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Gender Equality Differentiation Hinders Progress Toward Gender Equality

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Abstract

Gender inequality has been an enduring issue throughout history and continues to persist in modern society. Although we have achieved much gender equality, this progress has stagnated. We propose that gender equality differentiation, defined as the variance in the levels of gender equality across different dimensions, is a critical but neglected factor that impedes progress toward gender equality. Using a global dataset of 158 countries spanning from 2006 to 2022 (Study 1; $N = 1{,}906$), we find that countries with a higher level of gender equality differentiation at the focal year have a lower level of gender equality in the next year. A global survey (Study 2; $N = 45{,}611$) and a preregistered experiment (Study 3; $N = 566$) further demonstrate the underlying mechanisms. This research reveals a paradox—isolated efforts in addressing some aspects of gender inequality inadvertently stall efforts to address holistic gender inequality.

Keywords

gender equality, gender equality differentiation, perceived seriousness of gender inequality, action in support of gender equality

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Despite initiatives to advance gender equality by governments, activists, and scholars, persistent gender inequality remains across major domains, including economic participation and opportunity, educational attainment, health and survival, and political empowerment (Damann et al., 2023; Kousta, 2019; Ridgeway, 2011). Considering the resources invested, the progress toward gender equality has been incredibly slow. According to the Global Gender Gap (GGG) Report (2022), overall progress since 2006 has been marginal, and at the current pace, it is estimated that full parity will not be reached for another 132 years. Moreover, in 2022, progress toward closing the gender gap has stalled in most countries, and 58 (40%) countries have experienced a decline or even a reversal in their progress on gender parity. These patterns suggest that existing approaches to understanding gender inequality may not fully capture the dynamics that impede sustained progress.

One prominent line of research has sought to explain these persistent disparities through the gender-equality paradox. Studies adopting an evolutionary perspective have shown that in countries with higher overall gender equality, larger gender differences sometimes paradoxically emerge in specific domains, such as values, personality traits, preferences, interests, and occupational choices (e.g., Balducci, 2023; Costa et al., 2001; Du et al., 2024; Lee & Ashton, 2020; Napp, 2023; Stoet & Geary, 2018). For example, research found that in more gender equal societies, given names become more phonetically gendered, with female names more likely to use softer sounds and male names to use harder sounds (Vishkin et al., 2022). This body of work highlights that progress toward gender equality does not unfold uniformly and can even produce counterintuitive consequences, as greater equality can allow individuals to express innate gendered preferences more freely. While this line of work has advanced our understanding of the complex dynamics that accompany higher levels of gender equality, it generally treats gender equality as a single, unified construct—either examining a country's overall level of gender

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equality or focusing on equality within a specific domain.[1] However, gender equality is inherently multidimensional (e.g., economic participation, educational attainment, health and survival, and political empowerment). In practice, these dimensions often do not progress at the same pace within a country, resulting in uneven patterns of gender equality across domains. This raises an important research question: what happens when gender equality itself develops unevenly across domains within a country, and how might such unevenness contribute to persistent inequality?

Building on this perspective, we shift the scholarly focus from the *overall* level of gender equality to its *configuration*—that is, the extent to which gender equality is balanced or imbalanced across domains within a country. We introduce the concept of gender equality differentiation (i.e., the variance in the levels of gender equality across different dimensions) and propose that it is one of the barriers to progress toward gender equality. In a high gender equality differentiation situation, a high variance exists in the levels of gender equality across different dimensions. Japan is a prototypical example, with high levels of gender equality in educational attainment and health and survival dimensions, but very low levels of gender equality in economic participation and opportunity, as well as political empowerment dimensions. In contrast, in a low gender equality differentiation situation, most dimensions achieve similar levels of gender equality, leading to a relatively low variance. Iceland is a prototypical example, which has similarly high levels of gender equality across all four dimensions mentioned above.

We use system justification theory (Jost et al., 2004; Jost & Banaji, 1994) as a conceptual lens to explore how gender equality differentiation might impede progress toward gender equality. This theory suggests that people are motivated to justify and defend the status quo, perceiving the current system as fair, legitimate, and desirable, to reduce uncertainty and maintain psychological comfort (Hennes et al., 2012; Jost et al., 2004; Laurin et al., 2013; Napier & Jost, 2008; Wakslak et al., 2007). A key mechanism in this process is selective, biased information processing (Jost, 2019, 2020), where individuals attend to, interpret, and remember information in ways that support the system. They may selectively emphasize information that aligns with system-supporting beliefs and misremember evidence to downplay the severity of problems or threats (Eibach & Ehrlinger, 2006; Haines & Jost, 2000; Hennes et al., 2016; Ledgerwood et al., 2011; Shepherd & Kay, 2012; Waldfogel et al., 2021). For example, previous research found that when presented with scientific evidence about climate change, people tended to misremember it as less serious and downplay environmental problems to justify the current socioeconomic system (Hennes et al., 2016). Thus, any condition that facilitates emphasizing the system's positive aspects or downplaying its negative ones ultimately reduces the likelihood of behaviors aimed at changing the status quo.

Through this conceptual lens, we argue that gender equality differentiation provides such a condition. The coexistence of equal and unequal domains conveys mixed signals about the overall state of gender equality. When the overall level of gender equality across countries is held constant, individuals in countries with higher gender equality differentiation are more likely to engage in selective information processing: they direct greater attention to domains where gender equality is advanced, while misremembering, downplaying, or neglecting domains where inequality persists. This biased processing critically reduces individuals' perceived seriousness of gender inequality as a whole, leading to lower motivation to take action to promote gender equality (Latan et al., 2021). In sum, we propose that gender equality differentiation reduces the perceived seriousness of gender inequality and thereby inhibits actions to promote gender equality, resulting in the stalled progress toward overall gender equality.

The Present Research

To investigate these hypotheses, we conducted three complementary studies (i.e., two cross-country archival studies and one preregistered experiment). In Study 1, we used archival data from the Global Gender Gap Report, which includes 1,906 country-level observations from 158 countries spanning from 2006 to 2022, to examine whether a country's gender equality differentiation at the focal year is associated with lower overall gender equality in the next year.[2] This analysis enabled us to examine our hypotheses at the national level. Building on this country-level association, Study 2 tested our proposed mechanism: perceived seriousness of gender inequality. Study 2 combined the gender equality differentiation data from the Global Gender Gap Report with data from the World Values Survey (WVS), comprising 45,611 participants across multiple countries. This study tested whether people in countries with higher gender equality differentiation would be less likely to see the gender inequality issues as the most serious problem in their country. In Study 3, we conducted a preregistered experiment with 566 participants to examine the underlying mechanism of perceived seriousness of gender inequality between gender equality differentiation and action in support of gender equality at the individual level. Furthermore, in this study, gender equality differentiation was experimentally manipulated, rather than computed using archival data. Together, the mixed-method design enhances both external and internal validity for our central argument.

All data, code, and codebook necessary to reproduce the analysis are publicly available on the Open Science Framework (https://osf.io/zy65x/).

Study 1. The Relationship between Gender Equality Differentiation and the Progress toward Gender Equality

Method

We obtained data from the Global Gender Gap Report released by the World Economic Forum to compute gender equality differentiation, which has been widely used to assess the level of gender equality across countries in the extant literature (Falk & Hermle, 2018; Vishkin, 2022; Vlasceanu & Amodio, 2022). This report provides the Global Gender Gap Index (GGGI), which comprises an overall gender gap index and four gender gap subindexes across the following dimensions: (a) economic participation and opportunity, (b) educational attainment, (c) health and survival, and (d) political empowerment. For each dimension, the gender gap subindex score ranges from 0 to 1. A higher score indicates a greater level of gender equality in this dimension. The overall gender gap index score is the average of these four subindexes (for details, see SI Appendix Supplemental Text for Study 1).

We measured overall gender equality using the overall gender gap index. Following previous practices of modeling dispersion (Roberson et al., 2007; Roberson & Williamson, 2012), we calculated gender equality differentiation as the sample standard deviation of the four subindexes of GGGI,[3] applying Bessel's correction (i.e., denominator $N-1$; see Equation 1):

$$\text{Gender Equality Differentiation} = \sqrt{\frac{\sum_{i=1}^{4}\left(\text{subindex}_i - \text{overall gender gap index}\right)^2}{3}} \quad (1)$$

where subindex_i represents the gender gap index score of dimension i, i from 1 to 4, where 1 refers to the economic participation and opportunity dimension, 2 refers to the educational attainment dimension, 3 refers to the health and survival dimension, and 4 refers to the political empowerment dimension.[4]

As an illustrative example, Figures 1A and 1B displayed country-level gender equality differentiation and overall gender equality across years, respectively. It is evident that countries with higher levels of gender equality differentiation, represented by the red-colored countries in Figure 1A, tend to exhibit lower overall gender equality, represented by the blue-colored countries in Figure 1B. These figures could serve as prima facie evidence, supporting our hypothesis that a negative association exists between gender equality differentiation and overall gender equality.

