

1 Country-level and Individual-level Predictors of Men's Support for Gender Equality in 42  
2 Countries.

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Running Head: MEN’S SUPPORT FOR GENDER EQUALITY

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**Abstract**

Men sometimes withdraw support for gender equality movements when their higher gender status is threatened. Here, we expand the focus of this phenomenon by examining it cross-culturally, to test if both individual- and country-level variables predict men’s collective action intentions to support gender equality. We tested a model in which men’s zero-sum beliefs about gender predict reduced collective action intentions via an increase in hostile sexism. Because country-level gender equality may threaten men’s higher gender status, we also examined whether the path from zero-sum beliefs to collective action intentions was stronger in countries higher in gender equality. Multilevel modeling on 6,781 men from 42 countries supported the individual-level mediation model, but found no evidence of moderation by country-level gender equality. Both country-level gender equality and individual-level zero-sum thinking independently predicted reductions in men’s willingness to act collectively for gender equality.

Word count: 140

**KEYWORDS:** gender inequality, ally behaviour, hostile sexism, collective action, culture, status threats

**Country-level and Individual-level Predictors of Men's Support for Gender Equality in 42 Countries**

1           Gender equality has in recent decades become widely accepted as an important political  
2 goal, and many countries and international institutions have committed themselves to this  
3 objective (Mazur & Goertz, 2008; United Nations, 2015). Gender equality is important not only  
4 because it is morally appropriate to ensure equal opportunities across genders, but also because it  
5 yields a broad variety of positive consequences for individuals, groups, and societies. Global  
6 increases in national gender equality covary with improvements in human rights, reductions in  
7 poverty (Greig, Kimmel, & Lang, 2000), and increases in happiness and well-being (Holter,  
8 2014; Inglehart, Foa, Peterson, & Welzel, 2008). In work organizations, gender equality predicts  
9 lower employee-reported job turnover and attrition, higher job satisfaction and increased  
10 productivity (Catalyst, 2011). In close relationships and families, greater gender equality predicts  
11 more happiness, better health, and lower rates of depression among relationship partners (Holter,  
12 2014; Read & Grundy, 2011; Seedat et al., 2009), better school performance and reduced  
13 absenteeism among children (Coltrane & Adams, 2008).

14           The global, organizational, family, and individual benefits associated with gender  
15 equality extend to both women and men (Holter, 2014). Yet, men are often more reluctant than  
16 women to formally endorse equality efforts. To understand why this is the case, this study  
17 examines individual-level and country-level predictors of men's support for gender equality  
18 movements. It does so using a contemporary, cross-cultural dataset of (to our knowledge) an  
19 unprecedented size and diversity.

20           More specifically, we tested a mediational model in which individual-level factors –  
21 zero-sum thinking and hostile sexism – predict men's solidarity-based collective action  
22 intentions. We also examine the moderating role of country-level gender equality, which may act

1 as a chronic reminder of women’s gains. In the following sections, we explain the various  
2 concepts in this model as well as the rationale behind our predictions.

### 3 **Men’s Roles in Gender Equality**

4 Despite the important and far-reaching consequences summarized above, gender equality  
5 historically has been a topic of concern primarily to women (Holter, 2014). Women have been  
6 the driving force behind gender equality strategies and movements, and men - who occupy the  
7 higher status gender group in most societies - are less inclined to define themselves in terms of  
8 gender (Greig et al., 2000). Thus, gender equality programs mostly refer to men indirectly, as the  
9 group that wields more power than women, instead of explicitly involving and addressing them.  
10 More recently, however, researchers and policymakers have proposed that social change efforts  
11 will have more success if we consider men’s role in fostering gender equality (Greig et al., 2000;  
12 Meeussen, Van Laar., & Van Grootel, 2020; Vescio & Kosakowska-Berezecka, 2020; Williams,  
13 2000). This perspective notes the importance of examining how high-status group members  
14 (men) perceive and respond to gains made by low-status group members (women) in the quest  
15 for gender equality (Iyer & Ryan, 2009; Teixeira, Spears, & Yzerbyt, 2019). Given that people of  
16 all genders benefit from gender equality (Holter, 2014), and that men’s buy-in is essential to the  
17 success of social change efforts, we examined predictors of men’s gender-based collective action  
18 intentions in a large, cross-cultural study of 42 countries. Our goal was to begin developing a  
19 universally-applicable model of collective action intentions among high-status, advantaged  
20 groups, which should have relevance for scholars and practitioners working in the areas of global  
21 health, well-being, and happiness.

1           As noted, little previous work has focused on men’s perceptions of gender progress and  
2 the factors predicting their involvement in gender equality actions (e.g., Becker & Swim, 2011;  
3 Kosakowska-Berezecka, Besta, Adamska, Jaśkiewicz, Jurek, & Vandello, 2016; Lemus,  
4 Navarro, Velásquez, Ryan, & Megías, 2014; Vescio & Kosakowska-Berezecka, 2020). To  
5 address this gap here, we examine variables that might inhibit or enhance men’s willingness to  
6 act in solidarity with women. More specifically, we examine predictors of men’s *solidarity-*  
7 *based collective action* intentions, or intentions to participate in collective actions on behalf of  
8 another group (Van Stekelenburg & Klandermans, 2013). In the realm of gender equality, men’s  
9 contributions to gender equality activities – such as marching in Women’s marches, signing  
10 petitions to support workplace gender equity, and endorsing gender egalitarian politicians – are  
11 examples of solidarity-based collective action.

12           The political solidarity model of social change (Subašić, Reynolds, & Turner, 2008)  
13 provides a useful framework for explaining men’s involvement in gender equality movements.  
14 This model explains how, by developing shared higher-order identities (e.g., men and women as  
15 “agents of change”), gender inequality can be seen as a common social problem standing in the  
16 way of social justice for all (Subašić et al., 2018). Men, as members of the advantaged gender  
17 group, might be more willing to become allies in the struggle for social justice when they share  
18 the disadvantaged group’s view that existing gender inequalities are illegitimate (Becker, Wright,  
19 Lubensky, & Zhou, 2013), and that ending gender-based discrimination is consistent with their  
20 moral convictions (Ochoa, Manalastas, Deguchi, & Louis, 2019). Through this lens, people of all  
21 genders are both sources and beneficiaries of gender equality.

