Thinking and Reasoning,* 18: 5-31.

Farrell, K. and Hersch, P. L. (2005). "Additions to corporate boards: the effect of gender." *Journal of Corporate Finance*, 11: 85-106.

Francoeur, C., Labelle, R, and Sinclair-Desgagne, B. (2008). "Gender diversity in corporate governance and top management." *Journal of Business Ethics*, 81: 83-95.

Governance Metrics International (2012)

Fombrun, C. and Shanley, M. (1990). "What's in a name? Reputation building and corporate strategy." *Academy of Management Journal*, 33: 233-258.

Gregory-Smith, I., Main, B.G.M., and O'Reilly, C.A. (2014). "Appointments, Pay and Performance in UK boardrooms by Gender." *Economic Journal*, 124: F109–F128.

Haselton, M.G. and Buss, D.M. (2000). "Error management theory: A new perspective on biases in cross-sex mind reading." *Journal of Personality and Social Psychology,* 78*:* 81-91.

Haselton, M.G. and Nettle, D. (2006). "The paranoid optimist: An integrative evolutionary model of cognitive biases." *Personality and Social Psychology Review*, 10: 47-66.

Hastie, R. and Dawes, R.M. (2001). *Rational choice in an uncertain world: The psychology of judgment and decision making.* Sage Publications, Thousand Oaks, CA.

Heilman, M. E., Block, C. J., Martell, R. E. and Simon, M. C. (1998). "Has anything changed? Current characterizations of men, women, and managers." *Journal of Applied Psychology,* 74: 935-942.

Highhouse, S. (1997). "Understanding and improving job-finalist choice: The relevance of behavioral decision research". *Human Resource Management Review*, 7: 449–470.

Jost, J.T. and Banaji, M.R. (1994). "The role of stereotyping in system-justification and the production of false consciousness." *British Journal of Social Psychology,* 33*:* 1-27.

Judd, C.M. & McClleland, G.H. 1989. Data Analysis: A model comparison approach. New York: Harcourt Brace.

Kahneman, D. (2011). *Thinking, fast and slow.* NY: Macmillan.

Kahneman, D. (2003). "A perspective on judgment and choice: Mapping bounded rationality." *American Psychologist*, 58: 697–720.

Kahneman, D. and Fredrick, S. (2002). "Representativeness revisited: Attribution substitution in intuitive judgment". In T. Gilovich, D. Griffin, & D. Kahneman (Eds.) *Heuristics and biases: The psychology of intuitive judgment.* Cambridge, UK: Cambridge University Press. Pp 49-81.

Kahneman, D. and Frederick, S. (2005). "A model of heuristic judgment." in K.J. Holyoak & R.G. Morrison [eds.] *The Cambridge Handbook of Thinking and Reasoning*. Cambridge University Press. 267-293.

Kahneman, D., Knetsch, J. L. and Thaler, R. H. (1991). "Anomalies: The endowment effect, loss aversion, and status quo bias." *Journal of Economic Perspectives,* 5: 193–206.

Kahneman, D and Tversky A. (1979). "Prospect theory: An analysis of decision under risk." *Econometrica,* XLVII : 263-291.

Kahneman, D., and Tversky, A. (1982). "The simulation heuristic." In D. Kahneman, P. Slovic, & A. Tversky (eds.), *Judgment under uncertainty: Heuristics and biases* (pp. 201-208). New York: Cambridge University Press.

Kahneman, D., Tversky. A., and Slovic, P. (1982). *Judgment under uncertainty: Heuristics and biases*. Cambridge University Press.

Kay, A.C., Guacher, D., Peach, J.M., Laurin, K., Friesen, J., Zanna, M.P. and Spencer, S.J. (2009). "Inequality, discrimination, and the power of the status quo: Direct evidence for a motivation to see the way things are as the the way they should be." *Journal of Personality and Social Psychology,* 97*:* 421-434.

Keeney, R. & Raiffa, H. (1976). *Decisions with multiple objectives: Preferences and value tradeoffs*. New York: Wiley.

Kempf, A. and Ruenzi, S. (2006). "Status quo bias and the number of alternatives: An empirical illustration from the mutual fund industry." *Journal of Behavioral Finance,* 7*:* 204-213.

