Leadership Diversity: Effects of Counterstereotypical Thinking on the Support for Women Leaders under Uncertainty

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Abstract

Despite societal shifts, women are still underrepresented in leadership positions. Previous research has found that women are often placed in risky and precarious leadership positions. This is likely to be the case when the context (economic, social, political) is uncertain. This article investigates (1) the support given to women leaders with leadership styles that are congruent or not with gender stereotypes, under uncertainty (Study 1) and (2) the role of counterstereotypical thinking in strengthening the support for women leaders who are role congruent (vs. incongruent) under uncertainty (Study 2). Study 1 found a preference for strong, role incongruent women leaders in times of uncertainty (vs. certainty). Study 2 found that this preference can be attenuated and role congruent women leaders perceived as more effective following a counterstereotypical thinking intervention that challenge participants' social cognitive processing styles. We discuss applied implications regarding how to effectively promote diversity in leadership.

[148 words]

Keywords

Leadership style, gender, diversity, counterstereotypes, uncertainty, innovation

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Increasing globalization, ease of migration, and technological advancements have allowed for increases in social diversity in many institutions – educational, business, charity, health care, and so on (e.g., Cox, 2001; Stockdale & Crosby, 2004). This has led to an increased study of diversity and the social and economic benefits it brings to groups, teams, and organizations (e.g., Ancona & Caldwell, 1992; Bantel & Jackson, 1989). For example, diversity can promote creativity and productivity and improve responses to client/consumer needs (Bellini, Ottaviano, Pinelli, & Prarolo, 2013). Much less is understood about diversity in leadership, its potential for social and organizational transformation, and the interplay between psychological processes and contextual factors that promote diversity in leadership. Women and racial and ethnic minority members remain underrepresented in positions of leadership across the world (Catalyst, 2017; Huber & O'Rourke, 2017), even though globalization and changing demographics have promoted an increase in social diversity within the workforce. Although employment laws can support equality, there are fewer women, and fewer racial minorities in leadership positions than would be expected based on workforce demographics and population demographics. This suggests that the barriers to leadership are based on *social* processes, such as unconscious bias, stereotyping, and failure to manage diversity effectively.

This article explores the impact of leadership style on the evaluation of women leaders. Given the current socio-economic-political context, we focus on contextual uncertainty. Specifically, we consider whether counterstereotypical thinking can attenuate the biased preference for autocratic (gender role incongruent) women leaders under uncertainty compared to certainty. As women are more likely to have, or expected to have, a democratic leadership style studying *how* to attenuate such biases is an important area to level the

leadership playing field. Particularly, we investigate (1) whether the biased preference for authoritative leaders in uncertain times also applies when the leader is a woman and (2) whether counterstereotypical thinking might be an effective strategy under uncertainty to promote support for women leaders who are gender role congruent.

Leadership Styles and Leadership Preferences

It is well established that leadership styles significantly contribute to job satisfaction and overall performance within organizations and groups. Moreover, leaders with a democratic leadership style, encouraging participative behavior amongst followers or employees, are generally preferred and positively affect productivity whereas leaders with autocratic leadership styles stifle motivation and performance (e.g., Gastil, 1994; Van Vugt, Jepson, Hart & De Cremer, 2004).

Leadership Preferences Under Uncertainty

Whereas democratic leaders are generally preferred there seems to be a preferential shift towards leaders with authoritative leadership styles under uncertainty, such as during a crisis or economic instability (Hogg & Adelman, 2013; Rast, 2015; Rast, Hogg, & Giessner, 2013; Schoel, Bluemke, Mueller, & Stahlberg, 2011) or when followers feel self-uncertain (Rast et al., 2013; see also, Gaffney, Rast, & Hogg, 2018). Given that authoritative leaders can negatively affect performance within groups (Van Vugt et al., 2004), this preferential shift might have detrimental consequences for organizations.

This is relevant to scholarly work on diversity and leadership because women are more likely to adopt a democratic leadership style and more likely to encourage participation (e.g., Eagly & Johnson, 1990; van Engen & Williemsen, 2004). In fact, there is some debate as to whether women's emphasis on democratic leadership results in a *female advantage* in leadership (Paustian-Underdahl, Walker, & Woehr, 2014). In their recent meta-analysis, Paustin-Underdahl et al. (2014) provided support for the idea that women leaders are

perceived to have an advantage in leadership in terms of effectiveness, for specific types of organizations (i.e. business and education) and level of management (middle management and senior management).