22           What if men do not perceive gender inequalities as illegitimate? After all, people have a  
23 powerful need to perceive the sociopolitical systems that favour them as fair and just (Cichocka

1 & Jost, 2014). They thus show a motivation to defend the status quo, which correlates negatively  
2 with system-challenging collective action (Osborne, Jost, Becker, Badaan, & Sibley, 2019). As  
3 such, some men view women as competitors rather than allies, viewing women's advances as  
4 threats to men's status (Branscombe, 1998; Fiske & Taylor, 2013). Here, we investigate if the  
5 tendency to view women's progress as threatening predicts men's (un)willingness to act as  
6 gender equality allies and we examine both individual and country level factors predictors of  
7 men's allyship.

### 8 **Threats to Men's Social Status, Sexism Beliefs, and Support for Gender Equality**

9 In previous studies, men reported to be less willing to support gender equality if their  
10 masculinity was threatened than if it was not (Kosakowska-Berezecka et al., 2016; Valved,  
11 Kosakowska-Berezecka, Besta, & Martiny, 2019). Presumably, withdrawing support for gender  
12 equality helps men restore their threatened manhood status and maintain their position in the  
13 gender hierarchy (Herek, 1986; Sidanius & Pratto, 1999; Vandello & Bosson, 2013). Men's  
14 tendency to view women and women's gains as threats to men may therefore negatively predict  
15 men's intentions to support solidarity-based collective action. Any conflict in values, norms, or  
16 beliefs between groups and any intergroup struggle for access to power and resources may be  
17 experienced as a psychological threat (e.g., Branscombe, Ellemers, Spears, & Doosje, 1999;  
18 Simon & Klandermans, 2001; Stephan & Stephan, 2000; Tarman & Sears, 2005). Applied to the  
19 struggle for gender equality, some men may view women's gains – in politics, educational  
20 contexts, and the workplace – as a threat to men (Ruthig, Kehn, Gamblin, Vanderzanden, &  
21 Jones, 2017). Men who do so may be more inclined to view women as hostile usurpers of men's  
22 power (e.g., Brescoll, Okimoto, & Vial, 2018; Glick et al., 2004), and therefore refuse to support  
23 gender equality actions.



## 1 **Individual-Level Predictors of Men's Collective Action Intentions**

2           We propose that individual differences in men's zero-sum thinking about gender predict  
3 their support for solidarity-based collective action. Zero-sum thinking is the belief that one  
4 group's gains can only be acquired at the expense of another group's losses, and it corresponds  
5 with lower interpersonal trust (Davidai & Ongis, 2019). In the context of gender, those higher in  
6 zero-sum thinking view women's gains as directly related to men's losses (e.g., in status, power,  
7 and the workplace; Ruthig et al., 2017). In general, men endorse zero-sum thinking about gender  
8 more strongly than women do (Bosson, Vandello, Michniewicz, & Lenos, 2012; Kuchynka,  
9 Bosson, Vandello, & Puryear, 2018; Wilkins, Wellman, Babbitt, Toosi, & Schad, 2015),  
10 indicating that men relative to women generally view gender group relations in a competitive "us  
11 vs. them" manner. This may be because men – as members of the higher status gender group  
12 across countries (Brown, 1991; World Economic Forum, 2018) – have more to lose, materially,  
13 if the gender hierarchy should change or reverse. Moreover, some studies found that U.S. college  
14 men's zero-sum thinking increased following reminders of women's societal status gains  
15 (Kuchynka et al., 2018), and U.S. men (but not women) viewed decreases in discrimination  
16 against women as corresponding with increases in discrimination against men (Kehn & Ruthig,  
17 2013). These patterns suggest that men's zero-sum beliefs about gender reflect feelings of threat  
18 to their gender group. Importantly, zero-sum thinking can arise even when desirable resources  
19 are unlimited, and can activate defensive, competitive urges on the part of the ingroup (Meegan,  
20 2010). Thus, if men higher in zero-sum beliefs view women as their competitors for access to  
21 resources, they should be less inclined to endorse collective actions on behalf of women.

22           Moreover, zero-sum thinking may negatively predict men's solidarity-based collective  
23 action intentions indirectly, via increases in their hostile sexism. Hostile sexism comprises a set

1 of overtly angry and insulting beliefs and attitudes about women who are deemed insubordinate,  
2 manipulative, and needful of dominative control by men (Glick & Fiske, 1996, 1999). Men  
3 higher in zero-sum beliefs about gender tend to endorse more hostile sexism (Ruthig et al.,  
4 2017), likely as a means of punishing women who challenge male power (Glick et al., 2004).  
5 Zero-sum thinking may predict increases in hostile sexism for two reasons. First, viewing  
6 women as direct competitors may cause men to adopt a hostile, untrusting mindset toward  
7 women (Davidai & Ongis, 2019). Second, when men view women as competitors, they are likely  
8 envisioning non-traditional, agentic women (Gaunt, 2013; Glick et al., 2000; Szastok,  
9 Kossowska, Pyrkosz-Pacyna, 2019), who are psychologically threatening because they challenge  
10 traditional men's beliefs and values (Stephan & Stephan, 2000; Tarman & Sears, 2005). In turn,  
11 men higher in hostile sexism are less inclined to support gender equality and less willing to  
12 engage in collective actions to reduce gender inequities (Stewart, 2017). We thus explored  
13 whether the tendency to perceive women as zero-sum competitors reduces men's solidarity-  
14 based collective action intentions, indirectly via increases in their hostile sexism.

## 15 **Country-Level Predictors of Men's Collective Action Intentions**

16 In addition to examining the individual-level predictors described above, we examined  
17 country-level gender equality as a moderator of their relationship with the intention to support  
18 gender equality action. To that end, we used the Global Gender Gap Index (GGGI, World  
19 Economic Forum, 2018). The GGGI is an objective index of the parity of gendered outcomes for  
20 women relative to men across four fundamental categories (sub-indexes): Economic  
21 Participation and Opportunity, Educational Attainment, Health and Survival, and Political  
22 Empowerment[1].