King, E.B., Botsford, W., Hebl, M.R., Kazama, S., Dawson, J.F. and Perfins, A. (2012). "Benevolent sexism at work: Gender differences in the distribution of challenging developmental experiences." *Journal of Management,* 38: 1835-1062.

Krawiec, K.D., Conley, J.M. and Broome, L.L. 2013. "The danger of difference: Tensions in directors' views of corporate board diversity." *University of Illinois Law Review,* 3*:* 919-958.

Lorsch, J.W. and MacIver, E. (1989). *Pawns or Potentates: The Reality of America's Corporate Boards.* Boston, MA: HBS Press.

McDonald, M.L. and Westphal, J. D. (2013). "Access denied: Low mentoring of women and minority first-time directors and its negative effects on appointments to additional boards." *Academy of Management Journal*, 56: 1169-1198.

Main, B.G.M., O'Reilly, C.A. and Wade, J. (1993). "Top executive pay: Tournament or teamwork?" *Journal of Labor Economics*, 11: 606-628.

Meehl, P. E. (1954). *Clinical versus statistical prediction: A theoretical analysis and a review of the evidence*. Minneapolis, MN: University of Minnesota.

Meyer, J and Rowan, B (1977). "Institutionalized Organizations: Formal structure as Myth and ceremony." *American Journal of Sociology*, 83: 340-363.

Miller, T. and Triana, M. (2009). "Demographic diversity in the boardroom: Mediators of the board diversity-firm performance relationship." *Journal of Management Studies*, 46: 755-786.

Musteen, M., Datta, D.K. and Kemmerer, B. (2010). "Corporate reputation: Do board characteristics matter?" *British Journal of Management*, 21: 498-510.

O'Neill, O.A. and O'Reilly, C.A. (2010). "Careers as tournaments: The impact of sex and gendered organizational culture preferences on MBAs' income attainment." *Journal of Organizational Behavior*, 31: 856-876.

O'Neill, O.A. and O'Reilly, C.A. (2011). "Reducing the backlash effect: Self-monitoring and women's promotions." *Journal of Occupational and Organizational Psychology*, 84: 825-832.

O'Reilly, C.A. and Main, B.G.M. (2010). "Economic and psychological perspectives on CEO compensation: A review and synthesis." *Industrial and Corporate Change*, 19: 1-38.

O'Reilly, C.A., Main, B.G.M. and Crystal, G.S. (1988). "CEO compensation as tournament and social comparison: A tale of two theories." *Administrative Science Quarterly*, 33: 257-274.

Orne, M. T. (1962). "On the social psychology of the psychological experiment: With particular reference to demand characteristics and their implications." *American Psychologist*, 17: 776-783

Paolacci, G., Chandler, J. and Ipeirotis, P.G. (2010). "Running experiments on Amazon's Mechanical Turk." *Judgment and Decision Making,* 5: 411-419.

Prentice, D.A. & Miller, D.T. (2007). "Psychological essentialism of human categories." *Current Directions in Psychological Science, 16(4)*: 202-206.

Rhode, D.L. and Packel, A.K. (2010). "Diversity on corporate boards: How much difference does difference make?" Working Paper #89, Rock Center for Corporate Governance, September.

Rindova, V.P., Williamson, I.O., Petkova, A.P. and Sever, J.M. (2005). "Being good or being known: An empirical examination of the dimensions, antecedents, and consequences of organizational reputation." *Academy of Management Journal*, 48: 1033-1049.

Rose, C. (2007). "Does female representation influence firm performance? The Danish evidence." *Corporate Governance*, 15: 404-413.

Ryan, M.K. and Haslam, S.A. (2005). "The glass cliff: Evidence that women are over-represented in precarious leadership positions. *British Journal of Management,* 16*:* 81-90.

Samuelson, W. and Zeckhauser, R. (1988). "Status quo bias in decision making." *Journal of Risk and Uncertainty,* 1: 7–59.

SEC (2009). Securities and Exchange Commission 17 CFR PARTS 229, 239, 240, 249 and 274 [Release Nos. 33-9089; 34-61175; IC-29092; File No. S7-13-09] RIN 3235-AK28 Proxy Disclosure Enhancements. http://www.sec.gov/rules/final/2009/33-9089.pdf

Schmidt, F. L. and Hunter, J. E. (1998). "The validity and utility of selection methods in personnel psychology: Practical and theoretical implications of 85 years of research findings." *Psychological Bulletin*, 124: 262–274.

