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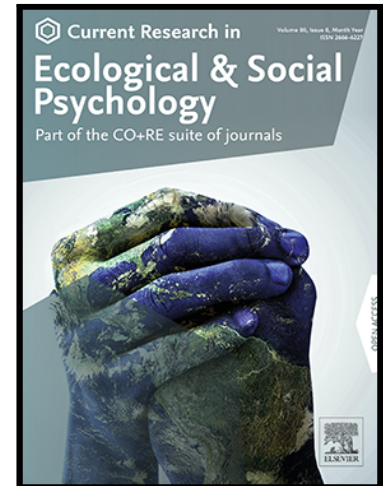
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A Five-Nation Study of the Impact of Political Leaning and Perception of Crisis Severity on the Preference for Female and Minority Leaders During the COVID-19 Pandemic

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### **Highlights**

- We examined factors shaping preferences for minority leaders in the COVID-19 crisis
- Across countries, left-wing participants preferred female and minority leaders
- More severe perceptions of social crisis increased minority leadership preferences
- Right-wing voters dissatisfied with their leader showed stronger female preference
- These main findings were strongest in Germany, the UK, and the US

**A Five-Nation Study of the Impact of Political Leaning and Perception of Crisis  
Severity on the Preference for Female and Minority Leaders During the COVID-19  
Pandemic**

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### Abstract

Research on underrepresented groups in leadership has shown that women and ethnic minorities are preferred as leaders during a crisis. In the present study, we investigated factors that shape voter preferences for minority political leaders in the COVID-19 crisis. We examined participant perceptions of the severity of the COVID-19 crisis in health, social, and economic domains and self-reported political leaning, and their impact on preference for a female (vs male) or minority political leader. We collected survey data in autumn 2020 using online platforms in France, Japan, the United Kingdom, the United States, and a snowball sample in Germany (total  $N = 1,259$ ). Results showed that female leaders were generally more preferred by politically left- than right-leaning participants independent of severity perceptions of the social or economic crisis. In addition, we found that preference for female leaders amongst right-leaning participants increased when their current regional leader's actions were judged insufficient to manage the health crisis, an effect primarily driven by participants in Germany and the United Kingdom. Left-leaning political orientation also predicted the preference for minority leaders across countries. Moreover, a more severe perception of the social aspects of the crisis increased minority preference, as expected, but mostly in Germany and the United States. We discuss cross-country variation of our results. Overall, our findings affirm and expand prior research showing the importance of political leaning and changing leadership demands in a crisis and their impact on the preference for minority leaders.

*Keywords:* Leadership; Crisis; Gender; Minority; COVID-19; Politics

## 1. The COVID-19 Pandemic: Not Just a Health Crisis

Following the spread of acute respiratory syndrome (COVID-19) caused by the new coronavirus (SARS-CoV-2), national and local governments across the globe have declared states of emergency to reduce the risk of transmission. The rising number of infections contributed to substantial strains on health systems, which led to extensive public health campaigns (Hogan et al., 2020). However, the pandemic has clearly not only affected health-related issues, but also economic and social equality issues in almost every region of the globe (Cerami et al., 2020; Guest et al., 2020). For instance, the economic crisis is evident in income reductions and increased unemployment rates (Béland et al., 2020), and disruptions in markets and industries (Donthu & Gustafsson, 2020; Pak et al., 2020). The social crisis is reflected in an increase in social inequalities which can have detrimental effects on minority groups (e.g., Fisher & Ryan, 2021; Rimmer, 2020). For example, racial and ethnic minorities have been disproportionately affected by COVID-19 (e.g., Abuelgasim et al., 2020; Kim & Bostwick, 2020; Power, 2020; Van Dorn et al., 2020). Moreover, women have experienced higher COVID-19 related unemployment rates than men (e.g., Czymara et al., 2020; Gezici & Ozay, 2020; Henriques, 2020; Reichelt et al., 2020).

Of interest, levels of COVID-19 related anxiety and fear vary between people from different social groups (Naeim et al., 2021), such as gender (Czymara et al., 2020; Van der Vegt & Kleinberg, 2020), or age (Nelson et al., 2020). Moreover, people report varied perceptions regarding the severity and risks linked to COVID-19 based on their political orientation (Johnson et al., 2020). In the United States, for example, Trump supporters reported lower perceptions of risk during the onset of the pandemic (Barrios & Hochberg, 2020), and conservatism predicted lower perceived severity ratings of the virus as well as stronger perceptions that the risks of the

virus were exaggerated by the media (Calvillo et al., 2020). In Japan, conservatives indicated less stress and anxiety during the pandemic (Qian & Yahara, 2020). Overall, people with more liberal political attitudes appear to have taken the negative impacts of COVID-19 more seriously.

The reported differences in levels of worry and severity perceptions of COVID-19 overall raise the question of whether the ratings also vary across demographic groups and political ideologies depending on the crisis aspect that is considered. Perceptions of the crisis as an economic, health, or social crisis may not be related to the same levels of worry and severity and may be viewed as less or more important by different social groups. Initial research, for instance, illustrates that policies which address the economic aspect can lead to opposition from people who prioritize the health aspect of the pandemic in the United States (Johnson et al., 2020).

## **2. Context-dependent Leadership Preferences**

The COVID-19 crisis entails new and diverse challenges for both national and regional leaders worldwide. Under these circumstances, leadership decisions have substantial consequences for citizens (Wilson, 2020), and people may be more sensitive about who their leaders are or should be. Leadership received a lot of attention during the pandemic (Guest et al., 2020; Haslam et al., 2020), as is apparent in media reports, in which national leaders and their leadership abilities are discussed and judged (e.g., Baker et al., 2020; Rufai & Bunce, 2020). The multidimensionality of the COVID-19 crisis is of particular interest with regard to leadership because our expectations of a successful leader are dependent on the context or features of particular situations (Ryan et al., 2011). For example, group memberships, in terms of gender or ethnic and racial markers, may make individuals appear more suitable for leadership in some situations than in others.

## 2.1 Leader Preferences and Minority Characteristics

While men belonging to an ethnic majority group are perceived overall as a good fit for many leadership contexts (e.g., Eagly & Karau, 2002; Schein, 2001), a growing body of literature suggests that in specific contexts, women and other minority group members may have an advantage. Gender, in particular, appears to be viewed in a polarized way (Bem, 2008), with male and female politicians seen as opposing in leadership style. The perception of gender differences in political leaders has gained more attention since female candidacies have become more frequent (e.g., Huddy & Terkildsen, 1993; Koch, 1999, 2000).

Gender stereotypes play an essential role in the perception of leadership abilities, with men generally viewed as more agentic than women, and as possessing higher levels of task-oriented leadership traits (Diekmann & Eagly, 2000; Eagly & Wood, 2012; Sczesny et al., 2004; Williams & Best, 1990). Women are perceived as more communal and expressive, and as possessing more person-oriented skills than men (Diekmann & Eagly, 2000; Eagly & Wood, 2012; Sczesny et al., 2004; Williams & Best, 1990). These stereotypes affect judgments of the suitability of men and women to handle certain political domains. Male politicians are perceived as appropriate policymakers in areas involving the economy, foreign affairs, security, crime, and fiscal affairs (so-called *high politics*, Hennrich et al., 2003; Lawless, 2004), while female politicians are thought to fit in roles addressing domestic issues, such as education and health (so-called *low politics*, Hennrich et al., 2003), or issues concerning the protection of social security (Sanbonmatsu, 2002). Evidence substantiates that these stereotyped perceptions are indeed linked to leader behaviors (Bhalotra & Clots-Figueras, 2014; Cunial 2021; Wängnerud, 2009). For example, female mayors in Brazil allocated more governmental expenditures on traditionally feminine issues, such as health care and education, and less on traditionally masculine matters,



such as transportation, compared to male mayors (Funk & Philips, 2019). These findings highlight female leaders as more active in addressing the needs of socially neglected groups compared to male leaders (Adams & Funk, 2011; Eagly et al., 2014; Su et al., 2009).

It has also been argued that the multifaceted barriers that women face in their advancement in leadership are very similar across the globe (Snaebjornsson et al., 2015). The traditional gender stereotypes described above seem to be consistent across a wide range of countries (e.g., Williams & Best, 1990; Williams et al., 1990). Moreover, there appears to be a rather universal consensus with regard to leadership ideals (Den Hartog et al., 1999). Hence, it is no surprise that the impact of gender stereotypes on leadership perceptions, originally researched in the context of the United States (e.g., Schein, 1973; 1975), has also been found in a more diverse array of countries and political contexts (Schein & Mueller, 1992; Schein et al., 1996; Sczesny et al., 2004).

Ethnic and racial bias are also prominent in leadership contexts because being White is a typical characteristic of people in leadership positions in the Western context – as much as being male (Morrison & Von Glinow, 1990; Rosette et al., 2008). People attribute different leadership styles to managers from ethnic minority groups compared to managers from the majority group (Bass, 1990). For example, characteristics attributed to Caucasian managers are significantly more congruent with the prototypes for a successful manager compared to characteristics given to Hispanic American or African American managers (Chung-Herrera & Lankau, 2005). Black male managers are perceived to be more considerate compared to White male managers (Adams, 1978), similar conclusions have been drawn for female managers (e.g., Eagly & Wood, 2012). More recently, Gündemir and colleagues (2019) found that East Asian American leaders were expected to behave in self-sacrificial ways more than White leaders in the United States. Asians

are generally associated with more feminine characteristics than White people (Galinsky et al., 2013). Racial-ethnic minority leaders are also more likely to be appointed to handle issues that disproportionately affect minority members, i.e., issues regarding social injustices (Durr & Logan, 1997; Lee, 2008).

Overall, the presented literature paints a picture of the attribution of different, more socially minded, leadership characteristics and behavior to female and minority leaders across different cultures. It is thus worth considering how these stereotypes fit with people's implicit leadership preferences while considering the nature of the context: When do people opt for more prototypical agentic White male traits, and when for traits that deviate from this leadership ideal?

## 2.2 Leadership Preference in Crisis

Leadership expectations tend to be different in times of crisis and uncertainty compared to times of stability or success (e.g., Haslam et al., 2001; Ryan et al., 2011). Research from the last two decades on leadership have shown that the emergence of female and racial-ethnic minority leaders is particularly likely in crisis situations (Morgenroth et al., 2020). The *glass cliff* phenomenon illustrates the tendency for women and members of other minority groups to be more likely appointed in risky or precarious leadership situations than in no-crisis situations compared to men and majority candidates (Ryan et al., 2016).

One of the proposed reasons for the appearance of glass cliff appointments leans on distinct leadership expectations in the context of a crisis compared to a context of success or stability. It was first suggested that women and their stereotypical leadership qualities might be judged as more suitable during a crisis, in which stereotypically feminine, person-oriented leadership approaches are seen as important (Ryan & Haslam, 2007). Indeed, desired qualities of managers in unsuccessful companies were more strongly linked to stereotypically female

characteristics than stereotypically male characteristics (Ryan et al., 2011). This *think crisis-think female* association was particularly present in decision-makers who scored low on sexism and when stereotypically masculine referents were not made salient (Gartzia et al., 2012). Such findings strengthen the idea that female leadership may be more valued in crisis contexts.

However, a recent meta-analysis on the glass cliff (Morgenroth et al., 2020) did not find robust support that the glass cliff is caused by the perception that stereotypically feminine qualities are seen as useful in a crisis context. Moreover, stereotypes vary between different underrepresented groups (Devine & Elliot, 1995; Priest et al., 2018), and thus may not account in the same ways for the selection of minorities across groups in crisis contexts. While contextual factors have been highlighted as important for the emergence of a glass cliff (such as domain, gender inequality index of the country, etc.), it is noted that most glass cliff studies have not compared between several types of crises requiring different leadership qualities (Morgenroth et al., 2020). Thus, the *think crisis-think female* link suggested by Ryan et al. (2011) may be restricted to crisis types in which stereotypically feminine attributes are seen as needed.

To test this, Kulich et al. (2021) recently investigated the *think crisis-think female* association by considering different crisis contexts. They showed that glass cliff preferences for leaders with stereotypically feminine traits arose more strongly in a relational (vs. financial) crisis that implicitly demanded competencies associated with stereotypical feminine or communal traits (an additional neutral *no-crisis* context was situated in between). One might assume that a similar pattern would occur for the preference of female versus male leaders. However, results for the preference of leader gender were different. For female leaders, there was a preference in the relational compared to a no-crisis context; however, the relational crisis was almost as likely to be matched with a woman as a financial crisis. Of importance, these preferences were not

explained by the relevance that was attributed to communal or agentic traits. It thus seems that the preference for one gender or the other cannot be simply explained by a preference for stereotypically gendered traits. Other factors need to be considered. A potential motivation found in the literature is that a crisis may attract atypical leader appointments as a strategy to signal change (Kulich et al., 2015). Such a motivation, or the combination of different motivations, may be at play or vary across crisis types.