Despite any possible advantage in "doing the job" of leadership, it remains the case that women are at a disadvantage when being selected for leadership positions, or evaluated as leaders (Robertson, Brummel, & Salvaggio, 2011; and see Hoyt, 2010 for a review). Research finds that this is due to a mismatch between the expected attributes of women as communal – e.g., caring, sensitive, compassionate; and of men _and_ leaders as more agentic – e.g., dedicated, determined, competitive (e.g., Eagly & Karau, 1991; Eagly, Karau, & Makhijani, 1995; Heilman, 2001; Koenig, Eagly, Mitchell, & Ristikari, 2011; Rosette & Tost, 2010). As such, women leaders are role incongruous (Eagly & Carli, 2003; Heilman, 2001) and are penalized because they threaten the gender hierarchy (Rudman, Moss-Racusin, Phelan, & Nauts, 2012). This is exacerbated with women leaders further downgraded when they adopt a more masculine style of leadership, for example an autocratic rather than democratic style (Eagly, Makhijani, & Klonsky, 1992), or as strong and not sensitive (Johnson, Murphy, Zewdie, & Reichard, 2008, see also Gervais and Hillard, 2011).

Moreover, much is still unknown about the cognitive processes that underlie the shifts in leadership preferences in times of uncertainty or instability. Previous research has focused on the motivational factors that might lead to an increased support of unexpected leaders in uncertain times. For example, preferences for authoritative leaders in times of economic difficulties are motivated by the leader's ability to reduce uncertainty within the individual, making authoritative leaders more attractive (De Hoogh, Greer, & Den Hartog, 2015; Rast et al., 2013; Schoel et al., 2011). Additionally, the preference for women leaders in risky or precarious situations can be motivated by gender stereotypic associations (Bruckmüller & Branscombe, 2010; Bruckmüller, Ryan, Rink, & Haslam, 2014), as well as motivations to

signal change (Kulich, Lorenzi-Cioldi, Iacoviello, Faniko, & Ryan, 2015). Furthermore, our previous research found that cognitively contesting stereotypes and promoting flexible thinking can shift participants' information processing mode and attenuate biases in leadership decision making (Leicht, Randsley de Moura, & Crisp, 2014) and promote women's leadership aspirations under particular conditions (Leicht, Goclowska, van Breen, de Lemus, & Randsley de Moura, 2017).

Challenging Stereotypes and Leadership Biases

Given that leadership preferences are affected by individual differences in need for closure and structure (De Dreu, 2003; Leicht, Crisp, & Randsley de Moura, 2013), it is plausible that preferential biases for authoritative leaders in times of economic crisis could be based upon heuristic thinking. Diversity experiences that challenge or contest stereotypes have been found to reduce the reliance on stereotype application in intergroup perceptions (Crisp, Hewstone, & Rubin, 2001; Hall & Crisp, 2005; Hutter & Crisp, 2005). For example, when asked to form impressions of a counterstereotypical "Harvard educated brick layer" (Kunda, Miller, & Claire, 1990) or "female mechanic" (Hutter & Crisp, 2005) participants reduced the application of stereotypes.

Empirical studies which ask participants to generate gender-occupation counter-stereotypes (e.g., a female mechanic, male midwife) can increase lateral thinking in comparison to control conditions in which stereotypic targets or no targets were created (Vasiljevic & Crisp, 2013, Study 3). Moreover, research on creative performance found that exposure to counter-stereotypes can lead to enhanced performance on a subsequent creativity task (Gocłowska, Crisp, & Labuschagne, 2013; Gocłowska & Crisp, 2013). In addition, contesting stereotypes can reduce biases in leadership preferences. Specifically, our research (Leicht et al., 2014) found that contesting stereotypes and challenging gender stereotypic expectancies, by asking participants to describe an individual with a counter-stereotypic

occupation, can reduce reliance on the heuristic association that being representative for one's group is a characteristic that is essential for good leadership, thereby increasing chances for successful leadership endeavors of individuals who are less representative (e.g., women in a male dominated field). In other words, our existing research found that exposing individuals to situations in which stereotypes are contested can break down heuristic associations and biases within leadership decision processes.

This paper breaks new ground in two ways. Firstly, we test whether the context of uncertainty (vs. certainty) might have advantages for the perception of gender role incongruous women leaders. Gender role congruous leaders (in this case women leaders who are sensitive) are generally preferred to gender role incongruous leaders (i.e. women leaders who are strong; Johnson et al., 2008). Secondly, we expect counterstereotypical thinking to act as a boundary condition, so that engaging in a stereotypical thinking task should lead to a preference for gender role congruous women leaders. Whereas, following a counterstereotypical thinking task this preference will be attenuated and women who are gender role congruous will be evaluated as effective even under conditions of uncertainty.