Scherer, K. (1997). "Women directors: Talent before gender." *Corporate Board*, 17: 1-5

Shin, T. (2013). "Fair pay or power play? Pay equity, managerial power, and compensation adjustments for CEOs." *Journal of Management,* in press.

Simon, H. (1991). "Bounded rationality and organizational learning." *Organization Science*, 2: 125-134.

Sloman, S.A. (1996). "The empirical case for two systems of reasoning". *Psychological Bulletin,* 119*:* 3-22.

Stanovich, K.E. (1999). *Who is rational? Studies of individual differences in reasoning.* Mahway, NJ: Lawrence Erlbaum Associates, Inc.

Stern, I. and Westphal, J.D. (2010). "Stealthy footsteps to the boardroom: Executives' backgrounds, sophisticated interpersonal influence behavior, and board appointments." *Administrative Science Quarterly,* 55*:* 278-316.

Tetlock, P. (2005). *Expert political judgment: How good is it? How can we know?* Princeton, NJ: Princeton University Press.

Valenti, A. (2007). "A new glass ceiling in the boardroom?" *Directors & Boards,* 31: 24.

von Neumann, J. and Morgenstern. O. (1944). *Theory of Games and Economic Behavior*. New York: Wiley Press.

Wason, P. C. (1966). "Reasoning". In Foss, B. M. *New horizons in psychology*. Harmondsworth: Penguin.

Weber, M. (1985). "A method of multiattribute decision making with incomplete information". *Management Science,* 31*;* 1365-1371.

Wellalage, N.H. and Locke, S. (2011). "Women on board, firm financial performance and agency costs." *Asian Journal of Business Ethics*, June, 2012.

Westphal, J.D. and Milton, L.P. (2000). "How experience and network ties affect the influence of demographic minorities on corporate boards." *Administrative Science Quarterly,* 45*:* 366-398.

Westphal, J.D. and Stern, I. (2006). "The other pathway to the boardroom: Interpersonal influence behavior as a substitute for elite credentials and majority status in obtaining board appointments." *Administrative Science Quarterly,* 51*:* 169-204.

Westphal, J.D. and Zajac, E.J. (1995). "Who shall govern? CEO/Board power, demographic similarity, and new director selection." *Administrative Science Quarterly,* 40*:* 60-83.

Westphal, J.D. and Zajac, E.J. (2014). "A behavioral theory of corporate governance: Explicating the mechanisms of socially situated and socially constituted agency." *The Academy of Management Annals,* 7*:* 607-661

Figure 1: Average Percentage of Women on Boards of Directors by Year
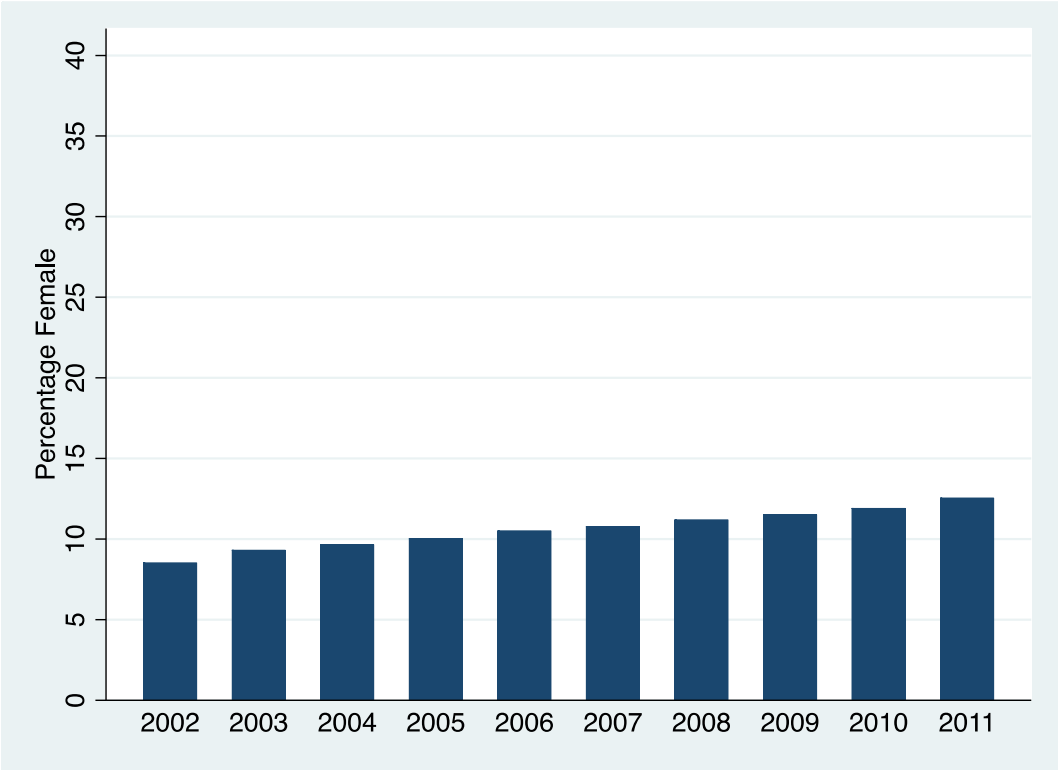
Table 1: Descriptive Statistics and Correlations of Equilar Data