1           The GGGI derives from country-level statistics, only some of which are directly  
2 observable to individuals. Yet, a country's GGGI reflects the aggregated social, economic, and  
3 political gains that its female citizens have amassed over time. Thus, a high country-level gender  
4 equality is presumably visible on a daily basis via reminders of women's progress. These  
5 reminders include news stories about feminist causes, online discussions about gender-relevant  
6 topics (e.g., the gender wage gap, the Me Too Movement), and the visibility of women in  
7 business and politics.

8           In countries high in GGGI, regular reminders of women's gains may serve as an ongoing  
9 contextual factor that threatens men's dominant status in the gender hierarchy. Against the  
10 backdrop of this threat, the links between men's zero-sum beliefs, hostile sexism, and collective  
11 action intentions may become stronger. That is, when men are being chronically reminded of  
12 women's encroachment into male-dominated spaces and positions (high GGGI), those men who  
13 view women as competitors may be especially inclined to withdraw support for collective action  
14 via increases in hostile sexism (Kuchynka et al., 2018). We therefore explored whether the  
15 indirect effect of zero-sum beliefs on men's collective action intentions is especially strong in  
16 countries higher in GGGI.

17           The prediction that a higher GGGI is associated with a stronger indirect effect of zero-  
18 sum beliefs on men's collective action intentions might appear counterintuitive for two reasons.  
19 One is that countries higher in gender equality are generally lower in sexism overall (Glick et al.,  
20 2000). The second is that citizens of societies high on GGGI generally value gender equality,  
21 such that the men among them may not see gender equality as a threat (Wood & Eagly, 2012;  
22 House, 2004).

1           However, there are also strong reasons to support our prediction. The fact that women  
2 and men in more gender egalitarian countries occupy more similar labor roles implies that  
3 women are more visible in the labor force and in the politics of such countries (House, 2004).  
4 That renders women a more salient comparison group for men in higher GGGI countries,  
5 compared to countries where women are less visible in the labor force and politics. In more  
6 gender egalitarian countries, moreover, men are more likely to socially compare to women when  
7 evaluating their own standing on gender-relevant dimensions (Guimond et al., 2007). By  
8 extension, women’s status in more gender equal countries may serve as a particularly important  
9 chronic threat to some men. If that is true, it may help explain the “Nordic paradox” that implies  
10 that the world’s most gender equal countries – the Nordic countries of Denmark, Sweden,  
11 Finland, Iceland, and Norway – report the highest rates of male-to-female intimate partner  
12 violence (Gracia & Merlo, 2016).

13           In low GGGI countries, moreover, at least three mechanisms work to secure men’s high  
14 status. First, women lack the resources to regularly challenge the gender status quo. Second,  
15 women in these countries are more prone to embrace the traditional sex-based labor division that  
16 keeps them economically dependent on men (Wood & Eagly, 2012; Glick et al. 2000). Third, the  
17 relatively high national levels of ambivalent sexism that characterize countries lower in GGGI  
18 help reinforce the status quo by rewarding traditional women and punishing non-traditional  
19 women (Glick & Fiske, 1996). In sum, the path from zero-sum beliefs to men’s collective action  
20 intentions is likely to be stronger in countries higher (vs. lower) in GGGI, where women’s  
21 progress serves as a chronic threat to men’s status.

22           **Expanding beyond WEIRD countries.** Research on models of collective action has  
23 been conducted mostly in WEIRD samples (Western, Educated, Industrialized, Rich,

1 Democratic; Henrich, Heine, & Norenzayan, 2010). As a consequence, cross-cultural predictors  
2 of collective action intentions are understudied (Van Zomeren & Louis, 2018). Some recent  
3 studies examined predictors of collective action intentions in non-WEIRD world regions and  
4 cultural settings (e.g., Chayinska, Minescu, & McGarty, 2017; Fischer, Becker, Kito, & Nayir,  
5 2017; Górska, Bilewicz, & Winiewski, 2017; Tausch et al., 2011), but these studies generally  
6 focused on single world regions or small numbers of countries. Similar to research on collective  
7 actions in general, most research on predictors of men's involvement in gender equality  
8 movements has been based either in the U.S. or in Europe. That situation inevitably leaves many  
9 world regions unexamined, especially the ones where gender equality movements are less visible  
10 or have a short history.

11         Women worldwide make less money and hold fewer political positions and positions of  
12 power than men (World Economic Forum, 2018). However, economic and political gender gaps  
13 are largest in the Middle East and North Africa (a 40% gap from true gender parity). They range  
14 from 32% to 34% in East Asia and the Pacific, Sub-Saharan Africa, and South Asia. There are  
15 only four world regions where the gaps from true gender parity are under 30%: Western Europe  
16 (24%), North America (27%), Eastern Europe and Central Asia (29%), and Latin America and  
17 the Caribbean (29%). Thus, gender equality levels differ substantially across the globe. Studies  
18 that compare countries across a wide range of the gender equality continuum may therefore offer  
19 especially robust information (Sidanius, Levin, Liu, & Pratto, 2000).

20         For that reason the present work includes multinational data from 42 countries ranging  
21 from the very gender egalitarian Norway (0.835 on a 0.0–1.0 scale, ranked 2<sup>nd</sup> in gender  
22 equality), to the relatively inegalitarian Pakistan (0.555, ranked 142<sup>nd</sup> out of 149 countries; see  
23 the Global Gender Gap Report, 2018). We view this as an important strength of our

1 investigation, which should allow our study to yield an expansive assessment of cross-cultural  
2 variations in men's intentions to join solidarity-based collective actions for gender equality.

### 3 **The Present Research**

4 We tested a mediation model in which men's zero-sum beliefs about gender are  
5 associated with lower intentions to engage in solidarity-based collective action via enhanced  
6 hostile sexism. We also examined whether this path from men's (individual-level) zero-sum  
7 beliefs to collective action intentions via hostile sexism was especially strong in countries higher  
8 in gender equality (country-level GGGI). We reasoned that women's relative equality in high-  
9 GGGI countries poses a chronic threat for men, which should enhance the links among the  
10 individual-level predictors. To test our model, we analyzed data from 42 countries as part of a  
11 larger project (blinded for review) that is pre-registered on OSF (blinded for review). Note that  
12 the model tested here is not pre-registered as a confirmatory hypothesis, and thus is considered  
13 exploratory.