The Present Research

Drawing on previous research that connected uncertainty with preference for strong authoritative leaders, Study 1 tests the hypothesis that participants will perceive the gender role congruous (sensitive) women leaders more positively than gender role incongruous (strong) women leaders under conditions of certainty (Hypothesis 1). Moreover, we test the prediction that when primed with uncertainty (reminded of economic instabilities) participants will perceive a gender role incongruous woman leader (i.e. strong not sensitive) as more effective and innovative, than when they are primed with a certain context (Hypothesis 2). Study 2 investigates whether increasing systematic information processing through contesting gender occupation stereotypes and promoting counterstereotypical

thinking can increase positive evaluation for gender role congruous (sensitive) women leaders under conditions of uncertainty.

Study 1

Method

Participants, design, and procedure. Participants were 83 USA MTurk workers (40 male, 43 female) ages ranging from 19 to 64 ($M_{age} = 33.25$, $SD = 10.92$), and 76% USA nationals (63 USA, 1 British, 1 Brazilian, 1 Ecuadorian, and 17 did not indicate their nationality). Participants were allocated randomly in a 2 (Uncertainty: certain vs uncertain) x 2 (Leadership Style: role incongruous vs role congruous) between participants design. Participants were informed that the aim of the study was to investigate organizational decision-making and that as part of this study they would be presented with a candidate applying for a CEO position in a company that was going through major financial difficulties. An excerpt of an online newspaper article manipulated the economic instability of the company by presenting either of the following subtitles: CEO looking for a new VP for a larger and stable [unstable] retail company. The actual article then framed the economic situation of the company in certain/uncertain ways by varying the following paragraph (adapted from Nevicka, De Hoogh, Van Vianen, & Ten Velden, 2013):

> *"Lanitol Inc. is a larger US based retail company with approximately 25 000 employees. It has found itself in a period of relative stability [difficulty] with stable [plummeting] share prices and a constant market share [loss in the market]. This is also reflected in recent company polls showing that employees feel little stress [a sense of stress] spreading throughout the organization."*

After participants were presented with this article they were asked to imagine themselves as part of the recruitment panel selecting the new Vice President of Financial

Affairs for Lanitol Inc. We adapted the materials from the original study showing a preference for gender role congruous sensitive women leaders (Johnson et al., 2008). We then presented participants with a CV of one of the shortlisted candidates that included some basic information about the candidate "Joan Davenport", a summary of comments from people involved in the selection and recruitment process and job testing scores. The panel review and the job testing scores included the variation of the leadership style the candidate seemed to prefer with one CV presenting Joan Davenport as preferring a sensitive (not strong) leadership style and the other CV presenting Joan Davenport as a leader who prefers and strong (not sensitive) leadership style.

Dependent Variables

Leader effectiveness. To assess to what extent the target was perceived to be an effective leader, we adapted three items (from Johnson et al., 2008) asking how likely it is that the described CEO would succeed in her position, would be effective, and would improve the performance at Lanitol (1 *not at all - 7 very much*), Cronbach's α = .94.

Innovation ability. With two items based on Abrams et al. (2008) participants indicated how much they agreed that the CEO would be able to initiate innovation within the company, and would be able to initiate change within the company (1 *not at all - 7 very much*). These items immediately followed each other and there was no variability in responses (r=1.00).

Hire. We asked participants to indicate their agreement with the statement: "I would hire this candidate" (1 *strongly disagree - 9 strongly agree*).

Appointment Quality. Participants indicated their agreement with the statement: "This candidate would be a good appointment" (1 *strongly disagree - 9 strongly agree*).

Results

Results were analyzed with an Uncertainty x Leadership Style ANOVA on all the dependent measures. Means and standard deviations by condition are presented in Table 1.