### **2.3 Gender and Leadership in the COVID-19 Crisis**

So, what do we know about the role of gender in leadership during the COVID-19 crisis? The COVID-19 crisis is a unique situation in which political decisions can immediately impact people's personal lives. During the first months of the pandemic, national leaders attracted enormous attention from the media worldwide. Many news articles have questioned how the crisis has been handled by politicians, with gender evoked as a noticeable factor for the success or failure of crisis management (e.g., Coscieme et al., 2020; Taub, 2020). In the first phase of the crisis, studies reported that female-led countries were initially more successful in controlling the spread of COVID-19 compared to countries led by men (Garikipati & Kambhampati, 2020; Purkayastha et al., 2020). In the United States, female-led states reported fewer deaths linked to COVID-19 than states with male governors (Sergent & Stajkovic, 2020), and female mayors were actively engaged in protecting vulnerable communities during the early stages of the pandemic (Funk, 2020). In terms of leadership style, studies also emphasized the importance of clear and empathetic communication abilities, expressed more frequently by female leaders than their male counterparts (McGuire et al., 2020; Sergent & Stajkovic, 2020). Nonverbal communicative structures (such as facial expressions, tones of voice, and body postures) of political actors were also analyzed, with males found to communicate more competition, warning,

and threats, while females expressed more empathy, cooperativeness, and emotional communication (Grebelsky-Lichtman & Katz, 2020).

In summary, male and female leaders were perceived to have handled the COVID-19 crisis differently in alignment with existing stereotypes of what female and male leaders are like and what kind of political contexts they are seen as more adapted to handle. While research has focused on gender differences, to our knowledge, no published research has addressed perceptions of political leaders in relation to their racial-ethnic background and their approaches to combating COVID-19.

Scholars have called for the investigation of crisis contexts when researching crisis leadership (Bavik et al., 2021). However, despite the abundance of new research findings on gendered leadership approaches to the pandemic, people's preferences and expectations regarding leadership characteristics during this period have been largely unexplored. We argue that it is important to understand how people from different social groups perceive the consequences of the crisis and which conditions and group memberships facilitate openness to minority leaders. This line of research examines conditions which challenge the traditional leadership ideal and advances an understanding of *when* and *why* minority leadership is valued. Such insights contribute to clarifying the specific conditions under which minority advancement, such as the glass cliff, arises and is perpetuated or maintained. Answers to these questions are valuable in the search for applied solutions for promoting diversity in leadership roles.

Finally, it should be noted that we are aware that the ongoing pandemic might have also triggered other mechanisms than those elaborated in this paper. As described above, the crisis elicited different feelings of fear, and people's reactions to governmental measures were manifold (e.g., Naeim et al., 2021; Siegrist & Bearth, 2021). Amongst others, an increased preference

for *strong authoritarian* leaders, typically associated with agentic or masculine characteristics, could also be observed if other predictors such as experienced feelings of threat were considered (see also Rast III et al., 2012). For example, people experiencing COVID-19-related threat might indicate higher support for right-wing presidential candidates in the United States and Poland, explained by increased anxiety and personal need for closure, which promoted social conservatism (Karwowski et al., 2020). Thus, we do not exclude the possibility that not only minority leaders but other (atypical) types of leaders might have gained popularity during the crisis (e.g., Kaplan & Minton, 1994; Rast III, 2015). However, because mechanisms predicting these kinds of leaders are likely different than those introduced in our study, we focused on the preference for female and minority leaders based on the theoretical framework of the glass cliff phenomenon.

### 3. The Present Study

Considering the multifaceted consequences of the health, social, and economic crisis, the COVID-19 pandemic offers a unique opportunity with high ecological validity to test how previous crisis management findings apply to the specific crisis dimensions. We were particularly interested in whether people would prefer different leader characteristics along the minority/majority dimension when they thought about these specific aspects of the COVID-19 crisis.

First, in order to understand how people perceived the COVID-19 crisis, we asked people whether they viewed the crisis primarily as a health, social, or economic crisis, and how this focus related to their perceptions of the severity of these aspects as well as their level of worry about each one. More specifically, we examined whether people prioritize the crisis aspect they perceive to be most severe and which they worry about most. Due to the disproportional effect of

crisis type on distinct groups, the choice was also expected to be influenced by group membership with regard to gender (Solomou & Constantinidou, 2020; Rodríguez-Rey et al., 2020), ethnicity (Alcendor, 2020; Aldridge et al., 2020), and political leaning (Barrios & Hochberg, 2020; Calvillo et al., 2020; Qian & Yahara, 2020; Rothgerber et al., 2020). In the second step, we addressed our main research questions, inquiring about the impact of differing crisis perceptions on preferences for female and minority member leaders.

Economics is generally perceived as a masculine field (Derks et al., 2018), and financial problems are typically associated with masculine competencies (Kulich et al., 2021). For activities that are important for improving economic situations, such as improving manufacturing processes or increasing profits, research shows that stereotypically feminine qualities are seen as obstructive (Gartzia & Baniandrés, 2016). In contrast, social crises comprise issues directly linked to people and their well-being, requiring more person-based qualities. Women are usually perceived to handle interpersonal relationships better than men, and interpersonal leadership qualities match stereotypical female roles (Eagly et al., 1995). Therefore, the social aspects in this pandemic correspond to a leadership context in which female leadership should be preferred. Following these considerations, we hypothesized that the tendency to prefer a female or minority leader would depend on differences in the perceived severity of several aspects (health, social or economic) of the crises. More specifically, we formulated the following hypotheses:

H1.1: Participants will have a *higher* preference for a female leader the more severe they perceive the *social* crisis to be.

H1.2: Participants will have a *lower* preference for a female leader the more severe they perceive the *economic* crisis to be.

H2.1: Participants will have a *higher* preference for a minority leader the more severe they perceive the *social* crisis to be.

H2.2: Participants will have a *lower* preference for a minority leader the more severe they perceive the *economic* crisis to be.<sup>1</sup>

Health issues are usually also regarded as a domain that should be addressed by female politicians (Herrnson et al., 2003), but in reference to the pandemic, the nature of the health crisis may be viewed in various ways. The health crisis might be interpreted differently depending on what people associate it with. On the one hand, the focus of health crisis management can be linked to social issues such as minimizing COVID-19 related deaths and mental health issues (Arendt et al., 2020; Makino et al., 2020). On the other hand, it could also be directed to logistic problems concerning the capacity of hospitals and vaccinations (Gagliano et al., 2020). Therefore, we did not expect severity ratings for the health crisis to predict female or minority leadership preference but included it in our survey due to its central position in the COVID-19 crisis.

Despite evidence for gender and minority leadership stereotype similarities globally, it is possible that crisis perceptions in link with political leaning vary more substantially in a cross-national context, with potential differential influences on the choice of minority leaders. Pandemic conditions facilitated the inclusion of multiple countries in the exploration of this potential variation. In addition, while national contexts seem to affect leadership ideals and leaders' behaviors to some extent (Cames et al., 2001; Schein, 2004), the country-specific effects of enacted leadership styles and the expectations of constituents with regard to leadership

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<sup>1</sup> Originally, we planned to use the crisis prioritization forced-choice measures to determine whether participants who prioritize the social (and health crisis) over the economic crisis would prefer a female or minority leader. However, because the distribution of participants was unbalanced for the forced crisis choices, we decided to use the severity ratings for the analyses.



qualities are an under-researched area despite their importance, especially in a global crisis context (e.g., Snaebjornsson & Edvardsson, 2013). With the aim to partially account for these issues, we deemed important to carry out these studies in five countries where survey methods were timely and feasible. We recognize this as a non-exhaustive and exploratory approach in considering the impact of country variation on the effects hypothesized. However, we argue that including even a cursory examination of country similarities and differences is important for providing confidence in outcomes and their generalizability to other contexts, and it can inform future research as to the importance of these issues. In general, we expected our primary hypotheses to be similarly upheld in the five countries treated: France, Germany, Japan, the United Kingdom, and the United States, countries that are comparable in terms of their developmental index (Stanton, 2007).

#### **4. Methods**

This study was reviewed and approved by the ethics commission of the faculty of psychology and educational sciences at the University of Geneva. Data are available on the open registries network at [https://osf.io/m2fzr/?view\\_only=d0ae6dc2a219443a9ccdbc253335fb41](https://osf.io/m2fzr/?view_only=d0ae6dc2a219443a9ccdbc253335fb41).

##### **4.1 Participants**

Participants living in France, Germany, Japan, the United Kingdom, and the United States were invited to participate in an online survey titled "Selection of political leaders during the COVID-19 crisis". Countries were selected due to access to online platform sampling and respective language competencies within the research team, with attention to ensuring country comparability in life expectancy, education, and gross national income per capita. According to the United Nations Development Programme (2019), these countries were each scored *very high*

according to the human development index, and according to the gender inequality index were ranked France 8<sup>th</sup>, Germany 20<sup>th</sup>, Japan 24<sup>th</sup>, United Kingdom 31<sup>st</sup>, and United States 46<sup>th</sup>.

Data were collected between August 26 to October 1, 2020. Participants who resided in mainland France, the United Kingdom, and the United States were recruited via recruitment platforms (*Foule Factory*, *Prolific*, and *MTurk*, respectively). One part of the Japanese sample was collected using the crowd work platform *Yahoo! Crowdsourcing*, the other part through snowball sampling. The German sample was exclusively collected through a snowball sampling method using various social media sites. Detailed descriptions of data collection and the samples for each country can be found in Appendix A. Participants were excluded if they did not give ethical approval ( $n = 18$ ), and if they failed the comprehension ( $n = 25$ ) or attention checks ( $n = 46$ ). We also excluded participants who did not indicate their gender as female or male ( $n = 7$ ) as the sample size was too small to create an independent group.

The final sample consisted of 1,259 participants ( $N_{\text{France}} = 258$ ,  $N_{\text{Germany}} = 193$ ,  $N_{\text{Japan}} = 236$ ,  $N_{\text{U.K.}} = 284$ ,  $N_{\text{U.S.}} = 288$ ) with a mean age of 39.77 years ( $SD = 13.44$ ; from 18 to 76 years), of which 46.9% self-identified as female. Eight hundred thirty-three participants (66.2%) had a college or university degree or higher. Six hundred fifty-eight participants (52.3%) were employed, and 601 participants (47.7%) were not (e.g., self-employed, unemployed, studying, retired).

## 4.2 Procedure

After giving consent to participate in the study, participants read a brief report about COVID-19 and its consequences (Appendix B). The report mentioned that the pandemic is not just a health issue but also impacts the economy and social equality. It was explained that the health crisis "emphasizes that the health of many people is and/or will be impacted," and the

economic crisis "focuses on the worsened economic situation for many people at present and/or in the future". The social crisis was described as "social inequalities or social problems that are worse for many people at present and/or in the future". After reading the report, participants indicated their country and region of residence. They were asked to indicate how severe they considered each crisis type to be and to select one of the crisis types which they believed their regional government should focus on primarily. We chose to assess preference for regional rather than national representatives<sup>2</sup> because the impact of media reports during the pandemic on individual perceptions of more prominent political personalities could plausibly obscure preferences based on the factors of interest, skewing results toward the news story of the day. We reasoned that people were likely to have less specific knowledge about the involvement of regional representatives in COVID-19 management and therefore would be more reliant on other factors for deciding their leadership preferences, making them arguably more capable of considering the options as presented.

Participants were then asked to respond to questions about how worried they were about each crisis type. They then indicated their preference regarding the key leader group memberships. We also assessed participants' conservatism scores, their political leaning, and their opinions about their current regional leaders' responses to each crisis aspect. In the last part, participants provided their socio-demographic information, such as their own perceived minority group membership, education, and employment status. Participants were debriefed at the end of the survey about the purpose of the study and gave ethical consent for data analysis.

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<sup>2</sup> Because in the political domain, the title *representative* was an adequate term to describe the leadership role, we used it in the questionnaire and in the parts of the paper, where we referred to the correct wording used for the participants.

