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Signaling change during a crisis: Refining conditions for the glass cliff



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HIGHLIGHTS

- A glass cliff describes the preferential selection of a female leader in a crisis.
- We manipulate company performance and its (economy vs leadership).
- A glass cliff only occurs if company's performance is attributed to bad leadership.
- The glass cliff is explained by the woman's perceived potential to signal change.
- Nontraditional leaders are strategic choices to signal change to the outside world.

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ABSTRACT

Research into the glass cliff indicates that adverse company circumstances, compared to favorable ones, increase the likelihood of women to be appointed in leadership positions. Study 1 refined the conditions under which a glass cliff occurs by demonstrating a preference for a female leader when a company's performance was attributed to past leadership (an internal, controllable cause) but not when it was attributed to global economic circumstances (an external, uncontrollable cause). Study 2 replicated the glass cliff for a controllable context and revealed that the female candidate's potential to signal change, rather than her quality and suitability as a leader, accounted for the preference of the female candidate. We conclude that women, as non-traditional leaders, are strategic choices of companies with the aim to signal change to the outside world (e.g., investors) when past leadership is held responsible for a crisis. However, they are not expected to actually impact on the company's performance through their leadership quality.

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After the 2008 financial crisis, Icelandic banks appointed female leaders “to clean up the ‘young men’s mess’” (O’Connor, 2008a) that was seen to be caused by “buccaneering, reckless – and overwhelmingly male” directors (Sunderland, 2009). As a government minister contended, the appointment of two women as chief executives to two newly founded Icelandic banks “is an attempt to signal a new culture within the banking system” (O’Connor, 2008b). In parallel, the governance of the country was trusted to a woman, Jóhanna Sigurðardóttir, who in 2009 became the first woman to be the Prime Minister of Iceland.

The preference for women in these roles may be surprising given the evidence that women's chances of being appointed to leadership positions are typically lower than are men's (e.g., Eagly & Karau, 2002). This is the case, at least in part, because stereotypes convey a masculine

image of leaders (the think manager–think male association, Schein, 2001; see also Koenig, Eagly, Mitchell, & Ristikari, 2011). However, the Icelandic case suggests that in troubled times, a female presence may be advantageous. This is supported by a program of research that illustrates through experimental and archival studies that women may occupy leadership positions more readily under precarious than favorable conditions, a phenomenon that has been labeled the *glass cliff* (e.g., Haslam & Ryan, 2008; Ryan & Haslam, 2005, 2007). Research has documented the glass-cliff phenomenon in different organizational (e.g., Bruckmüller & Branscombe, 2010) and political (Ryan, Haslam, & Kulich, 2010) contexts, and for different minority groups (see Cook & Glass (2013); Kulich, Ryan, & Haslam (2014), for ethnic minorities). Despite the amount of evidence documenting glass-cliff tendencies, and a growing literature investigating some of the processes underlying the glass cliff (see Bruckmüller, Ryan, Rink, & Haslam (2014), for an overview), it is not clear whether glass cliffs occur in any type of crisis or whether the nature of the crisis is important.

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1. Refining the notion of “crisis”

In view of the financial crisis being a highly topical issue in current world economics, it is highly relevant to ask whether the appointment of women to glass-cliff positions occurs as a consequence of any type of crisis, or whether the perceived cause of the crisis plays a role. The present research fills this gap in the literature by disentangling the impact of a crisis that derives from faulty management of the company and a crisis that stems from global economic trends that are not under the control of the company's management.

Past experimental studies exploring the glass cliff have not always been explicit about the type of crisis faced by a company, nor about the role of past leadership in the development of the crisis (e.g., Haslam & Ryan, 2008). One exception comes from Bruckmüller and Branscombe (2010). Here, the authors gave information about the history of a company's past leadership by informing participants about the gender of the previous leader. This had an impact on participants' choice of the incoming leader, such that they were more likely to appoint a woman when the former leader had been male rather than female. This finding suggests that participants inferred that the crisis had something to do with the type of past leadership, and it is likely that in many other glass cliff studies participants thought by default that previous management was male. However, typical glass cliff studies do not distinguish between internal and external causes of a company's crisis. To illustrate, Gartzia, Ryan, Balluerka, and Aritzeta (2012, p. 10) told participants that the company in question had “experienced decreasing performance during the preceding months as a consequence of both the current negative global financial situation and the lack of management abilities of the existing management team.” In this scenario, we find a similar situation as in the Icelandic banks, where causes for the crisis combine both controllable reasons (i.e., banks' risky management) and uncontrollable reasons (i.e., the general financial crisis). The aim of the present research is to disentangle these two types of reasons.

We argue that a different, new leadership may be viewed as a proactive way to deal with a crisis following faulty leadership. In this way, that the appointment of a non-traditional leader (i.e., a woman) should be most likely in a context where the company can actually intervene and change things, that is, when the company possesses some control over the causes for poor performance. Traditional leadership positions are typically seen as masculine and are thus most likely to be occupied by male leaders (Schein, 2001). Hence, signaling a significant change in leadership can be achieved by the replacement of a man by an atypical leader. Indeed, research demonstrates that adverse situations produce a desire for change, and that under such circumstances outsiders are likely to be chosen as leaders (Kaplan & Minton, 1994). It further shows that stereotypes associate stability with male leaders, and change with female leaders (Brown, Diekmann, & Schneider, 2011). Thus, in a controllable crisis context a female leader may be seen as a good fit. In contrast, if a company's crisis stems from a global economic crisis, which is uncontrollable by leaders, changing the leadership of the company may not be the ideal solution.

In summary, the choice of a woman for a leadership position may be judged to be advantageous when poor performance results from a company's previous (actual or supposedly) male management practices. Conversely, the replacement of a man by a woman may not be judged helpful in a company that struggles because everyone around it struggles as well. When previous leadership is not identified as responsible for poor performance, it may be neither necessary nor enough to replace it to change the situation.