Leader Effectiveness. An Uncertainty x Leadership Style ANOVA on the leader effectiveness score revealed no significant effects of uncertainty $F(1, 79) < 1$, or leadership style $F(1, 79) < 1$. The Uncertainty x Leadership Style interaction was significant, $F(1, 79) = 6.60$, $p = .012$, $\eta^2 = .08$ (see Table 1). Simple effects analysis revealed that the gender role incongruous (strong) leader was rated as higher in effectiveness within the uncertain condition ($M = 5.25$) than the certain condition ($M = 4.32$), $F(1, 79) = 5.82$, $p = .02$, $\eta^2 = .07$. The gender role congruous (sensitive) leader was perceived to be as effective within the certain and the uncertain conditions, $F(1, 79) = 1.60$, $p = .209$, $\eta^2 = .02$. Furthermore, in the certain condition the gender role congruous (sensitive) leader was rated as higher in effectiveness ($M = 5.32$) than the leader with the strong leadership style ($M = 4.32$), $F(1, 79) = 6.57$, $p = .01$, $\eta^2 = .08$. There was no effect of leadership style within the uncertain condition, $F(1, 79) = 1.23$, $p = .270$, $\eta^2 = .02$.

Innovation Ability. An Uncertainty x Leadership Style ANOVA on the ability to initiate innovation revealed no significant effects of uncertainty or leadership style $F(1, 79) \leq 2.70$, $p \geq .10$, $\eta^2 \leq .03$. The Uncertainty x Leadership style interaction was $F(1, 79) = 3.95$, $p = .050$, $\eta^2 = .05$ (see Table 1). Simple effects analysis suggests that the gender role incongruous (strong) leader was rated as higher in her ability to initiate innovation in the uncertain condition ($M = 5.10$) than in the certain condition ($M = 4.28$), $F(1, 79) = 4.08$, $p = .047$, $\eta^2 = .049$. The gender role congruous (sensitive) leader was perceived as equally able to innovate in the uncertain and certain condition, $F(1, 79) < 1$. Participants who rated the leader for a company in a certain environment indicated that a gender role congruous

(sensitive) leader would be more likely to initiate innovation ($M = 5.37$) than a gender role incongruous (strong) leader ($M = 4.28$), $F (1, 79) = 6.97$, $p = .01$, $\eta^2 = .08$. There was no effect of leadership style on innovation ability within the uncertain condition, $F (1, 79) < 1$.

Hire. An Uncertainty x Leadership Style ANOVA on the willingness to hire the target revealed no significant main effects of Uncertainty or Leadership Style $F (1, 79) \leq 2.58$, $p \geq .11$, $\eta^2 \leq .03$. The Uncertainty x Leadership Style interaction was significant, $F (1, 79) = 6.08$, $p = .016$, $\eta^2 = .07$ (see Table 1). Simple effects analysis found participants were more likely to hire the role incongruous (strong) leader in the uncertain condition ($M = 6.17$) than participants in the certain condition ($M = 4.55$), $F (1, 79) = 6.01$, $p = .02$, $\eta^2 = .07$. Participants were equally likely to hire the role congruous (sensitive) leader in the certain and uncertain conditions, $F (1, 79) = 1.18$, $p = .280$, $\eta^2 = 02$. In the certainty conditions, participants were more likely to hire the role congruous ($M = 6.52$) than the role incongruous leader ($M = 4.55$), $F (1, 79) = 8.76$, $p = .004$, $\eta^2 = .10$. There was no effect of leadership style on willingness to hire the leader within the uncertain condition, $F (1, 79) < 1$.

Appointment Quality. An Uncertainty x Leadership style ANOVA on the ratings on how much participants thought that the candidate would be a good appointment revealed no significant effects of Uncertainty, or Leadership Style $Fs (1, 79) < 1$. The Uncertainty x Leadership Style interaction was significant, $F (1, 79) = 4.57$, $p = .036$, $\eta^2 = .055$ (see Table 1). Simple effects analysis showed participants were more confident that the appointment of the role incongruous (strong) leader in the uncertain condition would be a good hire ($M = 6.50$), than did participants in the certain condition ($M = 5.00$), $F (1, 79) = 4.62$, $p = .04$, $\eta^2 = .055$. Participants thought the role congruous (sensitive) leader would be an equally good hire in the certain and uncertain conditions, $F (1, 79) < 1$. Moreover, participants who rated the leader for a company in a certain environment were more likely to rate a role congruous (sensitive) ($M = 6.57$) than the role incongruous (strong) leader ($M = 5.00$) as being a good

appointment, $F(1, 79) = 4.94$, $p = .029$, $\eta^2 = .059$. There was no effect of leadership style on appointment quality within the uncertain condition, $F(1, 79) < 1$.