### 4.3 Measures

Measures are listed here in the same order as given in the questionnaire, and were assessed by 7-point scales, coded -3 *strongly disagree* to 3 *strongly agree*, unless indicated otherwise. Only measures used in the data analyses are presented here. Additional measures included in the survey with an exploratory purpose can be found in Appendix C. The descriptive information provided comprises all participants ( $N = 1,259$ ).

**Comprehension Check.** After reading the report, participants had to select their comprehension of the content of the report from one of three options. The choices were "new discoveries in cancer treatment," "the effects of COVID-19", and "the consequences of climate change".

**Severity Rating.** Participants indicated the level of crisis-severity perception for their own region with a single item for each one of the three crisis types (7-point scale from -3 *not at all severe* to 3 *very severe*; the health crisis,  $M = 0.72$ ,  $SD = 1.63$ , the economic crisis,  $M = 1.49$ ,  $SD = 1.23$ , the social crisis,  $M = 0.92$ ,  $SD = 1.41$ ). Severity scores were mean-centered in analysis.

**Crisis Choice.** Participants chose from the three crisis types the one they believed their regional government should focus on primarily. The crisis types appeared in a randomized order. The health crisis was selected by 619 participants (49.3%), the economic crisis by 460 (36.5%), and the social crisis by 180 participants (14.2%).

**Worry About COVID-19.** Participant level of worry regarding each crisis type was assessed by two items. For the health aspect, we generated the items "I am worried about my own health, my family's or the health of people I feel close to" and "I am worried about the health of people who are similar to me",  $r = .57$ ;  $p < .001$ ; 95% CI [0.53, 0.62];  $M = 0.57$ ,  $SD = 1.58$ . The

items were adapted in the same manner for the economic aspect,  $r = .62$ ;  $p < .001$ ; 95% CI [0.57, 0.66],  $M = 0.59$ ,  $SD = 1.61$ , and the social aspect,  $r = .70$ ;  $p < .001$ ; 95% CI [0.66, 0.74],  $M = 0.23$ ,  $SD = 1.67$ .

**Representative Characteristics.** Participants were asked whom they would prefer as a political representative for their region in the context of the crisis. They indicated representative gender preference on a semantic differential bipolar scale with the ends -3 *rather a man* and 3 *rather a woman*. Preference for a male representative (-3 to -1) was indicated by 18.3% of participants, and preference for a female representative (1 to 3) by 26.9%. The mid-point of the scale (neutral with regard to gender preference) was selected by 54.8% of participants. Similarly, participants indicated their preference towards "a member of an in your society underrepresented social group" on a scale from -3 *not at all* to 3 *completely*: 27.3% of participants indicated a preference for a minority representative, 27.4% rather not, and 45.2% chose the mid-point of the scale.

**Social Conservatism.** Everett's (2013) Social and Economic Conservatism Scale (SECS) was used to assess the level of social conservatism of participants on a 0-100 "feeling thermometer". The scale was recoded from -5 *very negative* to 5 *very positive*. Seven items, such as "abortion", "religion", and "traditional marriage" assessed feelings about social conservative values,  $\alpha = .83$ ,  $M = -0.25$ ,  $SD = 1.99$ .

**Participant Political Leaning.** General political orientation of participants was assessed by an 11-point scale from -5 *left* to 5 *right*,  $M = -0.65$ ,  $SD = 2.56$ .

**Adequacy Ratings of Regional Representative Responses.** For each crisis aspect, participants were asked how adequate they think the responses of their regional representative

were to the COVID-19 crisis so far from -3 *not enough* to 3 *too much*, while the mid-point was labeled *adequate*. It appears that some people either did not respond because they did not know about the responses of their regional representative or had missing values on these scales for other reasons (100 participants regarding the economic responses, 69 regarding the health responses, and 119 regarding the social responses). Table 1 provides an overview of the descriptive results from those who responded.

**Table 1**

*Perceptions of the Adequacy of Regional Representative Responses by Crisis Type*

	<i>M</i>	<i>SD</i>	Distribution of participants in %		
			(Rather) <i>Not enough</i>	<i>Adequate</i>	(Rather) <i>Too much</i>
Economic aspect	-0.87	1.39	52.5	37.5	10.0
Health aspect	-0.50	1.52	41.6	39.8	18.6
Social aspect	-0.84	1.40	51.9	37.6	10.5

*Note.* (Rather) *Not enough* comprises participants who responded -3, -2, or -1 on the scale.

*Adequate* consists of participants who chose the mid-point. (Rather) *Too much* comprises participants who responded 1, 2, or 3 on the scale.

**Current Regional Leader's Gender.** Participants were asked the gender of the current political representative in their region and responded “male” ( $n = 885$ ), “female” ( $n = 228$ ), “neither” ( $n = 4$ ), or “I do not know” ( $n = 142$ ).

**Minority Group Membership.** We asked participants whether they considered themselves a member of an ethnic minority or as an immigrant in their current country of residence on a 7-point scale from -3 *not at all* to 3 *completely* ( $M = -1.92$ ,  $SD = 1.91$ ). Due to the skewed

distribution, the variable was recoded into a binary variable of those who did *not at all* feel like a minority member ( $n = 865$ , 68.7%) versus the remaining participants who indicated belonging to a minority group to any extent (scores -2 to 3;  $n = 393$ , 31.2%).

Table 2 lists the variables considered for the main analyses and their coding.

**Table 2***Variables and Codes*

Variable	Label	Coding
Severity rating of the health crisis	Severity of Health Crisis	
Severity rating of the economic crisis	Severity of Economic Crisis	
Severity rating of the social crisis	Severity of Social Crisis	
Participant political self-placement	Political Leaning	<i>Left leaning (-5) to Right leaning (5)</i>
Participant gender	Gender	0.5 = Female, -0.5 = Male
Participant minority group membership	Minority	0.5 = Minority, -0.5 = No Minority
Social conservatism	Social Conservatism	<i>Less conservative (-5) to More conservative (5)</i>
Adequacy rating of regional leader's responses to the health crisis	Health Response Rating	<i>Not enough (-3) to Too much (3)</i>
Adequacy rating of regional leader's responses to the economic crisis	Economic Response Rating	<i>Not enough (-3) to Too much (3)</i>
Current regional leader's gender	Current Leader's Gender	0.5 = Female, -0.5 = Male



## 5. Results

### 5.1 Severity Ratings and Worry About COVID-19

Participant ratings of perceived crisis severity and worry for each crisis type were positively correlated and significant (Table 3). The strongest correlations were found between severity and worry ratings of the same crisis type.

**Table 3**

*Association of Worry and Severity Ratings for Health, Economic, and Social Crises Types*

Measure	1	2	3	4	5	6
1. Severity of Health Crisis	-					
2. Severity of Economic Crisis	.34**	-				
3. Severity of Social Crisis	.39**	.53**	-			
4. Worry about Health Crisis	.48**	.19**	.27**	-		
5. Worry about Economic Crisis	.13**	.35**	.25**	.41**	-	
6. Worry about Social Crisis	.21**	.28**	.41**	.50**	.69**	-

*Note.* Pearson, \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$  (2-tailed).

### 5.2 Antecedents of Crisis Choice

To test the antecedents of crisis prioritization, we used multinomial logistic regression to investigate whether the severity perception for each crisis type, the worry level for each crisis type, participants' political leaning, participants' membership in a minority group, and participant gender predicted the crisis type prioritized by participants. The economic crisis was defined as the reference category because we were interested in the differences between the economic crisis

on the one hand and both the health and social crisis on the other<sup>3</sup>. Political leaning, as presented here, indicates the tendency to a right-leaning political orientation because positive values (placed on the right side of the scale) reflect right political self-placement. Continuous predictor variables were mean-centered.

Outcomes of multinomial logistic regression predicting the type of crisis prioritized by participants showed participants were more likely to prioritize the health crisis over the economic crisis if they perceived the health crisis to be more severe,  $b = 1.38$ , Wald  $X^2(1,259) = 149.47$ ,  $p < .001$ , if they had higher levels of worry regarding the health aspect,  $b = 0.48$ , Wald  $X^2(1,259) = 19.74$ ,  $p < .001$ , if they had a lower perception of severity for the economic crisis,  $b = -0.47$ , Wald  $X^2(1,259) = 20.50$ ,  $p < .001$ , and lower level of worry for economic crisis,  $b = -0.44$ , Wald  $X^2(1,259) = 14.74$ ,  $p < .001$ . The health crisis was also more likely to be prioritized over the economic crisis by politically left-leaning participants,  $b = -0.70$ , Wald  $X^2(1,259) = 71.74$ ,  $p < .001$ , and male participants,  $b = -0.36$ , Wald  $X^2(1,259) = 5.18$ ,  $p = .023$ .

Results also showed that participants were more likely to prioritize the social crisis over the economic crisis if they perceived the social crisis to be more severe,  $b = 1.19$ , Wald  $X^2(1,259) = 56.73$ ,  $p < .001$ , were more worried about it,  $b = 1.19$ , Wald  $X^2(1,259) = 56.73$ ,  $p < .001$ , and also perceived the economic crisis to be less severe,  $b = -0.77$ , Wald  $X^2(1,259) = 32.57$ ,  $p < .001$ , and were less worried about it,  $b = -0.42$ , Wald  $X^2(1,259) = 7.73$ ,  $p = .005$ . Left-leaning participants were again more likely to prioritize the social crisis over the economic crisis,  $b = -0.67$ , Wald  $X^2(1,259) = 37.46$ ,  $p < .001$ . The effect of participant gender was not significant,  $p$

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<sup>3</sup> Even though we were not certain about the direction of effects concerning the health crisis, we expected the social and health crisis to be perceived to require rather stereotypically feminine leadership qualities, while the economic crisis was expected to be linked to a need for more stereotypically masculine leadership qualities.

= .829, but a Gender  $\times$  Severity of Health Crisis interaction,  $b = -0.55$ , Wald  $X^2(1,259) = 7.45$ ,  $p < .006$ , showed that women were more likely to prioritize the social crisis over the economic crisis if they rated the health crisis as less severe ( $-1$  SD,  $b = 0.64$ , Wald  $X^2(1,259) = 8.74$ ,  $p = .003$ ), but not when they perceived the health crisis as more severe ( $+1$  SD,  $b = -0.12$ , Wald  $X^2(1,259) = 0.15$ ,  $p = .697$ ).

### 5.3 Preferences for Representative Gender and Minority Status

For our hypotheses, we were interested in understanding the factors impacting the preference for female or minority leaders in times of crisis. Preliminary analyses indicated important population differences between those who indicated a gender or minority status preference versus no preference (those who selected the mid-point of the scales) for their political representative. Indeed, many participants did not indicate a preference (54.8% concerning gender, 45.2% concerning minority membership). However, we do not know whether this meant that they really had no preference, or whether social desirability led them to remain neutral, for example not wanting to appear biased by placing one social group above another. In the main analyses we therefore chose to report results only for participants who indicated a preference for representative gender ( $N = 568$ ) and minority membership ( $N = 668$ )<sup>4</sup>.

Because we thereby excluded participants with no preference in the main analyses, we also explored the differences between this group and those who reported a preference. In doing so, we provide a picture of the demographic characteristics impacting whether or not participants had a gender or minority group member preference for political leadership. For each variable of

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<sup>4</sup> Main analyses which included all participants (those with and without a preference) resulted in non-normal residuals indicating unreliable model fit, as well as a large reduction in the variance explained ( $R^2$ ). However, the direction of the effects and our main findings were unchanged.

interest, preference for leader gender and minority group membership, we utilized pooled logistic regression to look at the impact of participant self-reported gender, minority membership, political leaning, and their interactions, on participant preference (=1) versus no preference (=0). We used standard measures of model comparison to select the best fit. Outcomes are shown in Table 4 for a preference vs no preference for representative gender, and Table 5 for preference vs no preference for representative minority group membership.

**Gender Preference.** Participants belonging to a minority group were more likely to have a gender preference for a political representative,  $b = 0.40$ , Wald  $X^2(1,255) = 9.79$ ,  $p = .002$ . Analysis of the Political Leaning  $\times$  Minority interaction,  $b = 0.13$ , Wald  $X^2(1,255) = 6.56$ ,  $p = .010$ , showed that minority group members were also more likely to indicate a preference (50.5%) compared to those not belonging to a minority group (44.0%) if they were left-leaning, -1 SD,  $b = 0.65$ , Wald  $X^2(1,255) = 13.05$ ,  $p < .001$ , and not if they were right-leaning, +1 SD,  $p = .943$ . Moreover, the Political Leaning  $\times$  Gender interaction,  $b = -0.14$ , Wald  $X^2(1,255) = 9.00$ ,  $p = .003$ , showed that left-leaning men (31.9%) were more likely to have a preference than right-leaning men (50.5%),  $b = 0.08$ , Wald  $X^2(1,255) = 6.43$ ,  $p = .011$ . This pattern was not found for female participants,  $p = .128$ .