Now the issue is what *kind* of change is expected from the appointment of a woman instead of a man in precarious times following faulty management. The next section will discuss two mechanisms that potentially cause glass cliff appointments.

2. Organizational change as an explanation of the glass cliff

One of the most explored explanations of the glass cliff is that stereotypes of women are associated with a communal leadership style that is deemed useful in difficult times (Bruckmüller et al., 2014). If past agentic and typically masculine leadership is seen as unsuccessful, suitable leadership may be newly defined in a crisis context. As seen in the Icelandic example, an alternative leadership style would be communal and more risk-averse. Social roles associated with women fit such expectations. In line with social role congruency theory (Eagly & Karau, 2002), women should then become more likely to be selected as leaders. Indeed, Ryan, Haslam, Hersby, and Bongiorno (2011) provided empirical evidence that communal traits, such as being understanding, tactful, and empathic, are valued in times of crisis. However, instead of actively improving the company's performance, these stereotypical feminine traits are only rated more useful than masculine traits for “passive” leadership missions such as enduring and taking the blame of a crisis, and for managing people (see also Gartzia et al. (2012); Rink, Ryan, & Stoker (2013)). Importantly, when the leader's mission is to directly impact on the company's economic situation, masculine traits are valued to the same extent as feminine traits (Ryan et al., 2011, Study 3). Translating these findings on gendered traits to the male and female social categories, the choice of an atypical leader (i.e., a woman instead of a man) may not indicate the valorization of feminine leadership competence as a means for improving performance, but it may rather signal to the evaluators of the company (i.e., investors, clients, and other companies) that the company is taking action in order to cope with the crisis. The aim is to influence investors' evaluations towards a positive trend, a strategy called “window dressing” in the finance world (Helland & Sykuta, 2004).

In sum, changing the leadership of a company through the appointment of a woman may be confined to a visible *signal of change*, that is a strategy to influence the evaluations of an under-performing company and thereby potentially impact, for example, the company's market performance (Haslam & Ryan, 2008; Ryan & Haslam, 2007; Ryan, Haslam, & Postmes, 2007; see also Bruckmüller et al. (2014)). However, it might not actually aim at an *actual change* as regards a different way of leading the company that would directly impact the company's (accounting) performance (see Kulich, Iacoviello, & Lorenzi-Cioldi (2015), for a discussion).

3. The present research

In this paper, we argue that when a company is facing a crisis, the company board may seek solutions to reverse the current negative trend. As was suggested by the Icelandic government minister cited in the Introduction, one strategy is to appoint a non-traditional leader that will visibly break with the previous type of leadership. As a consequence, appointing a woman in a struggling company would be a strategic way to implement change. Such a strategy is only likely used when a company's performance is deemed controllable, that is, when it is not contingent on external, uncontrollable factors.

In accordance with previous research into the glass cliff, we expect that a woman will be preferred as an incoming leader in a poorly-performing company compared to a successful company. However, in line with our signal of change argument, we argue that the preference for a woman should emerge only in controllable types of crises and not in external crises (Hypothesis 1). Study 1 will test this hypothesis by examining gendered leadership choices in two experimentally-created attributional contexts: a company's performance that is primarily influenced by its past leadership (internal and controllable), and a company's performance that is primarily influenced by economic circumstances (external and uncontrollable).

In addition, we reason that when faulty past leadership is the cause of the company's failure, replacing male leadership with female leadership is likely to indicate that this change is strategic. Thus, Study 2 will

focus on a context of a controllable crisis, and will examine whether a glass cliff occurs because the choice of a woman is seen to be a strategic signal of change, and not because a female way of leading is perceived to have the potential to actually change the company's performance (Hypothesis 2).

4. Study 1

In order to test H1, that the appointment of women in times of crisis might be a signal of organizational change, this study aimed to examine the specific circumstances in which glass cliffs occur. Previous research on the glass cliff has focused on the selection of qualified male and female candidates in flourishing or troubled organizational (Haslam & Ryan, 2008; Ryan & Haslam, 2005) and political (Ryan et al., 2010) settings. The present study adds to this body of literature by including the information that company performance was either controllable (driven by previous leadership) or uncontrollable (driven by the overall economy). The design was a 2 (company performance: poor vs. strong) × 2 (performance attribution: controllable vs. uncontrollable) between-participants experimental design.

4.1. Method

4.1.1. Sample

The participants were 159 students from a Swiss university (106 female and 52 male, 1 gender-unspecified)¹ who were recruited after regular class courses. Their mean age was 22.54 years ($SD = 3.68$), ranging from 18 to 46 years. Participants' socio-demographic categories were uniformly distributed across conditions. The university is located in the French part of Switzerland which is progressive in equal opportunities for minority groups. For example, the population of the region is highly diverse (40% foreigners, Office Cantonal de la Statistique, OCSTAT, 2011) and the gender pay gap is half the size (9.6%, OCSTAT, 2010) of the general Swiss pay-gap.

4.1.2. Materials and procedure

We presented participants with a fictitious article (adapted from Haslam & Ryan (2008)) about a Swiss electronics company (LPG) that was recruiting a new executive director. The article described the company's performance (increasing vs decreasing) and the attribution for that performance (past leadership vs economic circumstances). The controllable cause emphasized that the company's leadership was responsible for strong or poor performance, and that only that particular company was affected. In the uncontrollable condition, it was made clear that corporate performance matched a global rise or decline of the entire electronics industry.

For the increasing controllable performance (vs decreasing performance in brackets), participants read that "The electronic company is thriving (struggling) due to the good (bad) management by the board of directors (...) [which] has a positive (negative) impact on profits and sales. (...) LPG, specialist of mobile phones, announces an increase (a decrease) in orders of 25% for this year." In addition, a graph reflecting poor versus strong company performance over the last four years was presented. The uncontrollable manipulation of increasing performance (vs decreasing performance in brackets) was: "The electronics branch is thriving (struggling) due to the advantageous economic situation (the economic crisis) (...) [which] has a positive (negative) impact on profits and sales (...) LPG, specialist of mobile phones, announces an increase (a decrease) in orders of 25% for this year".