Discussion

In support of Hypothesis 1, in the context of certainty, participants were more positive towards a woman leader with a gender role congruous leadership style of sensitive than they were towards a leader with gender role incongruous (strong) leadership style. Specifically, when primed with certainty in the context, the gender role congruous sensitive woman leader was evaluated as more effective in her leadership endeavors and tended to be perceived as more likely to initiate innovation and change. This is in line with previous research that found a preference for women leaders who adopt a sensitive leadership style over a strong one (Johnson et al., 2008) and also connects to research that found that democratic leaders are generally evaluated more favorably. Moreover, participants were more likely to support the hire of the gender role congruous candidate and believed that she would make a better appointment.

Furthermore, in line with Hypothesis 2, we found that participants evaluated the role incongruous strong woman leader more positively in the uncertain than the certain condition. Specifically, results suggest that participants rated the candidate with the strong leadership style as more effective, with more potential for innovation and change, and as higher in intention to hire and appointment quality when primed with uncertainty as opposed to certainty. The results indicate that this was only up to the level of the gender role congruent (sensitive) leader, with no significant differences found under conditions of uncertainty between evaluations of women leaders who were sensitive or strong. This fits with previous research showing that uncertain contexts can change leadership preferences, and suggests that this is also true for women leaders. Given that, compared with men, women tend to be

ascribed more communal vs. agentic characteristics at the workplace (i.e. they are perceived to be kind, helpful, sympathetic rather than aggressive, dominant, forceful) and taken that agentic characteristics are associated with control and dominance (i.e. more autocratic), women might often be perceived (and expected) to be more democratic than autocratic (Eagly & Johannesen-Schmidt, 2001). In fact, the evidence suggests that women leaders do adopt a more participative leadership approach (democratic, Eagly & Johnson, 1990; transformative, Eagly, Johannesen-Schmidt, & van Engen, 2003). As such, it is important to test the effectiveness of strategies to attenuate the increased support for woman incongruent leaders under uncertainty for two reasons: 1) because women are more likely to be adopting leadership styles that are more gender role congruent (sensitive), and 2) because women are more likely to be appointed under conditions of uncertainty (glass cliff effect, Ryan & Haslam, 2005).

Study 2 investigates whether engaging in counterstereotypical thinking (vs. stereotypical thinking) under uncertain conditions, leads participants to rate women leaders who adopt leadership styles that are more gender role congruous (i.e. sensitive vs strong) to be more effective and able to innovate.

Study 2

Method

Participants and design. Participants were 166 undergraduate psychology students (147, female, 19, male), with ages ranging from 27 to 40 (M_{age}= 19.14, SD = 2.56), 79% British (131 British, 35 non-British). Participants were allocated randomly to a 2 (Task: Stereotypic vs. Counterstereotypic thinking) x 2 (Role Model Type: Mechanic vs. Midwife) x 2 (Leadership Style: Sensitive vs. Strong) between participants design. Participants received partial course credit for participation.

Procedure. On arrival in the lab participants were told that they were taking part in two separate studies. The first section was framed as a study investigating the perception of people and social groups in general. This was to explain why we asked participants to create an impression and describe a target that either had a counterstereotypic (male midwife, female mechanic) or a stereotypic (female midwife, male mechanic) gender occupation. After completing the stereotypic/counterstereotypic manipulation participants were asked to take part in a second section which was purportedly a separate study to investigate the perception and evaluation of leaders in the current economy. We told participants that they would be asked to read through a press release describing the leadership style of a newly appointed CEO in company and that we were interested in their perception of this leader (as Study 1, based on Johnson et al., 2008). The CEO (always a woman) was described either as having a strong or a sensitive leadership style, as in Study 1.

Dependent Variables

Manipulation check. In order to check whether the manipulation of counterstereotypicality was successful, participants were asked how similar they perceived the two social categories, how complex they thought this task was, how surprising and how familiar they found the target. Each question was rated on a 7-point scale (1 = *not at all* - 7 = *very much*), and the combined mean score was used in analysis, $\alpha = .80$.

Dependent variables. Participants completed measures of leader effectiveness ($\alpha = .89$) as in Study 1, and innovation ability ($\alpha = .75$). Given the items used to measure innovation ability in Study 1 did not have variability, we changed this measure and asked participants "If working at Lanitol, how likely do you think it is that Davenport can initiate innovation within the company?" and "To what extent do you think Davenport should be able

to innovate and come up with new ideas for Lanitol" (1 = *strongly disagree*, 7 = *strongly agree*), using a mean score in the analysis.

Results

Results were analyzed with Task x Role Model x Leadership Style ANOVA on both dependent measures. Means and standard deviations by condition are presented in Table 2.