Additionally, we controlled for a set of variables, including GDP per capita (in natural logarithm), population age and unemployment rate from World Development Indicators (2023b), gender imbalance in population from Gender Data Portal (2023a), political stability from World Governance Indicators (2023c), overall gender equality at the focal year, and the year and country fixed effects (see SI Appendix Table S1 for details on the definition and measurements of all the focal variables). Specifically, we controlled for GDP per capita, as it serves as an indicator of a country's level of economic development, which has been closely associated with gender equality (Herlitz et al., 2025; Jayachandran, 2015). We also accounted for key demographic characteristics, such as gender imbalance and population age, since they shape fundamental social structures that contribute to cross-national variation in gender equality (Cimpian et al., 2020; Falk & Hermle, 2018; Qin et al., 2023). In addition, we included the unemployment rate to capture labor market conditions, which may differentially affect economic opportunities for men and women (Bettio et al., 2013; Fa'oš & Bohdalová, 2019). Finally, we controlled for political stability, since it influences the broader institutional and social environment, which can foster favorable conditions for reforms and investments that disproportionately benefit women (Asongu et al., 2020).

We reported focal variables' descriptive statistics (SI Appendix Table S2) and correlations (SI Appendix Table S3).

Results

To aid interpretation, we first constructed a scatter plot with a fitted regression line. As shown in Figure 2, gender equality differentiation in year t was negatively associated with overall gender equality in the same year ($b = -.685$, 95% CI [−0.759, −0.611], *Robust SE* = 0.037, $p < .001$; see SI Appendix Table S4 for detailed regression results). Similarly, Figure 3 displays the relationship between gender equality differentiation in year $t-1$ and overall gender equality in year t, again revealing a significant negative association ($b = -.690$, 95% CI [−0.773, −0.607], *Robust SE* = 0.042, $p < .001$; see SI Appendix Table S5 for detailed regression results). In our main analysis, we used ordinary least squares (OLS) regression with standard errors clustered at the country level to examine the effects of gender equality

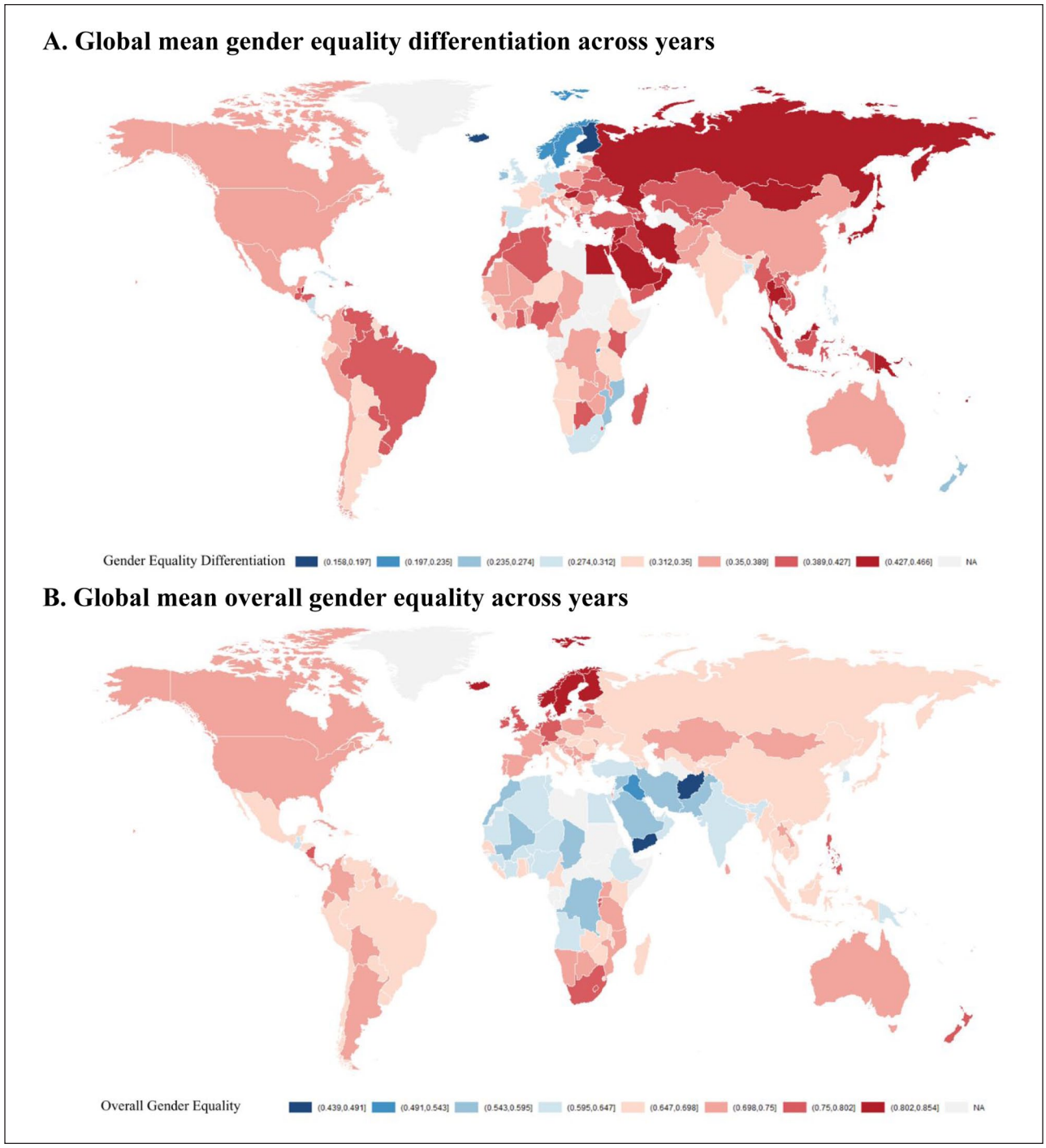

Figure 1. Global patterns of mean gender equality differentiation and mean overall gender equality across countries. (A) World map visualizing country-level mean gender equality differentiation across four dimensions, averaged across all available years. (B) World map visualizing country-level mean overall gender equality, averaged across all available years.

differentiation on overall gender equality. To explore any potential causal relationship, we employed a lead-lag design in the regression model—that is, using the gender equality differentiation at the focal year (year $t-1$) to explain the overall gender equality in the next year (year t).

Our analysis comprised four sequential steps (Table 1). First, we examined the linear relationship between gender equality differentiation and overall gender equality without any control variables (Model 1). This baseline model helps mitigate concerns about overusing control variables. The results showed

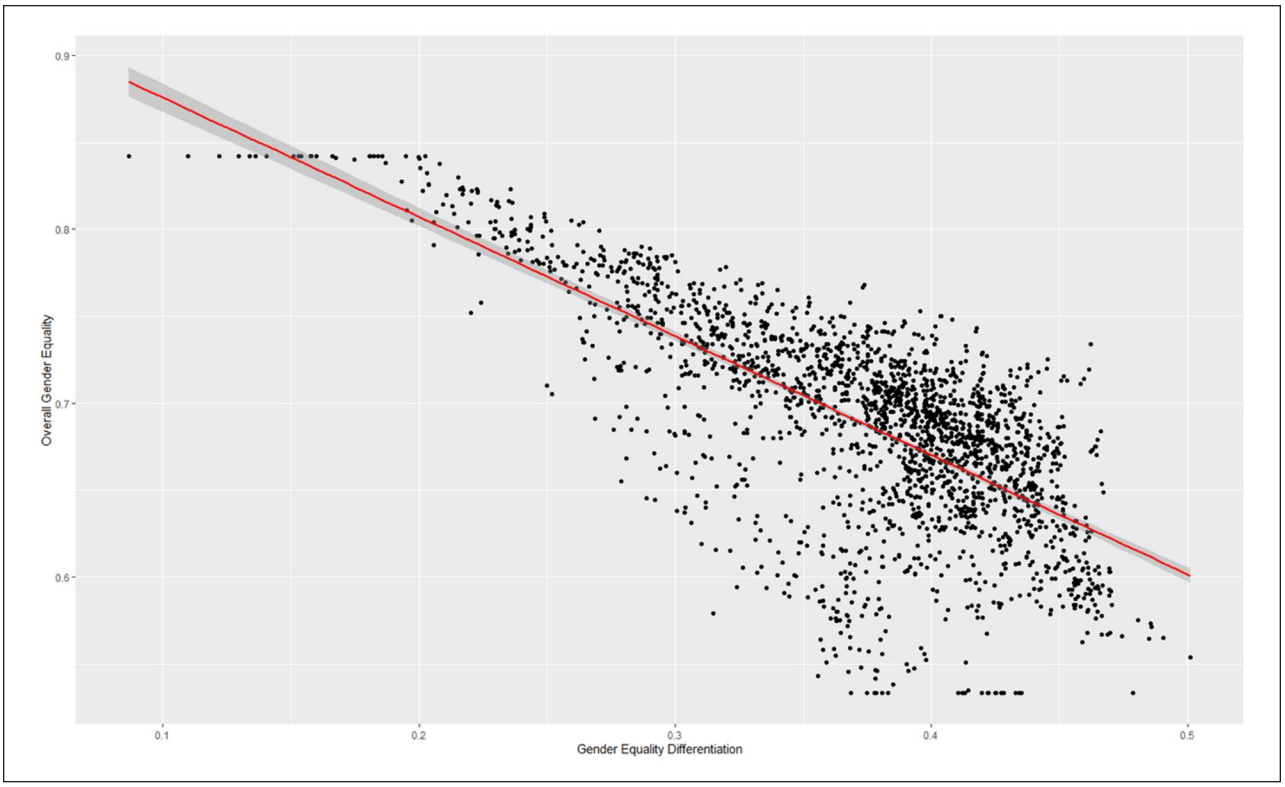

Figure 2. The relationship between gender equality differentiation (in year *t*) and overall gender equality (in year *t*). Shaded areas indicate 95% confidence intervals.