After the experimental manipulations, a short paragraph outlined the duties of the new director,² which did not differ across experimental conditions: "The main duty of the new director will be to implement new strategies in order to respond to the competition of supermarkets (...) that are now selling cheap mobile phones."

After reading the scenario, we presented two manipulation-check items for performance ("Do you think the situation of this company is": 1 = *very bad* to 7 = *very good*) and attribution ("Who is responsible for the good (bad) development of this company?": 1 = *good (bad) economic conditions* to 7 = *good (bad) previous management*).

Participants were then presented with three short CVs of potential candidates. Two of them were male and one was female. The descriptions of one male candidate and the female candidate were matched for their qualifications and suitability for the job (high educational level, excellent work experience). In contrast, the second male candidate was described as less qualified (lower education, poorer work experience).

The dependent variable consisted of the choice of one of the three candidates according to their suitability for the new executive post. Following past research on the glass cliff (e.g., Haslam & Ryan, 2008), the unqualified candidate served as a check to see if participants would exclude him and make their decision based on the two remaining qualified candidates. Finally, participants provided their demographics (gender, age, education, employment), and were fully debriefed about the purpose of the study.

4.2. Results

4.2.1. Manipulation checks

Two ANOVAs with performance, attribution, and their interaction were performed on both manipulation-check items. Results showed an effect for performance on the performance manipulation-check item ($F(1, 155) = 541.67, p < .001, \eta_p^2 = .78$) indicating that the company in the strong performance condition was perceived as better performing ($M = 5.35, SD = 1.03$) than the company in the poor performance condition ($M = 2.04, SD = .77$). Moreover, a main effect of the attribution manipulation check ($F(1, 155) = 225.44, p < .001, \eta_p^2 = .59$) revealed that in the internal attribution condition the company board was perceived as more responsible for the company performance ($M = 5.29, SD = 1.01$) than in the external attribution condition ($M = 2.84, SD = 1.07$).

4.2.2. Preliminary analysis

Not surprisingly, both qualified candidates were selected more often (woman by 50% and man by 37% of the participants) compared to the unqualified man (13%), $\chi^2(1, n = 159) = 34.98, p < .001$. The choice of the unqualified man did not vary across conditions. Thus, all further analysis will focus on the two qualified candidates (reducing n to 139 participants).

4.2.3. Choice of candidate

We performed a logistic regression analysis with candidate choice as the criterion (female candidate = 1, male candidate = 0), and company performance (strong = -1 vs poor = 1), performance attribution (controllable = -1 vs uncontrollable = 1), and their interaction as the predictors.

This analysis produced a Performance × Attribution interaction, $B = -.48, \chi^2(1, n = 139) = 6.96, p = .008, e^B = .62$ (see Fig. 1). Simple slope analysis demonstrated an effect of performance in the controllable

¹ In this and the following study, participant gender had no consistent impact on the dependent variables, and was therefore not considered further.

² Bruckmüller and Branscombe (2010) suggest that the glass cliff is specific to a context where previous male leadership is inferred. As a preliminary step, we thus conducted a pilot study to verify that our scenarios elicited the expectation that the previous manager was a man. Participants ($N = 59$ students) were equally distributed across the four scenarios. After reading the scenario, they rated if they thought that the previous manager was a man or a woman. All of the participants except one indicated that the previous manager was a man, $\chi^2(1, N = 59) = 55.07, p < .001$.

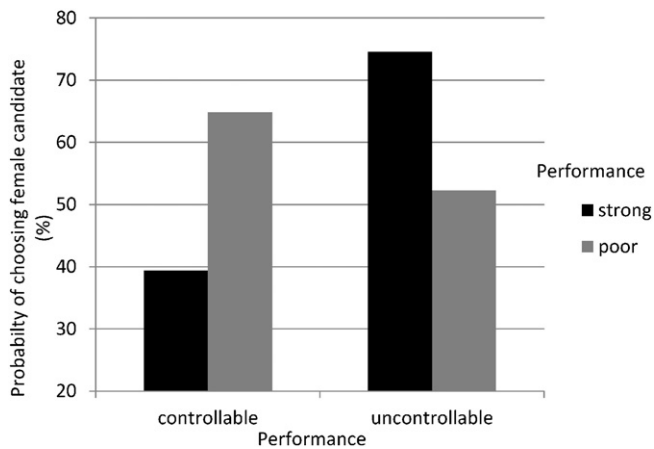


Fig. 1. Study 1: Impact of company performance and controllability on candidate choice (female versus male).

condition on the probability of choosing the female candidate (as opposed to the male), $B = .52$, $\chi^2(1, n = 139) = 4.44$, $p = .04$, $e^B = 1.69$. In support of H1, where there was controllable attribution for company performance, the female candidate was more likely to be chosen in the poorly-performing company (65%) than in the strongly-performing company (39%). These same figures indicate that, compared to the male candidate, the female candidate was less likely to be chosen in the strongly-performing company (39%; two-tailed binomial test, $p = .02$), and more likely to be chosen in the poorly-performing company (65%; two-tailed binomial test, $p = .002$). Company performance did not produce a significant difference in the uncontrollable condition, $B = -.43$, $\chi^2(1, n = 139) = 2.69$, $p = .10$, $e^B = 0.65$, such that the female candidate was chosen by 75% of participants in the strongly and by 52% in the poorly performing company. Moreover, in the well-performing uncontrollable condition, the female candidate was more likely to be chosen than the male candidate (75%, two-tailed binomial test, $p < .001$). Finally, simple slope analysis showed that in the well-performing company condition the female candidate was more likely to be selected in the uncontrollable condition (75%) than in the controllable condition (39%), $B = .72$, $\chi^2(1, n = 139) = 7.00$, $p = .008$, $e^B = 2.06$. No significant differences occurred between the controllable and uncontrollable poor company conditions, $B = -.23$, $\chi^2(1, n = 139) = .95$, $p = .33$, $e^B = .80$. The main effects of performance ($B = .05$, $\chi^2(1, n = 139) = .07$, $p = .80$, $e^B = 1.05$) and attribution ($B = .24$, $\chi^2(1, n = 139) = 1.86$, $p = .17$, $e^B = 1.28$) were non-significant.