Manipulation Check

A Task x Role Model Type ANOVA on the manipulation check revealed a significant main effect of Task, $F (1, 158) = 133.75$, $p <. 001$, $\eta^2 = .45$, indicating that the counterstereotypic role model was perceived as less familiar ($M = 4.05$, $SD = 1.12$) than the stereotypic role model ($M = 2.28$, $SD = 0.83$) (higher numbers indicate less familiarity). As expected, Role Model Type, $F (1, 158) = 1.62$, $p = .20$, $\eta^2 = .01$, and Task x Role Model Type were not significant effects, $F (1, 158) < 1$.

Leader Effectiveness

A Task x Role Model Type x Leadership Style ANOVA revealed no significant effect of Role Model Type or Leadership Style ($F (1, 158) \leq 1.85$, $p \geq .175$. The main effect of Task was significant, showing that participants anticipated the leader to be more effective in the stereotypic condition ($M = 5.42$, $SD = 0.95$) than in the counterstereotypic condition ($M = 5.14$, $SD = 0.83$), $F (1, 158) = 4.23$, $p = .04$, $\eta^2 = .03$. This main effect was qualified by a significant Task x Leadership Style interaction, $F (1, 158) = 7.29$, $p = .008$, $\eta^2 = .04$ (see Table 2). Simple effects analysis revealed that leadership effectiveness ratings were highest for strong (gender role incongruous) leaders in the stereotypic role model condition ($M = 5.70$) and differed significantly from the ratings of a sensitive (gender role congruous) leader in the same condition ($M = 5.14$), $F (1, 158) = 8.36$, $p = .004$, $\eta^2 = .05$, and from strong

leaders in the counterstereotypic condition ($M = 5.05$), $F (1, 158) = 11.32$, $p = .001$, $\eta^2 = .067$. In the counterstereotypic condition, the sensitive leader was not rated differently to the strong leader, $F (1, 158) < 1$. There were no further significant interaction effects ($Fs < 1$).

Innovation Ability

A Task x Role Model Type x Leadership Style on innovation revealed a significant Task x Leadership Style interaction, $F (1, 158) = 7.48$, $p = .007$, $\eta^2 = .045$ (all other effects were non-significant, $Fs < 1$) (see Table 2). Simple effects analysis revealed that although there was no difference in perceptions of the stereotypical condition for innovation ability, $F (1, 158) = 2.50$, $p = .12.$, in the counterstereotypical condition, the sensitive leader was perceived as significantly higher in innovation ability ($M = 5.50$) than the strong leader ($M = 5.01$), $F (1, 158) = 5.21$, $p = .019$, $\eta^2 = .034$.

Discussion

Study 2 tested whether counterstereotypical thinking (vs. stereotypical thinking) can improve evaluations of gender role congruent (i.e. sensitive) women leaders under uncertainty. The results highlight that when primed with the stereotypic task participants perceived a higher effectiveness for the gender role incongruent vs the gender role congruent leader. This was attenuated by the counterstereotypic task, with both leaders being perceived as equally effective. Moreover, following the counterstereotypic task the gender role congruent (sensitive) leader was perceived as more able to innovate than the gender role incongruent (strong) leader – an evaluative boost.

General Discussion

The purpose of this research was to inform the scientific debate on the social-psychological barriers to gender diversity in leadership, while providing experimental

evidence to the effectiveness of counterstereotypical interventions as potential solutions. We extend previous research by (1) establishing that participants evaluate strong women leaders more positively in conditions of uncertainty (vs. certainty; Study 1) and that (2) preferences for strong women leaders under conditions of uncertainty are attenuated with counterstereotypical thinking (Study 2), with participants perceiving sensitive leaders as more able to innovate in this condition. Study 1 found that women leaders with a strong leadership style were perceived as being more effective and somewhat more likely to initiate innovation and change in times of economic instability with uncertainty (vs. certainty). Moreover, within the uncertain (vs. certain) conditions participants were more inclined to hire the strong woman leader and perceived the strong woman leader as a better-quality hire. In other words, results indicate that in times of economic uncertainty the strong woman leader received more support than what is normally the case. It is important to note that there were no significant differences between the evaluations gender role congruent (sensitive) women leaders under conditions of uncertainty as opposed to certainty (Study 1). Moreover, under conditions of uncertainty, the difference in evaluation of the gender role congruent (sensitive) vs. incongruent (strong) women leaders was not significant (Study1).