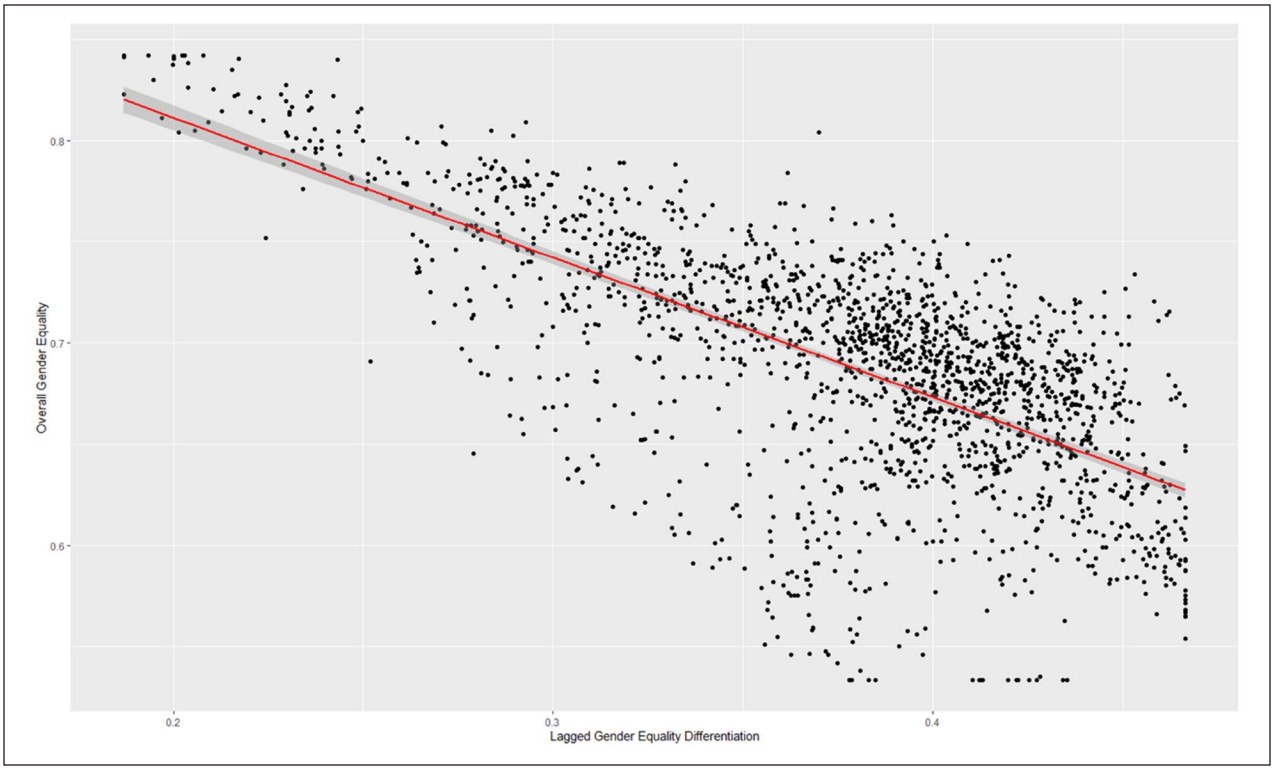

Figure 3. The relationship between gender equality differentiation (year $t-1$) and overall gender equality (year *t*). Shaded areas indicate 95% confidence intervals.

Table 1. Regression Estimates of Gender Equality Differentiation on Overall Gender Equality in Study 1.

	Overall gender equality$_t$			
Variables	Model 1	Model 2	Model 3	Model 4
Gender equality differentiation$_{t-1}$	−.690***	−.413***	−.425***	−.080**
	(.042)	(.036)	(.035)	(.027)
GDP per capita (log)$_{t-1}$			.001	.000
			(.004)	(.002)
Gender imbalance in population$_{t-1}$			−.123*	−.056*
			(.055)	(.022)
Population age$_{t-1}$			.216***	.071*
			(.058)	(.035)
Unemployment rate$_{t-1}$			−.025	−.018
			(.033)	(.021)
Political stability$_{t-1}$			−.002	−.000
			(.003)	(.001)
Overall gender equality$_{t-1}$				.629***
				(.040)
Constant	.949***	.845***	.708***	.243***
	(.016)	(.014)	(.045)	(.033)
Year fixed effects	No	Yes	Yes	Yes
Country fixed effects	No	Yes	Yes	Yes
Observations	1,906	1,902	1,767	1,767
R^2	.469	.950	.949	.963

Note. Clustered robust standard errors in parentheses. *$p < .05$; **$p < .01$; ***$p < .001$.

that the raw association between gender equality differentiation in the focal year and overall gender equality in the next year was significantly negative ($b = -.690$, 95% CI [−0.773, −0.607], *Robust SE* = 0.042, $p < .001$).

Second, we then included year and country fixed effects in the analysis (Model 2). Year fixed effects help to control cross-sectional differences (e.g., differences in the global economy between years), and country fixed effects help to control time-invariant differences across countries (e.g., differences in natural endowments across countries). Both fixed effects are particularly useful in ruling out potential confounding factors in cross-country studies (Enke, 2023; Falk & Hermle, 2018). Third, as mentioned above, to further isolate potential confounding factors, we included a series of control variables guided by prior multi-nation studies (Model 3): GDP per capita (in natural logarithm)$_{t-1}$, gender imbalance in population$_{t-1}$, population age$_{t-1}$, unemployment rate$_{t-1}$, and political stability$_{t-1}$. These variables hold other potential determinants of gender inequality constant to isolate the ceteris paribus effect of gender equality differentiation. Fourth, to address potential endogeneity issues, especially omitted correlated variables and reverse causality, we incorporated the lagged dependent variable (i.e., overall gender equality$_{t-1}$) into our analysis (Model 4). The underlying logic is that the lagged dependent variable absorbs the effects of reverse causality and omitted correlated variables, assuming they remain relatively stable. As demonstrated in the most conservative model (Model 4), the relationship between gender equality differentiation in the focal year and overall gender equality in the next year remained significantly negative ($b = -.080$, 95% CI [−0.134, −0.026], *Robust SE* = 0.027, $p = .004$).[5]

Robustness Checks. To provide further support for our findings, we conducted a comprehensive set of robustness checks. First, we tested the robustness of our findings using four alternative operationalizations of gender equality differentiation: (a) dividing the standard deviation of four dimensions by overall gender equality (i.e., coefficient of variation), which directly holds the level of concurrent overall gender equality for constant ($b = -.268$, 95% CI [−0.299, −0.237], *Robust SE* = 0.016, $p < .001$; Model 1 in Table 2);[6] (b) calculating the difference between the maximum and the minimum among the four dimensions (i.e., range) to depict the disparity among different dimensions ($b = -.039$, 95% CI [−0.065, −0.014], *Robust SE* = 0.013, $p = .003$; Model 2 in Table 2); (c) excluding health and survival subindex when calculating the gender equality differentiation[7] ($b = -.054$, 95% CI [−0.092, −0.016], *Robust SE* = 0.019, $p = .006$; Model 3 in Table 2); and (d) excluding educational attainment dimension when calculating the gender equality differentiation ($b = -.060$, 95% CI [−0.104, −0.016], *Robust SE* = 0.022, $p = .008$; Model 4 in Table 2). The results were consistent by using these four alternative measurements (for detailed results, see SI Appendix Tables S6–S9).

In sum, Study 1 reveals a negative relationship between gender equality differentiation and overall gender equality a year later. However, country-level data could not explain the

Table 2. Summary of Regression Estimates of Four Alternative Measures of Gender Equality Differentiation on Overall Gender Equality in Study 1.

	Overall gender equality$_t$			
Variables	Model 1 (Alternative measure 1)	Model 2 (Alternative measure 2)	Model 3 (Alternative measure 3)	Model 4 (Alternative measure 4)
Alternative measures of gender equality differentiation$_{t-1}$	−.268***	−.039**	−.054**	−.060**
	(.016)	(.013)	(.019)	(.022)
GDP per capita (log)$_{t-1}$	.001	−.000	.000	−.000
	(.004)	(.002)	(.002)	(.002)
Gender imbalance in population$_{t-1}$	−.098*	−.054*	−.056*	−.053*
	(.042)	(.021)	(.022)	(.020)
Population age$_{t-1}$	.149**	.066^{+}	.070*	.064+
	(.047)	(.034)	(.035)	(.034)
Unemployment rate$_{t-1}$	−.021	−.018	−.018	−.018
	(.028)	(.021)	(.020)	(.021)
Political stability$_{t-1}$	−.001	−.000	−.000	−.000
	(.002)	(.001)	(.001)	(.001)
Overall gender equality$_{t-1}$		.623***	.657***	.646***
		(.041)	(.035)	(.038)
Constant	.735***	.255***	.216***	.233***
	(.036)	(.036)	(.029)	(.033)
Year fixed effects	Yes	Yes	Yes	Yes
Country fixed effects	Yes	Yes	Yes	Yes
Observations	1,767	1,767	1,767	1,767
R^2	.956	.963	.963	.963

Note. Clustered robust standard errors in parentheses. $^{+}p < .1$; $^{*}p < .05$; $^{**}p < .01$; $^{***}p < .001$. In robustness checks, alternative measures of gender equality differentiation (alternative measure 1–4) are defined as follows: (1) coefficient of variation of the four GGGI subindexes; (2) range of the four GGGI subindexes; (3) standard deviation of three GGGI subindexes (excluding health and survival); (4) standard deviation of three GGGI subindexes (excluding educational attainment).

underlying mechanism of this effect, and country-level effects might not translate to the individual level. We address these issues in Study 2.