4.3. Discussion

The findings from this study provided support for H1, suggesting that company failure (as opposed to company success) increased the chances of a female candidate being appointed as a new leader compared to an equally qualified male candidate, but only when company's performance was attributed to previous management. No such pattern emerged when company performance was attributed to the economy, an uncontrollable cause. Here, a woman was as likely to be chosen in the poorly-performing company as in the strongly-performing one. Thus, the results suggest that women are only likely to confront glass cliffs under conditions where a company's poor performance has originated in faulty leadership, rather than in more uncontrollable contexts such as the one provided by a global crisis.

This finding provides initial insights into one of the potential causes of the glass cliff phenomenon. The observation that women are only preferred in a leadership crisis but not in an economic crisis gives support to the interpretation that the appointment of a female leader may relate to the urge of a company to implement change. An investigation of the type of change (signal of change vs actual change) will follow in Study 2.

A further intriguing difference in the female candidate's likelihood to be appointed as a leader was observed between the two successful performance conditions. Here, the female candidate was almost twice as likely to be chosen when an increase in performance was attributable to an economic upturn (75%), rather than good leadership (39%). Moreover, the female candidate was also more likely to be chosen during an economic upturn compared to a man. If we consider that women tend not to be viewed as prototypical and successful leaders (Ryan et al., 2011; Schein, 2001) it is not surprising that the female candidate was not the preferred leader when previous (presumably male) management was given credit for good outcomes. In this case, the preferred leader should continue the past successful leadership and thus be a person displaying a traditional agentic leadership. This is most likely the case when a man takes the lead. Hence this may be the reason for the male preference.

In contrast, when the economic situation boosts the company's performance, a leader does not have to be an agent of the company's performance because success is nearly secured. Thus, the choice of a prototypical (male) manager is not an absolute necessity and anyone can do the job, even individuals who are stereotyped to be less competent as leaders. In this line, several reasons may drive decision-makers to opt for a woman in a situation where external factors lead to prosperity. First, choosing a woman involves low risk for those who are not persuaded of women's leadership abilities. In this way, even if expectations that a woman will fail to be a good leader are fulfilled, the company would not experience any harm since the economy is stable and will weaken, or even prevent, visible consequences of bad leadership. Second, there is a general societal pressure not to discriminate against disadvantaged groups. For example, gender equality rankings of countries and companies depend more than ever on their gender-equality policies and presence of female managers (e.g., Hausmann, Tyson, & Zahidi, 2011; Vinnicombe, Sealy, Graham, & Doldor, 2010). Quota policies have been implemented in several European countries (e.g., Germany, France, and Scandinavian countries, see for an overview Ahern & Dittmar (2012); Credit Suisse Research Institute (2012, 2014)). Thus, choosing a woman may indeed publicize a socially desirable act. And finally, diversity may be easier to implement in economically thriving times. Potential costs that may arise from appointing and training individuals who are perceived to be less prototypical for a position are thus affordable.

5. Study 2

This study sought to further investigate the processes underlying the appointment of women in a time of crisis. As stated in H2, a female candidate is expected to be preferentially chosen in a poorly performing company with past faulty leadership because her atypicality for a leadership position is believed to symbolize change to evaluators of the company and not because of her qualification or suitability to handle the crisis and improve the company performance. In the present study, we concentrated on a company whose performance is attributable to controllable forces (previous poor vs strong leadership). To delve into the explanatory mechanisms, we added explicit questions about the candidates' ability to signal change and their qualification and suitability for the position. The study was a 2 (company performance: strong vs poor) between-participants experimental design.

³ This test indicates if the probability of choosing the female candidate is significantly different from chance (in this case 50%), and thus significantly different from the choice of a man).

5.1. Method

5.1.1. Sample

The participants were 93 Swiss University students (55 female and 38 male) enrolled in a social and economic sciences degree. Their mean age was 20.81 years ($SD = 2.06$), ranging from 17 to 29 years. Age and gender demographics were uniformly distributed across conditions.

5.1.2. Materials and procedure

The participants read a description of a company whose performance was manipulated as in Study 1 and answered a manipulation-check item on the quality of the company's performance ("The situation of this company is...": 1 = *very bad* to 7 = *very good*). Participants were then asked to choose a leader from two equally competent candidates, a woman and a man. The CVs were the same as in Study 1, except for the exclusion of a sentence on family status (i.e., that the candidates had been husband/wife and two children). This modification aimed to ensure that gendered notions of parenthood would not impact on participants' decisions (e.g., "motherhood penalty" vs "fatherhood bonus"; Fuegen, Biernat, Haines, & Deaux, 2004). Moreover, the CVs were counter-balanced across gender and condition. After making their choice, we asked participants about their reason for choosing the candidate on two dimensions implying either signal or actual change. Two items related to signaling change: "I think the fact of appointing this candidate will show that the company wants to change the type of management", and "I think that the choice of this candidate symbolizes a visible change for partners and competitors": (1 = *disagree* to 7 = *agree*), $r = .82$, $p < .001$. Two further items related to candidate qualification and suitability which was our proxy for actual change: "I think this candidate is the most qualified", and "I think this candidate's leadership style is the most suitable", $r = .44$, $p < .001$. Finally, we asked participants about their age and gender.

5.2. Results

5.2.1. Manipulation check

An ANOVA with performance as the predictor was conducted on the performance manipulation check. Results showed a significant effect for performance on the performance manipulation-check item ($F(1, 91) = 573.94$, $p < .001$, $\eta_p^2 = .86$), such that in the strong performance condition participants rated the company's performance as significantly better ($M = 5.89$, $SD = .89$) than in the poor performance condition ($M = 1.78$, $SD = .76$).