### 14 **Method**

#### 15 **Participants and Procedure**

16 IRB approval for each sample was obtained from the researchers' respective institutions.  
17 Informed consent was obtained from all individual participants, and participants were assured  
18 that their data would remain anonymous and confidential. Data were collected between January  
19 2018 and December 2019, from  $N = 18,837$  respondents (6,734 men) in 42 countries (for details  
20 about samples' composition, see Table 1). The mean age of participants was  $M = 23.56$  years  
21 ( $SD = 8.04$ ). To verify that participants read the survey attentively, we randomly placed three

1 attention checks throughout the study as follows: *if you are reading this sentence please select 4*.  
2 After screening for attention checks, we removed records from 156 individuals (<1%) who  
3 passed fewer than two out of three attention checks.

4 All samples mainly consisted of undergraduate students in social sciences (mainly  
5 psychology). Students were mostly recruited as volunteers. In the majority of countries, they  
6 were generally not compensated for their participation. Participants completed a set of scales that  
7 measured more variables than those described in this paper. The order of measures was  
8 randomized and data were collected via SurveyMonkey or Qualtrics platforms. In some cases,  
9 paper and pencil were used. The complete set of scales is published on both the project's website  
10 (blinded for review) and OSF registration (blinded for review).

11 As shown in Table 1, the proportion of men in the national sub-samples varied from 17%  
12 (France) to 49% (India). The sub-samples also differed in the mean age of participants. Due to  
13 national differences in age and gender distribution, both variables (if applicable) were considered  
14 as covariates in the tested models.

15

16 INSERT TABLE 1 HERE

17

18

19 **Measures**

1           The scales had 25 language versions (Armenian, Bosnian, Chinese, Croatian, Danish,  
2 Dutch, English, French, Georgian, German, Greek, Italian, Kazakh, Lithuanian, Norwegian,  
3 Polish, Portuguese, Romanian, Russian, Serbian, Slovak, Spanish, Turkish, Ukrainian, Welsh).  
4 Bilingual scholars working in psychology used the back-translation procedure (see van de Vijver  
5 & Leung, 1997) to create national versions of each scale. All items were translated to each  
6 language from English, and back-translated by an independent translator, unless previously  
7 published in the respective language. The translations in all 25 languages, and details about their  
8 published versions, are added as supplementary material.

9           **Collective Action Intentions.** We used a modified version of six items from the  
10 Environmental Action Scale (Alisat & Reimer, 2015). The scale contains descriptions of actions  
11 undertaken to support gender equality, such as participating in a community event which focused  
12 on gender issues or using online tools (e.g., Instagram, YouTube, Facebook, Wikipedia, Blogs)  
13 to raise awareness about gender issues/gender equality. Participants rated their intention to  
14 engage in this type of activity on a seven-point scale ranging from 1 (*not likely at all*) to 7 (*very*  
15 *likely*). Responses for all six items were averaged to create a composite measure in which higher  
16 scores reflect greater intention to engage in solidarity-based collective action for gender equality.

17           **Zero-Sum Beliefs about Gender.** Ruthig et al.'s (2017) seven-item scale was used to  
18 assess participants' zero-sum beliefs about gender. The scale consists of six items reflecting  
19 zero-sum beliefs in specific domains: occupational ('More good jobs for women mean fewer  
20 good jobs for men'), power ('The more power women gain, the less power men have'),  
21 economic ('Women's economic gains translate into men's economic losses'), political ('The  
22 more influence women have in politics, the less influence men have in politics'), social status



1 ('As women gain more social status, men lose social status'), and familial ('More family-related  
2 decision making for women means less family-related decision making for men'). Additionally,  
3 one item assesses zero-sum beliefs about discrimination ('Declines in discrimination against  
4 women are directly related to increased discrimination against men'). Response options for each  
5 item ranged from 0 (*strongly disagree*) to 5 (*strongly agree*), and we averaged them to create a  
6 composite in which higher scores reflect greater zero-sum beliefs.

7       **Hostile Sexism.** We used three items ('Women seek to gain power by getting control  
8 over men', 'Women exaggerate problems they have at work', and 'When women lose to men in  
9 a fair competition, they typically complain about being discriminated against') from the short  
10 version of the hostile sexism subscale of the Ambivalent Sexism Inventory (ASI; Rollero, Glick,  
11 & Tartaglia, 2014), with response options ranging from 0 (*strongly disagree*) to 5 (*strongly*  
12 *agree*). Responses to all items were averaged to create a composite score in which higher scores  
13 indicate greater hostile sexism. For invariance tests, we also used three items from the short  
14 version of the benevolent sexism subscale (e.g., 'Women should be cherished and protected by  
15 men') which were scored similarly to hostile sexism.

16       **Country-Level Gender Equality.** The Global Gender Gap Index (GGGI) was developed  
17 by the World Economic Forum as a framework for capturing the magnitude of gender-based  
18 disparities. The GGGI benchmarks national gender gaps on economic, education, health, and  
19 political criteria. The overall GGI reflects a country's progress towards gender parity on a scale  
20 from 0 (disparity) to 1 (parity). The methodology of the Index has remained stable since its  
21 original conception in 2006, providing a basis for cross-country comparison. For current study  
22 purposes we used 2018 data for all 42 countries (World Economic Forum, 2018).