Study 2. The Relationship between Gender Equality Differentiation and Perceived Seriousness of Gender Inequality

Method

Study 2 tested the relationship between gender equality differentiation and perceived seriousness of gender inequality. We measured gender equality differentiation using the same method as Study 1. To measure perceived seriousness of gender inequality, we employed data from the WVS collected between 2005 and 2009 (Inglehart et al., 2018),[8] which provided a nationally representative sample across 46 countries. In this survey, participants were asked to answer a question regarding the perceived seriousness of societal issues in their own country: "Which of these problems do you consider the most serious one in your own country?" They were provided with five options: (a) gender inequality, (b) poverty, (c) diseases, (d) education, or (e) pollution. They were asked to select two issues from the list, indicating their first and second choices. Since the first choice likely represented the most serious issue, we used it to measure the perceived seriousness of gender inequality. Specifically, we created a dummy variable, which was coded as 1 if participants chose gender inequality as the first choice and 0 if participants chose all other problems as the first choice (for details, see SI Appendix Supplemental Text for Study 2). We controlled for the same country-level variables as those included in Study 1. In addition, we controlled for a set of individual-level variables available from the WVS: gender, age, and education. We reported descriptive statistics and correlation coefficients of variables of interest in SI Appendix Tables S24 and S25, respectively.

Results

We used multilevel logistic regression models to analyze our data because individuals are nested within countries. Results are reported in Table 3. Model 1 is a baseline analysis of the

Table 3. Regression Estimates of Gender Equality Differentiation on Perceived Seriousness of Gender Issues in Study 2.

	Perceived seriousness of gender inequality$_t$				
Variables	Model 1	Model 2	Model 3	Model 4	Model 5
Gender equality differentiation$_t$	−7.730***	−5.733**	−5.966**	−4.975*	−9.436***
	(2.027)	(2.030)	(2.060)	(2.301)	(2.768)
Gender$_t$			−.200**	−.200**	−.200**
			(.063)	(.063)	(.063)
Age$_t$			−.005**	−.005**	−.005**
			(.002)	(.002)	(.002)
Education$_t$			−.078$^+$	−.078$^+$	−.079$^+$
			(.040)	(.040)	(.040)
GDP per capita (log)$_t$				.201	.263$^+$
				(.172)	(.154)
Gender imbalance in population$_t$				1.557	−.739
				(2.029)	(2.024)
Population age$_t$				−5.755$^+$	−3.770
				(3.250)	(3.220)
Unemployment rate$_t$				−6.019*	−7.254**
				(2.861)	(2.768)
Political stability$_t$				−.249	−.224
				(.237)	(.222)
Overall gender equality$_t$					−7.204*
					(3.623)
Constant	.268	−1.742	−1.273	1.538	6.307*
	(.741)	(1.068)	(1.090)	(1.343)	(2.451)
Year fixed effects	No	Yes	Yes	Yes	Yes
Observations	45,611	45,611	45,584	45,584	45,584

Note. Robust standard errors in parentheses. $^+p < .1$; $^*p < .05$; $^{**}p < .01$; $^{***}p < .001$.

relationship between gender equality differentiation and perceived seriousness of gender inequality, with intercepts varying randomly across countries. Results showed that gender equality differentiation was negatively associated with perceived seriousness of gender inequality ($b = -7.730$, 95% CI [−11.704, −3.757], *Robust SE* = 2.027, $p < .001$). Subsequent models found that after controlling for year fixed effects (Model 2), a set of individual-level variables including gender, age, and education (Model 3), several country-level variables as in Study 1 (i.e., GDP per capita (log), gender imbalance in population, population age, unemployment rate, and political stability; Model 4), the results remained negative and significant. To further rule out the possibility that overall gender equality development in a country influences people's perceptions of gender equality, we controlled for the overall gender equality level in Model 5. The relationship between gender equality differentiation and perceived seriousness of gender inequality remained robust and statistically significant ($b = -9.436$, 95% CI [−14.862, −4.010], *Robust SE* = 2.768, $p < .001$; Model 5). These findings suggest that gender equality differentiation has a unique predictive validity, above and beyond overall gender equality, on perceived seriousness of gender inequality. In sum, we found that people who resided in countries with greater levels of gender equality differentiation were less likely to perceive gender inequality as a serious issue.

Robustness checks. To ensure the robustness of our main findings, we conducted a set of additional tests. First, we conducted our analysis using alternative operationalizations of the perceived seriousness of gender inequality. Specifically, we constructed a continuous variable, which was coded as 2 if gender inequality was the first choice, 1 if gender inequality was the second choice, and 0 in all other instances. Results remained consistent ($b = -2.200$, 95% CI [−3.613, −0.787], *Robust SE* = 0.721, $p = .002$; SI Appendix Table S26). Second, we examined whether there was any association between gender equality differentiation and perceived seriousness of other societal issues (i.e., poverty, diseases, education, and pollution). Consistent with our theorizing, none of these effects were statistically significant (Models 1–4 in Table 4; see SI Appendix Tables S27–S30 for detailed results). This strengthens the claim that the effect of gender equality differentiation is not a general tendency to downplay social problems, but rather a phenomenon specific to gender inequality.

Third, we conducted an additional robustness check by further controlling for Hofstede's six cultural dimensions (power distance, individualism, masculinity, uncertainty avoidance, long-term orientation, and indulgence; Hofstede et al., 2010) as country-level covariates, to account for potential cultural value influences on perceptions of gender inequality. The results show that the negative effect of

Table 4. Summary of Regression Estimates of the Link Between Gender Equality Differentiation and Perceived Seriousness of Other Societal Issues in Study 2.

	Perceived seriousness of poverty$_t$	Perceived seriousness of disease$_t$	Perceived seriousness of education$_t$	Perceived seriousness of pollution$_t$
Variables	Model 1	Model 2	Model 3	Model 4
Gender equality differentiation$_t$	5.804$^+$	.941	−1.001	−2.652
	(3.226)	(3.834)	(5.278)	(2.520)
Gender$_t$	.014	−.089*	.130***	.056
	(.028)	(.037)	(.033)	(.046)
Age$_t$	.004***	.000	−.004***	−.001
	(.001)	(.001)	(.001)	(.001)
Education$_t$	−.127***	−.040	.234***	.130*
	(.036)	(.054)	(.040)	(.061)
GDP per capita (log)$_t$	−.271*	−.209	.225	.153
	(.122)	(.177)	(.304)	(.097)
Gender imbalance in population$_t$	−2.521	.341	3.655	2.786
	(3.314)	(3.096)	(4.883)	(3.986)
Population age$_t$	2.261	1.186	−3.808	4.388*
	(2.779)	(2.686)	(4.638)	(2.231)
Unemployment rate$_t$	9.272**	−1.379	−5.271	−9.258***
	(3.247)	(3.953)	(4.154)	(2.589)
Political stability$_t$	−.052	.146	.052	.375**
	(.190)	(.246)	(.412)	(.128)
Overall gender equality$_t$	3.045	−2.923	−7.502	3.386
	(3.761)	(4.395)	(6.201)	(3.149)
Constant	−4.067$^+$	.383	4.217	−6.617**
	(2.339)	(2.660)	(4.692)	(2.172)
Year fixed effects	Yes	Yes	Yes	Yes
Observations	45,584	45,584	45,584	45,584

Note. Robust standard errors in parentheses. $^+p < .10$, $*p < .05$, $**p < .01$, $***p < .001$.

gender equality differentiation on perceived seriousness of gender inequality remains significant after controlling for the cultural values ($b = -25.738$, 95% CI [−35.997, −15.480], *Robust SE* = 5.234, $p < .001$; SI Appendix Table S31). These results indicate that gender equality differentiation predicts perceived seriousness of gender inequality independently of cultural values.

Study 3. Perceived Seriousness of Gender Inequality Mediates the Effect of Gender Equality Differentiation on Action in Support of Gender Equality

Method

Studies 1 and 2 have provided cross-national evidence in support of our hypotheses. In Study 3, we conducted a preregistered experiment to test whether gender equality differentiation would decrease individuals' action in support of gender equality, as well as explore the underlying mechanism of perceived seriousness of gender inequality. Our preregistration (https://aspredicted.org/zyzg-53jy.pdf) included the study design, planned sample size, inclusion/exclusion criteria, and planned primary analyses.