5.2.2. Choice of company

In order to examine whether the female candidate was more likely to be chosen in times of crisis, we first performed a logistic regression analysis with candidate choice as the criterion (woman = 1, man = 0) and company performance as the predictor. This analysis produced a significant performance effect, $B = .99$, $\chi^2(1, n = 93) = 4.03$, $p < .05$, $e^B = 2.69$, indicating that the female candidate was more likely to be chosen in a poorly performing company (64%) than in a strongly performing one (20%).

We then performed a mediational analysis to assess whether this preference could be accounted for by the expectation that the chosen candidate would signal organizational change. Following the Preacher and Hayes (2008) bootstrapping procedure, we introduced signal of change and actual change as mediators of the effect of company performance on candidate choice (see Table 1 and Fig. 2).

This analysis demonstrated that actual change did not mediate the effect of company performance on choice of the candidate, 95% CI $[-.18, .18]$. Indeed, company performance did not impact on actual change, $B = .01$, $SE = .29$, $p = .97$, and actual change was unrelated to choice of the candidate, $B = -.14$, $SE = .22$, $p = .52$, $Wald = .41$. Conversely, company performance predicted signal of change, $B = .67$,

Table 1

Signal of change as mediator of the relationship between candidate gender and company performance (Study 2).

Path/effect	Candidate gender (DV)		
	B	SE	CI95%
<i>a</i> (company performance → mediators)			
1. Signal of change	.67*	.32	
2. Actual change	.01	.29	
<i>b</i> (mediators → DV)			
1. Signal of change	.44*	.20	
2. Actual change	-.14	.22	
<i>c</i> (company performance → DV)			
	.99*	.49	
<i>c'</i> (company performance → DV)			
	.75	.52	
<i>Indirect effects (a × b)</i>			
1. Signal of change	.29*	.32	[.00, .94]
2. Actual change	-.00	.09	[-.18, .18]

Note. Estimates are unstandardized. * $p < .05$, DV = dependent variable.

$SE = .31$, $p = .04$, which in turn predicted a preference for the female (vs. male) candidate, $B = .44$, $SE = .21$, $p = .04$, $Wald = 4.03$. The direct significant effect of company performance on candidate choice, $B = .99$, $SE = .49$, $p = .045$, $Wald = 4.03$, was reduced to non-significance, $B = .75$, $SE = .52$, $p = .15$, $Wald = 2.12$ through the signal of change mediator, $B = .29$, $SE = .23$, 95% CI $[\.00, .94]$. In summary, the female candidate was more likely to be chosen in a poorly performing company because she was perceived to signal change, and not because she was perceived to be qualified and suitable for the position (actual change).

5.3. Discussion

Study 2 corroborated the glass cliff findings from the preceding study by demonstrating that a female candidate is the preferred leader when faulty management is held responsible for company's bad performances. In addition, the findings showed that the choice of the woman in precarious times can be accounted for by the fact that participants believed that she represented change. Conversely, the actual change measure investigating candidates' qualification and suitability for the leadership role did not impact on the female candidate's choice in the precarious context. It seems that she was selected not because of her value as a leader (i.e., leadership credentials) but because of her membership in the female category. Thus, participants focused on her symbolic rather than actual potential for change. Ryan et al. (2011) have indirectly pointed to the idea that women may not be seen as agents to improve company performance. They showed that female stereotypes were particularly linked to passive leadership missions (e.g., enduring or taking the blame of a crisis), whereas to improve a company's performance masculine traits were as important as feminine traits. In sum, this study empirically supports previous suggestions that appointing women may signal efforts to do something about the troubled situation of a company (Haslam & Ryan, 2008; Ryan & Haslam, 2007; Ryan et al., 2007). In

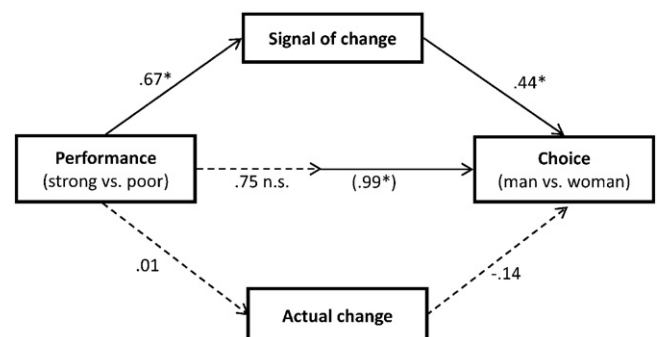


Fig. 2. Study 2: Impact of company performance, and signal vs actual change expectations on candidate choice (female versus male).

addition, it demonstrates that women are not expected to actively handle the crisis and turn around the business because they were not selected for their leadership credentials.

6. General discussion

Past research on the glass cliff has demonstrated that women have better chances to become leaders in troubled times than in flourishing times. The current research provides additional evidence for this phenomenon, and adds to this literature that glass cliffs occur because of a company's desire to signal organizational change in difficult times. The findings from Study 1 demonstrated that a female candidate is more likely to be appointed in times of crisis when change is likely to be effective for the company, which was the case when company performance was attributed to an internal, controllable cause (e.g., past poor leadership). In contrast, when company performance is attributed to an external, uncontrollable cause (e.g., global economic circumstances), a female candidate is equally likely to be selected in a crisis and during a global economic upturn. Study 2 extended these findings by demonstrating that a woman's potential of signaling a change is responsible of her increased chance of being selected under precarious circumstances rather than in an economically healthy company.

6.1. What kind of change?

In Study 1 we have provided initial evidence for one potential cause of the glass cliff that is related to change. Study 2 has investigated the kind of change that the choice of a woman implies. As mentioned in the Introduction, the change associated to the governance of the Icelandic banks was described as replacing a traditional (i.e., male) management and as signaling change. Kulich et al. (2015) suggest that it may be useful to differentiate between two distinct change motivations that may underlie glass-cliff selections: a motivation to signal change to the outside world, and a motivation to actually change the way a company is led. Study 2 shows that the first motivation explains glass cliff choices, but not the second.