Variable	Var	Mean	S.D.	1	2	3	4	5	6	7	8	9
Female	1	0.13	0.33	1								
Log Assets	2	7.02	2.04	0.09	1							
One Year Market Return	3	0.22	6.06	-.0002	-0.03	1						
Number on Board	4	8.75	2.63	0.08	0.59	-0.01	1					
Percent female	5	9.16	9.92	0.04	0.29	.0023	0.23	1				
Number of Exiting Female Directors	6	0.14	0.4	0.08	0.13	0.01	0.15	0.39	1			
Number of Exiting Male Directors	7	1.45	1.54	-0.07	0.06	-0.01	0.23	-0.06	0.21	1		
Number of Male Directors	8	7.89	2.34	0.06	0.48	-0.01	0.93	-0.12	0.01	0.26	1	
Number of Female Directors	9	0.86	0.95	0.05	0.44	0	0.46	0.93	0.4	.003	0.11	1

Are we running in place?

Table 2: The Probability of Appointing a Female to the Board: 2002-2011

	(1)	(2)	(3)	(4)	(5)
Log Assets	0.0967**	0.1699+	0.1715+	0.1623+	0.1695+
	(0.014)	(0.092)	(0.092)	(0.093)	(0.093)
One Year Market Return	0.0006	0.0136	0.0147	0.0084	0.0131
	(0.003)	(0.033)	(0.033)	(0.032)	(0.033)
Number on Board	0.0620**	0.0730**	0.0838**		
	(0.010)	(0.027)	(0.027)		
Percent Females on Board	-0.0122**	-0.1875**	-0.2258**		
	(0.003)	(0.007)	(0.011)		
Number of Exiting Female Directors	0.6911**	1.1149**	1.0858**	1.2235**	1.1895**
	(0.053)	(0.077)	(0.077)	(0.079)	(0.080)
Number of Exiting Male Directors	-0.2635**	-0.2559**	-0.2529**	-0.2624**	-0.2661**
	(.0186)	(0.027)	(0.027)	(0.027)	(0.027)
Percent Females on Board Squared			0.0013**		
			(0.000)		
Number of Male Directors				.2834**	.5192**
				(0.028)	(0.091)
Number of Male Directors Squared					-.0121**
					(.005)
Number of Female Directors				-1.8500**	-2.3792**
				(0.071)	(0.109)
Number of Female Directors Squared					.1839**
					(0.026)
Year Fixed Effects	Y	Y	Y		Y
Firm Fixed Effects	N	Y	Y		Y
Observations	19588	11435	11435	11435	11435
Number of Firms	3909	1570	1570	1570	1570
Log Likelihood	-7261.3	-3300.6	-3290	-3277.4	-3250.14

Standard errors in parentheses
** p<0.01, * p<0.05, + p<0.1

47

Table 3: The Probability of Appointing a Female to the Board (Study 3)