Participants. We used G*Power to calculate the sample size needed for a small-to-medium-sized effect ($d = 0.25$) in a between-subjects design with two conditions. The analysis indicated that 506 participants were needed for the study to have 80% power. To ensure an adequate sample after applying quality-control exclusions, we initially recruited 653 American adults in June 2024 through CloudResearch to participate in a preregistered experiment in exchange for $1.0. In line with our preregistration, we excluded participants who failed two attention check questions or did not pay sufficient attention to our tasks (e.g., providing random or nonsensical responses such as N/A in the questionnaire). Following these exclusions, we were left with a sample of 566 participants (56.7% women; $Mean_{age} = 37.0$ years old; $Mean_{education} = 15.8$ years).[9] Among them, 65.9% are White, 11.8% are Black, 10.6% are Asian, 5.8% are Hispanic, and 5.9% are multiple ethnicities or other.

Procedure. Participants were randomly assigned to either the high gender equality differentiation condition ($n = 291$) or the low differentiation condition ($n = 275$). To manipulate gender equality differentiation, we adapted the table and accompanying texts from the Global Gender Gap Report (2022), simplifying them to highlight only the core message and using plain language to minimize confusion. Participants were instructed to imagine themselves as residents of a hypothetical country (referred to as Country X), and to read detailed descriptions of the gender equality situation within Country X. The overall gender equality index of Country X was consistent across both experimental conditions (i.e., 0.6 across both conditions), while the subindexes of this country were different across both conditions (coded: low gender equality differentiation = 0, high gender equality differentiation = 1). In the high differentiation condition, there were noticeable variances among the four subindexes. Conversely, in the low differentiation condition, all subindexes displayed identical scores. To ensure participants engaged with the material, the stimulus page was displayed for a minimum of 90 s before participants could proceed (see SI Appendix, Supplemental Text for Study 3 for further details).

Measures. Perceived Seriousness of Gender Inequality. After reading the manipulation material about Country X's gender equality situation, participants were asked to answer an open-ended question: "Please describe what your life would be like in Country X." This question was designed to gauge participants' perceived seriousness of gender inequality. Following prior research (e.g., Hennes et al., 2016; Ledgerwood et al., 2011), we measured perceived seriousness of gender inequality by coding their answers. We used this measurement to avoid or mitigate social desirability and to mask the purpose of the study. Two research assistants who were blind to our research hypothesis independently rated the extent of gender equality in participants' descriptions. Specifically, if participants described their life regarding gender equality as bad, not good, or worse than average, the perceived seriousness of gender inequality was coded as 1. If participants described their life regarding gender equality as moderate, neither good nor bad, or average, the perceived seriousness of gender inequality was coded as 0. If participants described their life regarding gender equality as good or better than average, the perceived seriousness of gender inequality was coded as −1. If no relevant information regarding gender equality was provided, the response was coded as missing values. The ratings from the two research assistants were highly correlated ($r = .815$, $p < .001$). We averaged the two research assistants' ratings to measure participants' perceived seriousness of gender inequality, and the final valid sample consisted 535 participants.

Subsequently, we measured participants' action in support of gender equality in the following ways: (a) the total number of ideas in a gender equality initiative task (Leslie et al., 2023), (b) the total word count of ideas in the gender equality initiative task (Leslie et al., 2023), (c) preference for men in a hiring task (Monin & Miller, 2001), and (d) self-report collective action toward gender equality (Liss et al., 2004). Finally, participants were asked to answer questions on manipulation checks and report their demographics. We reported focal variables' descriptive statistics (SI Appendix Table S32) and correlations (SI Appendix Table S33).

Gender Equality Initiative Task. We adapted the diversity effort task from Leslie et al. (2023) to the gender equality context and created two behavioral measures to assess participants' action in support of gender equality. In this task, participants were informed that the leaders of Country X were seeking input from all citizens regarding how to design the gender equality initiative. Participants were asked to generate as many distinct ideas for the gender equality initiative (up to 10 blanks to fill in). We assessed action in support of gender equality in two ways: (a) *the number of ideas*, and (b) *the total word count of ideas* in this gender equality initiative task. For the number of ideas, two research assistants who were blind to our research hypotheses independently coded the participants' ideas. Ideas relevant to gender equality (e.g., leadership programs for women) were coded as 1, while irrelevant ideas (e.g., housing) were coded as 0. The total number of relevant ideas was then summed for each research assistant. The ratings from the two research assistants were highly correlated ($r = .972$, $p < .001$), and we averaged these two coders' ratings to obtain a measure of support for gender equality. For the total word count of ideas, we calculated the total word count of relevant ideas.

Preference for Men in a Hiring Task. We adapted the hiring task from Monin and Miller (2001) to create an alternative behavioral measure to assess action in support of gender equality. In this task, participants were presented with a scenario in which they imagined themselves as the manager of a cement manufacturing company. This scenario reflected a stereotypically male-dominated job environment, thereby leading participants to perceive men as more suitable for the role. Participants were then asked to answer the question: "Do you feel that this job is better suited for one gender rather than the other?" using a scale from −3 ("*yes, much better for women*") to 3 ("*yes, much better for men*"). A lower score indicated that the participant was challenging gender stereotypes and taking action in support of gender equality.

Collective Action Toward Gender Equality. We used a seven-item scale adapted from Liss et al. (2004) to measure action in support of gender equality. We used a seven-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*) to rate this scale. A sample item was "I want to participate in a rally or movement for women's rights in Country X." ($\alpha = .953$).

Manipulation Check. We used a three-item scale to assess whether the manipulation of gender equality differentiation

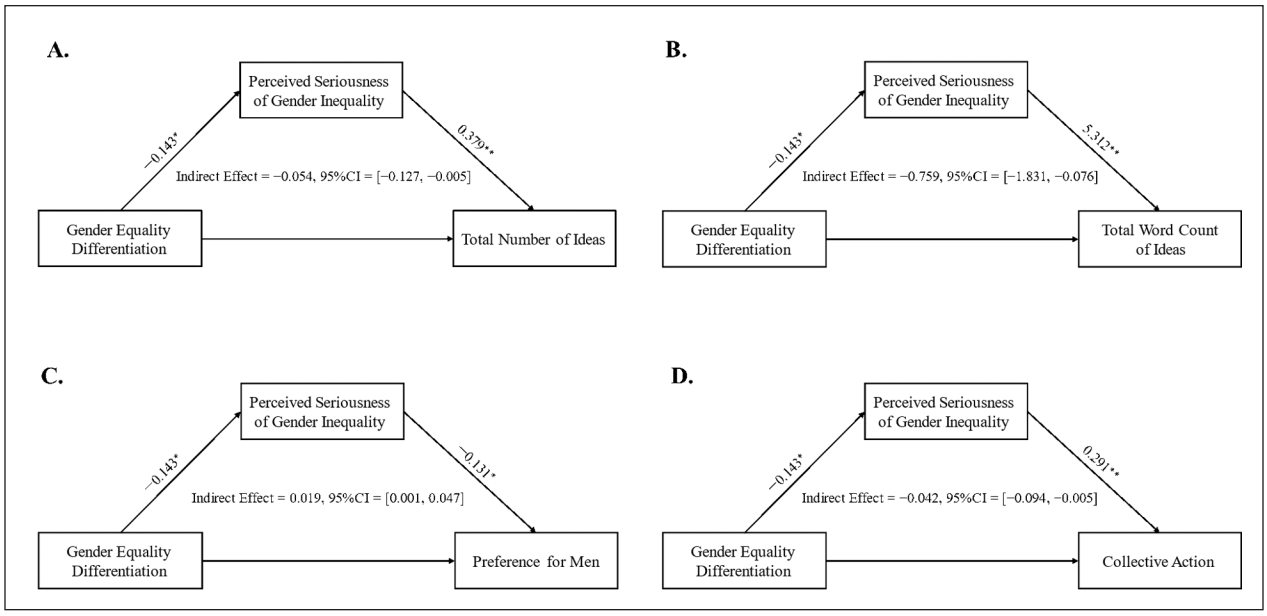

Figure 4. The mediating effects of perceived seriousness of gender inequality in Study 3. Panels A, B, C, and D show estimates from 20,000-sample bootstrapped mediation models. These models examine the indirect effect of gender equality differentiation on action in support of gender equality via the perceived seriousness of gender inequality. The measurements of action in support of gender equality are as follows: (A) Total number of ideas in a gender equality initiative task. (B) Total word count of ideas in the gender equality initiative task. (C) Preference for men in a hiring task. (D) Collective action toward gender equality.

was successful. A sample item was "The gender equality score in four dimensions is . . . in Country X," rated from 1 (*totally different*) to 6 (*totally same*). The three items were reverse-coded so that higher values represent greater perceived differentiation. The scale demonstrated high reliability ($\alpha = .917$).

Results

First, we tested whether the manipulation was successful. Results show that participants in the high gender equality differentiation condition rated gender gap in the four dimensions as more unbalanced ($M = 4.254$, $SD = 1.077$) than those in the low gender equality differentiation condition ($M = 3.208$, $SD = 1.375$; $t(564) = 10.102$, $p < .001$, Cohen's $d = 0.850$), indicating the gender equality differentiation manipulation was successful.