The first motivation bears on a symbolic strategy, and can be referred to as "window dressing" (Helland & Sykuta, 2004). Here, the choice of a woman, or another atypical leader, publicizes a change to the outside world (e.g., investors competitors). In this case, companies may attempt to "fool" the market by ostensibly showing that they are aware that change is needed, and by pretending that they are actually doing something by changing the board of directors. The announcement of a visibly different leader may be interpreted as a change, and is thus likely to impact on the market performance (i.e., options and share prices) of the company. This strategy could help the company to gain time in order to turn around the situation. However, in the long run, companies would be urged to demonstrate that they are actually improving and not just signaling change.

As for the second motivation, the question is what type of leader does a company choose when it wants to *actually* change its accounting performance (sales, profits, productivity, employment, etc.). Ryan et al. (2011) give some cues suggesting that when it comes to improving the company's performance, the combination of feminine and masculine leadership styles may be most valued (for a more general tendency towards androgynous leadership see also Koenig et al. (2011); Paustian-Underdahl, Walker, & Woehr (2014)). In Study 2 the qualifications and suitability of the female candidate, that is qualities of a leader that are linked to actual change, clearly did not explain the occurrence of a glass cliff.

In this research we did not manipulate information on gendered traits of the candidate. Thus, it is not clear yet if and how information on the biological sex of a leader in combination with gendered descriptions of a candidate affect leader choices that aim to actually change the way in which a company is led. Future research should investigate the interaction of sex and gender and the two change concepts more in

depth. For example, findings by Ryan et al. (2011, Study 3) suggest that the mission to passively endure a crisis and the mission to actively act on the crisis do not ask for the same styles of leadership (see also Gartzia et al. (2012)). It may be that if actual change is demanded, no glass cliff occurs, and that women in such crisis contexts still face prejudice. More precisely, even if they are capable leaders who might strive to actually turn around a company, this may infer a violation of the more communal leadership style, which is expected from women. As a result, women who wish to actively tackle a crisis – a male behavior – may face negative "backlash" reactions (Rudman & Fairchild, 2004) and miss out on selections in contexts where the leadership role is by definition an agentic one.

6.2. Company performance and female directors

Although the present research supports the signal of change conjecture, little is known about the actual impact of women's presence in leadership positions on companies' performances. We began this article by outlining the main rhetoric given by politicians and economists during the appointment of women to lead two Icelandic banks and Iceland itself during the 2008 financial crisis. These reasons focused on the unwarranted risky behavior of previous male managers, suggesting that the choice of women was motivated by actually changing the way these banks were led with the aim to impact on accounting performance. Recent surveys have analogously shown that the greater the female presence in French companies, the lesser were the negative consequences of the financial and economic crisis for these companies on accounting performance (e.g., Ferrary, 2009, 2010; see also Landrieux-Kartochian (2010)). Similar findings were revealed in an analysis of more than 3000 companies worldwide over the period of the financial crisis (Credit Suisse Research Institute, 2012). The female proportion of directors was positively related to risk-aversion and better company performance in most countries around the world.

However, such research does not warrant causal claims. As Adler (2001) maintains, "While it could be concluded that a firm's long-term record of promoting women to high positions results in higher than normal profitability, it could also be argued that firms with higher profitability may feel freer to experiment with the promotion of women to high levels." (p. 6). Similarly, the authors of the Credit Suisse report call for prudence in the interpretation of female proportion and performance relationships and point to a multi-facet dynamic: "Do better companies hire more women, do women choose to work for more successful companies, or do women themselves help improve companies' performance? The most likely answer is a combination of the three." (Credit Suisse Research Institute, 2014, p. 4). Supporting the idea that prosperity may lead to female appointments, Study 1 showed that women are indeed more likely to be selected in a thriving company during general economic prosperity, as compared to a company that is thriving due to previous management.

As for the signal of change effect, research shows that the proportion of female and minority board members is related to firms' charitable contributions (Wang & Coffey, 1992), and that appointing women may be "window dressing" in an attempt to prove diversity, but not expecting these directors to actually interfere with company politics and governance (Helland & Sykuta, 2004). Similarly, in the Credit Suisse report the researchers argue that

[...] there is no causation between greater gender diversity and improved profitability and stock price performance. Instead the link may be the positive signal that is sent to the market by the appointment of more women: first because it may signal greater focus on corporate governance and second because it is a sign that the company is already doing well. (Credit Suisse Research Institute, 2012, p. 17)

These observations are in line with our finding that signal of change rather than actual change accounts for the glass cliff.

The emerging overall picture is that companies with a higher female proportion in top management may be better equipped to cope with the financial crisis compared to those that are male dominated. However, these examples should not raise excessive confidence and optimism for women accessing the top of corporate hierarchy. Most of the time, women's access to the top elicits negative reactions, notably among investors (Ahern & Dittmar, 2012). As archival data illustrate, the announcement of a female chief executive officer is often conducive to a drop of financial investments in those companies (Lee & James, 2007). In concert, in the UK, Financial Times Stock Exchange companies' market performance decreased after the appointment of female directors, despite the fact that accounting performance remained stable (Haslam, Ryan, Kulich, Trojanowski, & Atkins, 2010). And finally, the above reported positive relationship in France concerned only female presence and accounting performance; market performance and female representation among managers and employees were clearly negatively related (Ferrary, 2010). This suggests that women did not negatively influence the companies' performance, but investors' doubts led to unfavorable developments in the company's stock prices.

Overall, experimental evidence from Study 2 and suggestions in the above cited literature point to decisions on leadership that are motivated by strategic forms of change in order to positively influence investors' evaluations of company performance. However, in parallel archival research suggest that investors actually react negatively to female appointments – at least in the short run (Ferrary, 2010; Haslam et al., 2010; Lee & James, 2007). Archival and experimental research need to take into account the interaction between companies' decisions and investors' actual reactions. In particular, investors' reactions in the long run as well as the larger economic context need to be considered because different types of leadership and different types of strategies may be judged appropriate.