## 1 Analytical Strategy

2 Before proceeding to primary analyses, we tested the scales' cross-country equivalence  
3 through multigroup confirmatory factor analysis (MGCFA) using whole national samples (both  
4 men and women). This allowed us to examine the scales' cross-country measurement invariance,  
5 or whether the scales measure the same constructs in all countries. Usually, cultural researchers  
6 estimate three levels of invariance, which are defined by parameters that are constrained to be  
7 equal across samples (e.g., Milfont & Fisher, 2010; van de Vijver & Leung, 1997). *Configural*  
8 *invariance* requires that a given set of indicators are predicted by the same latent variables with  
9 the same pattern of factor loadings; *metric invariance* requires that factor loadings are equal  
10 across the groups; and *scalar invariance* requires that factor loadings and all intercepts are equal  
11 across the groups. In general, partial invariance, defined as equal parameters of at least two  
12 indicators per construct, is sufficient to allow for group comparisons (Byrne, Shavelson, &  
13 Mutheïn, 1989). We first tested for configural invariance across all national samples, using  
14 common criteria to assess models' goodness of fit, i.e.,  $CFI > 0.95$  and  $RMSEA < 0.08$  (e.g.,  
15 Brown, 2015). Next, to identify metric and scalar measurement invariance, we used the cut-off  
16 criteria for large numbers of samples suggested by Rutkowski and Svetina (2014):  $\Delta CFI$  of 0.02  
17 and  $\Delta RMSEA$  of 0.03. We conducted measurement invariance analyses using R (R Core Team,  
18 2018) and the lavaan package (Rosseel, 2012), using maximum likelihood estimation with  
19 robust standard errors.

20 We then tested the hypotheses using MLM (e.g., Hox, 2010) on data from 6,734  
21 individuals (men) (Level 1) across 42 countries (Level 2). The multilevel analyses were  
22 specified sequentially by incorporating additional predictors into each successive model to  
23 produce nested models that could be compared statistically. Models were fitted using maximum

1 likelihood (ML) estimation. The fit of nested models was assessed using -2 log likelihood (-2LL)  
2 and Akaike's information criteria (AIC), where lower values indicate better fit (Finch, Bolin, &  
3 Kelley, 2014). Country served as the grouping variable in all models. Analyses were carried out  
4 with nlme, an R package for fitting multilevel models (Finch et al., 2014). The multilevel  
5 analyses explored relationships between the variables only in a male sample. The first set of  
6 models tested the relationship between zero-sum beliefs about gender and collective action  
7 intentions via hostile sexism with country-level GGGI as moderator. Separate analyses clarified  
8 the relationship between zero-sum beliefs (predictor) and hostile sexism (mediator) across  
9 countries.

10 Model 1<sub>CAI</sub> and Model 1<sub>HS</sub> were specified as baseline models with no independent  
11 variable. These models provided estimates of the residual and intercept variance when only  
12 considering clustering by country. The baseline models allowed us to determine whether mean  
13 collective action intentions and hostile sexism scores differed across the 42 countries. They also  
14 provided the intraclass correlations (ICCs), which relate within-country similarity in both  
15 variables to the total variation in individual collective action intentions and hostile sexism across  
16 all countries. A significant ICC value indicates that the scores of individuals are not statistically  
17 independent within countries, and that a multilevel model design should therefore be used.

18 Models 2<sub>CAI</sub>, 3<sub>CAI</sub>, and 4<sub>CAI</sub> involved random coefficients and fixed predictors. Model  
19 2<sub>CAI</sub> incorporated both fixed-effect predictors at the country (GGGI) and individual levels. Model  
20 3<sub>CAI</sub> built on the previous model by including men's hostile sexism as a mediator of the  
21 relationship between zero-sum beliefs and collective action intentions, and Model 4<sub>CAI</sub> included  
22 the interaction of GGGI and zero-sum beliefs as an effect. Age was not a significant predictor of  
23 collective action intentions so we did not include it in any models as a covariate.

## Results

We calculated descriptive statistics (means, standard deviations), and Cronbach's alphas for the three individual-level variables, separately for each country. As shown in Table 1, the three measures were generally reliable in all national sub-samples. The exception was the hostile sexism scale, where Cronbach's alpha was below 0.70 in China, Kazakhstan, Nigeria, and Suriname.. This was partly due to the small number of items in the hostile sexism scale.

Mean scores for the main predictor variables, that is, zero-sum beliefs about gender and hostile sexism, were low in many countries and particularly in liberal Western Democracies. For zero-sum beliefs, mean scores were below 1 in 17 of the 42 countries and below 2 in all countries. For hostile sexism, 41 of the 42 countries were below the scale midpoint (3) and only one – Nigeria – was above it.

### Measurement Invariance of the Scales

Table 2 presents the global fit coefficients for the three levels of measurement invariance (configural, metric, and scalar) for each of the three individual-level scales. As shown in Table 2, the collective action intentions scale displayed configural, metric, and scalar invariance across all countries (Rutkowski & Svetina, 2014). The other two scales demonstrated configural and metric equivalence, but lacked full scalar invariance. We thus tested for partial scalar invariance, releasing selected items (see notes under Table 2) that varied most between countries. Results indicated partial scalar invariance of the zero-sum beliefs and hostile sexism scales across all countries.

INSERT TABLE 2 HERE

1 **Multilevel Modeling**

2 **Baseline Models (Model 1<sub>CAI</sub> and Model 1<sub>HS</sub>).** Country characteristics significantly  
3 explained variation in collective action intentions among men at the individual level (Model  
4 1<sub>CAI</sub>), ICC = 0.16. Differences between countries thus accounted for 16% of the variance in  
5 collective action intentions. Mean collective action intentions were highest in Ghana, India,  
6 Kosovo, Nigeria, and the Philippines (see Table 1). Country characteristics also explained  
7 significant variation in hostile sexism among men (Model 1<sub>HS</sub>), ICC = 0.16.

8

9

INSERT TABLE 3

10

INSERT TABLE 4

11 **Models with Random Coefficients and Fixed Country- and Individual-Level**

12 **Predictors (Models 2<sub>CAI</sub>, 3<sub>CAI</sub>, & 4<sub>CAI</sub>).** The results of the fitted Model 2<sub>CAI</sub> confirmed that  
13 among men, stronger zero-sum beliefs predicted weaker collective action intentions ( $B = -0.26, p$   
14  $< 0.01$ ). Consistent with our expectations, Model 3<sub>CAI</sub> showed that hostile sexism partially  
15 mediated the relationship between zero-sum beliefs and collective action intentions. Hostile  
16 sexism significantly and negatively predicted collective action intentions ( $B = -0.30, p < 0.01$ ).  
17 Including hostile sexism in the model weakened the relationship between zero-sum beliefs and  
18 collective action intentions ( $B = -0.10, p < 0.01$ ).