Next, we conducted OLS to test the main effects. Specifically, we examined whether gender equality differentiation influenced participants' action in support of gender equality across four outcome measures. Results showed that the main effects of gender equality differentiation on total number of ideas ($b = -.038$, 95% CI [−0.380, 0.303], $SE = 0.174$, $p = .825$), total word count of ideas ($b = -.248$, 95% CI [−5.258, 4.762], $SE = 2.551$, $p = .923$), preference for men ($b = .105$, 95% CI [−0.058, 0.267], $SE = 0.083$, $p = .206$) and collective action ($b = .017$, 95% CI [−0.253, 0.287], $SE = 0.137$, $p = .902$) were not significant.

We then tested the indirect effect of gender equality differentiation on action in support of gender equality through the perceived seriousness of gender inequality. As we predicted, gender equality differentiation was negatively related to participants' perceived seriousness of gender inequality ($b = -.143$, 95% CI [−0.259, −0.027], $SE = 0.059$, $p = .016$). We also found that the perceived seriousness of gender inequality was positively related to participants' subsequent action in support of gender equality. Specifically, perceived seriousness of gender inequality was positively related to the total number of ideas ($b = .379$, 95% CI [0.120, 0.639], $SE = 0.132$, $p = .004$; SI Appendix Table S34) and the total word count of ideas ($b = 5.312$, 95% CI [1.489, 9.135], $SE = 1.946$, $p = .007$; SI Appendix Table S35) in the gender equality initiative task, negatively related to preference for men in the hiring task ($b = -.131$, 95% CI [−0.251, −0.012], $SE = 0.061$, $p = .031$; SI Appendix Table S36), and positively related to collective action toward gender equality ($b = .291$, 95% CI [0.090, 0.492], $SE = 0.102$, $p = .005$; SI Appendix Table S37).

Furthermore, the mediation model yielded significant results for all four dependent variables (summarized in Figure 4): total number of ideas (estimate = −0.054, *BootSE* = 0.031, 95% CI [−0.127, −0.005]), total word count of ideas (estimate = −0.759, *BootSE* = 0.455, 95% CI [−1.831, −0.076]), preference for men in the hiring task (estimate = 0.019, *BootSE* = 0.012, 95% CI [0.001, 0.047]), and collective action (estimate = −0.042, *BootSE* = 0.023, 95% CI [−0.094, −0.005]). Overall, these results

support our hypothesis that perceived seriousness of gender inequality mediates the relationship between gender equality differentiation and action in support of gender equality.

General Discussion

Persistent gender inequality remains one of the most profound and complex issues of our time, and yet, progress toward gender equality is slow. In this research, we adopt a new perspective to explore this stalled progress toward gender equality. Across two cross-country archival studies and one preregistered experiment, we found that gender equality differentiation limited the development of gender equality in nations and further identified the underlying mechanism—perceived seriousness of gender inequality. Specifically, the cross-country analysis indicated that countries with higher gender equality differentiation at the focal year are more likely to have a lower level of gender equality in the next year (Study 1). Furthermore, we found that such gender equality differentiation would decrease people's perceived seriousness of gender inequality in their own country (Study 2). In our preregistered experiment (Study 3), at the individual level, we further found that when exposed to gender equality differentiation information while holding overall gender equality constant, people would perceive the gender inequality issues as less serious and, in turn, less likely to engage in action in support of gender equality.

Our research offers new insights into the persistent existence of gender inequality issues by identifying the role of gender equality differentiation. In contrast to previous studies that focused on overall gender equality or specific dimensions of gender equality (Joshi et al., 2015; Leslie et al., 2023; Yeganeh, 2022), our research focuses on the configuration of the four dimensions of gender equality (i.e., standard deviation) and highlights that gender equality differentiation is one of the critical factors hindering progress toward gender equality. Furthermore, we examine the psychological processes that individuals undergo when exposed to the gender equality differentiation situation. Drawing upon system justification theory, we found that gender equality differentiation provides individuals with space to justify and rationalize the current status quo. Consequently, this justification leads to a lower perceived seriousness of gender inequality, resulting in reduced efforts toward promoting gender equality. These findings reveal a "differentiation inertia" and partially explain the persistent difficulty in eradicating gender inequality over the years.

Our research also provides important practical implications. There has been an ongoing debate on whether governments should promote gender equality across all dimensions in a balanced manner or prioritize specific dimensions, given that resources are limited. Many countries have adopted concentrated strategies to initiate and speed gender equality promotion activities in a specific dimension and have achieved a desired effect (Uematsu-Ervasti & Kawachi, 2022). However, our research suggests that concentrated strategies may result in higher gender equality differentiation and impede the overall progress toward gender equality. Thus, we recommend that governments carefully evaluate the potential benefits and drawbacks of both balanced development and concentrated development strategies when promoting gender equality. What is more, to motivate people to care about and take action to reduce gender inequality across all dimensions, we suggest that governments, nonprofit organizations, and media should be mindful of how they communicate information about the situation of gender inequality to the public. It may be more effective to draw attention to the more unequal dimension, rather than only focusing on the relatively equal dimension.

The present research has several key strengths, such as the use of different designs (two cross-national archival studies and one preregistered experiment), which enhance both internal and external validity of our findings. At the same time, our studies also have some limitations that future research could address. First, to broaden our research, we computed gender equality differentiation using the GGGI, one of the most comprehensive and widely used cross-national datasets on gender equality. However, this measure is constrained by its design: all subindexes are forced onto a 0 to 1 scale, which prevents the measure from capturing instances where women outperform men and imposes an artificial equivalence across distinct domains (Marsh et al., 2021). While this limitation is inherent to the indicators, it likely makes our findings more conservative rather than inflated. That is, if gender equality differentiation merely reflected measurement noise or scaling artifacts, its association with overall gender equality would be attenuated rather than consistently significant across specifications (for detailed discussion, see SI Appendix Supplemental Text for Study 1).

That said, to partially address this methodological concern, we employed an alternative measure derived from the Welzel Equality Sub-Index in the WVS, which captures individual-level subjective attitudes toward gender equality in jobs, education, and politics (Welzel, 2013). As this measure is based on survey data and is not bounded by forced scaling, it offers a conceptually relevant and distinct operationalization of both gender equality differentiation and overall gender equality. Robustness checks using this alternative measure indicated that the negative effect of gender equality differentiation on overall gender equality remained significant, thereby reinforcing the validity of our findings (SI Appendix, Tables S21–S23). More broadly, the operationalizations of gender equality differentiation may inevitably simplify the complex nature of gender equality and mask important heterogeneity in how gender equality is achieved and experienced. In essence, we are trading empirical precision with breadth, which is often unavoidable when working with large-scale archival data in the social sciences (Heng

et al., 2018; Shultz et al., 2005; Small, 2011). Future research could move beyond aggregate indices by working directly with the raw indicators underlying gender equality measures or by developing country-specific indices that capture the unique configurations of gender equality across different domains. Such approaches would provide more nuanced and comprehensive insights into gender equality differentiation and its consequences.

Second, a related concern is that the average person may lack precise knowledge of their country's gender equality performance across different domains. We argue, however, that individuals can form an intuitive sense of gender equality differentiation through everyday observations and exposure to public discourse. For example, one might notice a high proportion of women in universities (suggesting educational equality) while simultaneously observing their underrepresentation in corporate leadership or politics (suggesting economic and political inequality). Beyond personal observation, salient cues also arise from media reports and policy debates, which frequently highlight progress in some domains alongside stagnation in others. Moreover, due to the availability heuristic, people may not rely on objective data but instead draw on the most salient and accessible information, especially unique or vivid examples (Tversky & Kahneman, 1973). Individuals living in countries with high gender equality differentiation may thus become more attuned to certain domains of progress because those examples are more cognitively available. These cues can facilitate the perception of uneven progress even in the absence of formal data.

Empirically, we employed various operationalizations of gender equality differentiation to test our hypotheses. Whereas Studies 1 and 2 employed objective differentiation measures from the GGGI, Study 3 directly manipulated differentiation in an experimental context, offering an attitudinal operationalization that complements the archival approach. Furthermore, we introduced an alternative operationalization of gender equality differentiation using the Welzel Equality Sub-Index, which reflects cultural attitudes toward gender equality. Our GGGI-based measure of gender equality differentiation was significantly correlated with the measure developed by Welzel Equality Sub-Index ($r = .477$, $p < .001$), indicating that individuals' perceptions of gender equality differentiation align closely with the objective national patterns captured by the GGGI. This alternative measurement further supports the ecological relevance of our construct. Nevertheless, future research could more directly examine how individuals form perceptions of gender equality differentiation and how such perceptions influence their subsequent judgments and behaviors.

Third, our research employed system justification theory primarily as a conceptual lens rather than providing a strong and direct test of the theory. While the convergence of evidence from both archival and experimental studies lends robust support to our hypotheses, a theoretical distance remains between the broader tenets of system justification theory and our specific application to gender equality differentiation. In adopting insights from biased information processing within the system justification framework, we focused on the perceived seriousness of gender inequality as the central mechanism in Studies 2 and 3. However, we did not directly measure how individuals use differentiation information to justify the existing gender equality status quo, which could provide deeper insight into the underlying psychological process. Thus, future research could incorporate direct measures of the system justification process and explore how these processes contribute to the persistence of gender inequality.