**Table 4**

*Prediction of Participant Preference (Coded 1) vs. No Preference (Coded 0) for Political Representative Gender as a Function of Participant Characteristics*

Predictors	<i>B</i>	<i>S.E.</i>	Wald $X^2$	<i>p</i>	$e^B$	95% CI
(Intercept)	-0.14	0.07	4.60	.032	0.87	[0.77, 0.99]

Political Leaning (left to right)	0.02	0.03	0.35	.556	1.02	[0.97, 1.07]
Gender (Female)	0.13	0.12	1.29	.273	1.14	[0.90, 1.44]
<b>Minority</b>	<b>0.40</b>	<b>0.13</b>	<b>9.79</b>	<b>.002</b>	<b>1.49</b>	<b>[1.16, 1.92]</b>
<b>Political Leaning × Gender</b>	<b>-0.14</b>	<b>0.05</b>	<b>9.00</b>	<b>.003</b>	<b>0.87</b>	<b>[0.80, 0.95]</b>
<b>Political Leaning × Minority</b>	<b>0.13</b>	<b>0.05</b>	<b>6.56</b>	<b>.010</b>	<b>1.14</b>	<b>[1.03, 1.25]</b>
Observations	1255					
R <sup>2</sup> Tjur	0.021					
AIC	1713.697					

*Note.* Data are pooled across countries (France, Germany, Japan, United Kingdom, United States). Values in boldface are statistically significant.

**Minority Membership Preference.** A Political Leaning × Gender interaction,  $b = -0.14$ , Wald  $X^2(1,254) = 9.21$ ,  $p = .002$ , showed that left-leaning men (-1 SD, 62.8%) were significantly more likely to indicate a preference regarding the minority membership of their political representative compared to right-leaning men (+1 SD, 45.1%),  $b = 0.07$ , Wald  $X^2(1,254) = 5.51$ ,  $p = .019$ . This pattern was not found for women,  $p = .050$ .

While some participant demographic characteristics were significantly associated with the indication of preference (vs no preference) for political leader gender or minority group membership, the effects we found only accounted for a very small proportion of the variance between these groups. This suggests that other unknown variables may be implicated in understanding the differences between participants with a preference vs those without.

**Table 5**

*Prediction of Participant Preference (Coded 1) vs. No Preference (Coded 0) for Political Representative Minority Group Membership as a Function of Participant Characteristics*

Predictors	<i>B</i>	<i>S.E.</i>	Wald $X^2$	<i>p</i>	$e^B$	95% CI
<b>(Intercept)</b>	<b>0.18</b>	<b>0.06</b>	<b>8.12</b>	<b>.004</b>	<b>1.20</b>	<b>[1.06, 1.36]</b>
Political Leaning (left to right)	0.00	0.02	0.02	.876	1.00	[0.96, 1.05]
Gender (Female)	-0.07	0.12	0.37	.545	0.93	[0.74, 1.18]
Minority	0.04	0.12	0.12	.728	1.04	[0.82, 1.33]
<b>Political Leaning × Gender</b>	<b>-0.14</b>	<b>0.05</b>	<b>9.21</b>	<b>.002</b>	<b>0.87</b>	<b>[0.80, 0.95]</b>
Observations	1254					
R <sup>2</sup> Tjur	0.008					
AIC	1727.709					

*Note.* Data are pooled across countries (France, Germany, Japan, United Kingdom, United States). Values in boldface are statistically significant.

#### 5.4 Analysis of the Main Hypotheses

As stated, for our main hypotheses we focused only on participants who indicated a gender or minority status preference in the selection of a political representative. More specifically, we investigated factors impacting whether they preferred a female vs male representative, and those impacting whether they preferred a minority vs non-minority representative. To construct an appropriate pooled model for analysis of effects with data from all nations, in the first step we ran separate multiple regression models for each country. We modeled participant preference for female and minority leaders as a function of participant

severity ratings of each crisis type (mean-centered) while controlling for gender, political leaning, and minority group membership (base model). Comparisons of increasingly complex models were conducted to find the best-fitting regression model by systematically adding remaining covariates and two-way interactions. Only two-way interactions were considered due to a large number of variables. Using this method, we determined the significant covariates and interactions for each country, beyond the variables of interest, and included these in the pooled regression model for analysis of data from all countries (Gelman & Hill, 2006).

We did not hypothesize country-specific differences, nor did we expect country variation to impact main outcomes. However, in line with our aim to consider and explore the potential impacts of country variation on pooled results, and to provide a quantitative measure of country heterogeneity, we used a two-step meta-analytic approach to assess country differences in outcomes (Liefbroer & Zoutewelle-Terovan, 2021). The use of multilevel modeling was considered, but the small number of countries and large number of model factors made the use of this approach inappropriate (e.g., Arend & Schafer, 2019; Brzan & Jenkins, 2016; Hox, 1998; Maas & Hox, 2004). The two-step meta-analytical approach we apply is straightforward, relying on well-known procedures and familiar reporting of outcomes. It is reliable and suited for analyzing multi-country datasets with few level-2 units (Liefbroer & Zoutewelle-Terovan, 2021). In the first step, we ran country-specific regressions using the parameters of the pooled variable model. Outcomes for each country are provided in Appendix D (for female preference) and Appendix E (for minority preference).

In the second step, we conducted random-effect meta-analyses with the country-specific estimates of interest (Liefbroer & Zoutewelle-Terovan, 2021). This approach allows the assessment of potential country-biased pooled model results, with the capacity to highlight significant heterogeneity that may exist for certain factors in relation to model outcomes across countries. The heterogeneity of the effect sizes was reported with two measures. Cochrane's  $Q$  indicates whether the between-study variance component differs significantly from zero, and  $I^2$  shows us the percentage of heterogeneity stemming from systematic differences across studies (Higgins et al., 2003).

### 5.5 Sensitivity analysis

Using the method described in the previous section, we found two best-fitting models for testing the hypotheses: The first model consists of eleven variables and predicts preference for female leadership (Hypothesis 1). The second model has seven variables and predicts the preference for leadership by a minority group member (Hypothesis 2). The final models are presented in Tables 6 and 7.

We conducted effect-size sensitivity analyses for our two predictors of interest (severity ratings of the economic crisis and for the social crisis) in each model using G\*Power 3, applying  $\alpha = .05$  with a desired power of 80% (Faul et al., 2007). For the preference for female leaders ( $N = 459$ ), the minimum effect size detectable for two predictors in a model consisting of eleven predictors was  $\eta_p^2 = .021$ . For the preference for minority leaders ( $N = 556$ ), the minimum effect size for two predictors in a model with seven predictors was  $\eta_p^2 = .017$ . Thus, in each model, we had sufficient power to detect relatively small effects (Cohen, 1988).



### 5.6 Test of Hypothesis 1: Preference for a Female Representative

Outcomes of multiple regression for the preference of female representatives,  $F(11, 447) = 22.35, p < .001$ , showed that political affiliation and other variables significantly predicted the preference for female regional representatives (Table 6). Both left-leaning,  $b = -0.36$ , 95% CI  $[-0.36, -0.20]$ ,  $p < .001$ , and less socially conservative respondents,  $b = -0.18$ , 95% CI  $[-0.31, -0.10]$ ,  $p < .001$ , indicated a higher preference for female representatives. The Political Leaning  $\times$  Health Response Rating interaction,  $b = -0.11$ , 95% CI  $[-0.08, -0.01]$ ,  $p = .011$ , showed that rather right-leaning participants' preference for female leadership increased (+1 SD,  $b = -0.14$ , 95% CI  $[-0.35, -0.06]$ ,  $p = .006$ ) the more they perceived their current regional representative as not having done enough for the health crisis. Participants leaning towards the left indicated no such effect (-1 SD,  $b = 0.02$ , 95% CI  $[-0.13, 0.19]$ ,  $p = .674$ ). Participant gender was also linked to leader preference. Female participants had a higher preference for a female representative,  $b = 0.23$ , 95% CI  $[0.66, 1.34]$ ,  $p < .001$ . Participants with a current female representative also indicated a higher preference for female leadership,  $b = 0.10$ , 95% CI  $[0.16, 1.00]$ ,  $p = .007$ . After controlling for other variables, perceptions of crisis severity were not predictive of leader gender preferences (severity of economic crisis:  $b = -0.06$ , 95% CI  $[-0.26, 0.06]$ ,  $p = .227$ ; severity of social crisis:  $b = 0.06$ , 95% CI  $[-0.04, 0.24]$ ,  $p = .182$ ). Thus, both H1.1 and H1.2 were not supported.

**Table 6**

*Preference for a Female Representative as a Function of Perception of Crisis Severity, Political Leaning, and Other Demographic Covariates*

Predictors	<i>B</i>	<i>S.E. B</i>	95% CI	$\beta$	<i>p</i>	$\eta_p^2$
(Intercept)	0.20	0.12	[-0.04, 0.45]	0.00	.106	
Severity of Health Crisis	-0.05	0.06	[-0.16, 0.07]	-0.03	.446	.001
Severity of Economic Crisis	-0.10	0.08	[-0.26, 0.06]	-0.06	.227	.003
Severity of Social Crisis	0.10	0.07	[-0.04, 0.24]	0.06	.182	.003
<b>Political Leaning (left to right)</b>	<b>-0.28</b>	<b>0.04</b>	<b>[-0.36, -0.20]</b>	<b>-0.36</b>	<b>&lt;.001</b>	<b>.092</b>
<b>Gender (Female)</b>	<b>1.00</b>	<b>0.17</b>	<b>[0.66, 1.34]</b>	<b>0.23</b>	<b>&lt;.001</b>	<b>.071</b>
Minority	-0.12	0.18	[-0.47, 0.22]	-0.03	.484	.001
<b>Social Conservatism</b>	<b>-0.21</b>	<b>0.05</b>	<b>[-0.31, -0.10]</b>	<b>-0.18</b>	<b>&lt;.001</b>	<b>.037</b>
<b>Current Leader's Gender</b>	<b>0.58</b>	<b>0.22</b>	<b>[0.16, 1.00]</b>	<b>0.10</b>	<b>.007</b>	<b>.016</b>
Economic Response Rating	0.10	0.07	[-0.03, 0.23]	0.07	.119	.005
<b>Health Response Rating</b>	<b>-0.13</b>	<b>0.07</b>	<b>[-0.26, 0.00]</b>	<b>-0.09</b>	<b>.048</b>	<b>.009</b>

**Political Leaning × Health Response Rating**   **-0.05**   **0.02**   **[-0.08, -0.01]**   **-0.11**   **.011**   **.014**

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Observations	459
R <sup>2</sup> / R <sup>2</sup> adjusted	0.351 / 0.335
AIC	1841.464

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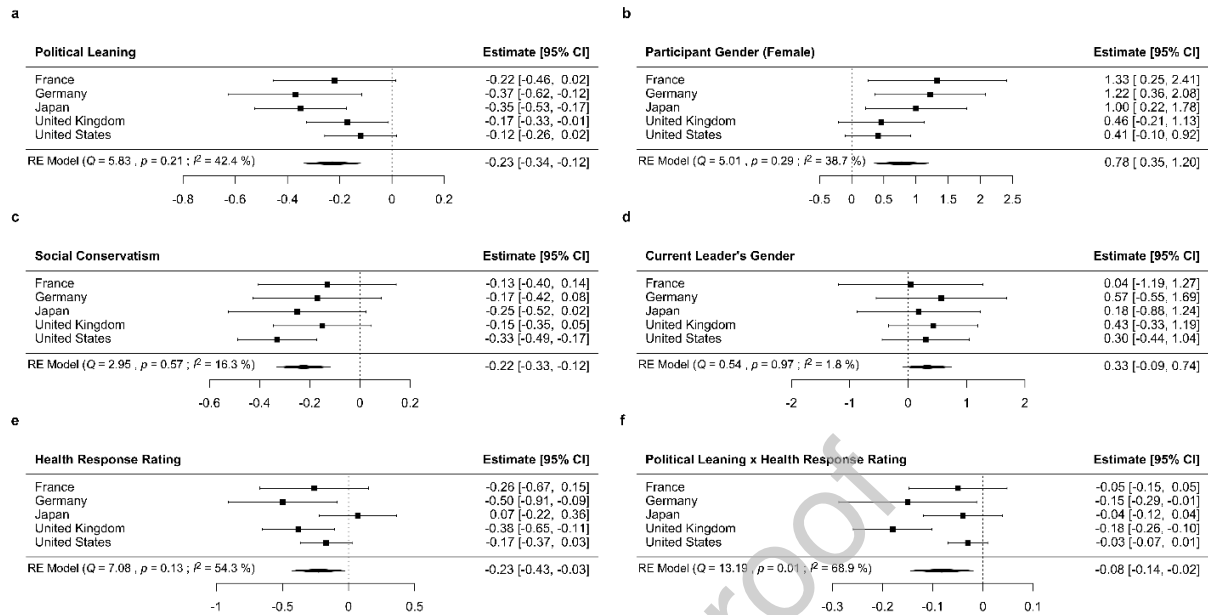
*Note.* Data are pooled across countries (France, Germany, Japan, United Kingdom, United States). Values in boldface are statistically significant.