19 Models 2<sub>CAI</sub>, 3<sub>CAI</sub>, and 4<sub>CAI</sub> also showed that county-level GGGI significantly predicted  
20 collective action intentions among men: In more gender equal countries, men reported weaker

1 collective action intentions. The negative relationship between GGGI and collective action  
2 intentions remained significant when accounting for zero-sum beliefs and hostile sexism ( $B = -$   
3  $7.10, p < 0.01$ ). Further analysis showed that GGGI also significantly predicted men's hostile  
4 sexism, even when zero-sum beliefs were included in the model ( $B = -4.28, p < 0.01$ ).

5 Contrary to the hypothesis, adding the interaction term (GGGI\*zero-sum beliefs) to the  
6 model did not improve model fit, and the interaction was not significant ( $B = 0.01, p > 0.05$ ). As  
7 reported in Table 3 and 4, zero-sum beliefs significantly predicted hostile sexism among men ( $B$   
8  $= 0.54, p < 0.01$ ). Figure 1 shows a summary of the final confirmed model.

9 INSERT FIGURE 1

## 10 Discussion

11 Globally, gender equality is at an all-time high. The year 2019 saw the highest percentage  
12 of women ever to hold senior management positions, at 29%. This percentage also marked the  
13 biggest increase in women's executive roles around the world, rising five percentage points from  
14 24% from a year earlier, and making it the first time the proportion of women in senior  
15 leadership exceeded one in four (Thornton, 2019). Women currently hold 24.5% of legislative  
16 seats around the world, an increase from 13.0% in 1999 (Chesser, 2019). Apart from these  
17 observable increases in women's presence in business and politics, another recent sign of gender  
18 equality is the decrease in the global gender wage gap from 26 cents less (for each dollar earned  
19 by men) in 2015 to 21 cents less in 2019 ("Gender Pay Gap Statistics for 2019 | PayScale,"  
20 2019).

1           At the same time, these numbers show that gender inequality still persists, and some  
2 world regions – such as the Middle East, North and Sub-Saharan Africa, East and South Asia,  
3 and the Pacific – have a relatively long way to go before reaching gender parity. Although  
4 gender equality benefits men as well as women, advances in gender equality often face resistance  
5 from men who are reluctant to support gender equality movements. Ironically, the findings  
6 presented here indicate that men are less motivated to support gender equality action in more  
7 gender egalitarian nations, where women’s progress likely serves as a reminder of their  
8 encroachment into previously male-dominated contexts. Specifically, we found a negative  
9 correlation between countries’ gender equality and men’s solidary-based collective action  
10 intentions, and this association emerged above and beyond the individual-level predictors of  
11 men’s collective action intentions including zero-sum beliefs and hostile sexism.

12           Our logic suggested that the indirect path from zero-sum beliefs to collective action  
13 intentions via hostile sexism would be stronger in countries higher in gender equality (a  
14 moderation effect). This pattern did not emerge, however. Instead, as noted, country-level GGGI  
15 was a main effect predictor of men’s solidary-based collective action intentions. This effect may  
16 indicate that our logic was at least partially correct: Perhaps women’s advances in more gender  
17 egalitarian countries pose a chronic threat to men’s dominance, which correlates directly with  
18 declines in men’s motivation to push for further gains on behalf of women. To test his  
19 explanation, it will, of course, be important to include measures of perceived threat in future  
20 research.

21           An alternative explanation for the negative association between country-level gender  
22 equality and men’s collective action intentions is that men may consider it unnecessary to  
23 contribute to gender equality efforts because women are already “doing well enough on their

1 own” . This may be especially true in countries where gender equality movements have a long  
2 tradition of success and where women have been approaching equality since a relatively long  
3 period. Consistent with this notion, women are also less inclined to join feminist movements and  
4 take pro-equality actions when they believe that “there is nothing to fight for” (Radke, Hornsey,  
5 & Barlow, 2016). Moreover Stroebe (2013) showed that people who believe that "all will be  
6 well" because injustice will be naturally resolved in their society are less inclined to engage in  
7 collective action to address disadvantage. Men in more gender-equal countries may assume that  
8 their society naturally resolves discrimination against women. Thus, men in more gender equal  
9 countries may no longer view discrimination against women as an important social challenge,  
10 and therefore view their own solidarity-based collective action as unnecessary

11 Complementary to that explanation, men in less gender egalitarian countries may be more  
12 aware of the gender inequality that surrounds them and thus be more willing to engage in  
13 collective action. For men in low-GGGI countries, it is not difficult to observe instances of  
14 gender discrimination on a daily basis. The women in their lives have relatively restricted access  
15 to education, high-paying jobs, and positions of political power. Moreover, given that our  
16 participants were relatively young and (potentially liberal-leaning) university students, they may  
17 be especially inclined to view the gender discrimination in the larger culture as illegitimate. If so,  
18 this could in more gender unequal countries increase men’s motivation to support collective  
19 action. However, some studies suggest, that people are more likely to minimize the problem of  
20 gender discrimination in places with low (vs. high) gender equality (see: Ayalon, 2014).  
21 Although, variations in perceived discrimination in this study were largely attributed to  
22 individual differences, the popularity of opinion that gender discrimination is no longer a  
23 problem in a given country was inversely related to objective measures of gender equality. For



1 example, only 12.4% of participants in Hungary and 20,9% in Turkey perceived gender  
2 discrimination, compared to 36,2% in Netherlands and 27% in Sweden. Thus, future research is  
3 needed to determine whether men in more gender equal countries withdraw their support for  
4 gender equality efforts due to perceived threat, lack of perceived need, or both.