7. Conclusion

The findings from the present research identify important boundary conditions to the selection of women for top-management positions. The selection of a female candidate in times of crisis occurred predominantly in circumstances where that crisis was attributed to a controllable cause. Moreover, this was due to the fact that the female candidate was viewed as a signal of change, and not to perceptions of her greater suitability to deal with the crisis. Thus, if previous male leadership has proven unsuccessful (Bruckmüller & Branscombe, 2010), preference for a woman publicizes the company's intention to implement a change, but this change is not viewed as being enacted by this woman's leadership capacities. Overall, these findings suggest that glass-cliff choices are, at least in part, strategic (Haslam & Ryan, 2008). However, an intriguing question arises: If, as our data show, women are preferred as leaders in times of controllable crises and in times of economic upturns, why do we see so few women in those positions? One reason may stem from the way in which companies frame their failures and successes (e.g., Zuckerman, 1979). If managers frame successes as *their own* achievements and attribute their failures to uncontrollable, external causes rather than to their own deficiencies, new directors will most likely be men again.

References

- Adler, R. D. (2001). *Women in the Executive Suite Correlate to High Profits*. Glass Ceiling Research Center (Retrieved from http://www.csripraktiken.se/wp-content/uploads/adler_web.pdf).
- Ahern, K. R., & Dittmar, A. K. (2012). The changing of the boards: the impact on firm valuation of mandated female board representation. *The Quarterly Journal of Economics*, 127, 137–197. <http://dx.doi.org/10.1093/qje/qjr049>.
- Brown, E. R., Diekmann, A. B., & Schneider, M. C. (2011). A change will do us good: threats diminish typical preferences for male leaders. *Personality and Social Psychology Bulletin*, 37, 930–941. <http://dx.doi.org/10.1177/0146167211403322>.
- Bruckmüller, S., & Branscombe, N. R. (2010). The glass cliff: when and why women are selected as leaders in crisis contexts. *The British Journal of Social Psychology*, 49, 433–451. <http://dx.doi.org/10.1348/014466609X466594>.
- Bruckmüller, S., Ryan, M. K., Rink, F., & Haslam, A. (2014). Beyond the glass ceiling: the glass cliff and its lessons for organizational policy. *Social Issue and Policy Review*, 8, 202–232. <http://dx.doi.org/10.1111/sipr.12006>.
- Cook, A., & Glass, C. (2013). Above the glass ceiling: when are women and racial/ethnic minorities promoted to CEO? *Strategic Management Journal*. <http://dx.doi.org/10.1002/smj2161> (published online September 2012).
- Credit Suisse Research Institute (2012). Gender diversity and corporate performance. Retrieved from: https://www.credit-suisse.com/newsletter/doc/gender_diversity.pdf
- Credit Suisse Research Institute (2014). The CS gender 3000: Women in senior management. Retrieved from: <https://publications.credit-suisse.com/tasks/render/file/index.cfm?fileid=8128F3C0-99BC-22E6-838E2A5B1E4366DF>
- Eagly, A. H., & Karau, S. J. (2002). Role congruity theory of prejudice toward female leaders. *Psychological Review*, 109, 573–598. <http://dx.doi.org/10.1037/0033-295X.109.3.573>.
- Ferrary, M. (2009). Les Femmes: un remède à la crise boursière? [Women: A remedy to the crisis of the Stock Exchange]. *Ressources Humaines & Management*, 28, 3–6.
- Ferrary, M. (2010). Les femmes influencent-elles les performances des entreprises? Une étude des entreprises du CAC40 sur la période 2002–2006 [Do women influence companies' performances? A study of the CAC40 companies over the period of 2002–2006]. *Travail, Genre et Sociétés*, 23, 181–190. <http://dx.doi.org/10.3917/tgs.023.0181>.
- Fuegen, K., Biernat, M., Haines, E., & Deaux, K. (2004). Mothers and fathers in the workplace: how gender and parental status influence judgments of job-related competence. *Journal of Social Issues*, 60(4), 737–754. <http://dx.doi.org/10.1111/j.0022-4537.2004.00383.x>.
- Gartzia, L., Ryan, M. K., Balluerka, N., & Aritzeta, A. (2012). Think crisis—think female: further evidence. *European Journal of Work and Organizational Psychology*, 21, 603–628. <http://dx.doi.org/10.1080/1359432X.2011.591572>.
- Haslam, S. A., & Ryan, M. K. (2008). The road to the glass cliff: differences in the perceived suitability of men and women for leadership positions in succeeding and failing organizations. *The Leadership Quarterly*, 19, 530–546. <http://dx.doi.org/10.1016/j.leaqua.2008.07.011>.
- Haslam, S. A., Ryan, M. K., Kulich, C., Trojanowski, G., & Atkins, C. (2010). Investing with prejudice: the presence of women on company boards is associated with lower stock performance but not with lower financial returns. *British Journal of Management*, 21, 484–497. <http://dx.doi.org/10.1111/j.1467-8551.2009.00670.x>.
- Hausmann, R., Tyson, L. D., & Zahidi, S. (2011). *The Global Gender Gap Report 2011: Rankings and Scores*. Geneva: World Economic Forum (Retrieved from http://www3.weforum.org/docs/GGGR11/GGGR11_Rankings-Scores.pdf).
- Helland, E., & Sykuta, M. (2004). Regulation and the evolution of corporate boards: monitoring, advising, or window dressing? *Journal of Law and Economics*, 47, 167–193 (Retrieved from <http://www.jstor.org/stable/10.1086/380473>).
- Kaplan, S. N., & Minton, B. A. (1994). Appointment of outsiders to Japanese boards: determinants and implications for managers. *Journal of Financial Economics*, 36, 225–258. [http://dx.doi.org/10.1016/0304-405X\(94\)90025-6](http://dx.doi.org/10.1016/0304-405X(94)90025-6).
- Koenig, A. M., Eagly, A. H., Mitchell, A. A., & Ristikari, T. (2011). Are leader stereotypes masculine? A meta-analysis of three research paradigms. *Psychological Bulletin*, 137, 616–642. <http://dx.doi.org/10.1037/a0023557>.
- Kulich, C., Iacoviello, V., & Lorenzi-Cioldi, F. (2015). Refining the conditions and causes of the glass cliff: hostility, signaling change, or solving the crisis? (Chapter 7) In K. Faniiko, F. Lorenzi-Cioldi, O. Sarrasin, & E. Mayor (Eds.), *Gender and social hierarchies: perspectives from social psychology*. London: Routledge.
- Kulich, C., Ryan, M. K., & Haslam, S. A. (2014). The political glass cliff: understanding how seat selection contributes to the underperformance of ethnic minority candidates. *Political Research Quarterly*, 67, 84–95. <http://dx.doi.org/10.1177/1065912913495740>.
- Landrieux-Kartochian, S. (2010). Femmes aux commandes, entreprises performantes? [Women at the command, companies performing?] *Travail, Genre et Sociétés*, 23, 171–179. <http://dx.doi.org/10.3917/tgs.023.0171>.
- Lee, P. M., & James, E. H. (2007). She'-e-os: Gender effects and investor reactions to the announcement of top executive appointments. *Strategic Management Journal*, 28, 227–241. <http://dx.doi.org/10.1002/smj.575>.
- O'Connor, S. (2008, October 13a). *Icelandic women to clean up 'male mess'*. Financial Times (Retrieved from <http://www.ft.com>).
- O'Connor, S. (2008, October 14b). *Iceland calls in women bankers to clean up 'young men's mess'*. Financial Times (Retrieved from <http://www.ft.com>).
- OCSTAT (2010). Résultats statistiques: Les salaires à Genève 2008 [Statistical results: Salaries in Geneva 2008]. Retrieved from <http://www.ge.ch/statistique/tel/publications/2010/resultats/dg-rs-2010-01.pdf>
- OCSTAT (2011). T.01.02.1.4.1.01 Population résidante selon le sexe, l'origine ou la commune de résidence, depuis 1900 [T.01.02.1.4.1.01 Habitants par sexe, origin or the community of residence, since 1900]. Retrieved from http://www.ge.ch/statistique/tel/domaines/01/01_02_1/T_01_02_1_4_1_01.xls
- Paustian-Underdahl, S. C., Walker, L. S., & Woehr, D. J. (2014). Gender and perceptions of leadership effectiveness: a meta-analysis of contextual moderators. *Journal of Applied Psychology*, 99, 1129–1145. <http://dx.doi.org/10.1037/a0036751>.
- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, 40, 879–891. <http://dx.doi.org/10.3758/BRM.40.3.879>.
- Rink, F., Ryan, M. K., & Stoker, J. I. (2013). Social resources at a time of crisis: how gender stereotypes affect the evaluation of leaders in glass cliff positions? *European Journal of Social Psychology*, 43, 381–392. <http://dx.doi.org/10.1177/0956797612453115>.
- Rudman, A. L., & Fairchild, K. (2004). Reactions to counterstereotypic behavior: the role of backlash in cultural stereotype maintenance. *Journal of Personal and Social Psychology*, 87(2), 157–176. <http://dx.doi.org/10.1037/0022-3514.87.2.157>.
- Ryan, M. K., & Haslam, S. A. (2005). The glass cliff: evidence that women are over-represented in precarious leadership positions. *British Journal of Management*, 16, 81–90. <http://dx.doi.org/10.1111/j.1467-8551.2005.00433.x>.