### 5.7 Cross-Country Variation in Preference for a Female Representative

To assess the impact of cross-country variation on these results, we used meta-analytic methods to test whether there was any significant heterogeneity between countries with regard to each significant predictor of higher preference for a female regional representative in the pooled analysis (see Figure 1). Across the five countries (France, Germany, Japan, the United Kingdom, the United States), random-effect meta-analyses revealed low and insignificant heterogeneity (Higgins et al., 2003) in the effect of political leaning,  $Q(4) = 5.83, p = .21, I^2 = 42.37\%$  (Figure 1a), participant's gender,  $Q(4) = 5.01, p = .29, I^2 = 38.69\%$  (Figure 1b), social conservatism,  $Q(4) = 2.95, p = .57, I^2 = 16.30\%$  (Figure 1c), and current leader's gender,  $Q(4) = 0.54, p = .97, I^2 = 1.76\%$  (Figure 1d). The effect of health response rating was moderate in heterogeneity albeit insignificant,  $Q(4) = 7.08, p = .13, I^2 = 54.29\%$  (Figure 1e). This finding is likely driven by Japan where the effect is insignificant, but directed to the different direction than the other countries. The health response rating shows a similar country pattern to the interaction of Political Leaning x Health Response Rating, which showed moderate significant variation across countries,  $Q(4) = 13.19, p = .01, I^2 = 68.90\%$  (Figure 1f). It appears that this effect is more important within the German and U.K. sample compared to the other countries, however all effects are in the same direction. Thus, the health response rating in these two countries may have driven both of these significant results.

#### Figure 1

*Five-Country Random-Effect Meta-Analyses for Predictors of Preference for a Female Representative*



## 5.8 Test of Hypothesis 2: Preference for a Minority Representative

Pooled regression analysis of the preference for a minority representative required the exclusion of Japan, which showed marked differences in the significance of coefficients compared to other countries, with inclusion resulting in non-normal residuals in the pooled model,  $W(686) = 0.994$ ,  $p = .008$ . Excluding Japan, the pooled regression model predicting the preference for a minority representative,  $F(7, 548) = 24.86$ ,  $p < .001$ , showed that the more severe a participant perceived the social crisis to be, the more they preferred a minority as a regional representative,  $b = 0.15$ , 95% CI [0.09, 0.33],  $p = .001$  (Table 7). Left-leaning participants,  $b = -0.40$ , 95% CI [-0.34, -0.23],  $p < .001$ , and participants who identified as belonging to a minority group,  $b = 0.14$ , 95% CI [0.29, 0.92],  $p < .001$ , also preferred a minority representative more strongly. These results support H2.1, the preference for minority leaders was stronger for participants who perceived the social crisis as more severe. However, H2.2 was not supported, participants did not prefer minority leaders less when they perceived the economic crisis as more severe,  $b = -0.07$ , 95% CI [-0.25, 0.02],  $p = .097$ .

**Table 7**

*Preference for a Minority Representative as a Function of Perception of Crisis Severity, Political Leaning, and Other Demographic Covariates*

Predictors	<i>B</i>	<i>S.E. B</i>	95% CI	$\beta$	<i>p</i>	$\eta_p^2$
(Intercept)	-0.15	0.08	[-0.31, 0.02]	0.00	.081	
Severity of Health Crisis	0.05	0.05	[-0.05, 0.15]	0.04	.314	.002
Severity of Economic Crisis	-0.11	0.07	[-0.25, 0.02]	-0.07	.097	.005
<b>Severity of Social Crisis</b>	<b>0.21</b>	<b>0.06</b>	<b>[0.09, 0.33]</b>	<b>0.15</b>	<b>.001</b>	<b>.021</b>
<b>Political Leaning (left to right)</b>	<b>-0.29</b>	<b>0.03</b>	<b>[-0.34, -0.23]</b>	<b>-0.40</b>	<b>&lt;.001</b>	<b>.165</b>
Gender (Female)	0.19	0.16	[-0.12, 0.51]	0.04	.229	.003
<b>Minority</b>	<b>0.61</b>	<b>0.16</b>	<b>[0.29, 0.92]</b>	<b>0.14</b>	<b>&lt;.001</b>	<b>.025</b>
Political Leaning $\times$ Gender	-0.10	0.05	[-0.21, 0.00]	-0.07	.060	.006
Observations	556					
R <sup>2</sup> / R <sup>2</sup> adjusted	0.241 / 0.231					
AIC	2212.520					

*Note.* Data are pooled across countries (France, Germany, United Kingdom, United States) without Japan. Values in boldface are statistically significant.

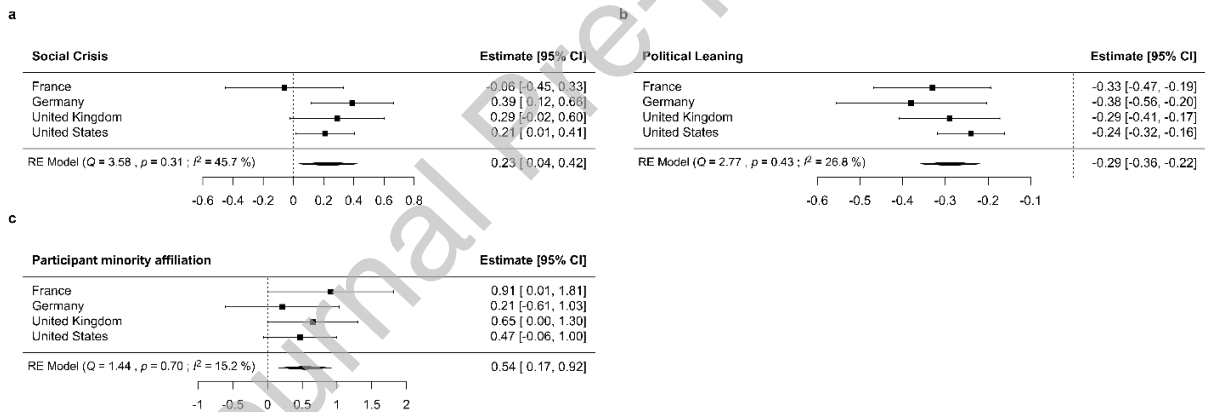
### 5.9 Cross-Country Variation in Preference for a Minority Representative

To assess the impact of cross-country variation on these results, we again used meta-analytic methods to test whether there was any significant heterogeneity between countries in the pooled analysis with regard to each significant predictor of higher preference for a regional

representative belonging to a minority group (see Figure 2). Across the four countries (France, Germany, the United Kingdom, the United States), random-effect meta-analyses again indicated low and insignificant heterogeneity (Higgins et al., 2003) for the effects of perceived severity of the social crisis,  $Q(3) = 3.58$ ,  $p = .31$ ,  $I^2 = 45.72\%$  (Figure 2a), political leaning,  $Q(3) = 2.77$ ,  $p = .43$ ,  $I^2 = 26.81\%$  (Figure 2b), and participant's minority group membership,  $Q(3) = 1.44$ ,  $p = .70$ ,  $I^2 = 15.16\%$  (Figure 2c). However, the pattern in Figure 2a suggest, that the effects of perceived severity of the social crisis might not be present in France.

**Figure 2**

*Forest Plots From the Four-Country Random-Effect Meta-Analyses for Predictors of the Preference for a Minority Representative*



## 6. Discussion

With this research, we sought to examine variation in gender and other minority leadership preferences during the COVID-19 pandemic using a glass cliff theoretical framework (Ryan et al., 2016), proposing that women and other minorities would be more strongly preferred in times of crisis. Our interest concerned how perceptions of the severity and nature of the

COVID-19 crisis (as more social, economic, or health oriented) may influence preferences for minority leadership.

We first examined whether perception of the social vs health vs economic aspects of the COVID-19 crisis as more severe and worrying would impact prioritization of these aspects. Results revealed that people differed in their severity and worry perceptions with regard to the three crisis aspects. This, in turn, affected their opinion for which aspects should be prioritized by political leaders. More concretely, participants were more likely to prioritize social or health crisis aspects over economic aspects when they perceived these aspects to be more severe and worrying while perceiving the economic crisis as less severe and less worrying. Self-reported political leaning impacted these patterns, with left-leaning participants more likely to prioritize social and health crisis aspects over economic aspects. We can thus conclude that despite the COVID-19 pandemic having an impact on everyone, perceptions of the nature and importance of differing crisis aspects depends on individual political leaning. This is in line with Greer et al.'s (2020) conclusion that political affiliation matters in endorsements of policy enactments addressing COVID-19 related issues, with party affiliation shown to be a key factor in accounting for different responses to the pandemic by governmental representatives. They argue that responses from different parties would also be expected to vary more strongly when clear social policies and redistributive decisions are put into place. Our data strengthen this argument, showing that participants belonging to different political groups perceive and experience different levels of severity and worry, for themselves and those close to them, depending on particular aspects of the COVID-19 crisis with differing social, health, and economy-related consequences. Knowledge of these differing perceptions and their antecedents is essential, impacting beliefs about the needed prioritization of particular crisis concerns, the adequacy of response to these



concerns, and opinion about what kinds of political actors would do a better job of prioritizing their concerns. Understanding and responding to these varied priorities in crisis contexts may help to better address or mitigate associated social upheavals, for example, the varied protests against different COVID-19 measures around the world.

Prior to our main analyses we explored demographic differences between participants who reported having a preference regarding political representative gender and minority group membership versus those who indicated no preference. Politically left-leaning minority group members were more likely to show a gender preference (vs. no preference) compared to left-leaning individuals not belonging to a minority group. Moreover, left-leaning men were more likely than right-leaning men to indicate a preference regarding both representative gender and minority membership. While these analyses were exploratory, and results therefore not explanatory, outcomes for left-leaning participants here resonate with findings from Aelenei et al. (2020), where preferences by left-leaning participants were also found. These results also suggest that those who hold more traditional views, such as men and politically right-leaning participants, are more likely to avoid indicating a preference, thus appearing more neutral when asked to select a politician by gender or minority status. While we cannot say with any confidence that this reflects the dissonance felt between their traditional political views favoring majority male leadership, and an acute personal awareness that it is not socially acceptable to say so openly, we suspect that this may play a role. Still, whether participants did not report a preference because they in fact had no preference, or because they concealed their real opinion to avoid internal dissonance or external judgment, remains unknown. In addition, participant characteristics such as political leaning, gender, and minority group membership explained only a small amount of

the variance between groups with and without a preference for gender or minority membership, further implying that this variation remains to be explained.

Considering only participants with a preference, we tested our main hypotheses examining whether perceptions of crisis severity in relation to social and economic aspects could predict preferences for female and minority status representatives. With a review of the literature on stereotypes linking women and minority group members to social or relational competencies and men to agentic or economic competencies (e.g., Eagly et al., 1995; Eagly & Wood, 2012), we asked whether perceiving the social crisis as more severe would be linked to a preference for a female or minority leader, and whether perceiving the economic crisis as more severe would be linked to a male or non-minority leader. Examining responses from four Western and one Asian country, overall, we found generalizable effects cross-nationally, however with some country-specific effects, elaborated in the following.