Finally, in Study 3, our experiment showed consistent indirect effects of perceived seriousness of gender inequality on the relationship between gender equality differentiation and four behavioral support outcomes. However, we did not find the main effects of gender equality differentiation on these outcomes. This suggests that gender equality differentiation influences action in support of gender equality by shaping perceptions rather than directly altering behavior. One possible explanation is that our manipulation was relatively brief and hypothetical. Participants were exposed to information about gender equality differentiation only for a short time, which may have been sufficient to shift individuals' perceptions of gender equality but not strong enough to produce immediate behavioral change. In real-world contexts, where exposure is stronger and more sustained, main effects on behavioral support are more likely to emerge, consistent with the country-level patterns observed in Study 1. Thus, we encourage future research to use more ecologically valid manipulations and longitudinal designs to examine how shifts in perceived seriousness of gender inequality accumulate over time and eventually influence support for gender equality at the individual level.

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Ethical Considerations

The study was approved by the Ethics Review Committee at the School of Business, Sun Yat-sen University.

Consent to Participate

Participants gave consent before enrolling in the experiment.

Consent for Publication

Not applicable.

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Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Data Availability Statement

Study data and code are publicly available on the Open Science Framework (https://osf.io/zy65x/).

Supplemental material

Supplemental material is available online with this article.

Notes

1. It is also important to note that recent research has raised concerns about the robustness and generalizability of the gender-equality paradox, showing that its patterns are often domain-specific, are weakened once socioeconomic factors are accounted for, and may partly reflect methodological or cultural artifacts (Berggren & Bergh, 2025; Herlitz et al., 2025; Ilmarinen & Lönnqvist, 2024; Marsh et al., 2021). Rather than attempting to resolve these debates, the present research directs attention to the configuration of gender equality across domains, which we term gender equality differentiation.
2. The Global Gender Gap Report was first released in 2006, and we excluded data from 2019 as no report was released during that year.
3. To mitigate the concern that the observed negative relationship between gender equality differentiation and overall gender equality might be mechanically driven by a correlation between the mean and the standard deviation, we conducted several robustness checks and a simulation analysis. First, the overall gender equality score ($M = 0.690$, $SD = 0.060$, range = 0.533–0.842) did not cluster near either extreme, suggesting that the negative association was not due to potential ceiling or floor effects. Second, we reconducted our analyses by excluding the sample most likely to exhibit a ceiling and/or floor effect (i.e., countries in the top or bottom 5%, or both, of the overall gender equality distribution), which yielded consistent results. Third, we tested whether the overall gender equality in the focal year (i.e., overall gender equality$_{t-1}$) moderates the relationship between gender equality differentiation in the focal year (i.e., gender equality differentiation$_{t-1}$) and overall gender equality in the next year (i.e., overall gender equality$_t$). Results showed that the moderating effect was not significant ($b = .158$, 95% CI [−0.308, 0.625], *Robust SE* = 0.236, $p = .503$), indicating that the effect of gender equality differentiation does not depend on countries' baseline equality levels. Furthermore, a simulation study (5,000 iterations) using random Uniform [0,1] data showed that the expected correlation between the mean and the standard deviation centered around zero ($M = -0.00001$, $SD = 0.027$, Min = −0.107, Max = 0.106), confirming that the observed relationship was not mechanically driven. For a detailed discussion and results, see SI Appendix Supplemental Text for Study 1, Tables S10–S13, and Figure S1.
4. To address the concerns that the four subindexes might be highly correlated and that such correlations might be stronger in countries with higher overall gender equality, thereby reducing gender equality differentiation, we conducted a series of analyses. First, pairwise correlations among the subindexes ranged from $r = .097$ to .312 (see SI Appendix, Table S14), indicating only low to moderate correlations. Second, we divided the sample into quintiles based on overall gender equality levels and calculated inter-subindex correlations within each quintile. The results showed no evidence that subindexes were more strongly aligned in countries with higher gender equality. For detailed results, see SI Appendix Supplemental Text for Study 1 and Tables S15 to S19.
5. We tested different combinations of control variables, including single controls, theoretically clustered groups of controls, and the full set with and without lagged dependent variables. Across all specifications, the coefficient of gender equality differentiation on overall gender equality remains consistently negative and significant, indicating that our findings are not driven by particular control variable choices (for detailed results, see SI Appendix Table S20).
6. Under this operationalization, we did not control for lagged overall gender equality, as the measure already accounts for overall gender equality.
7. Since the health and survival and educational attainment dimensions exhibit relatively high scores and low standard deviation, and following an anonymous reviewer's suggestions, we operationalized gender equality differentiation by excluding one of these dimensions at a time and reconducted the analyses as robustness checks.
8. This dataset consists of cross-sectional surveys conducted during the period from 2005 to 2009. Each country provided data for only one specific year within this time frame.
9. There is a slight discrepancy between the final sample size ($N = 566$) and the sample size specified in the preregistration ($N = 600$), as some participants were excluded based on the preregistered exclusion criteria. Importantly, the final sample size still exceeds the minimum of 506 participants suggested by our a priori power analysis, ensuring sufficient statistical power.

References

Asongu, S. A., Nnanna, J., & Acha-Anyi, P. N. (2020). Inequality and gender economic inclusion: The moderating role of financial access in Sub-Saharan Africa. *Economic Analysis and Policy*, *65*, 173–185. https://doi.org/10.1016/j.eap.2020.01.002

Balducci, M. (2023). Linking gender differences with gender equality: A systematic-narrative literature review of basic skills and personality. *Frontiers in Psychology*, *14*, 1105234. https://doi.org/10.3389/fpsyg.2023.1105234

Berggren, M., & Bergh, R. (2025). Simpson's gender-equality paradox. *Proceedings of the National Academy of Sciences*, *122*(23), e2422247122. https://doi.org/10.1073/pnas.2422247122

Bettio, F., Corsi, M., d'Ippoliti, C., Lyberaki, A., Lodovici, M. S., & Verashchagina, A. (2013). *The impact of the economic crisis on the situation of women and men and on gender equality policies*. European Union. https://data.europa.eu/doi/10.2838/53123

Cimpian, J. R., Kim, T. H., & McDermott, Z. T. (2020). Understanding persistent gender gaps in STEM. *Science*, *368*(6497), 1317–1319. https://doi.org/10.1126/science.aba7377

Costa, P. T., Terracciano, A., & McCrae, R. R. (2001). Gender differences in personality traits across cultures: Robust and surprising findings. *Journal of Personality and Social Psychology*, *81*(2), 322–331. https://doi.org/10.1037/0022-3514.81.2.322

Damann, T. J., Siow, J., & Tavits, M. (2023). Persistence of gender biases in Europe. *Proceedings of the National Academy of Sciences*, *120*(12), e2213266120. https://doi.org/10.1073/pnas.2213266120

Du, Y. Y. L., Wee, S., & Rounds, J. (2024). Gender differences in vocational interests across 57 countries: A test of the interest–gender-equality paradox. *Social Psychological and Personality Science*, *16*(1), 27–44. https://doi.org/10.1177/19485506241280321

Eibach, R. P., & Ehrlinger, J. (2006). "Keep your eyes on the prize": Reference points and racial differences in assessing progress toward equality. *Personality and Social Psychology Bulletin*, *32*(1), 66–77. https://doi.org/10.1177/0146167205279585

Enke, B. (2023). Market exposure and human morality. *Nature Human Behaviour*, *7*, 134–141. https://doi.org/10.1038/s41562-022-01480-x

Faďoš, M., & Bohdalová, M. (2019). Unemployment gender inequality: Evidence from the 27 European Union countries. *Eurasian Economic Review*, *9*(3), 349–371. https://doi.org/10.1007/s40822-018-0107-3

Falk, A., & Hermle, J. (2018). Relationship of gender differences in preferences to economic development and gender equality. *Science*, *362*(6412), eaas9899. https://doi.org/10.1126/science.aas9899

Haines, E. L., & Jost, J. T. (2000). Placating the powerless: Effects of legitimate and illegitimate explanation on affect, memory, and stereotyping. *Social Justice Research*, *13*(3), 219–236. https://doi.org/10.1023/A:1026481205719

Heng, Y. T., Wagner, D. T., Barnes, C. M., & Guarana, C. L. (2018). Archival research: Expanding the methodological toolkit in social psychology. *Journal of Experimental Social Psychology*, *78*, 14–22. https://doi.org/10.1016/j.jesp.2018.04.012

Hennes, E. P., Nam, H. H., Stern, C., & Jost, J. T. (2012). Not all ideologies are created equal: Epistemic, existential, and relational needs predict system-justifying attitudes. *Social Cognition*, *30*(6), 669–688. https://doi.org/10.1521/soco.2012.30.6.669

Hennes, E. P., Ruisch, B. C., Feygina, I., Monteiro, C. A., & Jost, J. T. (2016). Motivated recall in the service of the economic system: The case of anthropogenic climate change. *Journal of Experimental Psychology: General*, *145*(6), 755–771. https://doi.org/10.1037/xge0000148

Herlitz, A., Hönig, I., Hedebrant, K., & Asperholm, M. (2025). A systematic review and new analyses of the gender-equality paradox. *Perspectives on Psychological Science*, *20*(3), 503–539. https://doi.org/10.1177/17456916231202685

Hofstede, G., Hofstede, G. J., & Minkov, M. (2010). *Cultures and organizations: Software of the mind, third edition*. McGraw Hill Professional.