5         If country-level gender equality constitutes a threat that reminds men of the  
6 precariousness of their dominance in the gender hierarchy, we suggest that some men – i.e.,  
7 those higher in zero-sum thinking – cope with this threat by adopting a competitive mindset to  
8 defend their group against further loss of status. Indeed, current results indicate that men’s zero-  
9 sum beliefs are a barrier to collective action intentions directly, and indirectly via enhanced  
10 hostile sexism. The tendency to perceive low-status groups (women) as competitors for men’s  
11 resources predicts a hostile mindset towards women who are perceived as threatening men’s  
12 status. Men may respond by becoming more motivated to protect these resources (Meegan,  
13 2010) and by reducing their support for solidarity-based collective action (Branscombe et al.,  
14 1999; Kuchynka et al., 2018). This effect is consistent with findings that link zero-sum beliefs to  
15 social dominance orientation (Esses, Dovidio, Jackson, & Armstrong, 2001). If zero-sum beliefs  
16 are a part of a hierarchy-enhancing worldview, negative attitudes toward lower status groups  
17 (i.e., hostile sexism) and unwillingness to support underprivileged groups could indeed all reflect  
18 the perception that undeserving groups are trying to gain status.

19         However, country-level gender equality did not moderate the relationship between men’s  
20 zero-sum beliefs and their collective action intentions. Independently of country-level gender  
21 equality, zero-sum beliefs about gender predicted lower collective action intentions among men.  
22 Hence, both country-level, objective indices of women’s advances and individual-level,  
23 subjective mindsets about women’s gains independently predict reductions in men’s willingness

1 to act for gender equality. To put it another way, the indirect path from men's zero-sum beliefs to  
2 collective action intentions via hostile sexism was equally strong across all examined countries,  
3 which ranged widely in their levels of gender equality. Although the current sample of 42  
4 countries clearly did not capture all possible variance in country-level gender equality, it is  
5 noteworthy that our mediation model worked similarly across otherwise very diverse countries.  
6 This suggests that men's zero-sum beliefs may be a universal barrier to their collective action  
7 intentions, regardless of country-level differences. Interventions to increase men's buy-in to  
8 gender equality movements may thus benefit, cross-culturally, from targeting the competitive,  
9 zero-sum beliefs that may fuel men's resistance to women's gains.

## 10 **Limitations**

11 To maintain the homogeneity of the current samples, we conducted the study among  
12 students only, and did not include people from the general population. As university students are  
13 not representative of the whole population, it will be important to conduct future research that  
14 includes other social groups and people with varying educational backgrounds. For instance,  
15 regardless of their nation's level of gender equality, college students may be more aware than the  
16 general populace of structural gender hierarchies and national and international gender equality  
17 movements. If so, this may reduce variance in their support for collective action. This is also  
18 reflected by our results showing that male students had relatively low scores on both zero-sum  
19 beliefs about gender and hostile sexism.

20 Although we concentrated on student samples, the mean age of the participants  
21 considerably varied across countries. To account for these differences and to make sure that the  
22 current samples across countries were comparable with regard to age, we controlled for age

1 effects in analyses. However, age was not a significant predictor of collective action intentions  
2 and was therefore omitted in the reported analyses. In some national samples, moreover, the  
3 number of male participants was relatively low (< 100). This alone should not affect our final  
4 model, but future studies should include larger samples of male participants.

5         Our measure of collective action intentions was worded such that it measured intentions  
6 to participate in collective action to support “gender equality” and equality-based policies. The  
7 items did not ask about intentions to promote “women’s progress” or “equality for women.”  
8 Thus, although we assume that most readers have interpreted “gender equality” as “women’s  
9 rights,” we cannot be sure how participants interpreted these items. For some male participants,  
10 and especially those who believe that discrimination against men now outweighs discrimination  
11 against women (e.g., Bosson et al., 2012), endorsement of these items could mean support for  
12 collective action on behalf of men’s rights or against women’s gains. Our data do not allow  
13 conclusions regarding participants’ beliefs that men are discriminated against, and that actions to  
14 establish equality are pro-men actions.

15         Note also that our primary outcome measure was based on men’s self-reports of their  
16 intentions to support collective actions. Men’s responses to these items may reflect a desire to  
17 conform to local norms or well-intended efforts to communicate their core values rather than  
18 actual behavioral intentions (Doliński, 2018). Future research should examine men’s behavioral  
19 efforts to support collective actions as opposed to their mere intentions.

20         Finally, the cross-sectional, correlational nature of our data renders causal conclusions  
21 premature. Although our theoretical model implies causal paths from men’s zero-sum beliefs to  
22 their collective action intentions via hostile sexism, a true test of our logic awaits further study.

1 In particular, longitudinal and experimental designs will be essential in further tests of our  
2 model. Kuchynka et al. (2018) already found that experimentally manipulated reminders of  
3 women's progress heightened men's zero-sum beliefs about gender and accordingly reduced  
4 their support for workplace gender equity policies. However, it will be important to replicate this  
5 experimental finding cross-culturally.

## 6 **Conclusions**

7 Across countries, men as a group have more agency and power than women, and men's  
8 higher status correlates with decreases in their readiness to support women's progress (Becker &  
9 Barreto, 2014). The results of our multi-nation study show that this pattern holds universally,  
10 with partial invariance taken into consideration, across different countries: Viewing women as  
11 direct competitors predicts men's lower willingness to engage in collective action on behalf of  
12 women, at least partly via a tendency to view women as manipulative, deceitful, and unworthy of  
13 high status positions. Thus, men may withhold support for gender equality movements to prevent  
14 "undeserving" women from gaining even more strength.

15 This model emerged equally strongly regardless of country-level gender equality.  
16 Furthermore, our results provide robust and universal evidence that women's country-level  
17 advances in power and status are associated with decreases in men's intentions to act on behalf  
18 of gender equality. This is consistent with our logic that women's country-level gains pose a  
19 threat to men's status. Hence our cross-cultural results show that both individual- and country-  
20 level factors predict men's willingness to support gender equality.

21 Solidarity efforts to combat gender inequalities will not succeed as long as equality is  
22 framed only as a "women's" problem (Subašić et al., 2018). As long as gender equality is

1 perceived as a movement that takes away from men and gives to women, social change may  
2 continue to stall. More research is therefore needed on factors leading men to perceive gender  
3 equality as beneficial for them. Such efforts may include wide-spread educational campaigns  
4 emphasizing how gender equality benefits men in terms of health, well-being, and overall  
5 happiness (Holter, 2014). Our results might potentially help create more nuanced policies and  
6 interventions fostering gender equality depending on the levels of gender equality within a given  
7 country. Across the world, more equality for women means progress and gains for all - but it  
8 may also mean new challenges in mobilizing men for pro-gender equality actions.