### **6.1 Political Leaning and Minority Leadership**

Cross-nationally, female leaders were more preferred by more politically left-leaning and less socially conservative individuals. This is not surprising as the political left is generally characterized as having less traditional views about women and to be more sensitive about egalitarian issues compared to the political right (e.g., Jost et al., 2003). Leaning more to the left side of the ideological spectrum was also associated with a higher preference for minority leaders in Western countries, a finding which is also in accord with prior research (e.g., Besco, 2020). Overall, the consistent evidence from previous literature and our COVID-19 context-specific results reflect how conservative participants uphold their endorsement of traditional male leaders even under extraordinary circumstances such as the pandemic, while more liberal or left-leaning people reported stronger support for political representatives from minority groups.

## 6.2 Crisis Type Severity and Minority Leadership

Even though we could not find support for the expected link between perceived severity of different crisis types and female leadership, we uncovered an interesting pattern for right-leaning participants. Their preference for female leadership increased when participants judged their current regional leader as not having done enough to manage the health crisis. A potential reason for this effect is that when the present leader fails or does not satisfy expectations, conservative people might become more open to change in leadership, and perhaps even for risky (or atypical) choices where the outcome is uncertain (e.g., Kahneman & Tversky, 1979). Here, we refer to prior research showing that people usually picture men when thinking about typical leaders (e.g., Huddy & Capelos, 2002). Due to the conservative nature of this assumption, this tendency may be more pronounced for people who hold more conservative views. Hence, for those who believe that the health crisis has not been tackled enough, the choice of a woman becomes an atypical option serving to express the need or desire to change the situation (e.g., Bruckmüller & Branscombe, 2010; Kulich et al., 2015). This shift towards an atypical leader in a time of crisis, who is more likely to be judged incompetent in times of stability by right-leaning individuals, may be driven additionally by media reports at the onset of the pandemic which praised the actions of female political leaders more globally (e.g., Coscieme et al., 2020; Taub, 2020). The attention to the adequacy of crisis responses of female versus male leaders may have further strengthened positive associations between management of pandemic health consequences and female leadership, consciously or subconsciously affecting leader preferences. Consequently, female leadership may have become a promising alternative for handling the situation better, and more enticing to those who feel less satisfied. Politically right-leaning participants in particular, who generally do not endorse female over male leadership, might only be willing to accept or

wish for this alternative in conditions where current political leadership is obviously unsuccessful (see also Brown et al., 2011). It should be noted, however, that this effect seems to be primarily driven by participants in Germany and the United Kingdom (country-specific tendencies will be outlined in section 6.3).

We also found that a preference for a female leader was more likely if participants currently had a female regional representative. A possible explanation is that participants under female leadership have already benefitted from effective measures during the crisis, or they believe this to be so in light of media reports presenting poor management by male leadership. This finding highlights the potential importance of controlling for other characteristics of the current political representative, something to address in future studies. For example, it's reasonable to think that the party affiliation of the current representative (or whether they share their political leaning with the respondent) could lead to responses of ingroup bias, especially in light of how politically polarized the pandemic has become in many countries (e.g., Kerr et al., 2021).

With regard to minority leadership preference, our hypotheses were partially supported, as those who perceived the social crisis to be more severe showed an expected higher preference for a minority leader. However, preference for minority leaders was not predicted by perceptions of lower severity of the economic crisis. The social crisis-minority association is in line with social categorization theory which posits that minority group members are often perceived to be more suitable to handle matters of social injustice in politics and at the workplace compared to non-minority group members (e.g., Durr & Logan, 1997; Lee, 2008). Attributions of more other-oriented leadership qualities to minority leaders (e.g., Gündemir et al., 2019) could reinforce the expectation that (ethnic) minority group members are better fit to address social issues during the

crisis than non-minority group members. In the context of glass cliff situations, research has indeed found that ethnic minority group members are more likely to be selected when they are perceived as capable of implementing change (Aelenei et al., 2020).

Our finding that minority leaders were neither favored nor disfavored when economic aspects of a crisis were perceived as more severe lends to the argument that the driving factor of choosing minority leaders in a crisis was the perceived fit between their social identity, possibly their ascribed leadership attributes, and the crisis content. This finding was limited to Western countries.

### 6.3 Cross-Cultural Variations

For the most part, the effects we found were rather stable when confronted with cross-national variability, with country heterogeneity shown to be both low and insignificant. This is consistent with prior cross-cultural research showing broad similarities in terms of gender stereotypes and their effect on leadership perceptions (e.g., Sczesny et al., 2004).

However, there were some exceptions, with Japan showing some distinct patterns. For Japanese participants, only participant minority group membership predicted a minority preference. Culturally different understandings of the survey terminology in conjunction with pronounced differences in the structure of what constitutes a minority group in Japan may account for these divergent results. We suspect lack of clarity in Japanese participant associations with the phrasing a "member of an underrepresented group". In Western countries, participants were expected to think of ethnic, racial, or immigrant minorities. In Japan, politics focus on ethnic homogeneity in contrast to other countries of the study (Morita, 2019; Vogt, 2014). Thus, ethnic minorities, in the Western sense, might not have been considered when Japanese participants were asked to think about underrepresented group members. The same phrasing may

have even triggered a picture of other Japanese minorities because ethnic, racial, or immigrant minorities are often perceived as "non-Japanese" (Htun, 2012; Iwata & Nemoto, 2018). Japanese participants might have focused on people in Japan who experience discrimination independent of ethnicity, such as people who suffer from radiation stigma since the Fukushima Daiichi Nuclear Disaster (Heath, 2013; Kwesell & Jung, 2019). In such a "mono-ethnic" society (Htun, 2012), it is more difficult to crystallize which minority groups were thought of by Japanese participants. As a result, we cannot determine what kind of qualities they might have associated with these groups and group members.

Moreover, our meta-analytical results suggested some country-specific deviations regarding our main findings. First, the increased preference for female leadership by right-leaning participants when health response measures were judged to be insufficient seemed to be predominantly driven by participants in Germany and the United Kingdom. With the limited data and sample sizes, we can only speculate about potential reasons for these country-specific tendencies. For example, contextual variables of interest could be the political climate or the COVID-19 situation at the time of data collection. The specific climate at the time may have created stronger sentiment of poor handling of the health crisis, with potentially increased salience of this parameter for people from these two countries.

Another interesting variation concerns the increased minority preference for participants who perceive the social crisis to be more severe. This effect revealed low heterogeneity in our Western sample, meaning that the results between the countries are similar enough to be combined into an overall result. Yet, the pattern in Figure 2a suggests that this effect might have primarily been driven by participants in Germany and in the United States. This effect was visible as a tendency in the United Kingdom but not found in France. Thus, one could speculate whether

the association of minority politicians to social equality related aspects is less salient in some countries but not in others based on political contexts. In France, for example, some of the most visible politicians belonging to a minority group (based on gender, religion, or ethnic minority status) are known to be politically right-leaning (e.g., Marine Le Pen, Éric Zemmour; Abdoul-Bagui, 2021; Stockemer & Barisione, 2017). In the United Kingdom, one of the most salient female politicians is Theresa May, who served as both Leader of the Conservative Party and Prime Minister during Brexit negotiations, a period marked with political instability (Allen, 2018; Schnapper, 2020). As is common with such glass cliff appointments, Theresa May ultimately failed her impossible tasks which might have negatively influenced citizens' perceptions of high-status female leaders during crises (Jones, 2019). However, it is important to consider that the non-significant results could be also due to lack of statistical power.

#### **6.4 Ingroup Effects and Minority Leadership**

Finally, female participants had a stronger preference for female leaders, and participants who identified themselves as belonging to a minority group also preferred minority leaders. The latter converges with a finding of the tendency of people to give higher performance ratings to members from the same racial-ethnic backgrounds (Kraiger & Ford, 1985). Beyond positive ascriptions of characteristics to ingroup members, similar underlying mechanisms which explain the preference for minority leaders in conditions of social crisis may be at work here. Women (e.g., Ferrín et al., 2020; Giger, 2009) and minority group members (e.g., Anwar, 2001; van Heelsum, 2002) are more likely to lean politically left than to lean right. They also represent two social groups disproportionally affected by the consequences of the COVID-19 crisis in several aspects (Fisher & Ryan, 2021). In addition, independently from whether one perceives social issues as more important than other aspects of the crisis, members of both groups might feel that

their concerns are taken more seriously by ingroup members rather than by relatively more privileged majority leaders due to ingroup favoritism (e.g., Eagly et al., 1992). For the pandemic, this suggests that people across cultures would prefer a leader that represents their own group membership whether in times of crisis or not.

In summary, our findings illustrate both the complexity underlying minority leadership preferences, and the importance of understanding it. We find evidence in Western countries that minority leaders are preferred when social issues are seen as more severe and in need of response but not if economic or health-related issues are believed as needing to be prioritized. Our data suggest that this effect is strongest in Germany and in the United States. In the preference for female leaders, politically right-leaning participants in some countries show a small but significant increase in this preference if they perceive that the health crisis has not been tackled enough by their regional government. This effect is primarily driven by people living in Germany and in the United Kingdom. We suggest that this finding supports the argument that female leaders are at times preferred due to their potential to signal a desire or need for change due to their status as atypical leaders. This may be especially true for considerations of policy decisions and crisis handling during the COVID-19 pandemic, where media portrayals of gendered leadership and association with poor or favorable outcomes is likely to have made the leader gender more salient. However, the political climate within countries might be an important variable to consider: Female leaders might only be preferred under the described circumstances if the public image confirms the stereotypical social image of minority politicians as caring and people oriented. Our results also highlight the importance of political leaning and ingroup favoritism in leadership preferences across nations, especially in times of crisis. Overall, these results strengthen findings from recent glass cliff research that crisis conditions are particularly



important to consider when investigating preferences for female and other minority leadership.

We recommend that future researchers incorporate more contextual variables in both experimental and correlational studies when researching minority preferences, with specific attention to differing perceptions of contexts based on group identities and ideological belongings.

## 7. Practical Implications

Because the numbers of female and minority politicians in high power positions are rising, awareness of the benefits of diverse and inclusive leadership practices is spreading (e.g., Katz, 2021). While the call for more female and minority leadership can be advantageous for underrepresented and vulnerable social groups, it is important to consider under which circumstances they are appointed (see also Eagly, 2016). The present research contributes to understanding why female and minority leaders are wanted during a crisis. In the following, we will outline two main practical implications.

First, our data show that a crisis does not fundamentally change *who* supports female and minority leaders. People who generally indicate a preference for female or minority leadership continue to do so in the ongoing crisis. Here, political belief and participants' own gender and minority group membership were pivotal predictors across nations. Considering that some crises are inevitable, especially in the political domain, we can expect similar trends in future crises. Thus, it would be more effective to communicate female or minority leadership advantages to those who typically would not endorse such leadership. As a result, more communities might benefit from inclusive leadership styles and not only in crises.

It is crucial to extend the advantages of female and minority leadership to times of stability and prosperity. Otherwise, female or minority leaders are likely to be confronted with

impossible or difficult-to-solve tasks, which heightens their chances of failure. Our finding suggests that in specific political contexts, female leadership preference might be increased for those who usually do not indicate such tendency. This concerns in particular people who were dissatisfied with certain political decisions and likely wanted a change. This result is in accordance with experimental studies addressing the glass cliff phenomenon, showing that the need for change makes female and ethnic minority leadership more likely (Aelenei et al., 2020; Kulich et al., 2015).

To sum up, our study shows the urgency of addressing specific social groups when communicating about the advantages of diverse leadership. But, of greater importance, it should be made clear that these advantages not only apply to extraordinary circumstances that call for atypical measures.

### **8. Limitations and Directions for Future Research**

Survey studies and other observational designs are essential for identifying the important factors impacting variation in minority leadership preferences during crisis in the real world. That is, without them, it is difficult, even impossible, to assess the ecological validity of social hypotheses. Observational studies also allow a broader consideration of potentially important variables that are excluded by design in experimental contexts. In addition, drawing attention to other important factors, unexpected findings and nuances in observational results also lead to the investigation of alternative explanations for researched social phenomena, broadening the scope of the research lens.

This method also enabled us to present timely insights into attitudes toward female and ethnic minority leaders during the COVID-19 pandemic. However, we acknowledge that

observational data are necessarily limited in its ability to assess causal relationships. Our results would therefore be strengthened by experimental studies to tease out the causal underpinnings of the relationships we found.