Ilmarinen, V.-J., & Lönnqvist, J.-E. (2024). Deconstructing the gender-equality paradox. *Journal of Personality and Social Psychology*, *127*(1), 217–237. https://doi.org/10.1037/pspp0000508

Inglehart, R., Haerpfer, C. W., Moreno, A., Welzel, C., Kizilova, K., Diez-Medrano, J., Lagos, M., Norris, P., Ponarin, E., & Puranen, B. (2018). *World Values Survey: Round five—Country-pooled datafile* (Version 20180912) [Dataset]. World Values Survey Association.

Jayachandran, S. (2015). The roots of gender inequality in developing countries. *Annual Review of Economics*, *7*(1), 63–88. https://doi.org/10.1146/annurev-economics-080614-115404

Joshi, A., Son, J., & Roh, H. (2015). When can women close the gap? A meta-analytic test of sex differences in performance and rewards. *Academy of Management Journal*, *58*(5), 1516–1545. https://doi.org/10.5465/amj.2013.0721

Jost, J. T. (2019). A quarter century of system justification theory: Questions, answers, criticisms, and societal applications. *British Journal of Social Psychology*, *58*(2), 263–314. https://doi.org/10.1111/bjso.12297

Jost, J. T. (2020). *A theory of system justification*. Harvard University Press.

Jost, J. T., & Banaji, M. R. (1994). The role of stereotyping in system-justification and the production of false consciousness. *British Journal of Social Psychology*, *33*(1), 1–27. https://doi.org/10.1111/j.2044-8309.1994.tb01008.x

Jost, J. T., Banaji, M. R., & Nosek, B. A. (2004). A decade of system justification theory: Accumulated evidence of conscious and unconscious bolstering of the status quo. *Political Psychology*, *25*(6), 881–919. https://doi.org/10.1111/j.1467-9221.2004.00402.x

Kousta, S. (2019). Why gender gaps persist. *Nature Human Behaviour*, *3*, 418–418. https://doi.org/10.1038/s41562-019-0574-x

Latan, H., Chiappetta Jabbour, C. J., & Lopes de Sousa Jabbour, A. B. (2021). To blow or not to blow the whistle: The role of rationalization in the perceived seriousness of threats and wrongdoing. *Journal of Business Ethics*, *169*(3), 517–535. https://doi.org/10.1007/s10551-019-04287-5

Laurin, K., Gaucher, D., & Kay, A. (2013). Stability and the justification of social inequality. *European Journal of Social Psychology*, *43*(4), 246–254. https://doi.org/10.1002/ejsp.1949

Ledgerwood, A., Mandisodza, A. N., Jost, J. T., & Pohl, M. J. (2011). Working for the system: Motivated defense of meritocratic beliefs. *Social Cognition*, *29*(3), 322–340. https://doi.org/10.1521/soco.2011.29.3.322

Lee, K., & Ashton, M. C. (2020). Sex differences in HEXACO personality characteristics across countries and ethnicities. *Journal of Personality*, *88*(6), 1075–1090. https://doi.org/10.1111/jopy.12551

Leslie, L. M., Flynn, E., Foster-Gimbel, O. A., & Manchester, C. F. (2023). Happy talk: Is common diversity rhetoric effective diversity rhetoric? *Academy of Management Journal*, *67*(3), 595–624. https://doi.org/10.5465/amj.2021.1402

Liss, M., Crawford, M., & Popp, D. (2004). Predictors and correlates of collective action. *Sex Roles*, *50*(11/12), 771–779. https://doi.org/10.1023/B:SERS.0000029096.90835.3f

Marsh, H. W., Parker, P. D., Guo, J., Basarkod, G., Niepel, C., & Van Zanden, B. (2021). Illusory gender-equality paradox, math self-concept, and frame-of-reference effects: New integrative explanations for multiple paradoxes. *Journal of Personality and Social Psychology*, *121*(1), 168–183. https://doi.org/10.1037/pspp0000306

Monin, B., & Miller, D. T. (2001). Moral credentials and the expression of prejudice. *Journal of Personality and Social Psychology*, *81*(1), 33–43. https://doi.org/10.1037/0022-3514.81.1.33

Napier, J. L., & Jost, J. T. (2008). Why are conservatives happier than liberals? *Psychological Science*, *19*(6), 565–572. https://doi.org/10.1111/j.1467-9280.2008.02124.x

Napp, C. (2023). Gender stereotypes embedded in natural language are stronger in more economically developed and individualistic countries. *PNAS Nexus*, *2*(11), pgad355. https://doi.org/10.1093/pnasnexus/pgad355

Qin, X., Chua, R. Y. J., Tan, L., Li, W., & Chen, C. (2023). Gender bias in cultural tightness across the 50 US states, its correlates, and links to gender inequality in leadership and innovation. *PNAS Nexus*, *2*(8), pgad238. https://doi.org/10.1093/pnasnexus/pgad238

Ridgeway, C. L. (2011). *Framed by gender: How gender inequality persists in the modern world*. Oxford University Press.

Roberson, Q. M., Sturman, M. C., & Simons, T. L. (2007). Does the measure of dispersion matter in multilevel research? A comparison of the relative performance of dispersion indexes. *Organizational Research Methods*, *10*(4), 564–588. https://doi.org/10.1177/1094428106294746

Roberson, Q. M., & Williamson, I. O. (2012). Justice in self-managing teams: The role of social networks in the emergence of procedural justice climates. *Academy of Management Journal*, *55*(3), 685–701. https://doi.org/10.5465/amj.2009.0491

Shepherd, S., & Kay, A. C. (2012). On the perpetuation of ignorance: System dependence, system justification, and the motivated avoidance of sociopolitical information. *Journal of Personality and Social Psychology*, *102*(2), 264–280. https://doi.org/10.1037/a0026272

Shultz, K. S., Hoffman, C. C., & Reiter-Palmon, R. (2005). Using archival data for I-O research: Advantages, pitfalls, sources, and examples. *The Industrial-Organizational Psychologist*, *42*(3), 31–37.

Small, M. L. (2011). How to conduct a mixed methods study: Recent trends in a rapidly growing literature. *Annual Review of Sociology*, *37*, 57–86. https://doi.org/10.1146/annurev.soc.012809.102657

Stoet, G., & Geary, D. C. (2018). The gender-equality paradox in science, technology, engineering, and mathematics education. *Psychological Science*, *29*(4), 581–593. https://doi.org/10.1177/0956797617741719

The World Bank. (2023a). *Gender data portal*. https://genderdata.worldbank.org/en/indicators

The World Bank. (2023b). *World development indicators*. https://datacatalog.worldbank.org/dataset/world-development-indicators

The World Bank. (2023c). *Worldwide governance indicators*. https://databank.worldbank.org/source/worldwide-governance-indicators/Series/PV.EST

Tversky, A., & Kahneman, D. (1973). Availability: A heuristic for judging frequency and probability. *Cognitive Psychology*, *5*(2), 207–232. https://doi.org/10.1016/0010-0285(73)90033-9

Uematsu-Ervasti, K., & Kawachi, K. (2022). How intercultural experience affects university students' gender views: Potential for transforming higher education in Japan. *Asia Pacific Education Review*, *23*(4), 625–637. https://doi.org/10.1007/s12564-022-09801-5

Vishkin, A. (2022). Queen's gambit declined: The gender-equality paradox in chess participation across 160 countries. *Psychological Science*, *33*(2), 276–284. https://doi.org/10.1177/09567976211034806

Vishkin, A., Slepian, M. L., & Galinsky, A. D. (2022). The gender-equality paradox and optimal distinctiveness: More gender-equal societies have more gendered names. *Social Psychological and Personality Science*, *13*(2), 490–499. https://doi.org/10.1177/19485506211037576

Vlasceanu, M., & Amodio, D. M. (2022). Propagation of societal gender inequality by internet search algorithms. *Proceedings of the National Academy of Sciences*, *119*(29), e2204529119. https://doi.org/10.1073/pnas.2204529119

Wakslak, C. J., Jost, J. T., Tyler, T. R., & Chen, E. S. (2007). Moral outrage mediates the dampening effect of system justification on support for redistributive social policies. *Psychological Science*, *18*(3), 267–274. https://doi.org/10.1111/j.1467-9280.2007.01887.x

Waldfogel, H. B., Sheehy-Skeffington, J., Hauser, O. P., Ho, A. K., & Kteily, N. S. (2021). Ideology selectively shapes attention to inequality. *Proceedings of the National Academy of Sciences*, *118*(14), e2023985118. https://doi.org/10.1073/pnas.2023985118

Welzel, C. (2013). *Freedom rising: Human empowerment and the quest for emancipation*. Cambridge University Press.

World Economic Forum. (2022). *Global gender gap report 2022*. https://www.weforum.org/publications/global-gender-gap-report-2022/

Yeganeh, H. (2022). A cross-national investigation into the effects of religion on gender equality. *International Journal of Sociology and Social Policy*, *42*(5/6), 434–454. https://doi.org/10.1108/IJSSP-10-2020-0479