Research on the glass cliff indicates that preferences for women leaders are driven by stereotypic associations (Bruckmüller & Branscombe, 2010) and the desire to signal change (Kulich et al., 2015). Our research informs the literature on the glass cliff effect (e.g., Ryan & Haslam, 2005), as we found that women leaders with a strong leadership style (typically associated with men) were rated as more effective following a stereotypic task (Study 2). Our findings suggest that a switch in favor of women leaders in times of uncertainty (i.e. the glass cliff) is probably not only driven by the stereotypic association that women leaders will provide organizations with more communal aspects. Rather, and in line with most recent research on signaling change (Kulich et al., 2015), our results (particularly on capacity for

innovation) support the notion that the preferential shift towards strong women leaders in uncertainty (vs. certainty) is probably associated with the desire for change. A limitation of this current work is that we have focused on women leaders only, and we had a relatively small sample size in Study 1.

Nonetheless, Study 2 supports the core finding and in a lab setting, but to investigate fully the implications of our findings for the glass cliff effect, further research would need to compare the results with men and women leadership candidates. For example, it is possible that counterstereotypical thinking might also affect evaluations strong (vs. sensitive) men as leaders in times of uncertainty. The present studies were designed to maximize internal validity and we opted to use experimental vignettes to enhance ecological validity whilst also allowing random assignment to condition (Aguinis & Bradley, 2014). Nevertheless, it might be that not all participants in Study 2 (university students) had work experience. Further research is needed to test the generalizability of these findings, and to test them in a range of contexts ideally with a representative sample.

Practical Implications

Having a productive and creative workforce is crucial for any business or organization. Given that leaders and their behaviors affect variables such as job satisfaction and turnover intentions (e.g., Douglas & Leite, 2017), choosing the right leader is of the essence. Further, emergent democratic leaders have been found to be particularly effective and with important consequences on productivity (Gastil, 1994). Therefore, the urge to choose and prefer an authoritative or strong leader in times of crisis could be particularly problematic and translate into negative outcomes both for organizations (e.g., leading to decreased productivity and loss of talent) and employees (e.g., potentially affecting their experiences at the workplace). Furthermore, it could potentially backlash against women

leaders who tend to adopt a more gender congruent approach of being democratic or sensitive. Another side effect might be the backlash against the strong women leaders that are appointed to leadership positions. People generally prefer democratic leaders and tend to penalize women incongruent leaders because they defy the status quo and therefore elicit negative emotions (Brescoll, Okimoto, & Vial, 2018). Therefore, women leaders who are appointed under uncertain conditions might face tough opposition, which can then translate into problematic situations for those they lead, which can itself lead to heightened uncertainty about where the group/team/organization is going.

As such, it is essential for research to inform strategies that both promote gender diversity in leadership and allow for the reduction of heuristic thinking and improve innovation. In the organizational setting, promoting balanced reasoned decisions that consider what is the best option for a particular team/group/organization can potentially have a positive impact on employees' and leaders' experiences, improve the effectiveness of groups and teams, and lead to better organizational outcomes. This research found that counterstereotypical (vs. stereotypical) thinking enabled participants to see the benefits of having a sensitive woman leader guiding a company through the uncertainty of economic turmoil. This provides insights into how leadership decisions under uncertainty might be based on systematic information processing. Moreover, it supports the idea that switching participants' mode of thinking might lead to more optimal leadership decisions with less bias, even when the context is uncertain.

In the context of global socio-economic-political uncertainty, finding effective mechanisms that challenge individuals'/groups'/organizations' support for strong autocratic leaders and instead promote social diversity in leadership gains renewed importance. Our findings suggest that strategies based on counterstereotypical thinking interventions might be effective and have important applied implications. Specifically, our findings suggest that

organizations should be particularly wary of support for women with gender role incongruent

leadership styles under contextual uncertainty, particularly considering that assuming such

incongruent roles can potentially backlash against women leaders (and potentially against the

teams that they lead and the organizations that they represent). Counterstereotypical thinking

interventions might provide an intervention to be effectively incorporated into training

programs in organizations that target employees that sit on selection panels. These

interventions could follow a similar format of the manipulations of Study 2 (e.g., being

exposed to successful women gender role congruous leaders in leadership programs). More

widely, such interventions might play a key role in widening leadership participation to those

who, based on specific social categorizations, are unexpected or marginal leaders, and

ultimately transform perceptions about who should be given leadership roles.