As one of the first studies on the topic, our current contribution was aimed at understanding the significant factors which shape minority leader preferences in various crisis conditions. Future studies can complement our findings by more adequately differentiating between preferences for leaders from different minority groups due to differences in stereotypes between these groups (Priest et al., 2018), especially concerning leadership traits and behaviors (Chung-Herrera & Lankau, 2005; Gündemir et al., 2019; Zilber & Niven, 2000). Moreover, experimental studies are desirable to replicate the findings where disentanglements of crisis types are possible. For example, with regard to the health crisis, it's possible that people in our study interpreted the meaning of this crisis aspect in various ways, especially considering the context of the pandemic. For example, when presented with the health aspect, some people might have thought about the logistic aspects of hospitals (more stereotypically masculine content), whereas others might have thought about minimizing individual deaths (more stereotypically feminine content).

We also note that the three domains of crisis we included are not entirely independent from one another. For example, unemployment is linked to the economic crisis but is also related to social inequality because social minorities are more likely to be impacted economically by unemployment, for example, in terms of gender (Czymara et al., 2020; Reichelt et al., 2020), or racial minority membership (Gezici & Ozay, 2020). Our results (Table 2) underline this potential confounding, because those who perceived the social crisis as more severe also perceived the

economic crisis as more severe ( $r = .53$ ), with similar correlations for the worry ratings of the two crisis domains ( $r = .69$ ).

Finally, we chose our sample of countries partially based on convenience, which resulted in four countries with Western values vs Japan. Therefore, conclusions directed at comparing cultures are limited, with the differences discussed necessarily speculative. We would welcome future studies with an aim toward more broadly conceived cross-national inclusion in order to better distinguish culture-specific patterns from generalizable outcomes and to draw adapted conclusions. Especially, considering how the model predicting minority leadership worked only in the Western countries, but not in Japan, we see the importance of considering various viewpoints.

## 9. Conclusion

Prior literature has illustrated the importance of considering the type or nature of a crisis when examining leadership in crisis conditions (Bavik et al., 2021) and the willingness to appoint minority leaders (Kulich et al., 2021). Initial studies during the COVID-19 crisis have shown that female leaders tend to adopt a more people-oriented approach compared to male representatives to tackle the consequences of the pandemic (e.g., Funk, 2020). In line with prior studies, our findings first indicate that the COVID-19 crisis was perceived differently by participants from different social groups, implying that varied measures and policies on different levels are needed to address people's concerns adequately, since these concerns vary widely. Second, individuals indicate different preferences in regard to the political representative gender and minority group membership depending on how they perceive different aspects of the COVID-19 crisis, and depending on their political leaning, gender, and whether they are members of a minority group. Our results show that minority leaders are preferred under specific conditions, for example, when

it is perceived that they should tackle social issues or when people are more dissatisfied with current handling of health measures. The reported trends across countries indicated low heterogeneity, implying that the combined effect sizes are meaningful. It is still of interest to observe that the effects seem to be stronger in some countries than in others, suggesting that political contexts and associations with current minority leaders might play a role in driving these tendencies. Moreover, various cultural differences, such as the social cognition of different social groups, need to be considered to predict a preference for minority leaders. Our data suggest that other predictors and potentially different theoretical frameworks need to be favored when predicting minority preference in Japan than those chosen for the here presented Western countries. Overall, the findings highlight the perceived value of women and minority leaders and their strengths during crises, either because their qualities are seen as beneficial in these circumstances, or because they are seen as atypical, differing from the qualities that traditional male or White (or majority) leaders usually offer. This adds to the existing literature that typical male authoritarian leaders are not always preferred, at least not in stressful times, such as COVID-19 conditions (Leung et al., 2020; Meagher et al., 2020). Our findings also contribute to understanding varied perceptions of the nature of crisis conditions. While the pandemic itself is similarly problematic across contexts, the way in which it is perceived across social groups and between ideological orientations is neither homogenous nor consistent. Depending on these various perceptions, people are also more or less open to selecting minority leaders. In addition to contributing to the study of particular conditions which impact minority perception and advancement, this research demonstrates that it is important to also consider the impact of group and ideological belonging on the perceptions of these conditions, which may strongly vary, with considerable repercussions especially in times of crisis.

**Declaration of interests**

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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**APPENDICES**

Journal Pre-proof

**Appendix A: Samples**

*France.* Data from 299 participants were collected using Foule Factory on 17 September 2020, a crowd working platform that is only accessible to residents of France. After excluding participants who did not give ethical consent ( $n = 15$ ), who failed the comprehension check ( $n = 10$ ) and the attention check ( $n = 10$ ), and who are not resident in mainland France ( $n = 6$ ), our sample consisted of 258 participants, from which 114 people (45.3%) indicated their gender as female. The mean age was 38.84 years ( $SD = 12.80$ ).

*Germany.* Data from 545 participants were collected from a snowball sample, from which 264 people indicated to live in Germany. The survey was posted on the researcher's social media sites during the period of 26 August 2020 to 21 September 2020 (Facebook, Instagram, LinkedIn, Twitter, WhatsApp, LINE), which was then re-posted and shared by the participants. 203 participants from Germany gave ethical approval. After excluding participants, who failed the comprehension check ( $n = 6$ ) and attention check ( $n = 3$ ) and did not indicate their gender to be male or female ( $n = 1$ ), the sample consisted of 193 participants. 124 participants (64.2%) indicated their gender to be female. The mean age was 29.70 years ( $SD = 10.66$ ).

*Japan.* From the same snowball sampling, 132 participants indicated to live in Japan, from which 106 participants gave ethical consent. After excluding participants, who failed the comprehension check ( $n = 3$ ) and the attention check ( $n = 8$ ), and did not indicate their gender as male or female ( $n = 3$ ), the final Japanese snowball sample consisted of 85 participants (46 females;  $M_{age} = 36.68$ ;  $SD = 12.14$ ). To have an equal sample size to the other countries, we additionally collected 162 Japanese participants using the crowd work platform *Yahoo!* Crowdsourcing ([crowdsourcing.yahoo.co.jp/](https://crowdsourcing.yahoo.co.jp/)). After excluding participants according to the

criteria as mentioned before ( $n = 1$  did not give ethical consent,  $n = 2$  failed the comprehension check,  $n = 8$  failed the attention check), we had additional data from 151 participants (42 females,  $M_{\text{age}} = 45.28$ ;  $SD = 8.74$ ). Thus, for data analysis, we had 236 participants who live in Japan (88 females,  $M_{\text{age}} = 42.34$ ;  $SD = 10.80$ ).

*The U.K.* Data from 300 participants were collected using the crowdsourcing platform Prolific on 3 September 2020. On Prolific, we chose the option to recruit a representative sample. Participants, who failed the comprehension check ( $n = 3$ ) and the attention check ( $n = 13$ ), were excluded from further analysis. The final sample ( $N = 284$ ) consisted of equal numbers of people who identify themselves as male ( $n = 142$ ) and female. The mean age consisted of 45.38 years ( $SD = 15.74$ ).

*The U.S.* Data from 300 participants were collected using Amazon's Mechanical Turk (MTurk) on 2 September 2020. After excluding participants, who did not give ethical consent ( $n = 2$ ), who failed the comprehension check ( $n = 1$ ), the attention check ( $n = 4$ ), and did not indicate their gender to be male or female ( $n = 3$ ), the final sample ( $N = 288$ ) consisted of 120 participants who indicated their gender as female (41.7%). The mean age was 39.72 ( $SD = 11.09$ ).

**Appendix B: COVID-19 Report Used in the Survey**

People are currently facing a global crisis that is upending their lives: The spread of the new coronavirus (COVID-19) has been declared a pandemic. There is an understanding that this situation is not just about health but is having an important impact on the economy and social equality.

Many people are concerned about the lasting effects of the virus outbreak. Many serious decisions have been made by politicians on how to cope and handle the crisis. Further decisions are due in the near future considering key questions that may have a profound impact on individuals and on society as a whole.

In the following, we will refer to three aspects of the COVID crisis. The health crisis emphasizes that the health of many people is and/or will be impacted. The economic crisis focuses on the worsened economic situation for many people at present and/or in the future. And the social crisis addresses social inequalities or social problems that are worse for many people at present and/or in the future.

**Appendix C: Further measures that were assessed in the Study****Table C***Further Measures That Were not Included in the Main Analyses*

	Number of items	$\alpha$ or $r$	$M$	$SD$
Economic conservatism (Everett, 2013)	5	$\alpha = .54$	-0.20	1.61
Endorsement of global (vs. local) approach to tackle the COVID-19 crisis	5	$\alpha = .51$	1.26	0.92
PANAS-SF (positive)	5	$\alpha = .75$	0.32	1.14
PANAS-SF (negative)	5	$\alpha = .84$	-1.51	1.26
Importance rating of agentic leadership traits (based on Spence et al., 1974)	7	$\alpha = .75$	1.30	0.89
Importance rating of communal leadership traits (based on Spence et al., 1974)	7	$\alpha = .83$	1.40	0.96
Agreement on regional representative engaging in self-sacrificial/collective leadership behaviors (based on Conger & Kanugo, 1998, and Steffens et al., 2014)	8	$\alpha = .86$	1.42	0.98
Preference for a politically left-leaning regional representative (vs. right-leaning)	1		0.38	1.53
Self-indicated amount of exposure to COVID-19 related news (media)	2	$r = .55$	-0.15	1.48



*Note.* 7-point scales (from -3 to 3) were used (low values correspond to low numbers) except for the economic conservatism scale for which a 11-point scale (from -5 to 5) were used.

**Appendix D: Country-Specific Results for Female Leader Preference****Table D.1***Preference for Female Leader with French Data*

Predictors	<i>B</i>	<i>S.E. B</i>	95% CI	$\beta$	<i>p</i>
(Intercept)	0.34	0.38	[-0.42, 1.11]	0.00	.373
Severity of Health Crisis	-0.41	0.24	[-0.89, 0.07]	-0.25	.093
Severity of Economic Crisis	-0.06	0.31	[-0.68, 0.56]	-0.03	.848
Severity of Social Crisis	0.31	0.30	[-0.29, 0.92]	0.17	.303
Political leaning	-0.22	0.12	[-0.46, 0.02]	-0.25	.068
<b>Gender (Female)</b>	<b>1.33</b>	<b>0.55</b>	<b>[0.24, 2.42]</b>	<b>0.28</b>	<b>.018</b>
Minority	-0.14	0.64	[-1.42, 1.13]	-0.27	.823
Social Conservatism	-0.13	0.14	[-0.42, 0.16]	-0.11	.370
Current leader's gender	0.04	0.63	[-1.22, 1.31]	0.01	.945
Economic Response Rating	0.19	0.25	[-0.32, 0.70]	0.12	.462
Health Response Rating	-0.26	0.21	[-0.67, 0.15]	-0.20	.213
Political leaning x Health Response Rating	-0.05	0.05	[-0.16, 0.05]	-0.13	.318
Observations	74				
R <sup>2</sup> / R <sup>2</sup> adjusted	0.289 / 0.163				
AIC	337.868				

*Note.* Values in boldface are statistically significant.

**Table D.2***Preference for Female Leader with German Data*

Predictors	<i>B</i>	<i>S.E. B</i>	95% CI	$\beta$	<i>p</i>
(Intercept)	0.29	0.38	[-0.47, 1.06]	0.00	.446
Severity of Health Crisis	-0.03	0.17	[-0.36, 0.30]	-0.02	.867
Severity of Economic Crisis	0.14	0.27	[-0.39, 0.68]	0.08	.588
Severity of Social Crisis	-0.11	0.18	[-0.47, 0.24]	-0.08	.528
<b>Political leaning</b>	<b>-0.37</b>	<b>0.13</b>	<b>[-0.64, -0.10]</b>	<b>-0.39</b>	<b>.008</b>
<b>Gender (Female)</b>	<b>1.22</b>	<b>0.44</b>	<b>[0.34, 2.10]</b>	<b>0.29</b>	<b>.007</b>
Minority	0.25	0.45	[-0.64, 1.14]	0.06	.580
Social Conservatism	-0.17	0.13	[-0.43, 0.09]	-0.16	.199
Current Leader's Gender	0.57	0.57	[-0.57, 1.71]	0.10	.323
Economic Response Rating	-0.05	0.15	[-0.35, 0.25]	-0.36	.739
<b>Health Response Rating</b>	<b>-0.50</b>	<b>0.21</b>	<b>[-0.92, -0.07]</b>	<b>-0.31</b>	<b>.023</b>
<b>Political Leaning x Health Response Rating</b>	<b>-0.15</b>	<b>0.07</b>	<b>[-0.28, -0.01]</b>	<b>-0.30</b>	<b>.035</b>
Observations	80				
R <sup>2</sup> / R <sup>2</sup> adjusted	0.369 / 0.267				
AIC	326.298				

*Note.* Values in boldface are statistically significant.