- Ryan, M. K., & Haslam, S.A. (2007). The glass cliff: exploring the dynamics surrounding women's appointment to precarious leadership positions. *The Academy of Management Review*, 32, 549–572. <http://dx.doi.org/10.5465/AMR.2007.24351856>.
- Ryan, M.K., Haslam, S.A., Hersby, M.D., & Bongiorno, R. (2011). Think crisis–think female: glass cliffs and contextual variation in the think manager–think male stereotype. *Journal of Applied Psychology*, 96, 470–484. <http://dx.doi.org/10.1037/a0022133>.
- Ryan, M. K., Haslam, S.A., & Kulich, C. (2010). Politics and the glass cliff: evidence that women are preferentially selected to contest hard-to-win seats. *Psychology of Women Quarterly*, 34, 56–64. <http://dx.doi.org/10.1111/j.1471-6402.2009.01541.x>.
- Ryan, M.K., Haslam, S. A., & Postmes, T. (2007). Reactions to the glass cliff: gender differences in the explanations for the precariousness of women's leadership positions. *Journal of Organizational Change Management*, 20, 182–197. <http://dx.doi.org/10.1108/09534810710724748>.
- Schein, V.E. (2001). A global look at psychological barriers to women's progress in management. *Journal of Social Issues*, 57, 675–688. <http://dx.doi.org/10.1111/0022-4537.00235>.
- Sunderland, R. (2009, February 22). *After the Crash, Iceland's Women Lead the Rescue*. The Observer (Retrieved from <http://www.guardian.co.uk>).
- Vinnicombe, S., Sealy, R., Graham, J., & Doldor, E. (2010). The female FTSE board report 2010: Opening up the appointment process. Retrieved from Canfield University School of Management: <http://www.som.cranfield.ac.uk/som/dinamic-content/research/documents/FemaleFTSEReport2010.pdf>
- Wang, J., & Coffey, B.S. (1992). Board compensation and corporate philanthropy. *Journal of Business Ethics*, 11, 771–778 (Retrieved from <http://dx.doi.org/10.1007/BF00872309>).
- Zuckerman, M. (1979). Attribution of success and failure revisited, or: the motivational bias is alive and well in attribution theory. *Journal of Personality*, 47, 245–287. <http://dx.doi.org/10.1111/j.1467-6494.1979.tb00202.x>.