Study 3	Model 1	Model 2	Model 3	Model 4
Participant Demographics:				
Age	0.054	0.057	0.028	-0.014
Female	0.622	0.633	0.393	0.461
Candidate Attributes:				
Agefemale		-0.049	-0.035	-0.047
Agemale		-0.015	0.049	0.037
Expfemale		-0.036	0.188	0.202
Expmale		-0.205	-0.512	-0.577*
Otherbdfemale		-0.123	-0.461	-0.427
Otherbdmale		0.326	0.059	0.172
Participant's Articulated Rationale for Selection:				
Age			-2.116*	-2.113*
Board Experience			0.252	0.142
Number of Boards			-0.365	-0.449
Other Reason			0.060	0.102
Gender Diversity			20.931	21.036
Gender Matching			0.042	0.079
Other Gender Reason			4.151***	4.145***
Gender of Departing Board Member				
Contrast1: Control vs. Gender Information				-0.898+
Contrast2: .Female not Male departing				1.248*
Constant	-1.194	3.487	1.468	3.851
Observations	159	159	159	159
-2LL	215.289	212.651	149.056	143.068
Cox & Snell R Square	.025	.041	.357	.381
Nagelkerke R Square	.034	.055	.478	.509

All tests are two-tailed. *** $p<0.001$, ** $p<0.01$, * $p<0.05$, + $p<.1$

Table 4: Mean Importance of Candidate Criteria

	Mean	Std. Dev.
1. Candidate's Years of Board Experience	4.23	0.708
2. Candidate's Other Board Memberships	4.07	0.681
3. The Mix of Years of Board Experience on the Board	3.85	0.904
4. The Mix of the Number of Other Board Memberships on the Board	3.71	0.895
5. Candidate's Functional Expertise	3.34	1.073
6. Candidate's Age	3.17	1.026
7. The Mix of Genders on the Board	3.13	1.412
8. Candidate's Gender	3.01	1.48
9. The Mix of Ages on the Board	2.91	1.08
10. The Mix of Functional Areas on the Board	2.61	1.097
Valid N (listwise)		

Table 5: The Probability of Appointing a Female to the Board (Study 4)

Study 4	Model 1	Model 2	Model 3	Model 4
Participant Demographics:				
Age	0.007	0.007	-0.001	-0.004
Female	0.520**	0.618***	0.376*	0.370*
Minority	-0.251	-0.320	-0.073	-0.109
College	0.163	0.136	-0.084	-0.074
Republican	-0.331	-0.426*	-0.401	-0.413
Independent	-0.210	-0.240	-0.190	-0.160
Candidate Attributes:				
Agefemale		-0.105*	-0.136*	-0.137*
Agemale		0.069	0.077	0.083
Expfemale		0.278**	0.368***	0.376***
Expmale		-0.462***	-0.471***	-0.470***
Otherbdfemale		-0.117	-0.218	-0.224
Otherbdmale		0.208	0.335*	0.337*
Participant's Articulated Rationale for Selection:				
Age			-0.459*	-0.423*
Board Experience			-0.352	-0.357
Number of Boards			-0.185	-0.179
Other Reason			-0.803**	-0.793**
Gender Diversity			21.004	21.150
Gender Matching			2.528***	2.213***
Other Gender Reason			2.941***	2.819***
Gender of Departing Board Member				
Departing.Female				0.753***
Constant	0.456	3.554	4.619	4.025
Observations	651	651	651	651
-2LL	1096.561	1048.17	826.21	807.331
Cox & Snell R Square	0.025	0.076	0.279	0.295
Nagelkerke R Square	0.035	0.107	0.391	0.412

Robust standard errors in parentheses All tests are two-tailed.
*** p<0.001, ** p<0.01, * p<0.05

Table 6: The Probability of Appointing a Female to the Board (Studies 3 & 4 combined)