**Table D.3***Preference for Female Leader with Japanese Data*

Predictors	<i>B</i>	<i>S.E. B</i>	95% CI	$\beta$	<i>p</i>
<b>(Intercept)</b>	<b>-0.64</b>	<b>0.30</b>	<b>[-1.24, -0.05]</b>	<b>0.00</b>	<b>.034</b>
Severity of Health Crisis	0.00	0.14	[-0.27, 0.28]	0.00	.984
Severity of Economic Crisis	-0.16	0.17	[-0.50, 0.18]	-0.11	.351
Severity of Social Crisis	0.12	0.16	[-0.20, 0.44]	0.09	.463
<b>Political Leaning</b>	<b>-0.35</b>	<b>0.09</b>	<b>[-0.53, -0.17]</b>	<b>-0.40</b>	<b>&lt;.001</b>
<b>Gender (Female)</b>	<b>1.00</b>	<b>0.40</b>	<b>[0.22, 1.79]</b>	<b>0.24</b>	<b>.013</b>
Minority	-0.16	0.37	[-0.88, 0.57]	-0.04	.668
Social Conservatism	-0.25	0.14	[-0.53, 0.02]	-0.17	.067
Current Leader's Gender	0.18	0.54	[-0.90, 1.26]	0.03	.744
Economic Response Rating	-0.15	0.16	[-0.47, 0.17]	-0.10	.344
Health Response Rating	0.07	0.15	[-0.23, 0.38]	0.05	.632
Political Leaning x Health Response Rating	-0.04	0.04	[-0.13, 0.05]	-0.09	.412
Observations	110				
R <sup>2</sup> / R <sup>2</sup> adjusted	0.319 / 0.242				
AIC	451.507				

*Note.* Values in boldface are statistically significant.

**Table D.4***Preference for Female Leader with U.K. Data*

Predictors	<i>B</i>	<i>S.E. B</i>	95% CI	$\beta$	<i>p</i>
<b>(Intercept)</b>	<b>1.47</b>	<b>0.22</b>	<b>[1.03, 1.91]</b>	<b>0.00</b>	<b>&lt;.001</b>
Severity of Health Crisis	0.01	0.13	[-0.25, 0.27]	0.01	.933
Severity of Economic Crisis	-0.24	0.16	[-0.56, 0.08]	-0.16	.143
Severity of Social Crisis	0.20	0.17	[-0.14, 0.54]	0.13	.247
<b>Political Leaning</b>	<b>-0.17</b>	<b>0.08</b>	<b>[-0.34, -0.01]</b>	<b>-0.24</b>	<b>.044</b>
Gender (Female)	0.46	0.34	[-0.22, 1.14]	0.13	.183
Minority	0.59	0.36	[-0.14, 1.31]	0.16	.111
Social Conservatism	-0.15	0.10	[-0.35, 0.06]	-0.17	.162
Current Leader's Gender	0.43	0.39	[-0.35, 1.21]	0.11	.279
Economic Response Rating	0.08	0.12	[-0.17, 0.33]	0.06	.530
<b>Health Response Rating</b>	<b>-0.38</b>	<b>0.14</b>	<b>[-0.66, -0.10]</b>	<b>-0.33</b>	<b>.008</b>
<b>Political leaning x Health Response Rating</b>	<b>-0.18</b>	<b>0.04</b>	<b>[-0.27, -0.10]</b>	<b>-0.49</b>	<b>&lt;.001</b>
Observations	89				
R <sup>2</sup> / R <sup>2</sup> adjusted	0.372 / 0.282				
AIC	338.483				

*Note.* Values in boldface are statistically significant.

**Table D.5***Preference for Female Leaders with U.S. Data*

Predictors	<i>B</i>	<i>S.E. B</i>	95% CI	$\beta$	<i>p</i>
(Intercept)	-0.02	0.21	[-0.44, 0.41]	0.00	.935
Severity of Health Crisis	0.05	0.10	[-0.14, 0.24]	0.05	.602
Severity of Economic Crisis	-0.15	0.12	[-0.38, 0.09]	-0.10	.220
Severity of Social Crisis	0.06	0.09	[-0.12, 0.24]	0.05	.529
Political Leaning	-0.12	0.07	[-0.26, 0.02]	-0.20	.096
Gender (Female)	0.41	0.26	[-0.11, 0.93]	0.11	.118
<b>Minority</b>	<b>-0.76</b>	<b>0.27</b>	<b>[-1.29, -0.23]</b>	<b>-0.19</b>	<b>.005</b>
<b>Social Conservatism</b>	<b>-0.33</b>	<b>0.08</b>	<b>[-0.50, -0.17]</b>	<b>-0.47</b>	<b>&lt;.001</b>
Current Leader's Gender	0.30	0.38	[-0.46, 1.05]	0.06	.438
Economic Response Rating	0.10	0.10	[-0.10, 0.29]	0.07	.326
Health Response Rating	-0.17	0.10	[-0.36, 0.02]	-0.14	.082
Political leaning x Health Response Rating	-0.03	0.02	[-0.08, 0.01]	-0.09	.178
Observations	120				
R <sup>2</sup> / R <sup>2</sup> adjusted	0.579 / 0.536				
AIC	420.724				

*Note.* Values in boldface are statistically significant.

**Appendix E: Country-Specific Results for Minority Leader Preference****Table E.1***Preference for Minority Leader with French Data*

Predictors	<i>B</i>	<i>S.E. B</i>	95% CI	$\beta$	<i>p</i>
(Intercept)	0.03	0.22	[-0.41, 0.47]	0.00	.881
Severity of Health Crisis	0.06	0.14	[-0.23, 0.34]	0.04	.689
Severity of Economic Crisis	-0.13	0.20	[-0.53, 0.26]	-0.07	.509
Severity of Social Crisis	-0.06	0.20	[-0.46, 0.34]	-0.04	.759
<b>Political Leaning</b>	<b>-0.33</b>	<b>0.07</b>	<b>[-0.47, -0.19]</b>	<b>-0.42</b>	<b>&lt;.001</b>
Female	0.34	0.39	[-0.43, 1.12]	0.08	.380
<b>Minority</b>	<b>0.91</b>	<b>0.46</b>	<b>[0.01, 1.82]</b>	<b>0.18</b>	<b>.049</b>
Political Leaning x Female	-0.21	0.14	[-0.49, 0.07]	-0.13	.142
Observations	111				
R <sup>2</sup> / R <sup>2</sup> adjusted	0.231 / 0.178				
AIC	474.342				

*Note.* Values in boldface are statistically significant.

**Table E.2***Preference for Minority Leader with German Data*

Predictors	<i>B</i>	<i>S.E. B</i>	95% CI	$\beta$	<i>p</i>
<b>(Intercept)</b>	<b>-0.95</b>	<b>0.25</b>	<b>[-1.45, -0.45]</b>	<b>0.00</b>	<b>&lt;.001</b>
Severity of Health Crisis	-0.14	0.12	[-0.38, 0.11]	-0.11	.278
Severity of Economic Crisis	-0.06	0.18	[-0.41, 0.29]	-0.04	.746
<b>Severity of Social Crisis</b>	<b>0.39</b>	<b>0.14</b>	<b>[0.12, 0.66]</b>	<b>0.32</b>	<b>.005</b>
<b>Political Leaning</b>	<b>-0.38</b>	<b>0.09</b>	<b>[-0.55, -0.21]</b>	<b>-0.42</b>	<b>&lt;.001</b>
Gender (Female)	-0.26	0.47	[-1.19, 0.68]	0.07	.584
Minority	0.21	0.42	[-0.63, 1.04]	0.05	.627
Political Leaning x Gender	-0.23	0.17	[-0.57, 0.11]	-0.17	.174
Observations	94				
R <sup>2</sup> / R <sup>2</sup> adjusted	0.275 / 0.216				
AIC	371.823				

*Note.* Values in boldface are statistically significant.



**Table E.3***Preference for Minority Leader with Japanese Data*

Predictors	<i>B</i>	<i>S.E. B</i>	95% CI	$\beta$	<i>p</i>
(Intercept)	-0.34	0.19	[-0.72, 0.04]	0.00	.080
Severity of Health Crisis	0.04	0.10	[-0.17, 0.24]	0.03	.734
Severity of Economic Crisis	-0.09	0.15	[-0.39, 0.22]	-0.06	.572
Severity of Social Crisis	0.06	0.14	[-0.22, 0.33]	0.05	.691
Political Leaning	-0.07	0.07	[-0.21, 0.07]	-0.09	.305
Gender (Female)	-0.16	0.35	[-0.86, 0.54]	-0.04	.647
<b>Minority</b>	<b>1.00</b>	<b>0.37</b>	<b>[0.27, 1.74]</b>	<b>0.24</b>	<b>.008</b>
Political Leaning x Gender	-0.14	0.14	[-0.42, 0.14]	-0.09	.330
Observations	124				
R <sup>2</sup> / R <sup>2</sup> adjusted	0.083 / 0.028				
AIC	514.168				

*Note.* Values in boldface are statistically significant.

**Table E.4***Preference for Minority Leader with U.K. Data*

Predictors	<i>B</i>	<i>S.E. B</i>	95% CI	$\beta$	<i>p</i>
(Intercept)	-0.26	0.17	[-0.61, 0.08]	0.00	.130
Severity of Health Crisis	-0.09	0.11	[-0.30, 0.12]	-0.08	.377
Severity of Economic Crisis	0.15	0.15	[-0.15, 0.45]	0.09	.328
Severity of Social Crisis	0.29	0.16	[-0.03, 0.61]	0.16	.076
<b>Political Leaning</b>	<b>-0.29</b>	<b>0.06</b>	<b>[-0.41, -0.16]</b>	<b>-0.37</b>	<b>&lt;.001</b>
Gender (Female)	0.53	0.34	[-0.14, 1.19]	0.13	.120
<b>Minority</b>	<b>0.65</b>	<b>0.33</b>	<b>[0.00, 1.30]</b>	<b>0.16</b>	<b>.049</b>
Political Leaning x Gender	-0.24	0.12	[-0.48, 0.00]	-0.16	.052
Observations	124				
R <sup>2</sup> / R <sup>2</sup> adjusted	0.310 / 0.268				
AIC	493.728				

*Note.* Values in boldface are statistically significant.

**Table E.5***Preference for Minority Leader with U.S. Data*

Predictors	<i>B</i>	<i>S.E. B</i>	95% CI	$\beta$	<i>p</i>
(Intercept)	0.25	0.15	[-0.04, 0.53]	0.00	.092
Severity of Health Crisis	0.10	0.09	[-0.08, 0.28]	0.09	.270
Severity of Economic Crisis	-0.09	0.11	[-0.29, 0.12]	-0.06	.421
<b>Severity of Social Crisis</b>	<b>0.21</b>	<b>0.10</b>	<b>[0.01, 0.41]</b>	<b>0.17</b>	<b>.040</b>
<b>Political Leaning</b>	<b>-0.24</b>	<b>0.04</b>	<b>[-0.33, -0.15]</b>	<b>-0.03</b>	<b>&lt;.001</b>
Gender (Female)	0.11	0.29	[-0.46, 0.69]	0.12	.692
Minority	0.47	0.27	[-0.07, 1.01]	0.12	.087
Political Leaning x Gender	0.04	0.08	[-0.12, 0.20]	0.03	.641
Observations	152				
R <sup>2</sup> / R <sup>2</sup> adjusted	0.311 / 0.278				
AIC	587.223				

*Note.* Values in boldface are statistically significant.

## Graphical abstract

**COVID-19 Crisis****Social Aspects****Economic Aspects****Health Aspects****Research Questions**

Do people differ in their severity perceptions regarding each aspect?

Do severity perceptions of different aspects predict female and minority leadership preferences?

**Method**

Survey data (autumn 2020) from France, Germany, Japan, United Kingdom, United States ( $N = 1,259$ ).

Multiple regressions to predict participant preference for female and minority leaders as a function of severity ratings of each crisis aspect.

**Main Results**

- Participants differed in their severity perceptions across the crisis aspects.
- Minority leaders were preferred if the social crisis was perceived to be more severe.
- Preference for female leadership increased for right-wing participants if they were unsatisfied with the health measures so far.