Conclusion

Leaders play a crucial role in steering companies and groups out of crisis and

uncertainty. As such, it is concerning that research findings are uncovering stronger support

for authoritative leaders (who generally stifle motivation and creativity) in times of crisis and

uncertainty. Given the particularly uncertain current socio-political-economic context, testing

effective strategies to prevent individuals' tendency to give more support to gender role

incongruent women leaders can have important social and practical implications. This

research found that this tendency can be attenuated by contesting stereotypes, which is

particularly relevant when research demonstrates women do tend to lead in a more

participative way (e.g., Rosenthal, 1998). Specifically, we found that contesting expectancies

between workplaces roles and gender roles can lead to more systematic information

processing and in doing so reduce the tendency to apply heuristics in leadership judgments

and choices. Our research provides new insights on how leadership preferences under

uncertainty can be de-biased to promote more considered leadership decisions, and we hope

will act as a springboard for further investigation.

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Table 1.

Means and Standard Deviations by Uncertainty and Leadership Style for all dependent variables (Study 1).

		Certain	Uncertain
Role Incongruous (Strong)	Leadership Effectiveness	4.32 (1.24)	5.25 (1.21)
	Innovation ability	4.28 (1.14)	5.10 (1.44)
	Hire	4.55 (2.21)	6.17 (1.88)
	Appointment Quality	5.00 (2.49)	6.50 (1.98)
Role Congruous (Sensitive)	Leadership Effectiveness	5.32 (1.26)	4.79 (1.43)
	Innovation ability	5.37 (1.28)	5.00 (1.57)
	Hire	6.52 (2.23)	5.75 (2.46)
	Appointment Quality	6.57 (2.25)	5.88 (2.58)

Table 2.

Means and Standard Deviations by Task and Role Model Type and Leadership Style, and collapsed by Role Type, for all dependent variables (Study 2).

Role Model Type			Stereotypic	Counterstereo-typic
Gender Role Incongruous (Strong)	Mechanic	Leader Effectiveness	5.73 (0.75)	4.98 (0.89)
		Innovation Ability	5.45 (1.00)	5.11 (1.05)
	Midwife	Leader Effectiveness	5.67 (1.16)	5.11 (0.91)
		Innovation Ability	5.57 (1.04)	4.93 (0.79)
	Overall	Leader Effectiveness	5.70 (0.98)	5.05 (0.89)
		Innovation Ability	5.51 (1.01)	5.01 (0.91)
Gender Role Congruous (Sensitive)	Mechanic	Leader Effectiveness	5.08 (0.88)	5.25 (0.90)
		Innovation Ability	5.05 (1.29)	5.42 (0.85)
	Midwife	Leader Effectiveness	5.20 (0.85)	5.21 (0.66)
		Innovation Ability	5.32 (0.78)	5.57 (0.62)
	Overall	Leader Effectiveness	5.14 (0.86)	5.23 (0.77)
		Innovation Ability	5.19 (1.05)	5.50 (0.73)

Author Bios

Georgina Randsley de Moura is a Professor at the University of Kent. Georgina's research interests focus on areas of leadership and innovation, she specifically considers what happens when leaders do not meet their group's expectations, for example by breaking the rules or proposing radical change. Most recently Georgina has been considering how individuals, groups, and organizations identify and react to leadership potential. She also currently serves as the Head of the School of Psychology.

Carola Leicht received her Ph.D. from the University of Kent, UK in 2013. Since completing her Ph.D. she has worked as a post-doctoral researcher at Coventry University and at the University of Kent. Her main research interest lies in exploring how social cognitive biases that are affecting leadership perceptions, judgements and choices can be attenuated with a focus on how contesting stereotypes in general might facilitate that process.

Ana C. Leite is social and organizational psychologist with business and academic experience. Before beginning her PhD, she was a consultant in HR and organizational behavior, having worked for Deloitte (Human Capital). Ana's research covers both basic research in social psychology as well as applied research in organizations. Ana's research focus on leadership and well-being in organizations, prejudice and outgroup sociality, and the social-psychological antecedents of animal exploitation.

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Richard J. Crisp is Professor of Psychology at Durham University. His research has developed a range of cognitive interventions to help improve tolerance, group productivity, creativity, confidence and leadership. He is former winner of the Gordon Allport Intergroup Relations Prize from the Society for the Psychological Study of Social Issues (for the best paper of the year on intergroup relations), the British Psychological Society Spearman Medal and the British Psychological Society President's Award for Distinguished Contributions to Psychological Knowledge.