Studies 5	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Participant Demographics:						
Age	0.021**	0.021**	0.014	0.013	0.012	0.012
Female	0.561**	0.601***	0.318	0.496*	0.523*	0.529*
Participant's Articulated Rationale:						
AgeFemale		-0.034	-0.064	-0.067	-0.074	-0.074
AgeMale		0.078	0.085	0.07	0.088	0.087
ExpFemale		0.114	0.203*	0.203	0.213*	0.214*
ExpMale		-0.488***	-0.552***	-0.659***	-0.682***	-0.686***
OtherbdFemale		-0.215	-0.355**	-0.358**	-0.356**	-0.355**
OtherbdMale		0.154	0.343*	0.408*	0.385*	0.392*
Participant's Articulated Rationale for Selection:						
Age			-0.451	-0.461	-0.422	-0.418
Board Experience			-0.198	-0.34	-0.385	-0.388
Number of Boards			-0.037	-0.078	-0.062	-0.064
Other Reason			-0.521*	-0.27	-0.234	-0.237
Gender Diversity			21.067	21.150	21.300	21.298
Gender Matching			2.271***	2.406***	1.950***	1.951***
Other Gender Reason			2.936***	3.106***	3.019***	3.037***
Effect of Interventions[8]						
Dummy 1: Diversity Prime				0.132	0.173	0.291
Dummy 2: 2 Female Board Members				0.296	0.426	0.545
Dummy 3: 4 Female Candidates				1.633***	1.762***	1.967***
Gender of Departing Board Member						
Departing Female					1.064***	1.290**
Study X Gender of Departing Board Member						
Dummy 1 (Diversity) X Departing .Female						-0.212
Dummy 2: (2 Female Bd) X Departing Female						-0.21
Dummy 3 (4 Female Cand) X Departing Female						-0.413
Constant	-0.118	0.219	1.2	2.215	1.178	1.163
Observations	760	760	760	760	760	760
-2LL	935.67	900.711	690.933	647.226	619.139	618.716
Cox & Snell R Square	0.03	0.073	0.297	0.336	0.36	0.36
Nagelkerke R Square	0.041	0.102	0.414	0.469	0.503	0.503

obust standard errors in parentheses All tests are two-tailed.
*** $p<0.001$, ** $p<0.01$, * $p<0.05$

[8] Study 3 is the referent data.

Appendix 1

Basic text of the Laboratory Studies

You are a Board member of a large, publicly traded company. The Board meets once a quarter (every three months) to make sure the company is functioning well and in the best interests of all its stakeholders. You are also the Chair of the Board's Nominating Committee. As such, it is your job to select the replacement for any vacancy that appears on the Board.

By company charter, the Board of Directors is made up of 9 Board members. Three of these members are internal to the company, meaning they also serve as company officers. They are the company's Chief Executive Officer, Chief Finance Officer and Chief Operating Officer. The other six Board members are external to the company, meaning they are corporate officers in other companies.

[Stephen/ Stephanie] Brooks, one of the external Board members is departing and your task is to select a replacement.

To help you select a new board member, the company has hired a team of recruiters to review possible candidates. This team has narrowed the pool down to six candidates whose resumes are summarized on the next screen.

Your job is to select the candidate whom you think will work best with the remaining Board members. To help in your selection, it may be useful to know about this current Board.

The current Board of Directors is typical of those in the industry. It has 3 females and 6 males (including [Stephen/ Stephanie] Brooks, who is now departing). The Directors range in age from 45-68 years old. They each sit on anywhere from 1 to 5 other corporate Boards. Their years of Board experience range from 5 to 17 years.

As you read the about the candidates, please think about who will be the best replacement.

Appendix 2

Candidate Choice Set

Below are the <u>Executive Summaries of the six potential Board Candidates</u>

Candidate A

Title: Executive Vice President of Operations

Company: Slidell Company

Age: ${e://Field/randomage}

Years of board experience: ${e://Field/randomexp}

# of other boards currently serving on: ${e://Field/randomboard}

Candidate B

Title: Executive Vice President of Federal Relations

Company: Larkspur Industries

Age: ${e://Field/randomage2}

Years of board experience: ${e://Field/randomexp2}

# of other boards currently serving on: ${e://Field/randomboard2}

Candidate C

Title: Executive Vice President of Purchasing

Company: Nelicore, Inc.

Age: ${e://Field/randomage3}

Years of board experience: ${e://Field/randomexp3}

# of other boards currently serving on: ${e://Field/randomboard3}

Candidate D

Title: Executive Vice President of Marketing

Company: Krendle, Inc.

Age: ${e://Field/randomage4}

Years of board experience: ${e://Field/randomexp4}

# of other boards currently serving on: ${e://Field/randomboard4}

Candidate E

Title: Executive Vice President of Distribution

Company: Halifax Corp.

Age: ${e://Field/randomage5}

Years of board experience: ${e://Field/randomexp5}

# of other boards currently serving on: ${e://Field/randomboard5}

Candidate F

Title: Executive Vice President of Sales

Company: Euclides Company

Age: ${e://Field/randomage6}

Years of board experience: ${e://Field/randomexp6}

# of other boards currently serving on: ${e://Field/randomboard6}

Whom do you select?

Candidate A	Candidate B	Candidate C	Candidate D	Candidate E	Candidate F
●	●	●	●	●	●