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6 **Table 1. Samples' Composition, Country's GGGI, Cronbach's alphas, and**  
 7 **Descriptive Statistics of the Measured Variables in 42 Countries.**

Country	N	% of men	Age		Collective Action Intentions			Zero-Sum Perspective of Gender Status			Hostile Sexism		GGGI	
			M	SD	M	SD	Alpha	M	SD	Alpha	M	SD		Alpha
Argentina	431	47	34.92	14.86	4.05	1.98	0.94	0.77	0.89	0.79	1.46	1.39	0.77	0.733
Armenia	283	45	19.98	1.92	2.92	1.72	0.93	1.52	1.13	0.83	2.63	1.22	0.60	0.678
Australia	669	34	31.01	12.67	3.52	1.77	0.94	1.00	0.92	0.87	1.39	1.13	0.80	0.73
Belgium	307	39	19.62	4.40	3.40	1.58	0.93	1.16	0.86	0.83	1.51	1.04	0.73	0.738
Bosnia and Herzegovina	230	42	23.01	5.88	3.59	1.67	0.93	1.54	1.17	0.87	2.77	1.31	0.72	0.712
Brazil	198	48	23.37	7.99	4.25	1.99	0.95	1.60	0.62	0.78	1.97	0.98	0.73	0.681
Canada	323	19	19.93	2.49	3.65	1.49	0.93	0.83	0.91	0.89	1.39	1.02	0.73	0.771
Chile	242	33	21.70	5.09	4.29	1.78	0.91	0.78	0.95	0.82	1.33	1.27	0.74	0.717
China	415	31	19.51	2.34	4.27	1.31	0.90	0.76	0.72	0.88	1.62	0.84	0.51	0.673
Colombia	315	46	19.89	1.78	4.16	1.77	0.94	1.06	1.07	0.88	1.72	1.29	0.76	0.729

Denmark	256	39	25.74	5.85	2.72	1.62	0.94	1.23	1.01	0.88	1.58	1.18	0.77	0.778
France	433	17	22.34	6.80	4.29	1.60	0.90	0.60	0.70	0.80	0.97	1.01	0.73	0.779
Georgia	206	48	21.58	3.40	4.03	1.68	0.93	1.29	1.08	0.86	2.13	1.22	0.59	0.677
Germany	1,755	38	29.21	11.04	3.25	1.55	0.91	1.11	0.92	0.85	1.41	1.11	0.77	0.776
Ghana	332	37	20.19	2.58	4.78	1.69	0.90	1.62	1.27	0.84	2.95	1.41	0.67	0.688
Greece	293	27	26.71	9.62	4.31	1.75	0.93	0.81	0.78	0.83	1.64	1.11	0.71	0.696
India	189	49	21.61	3.26	4.95	1.21	0.89	1.63	0.70	0.85	2.25	0.89	0.70	0.665
Ireland	575	45	19.92	4.22	3.18	1.58	0.93	1.27	1.00	0.85	1.91	1.27	0.78	0.796
Italy	1,752	31	23.14	5.85	4.25	1.70	0.93	0.61	0.77	0.83	1.30	1.15	0.75	0.706
Kazakhstan	344	43	20.22	3.82	2.71	1.58	0.91	1.85	1.15	0.84	2.52	1.26	0.64	0.712
Kosovo	438	37	20.23	3.85	5.13	1.67	0.93	1.20	1.12	0.86	1.97	1.40	0.75	0.730
Lithuania	358	28	23.80	6.72	3.30	1.67	0.92	1.38	1.13	0.86	2.17	1.31	0.77	0.749
Luxembourg	181	34	24.61	5.43	3.81	1.63	0.92	0.55	0.65	0.81	1.11	0.97	0.76	0.712
Malta	261	35	27.29	10.91	3.79	1.76	0.93	0.84	0.88	0.83	1.70	1.24	0.74	0.686
Mexico	344	46	23.68	8.92	4.09	1.68	0.92	0.89	0.99	0.89	1.89	1.33	0.74	0.721
Netherlands	899	33	20.70	3.67	2.97	1.42	0.92	1.21	0.86	0.84	1.51	0.99	0.70	0.747
Nigeria	180	37	23.09	2.47	4.82	1.51	0.85	1.91	1.21	0.80	3.21	1.17	0.43	0.621
Norway	216	41	23.10	4.09	3.21	1.58	0.93	1.01	0.89	0.84	1.34	1.05	0.74	0.835
Pakistan	416	47	21.44	2.25	4.22	1.49	0.91	1.87	1.21	0.89	2.57	1.17	0.70	0.550

Philippines	475	47	19.78	2.00	4.35	1.53	0.93	0.83	0.90	0.87	1.67	1.22	0.77	0.799
Poland	566	29	24.32	6.85	2.91	1.58	0.92	1.42	1.02	0.82	2.29	1.22	0.70	0.728
Romania	256	41	22.81	4.61	3.48	1.70	0.92	1.17	1.00	0.86	2.56	1.28	0.74	0.711
Russian Federation	475	21	21.48	6.75	2.90	1.71	0.93	1.38	1.15	0.87	1.92	1.33	0.77	0.701
Serbia	514	18	22.03	5.73	4.04	1.79	0.92	0.85	0.99	0.87	2.12	1.37	0.71	0.730
Slovak Republic	627	44	21.95	4.61	2.82	1.57	0.93	1.29	1.10	0.87	2.36	1.27	0.72	0.693
Spain	1,254	34	26.03	9.44	4.49	1.67	0.93	0.57	0.78	0.84	0.83	1.01	0.77	0.746
Suriname	183	45	22.92	5.72	4.29	1.71	0.94	1.40	1.08	0.85	2.35	1.20	0.67	0.695
Turkey	257	35	21.87	2.44	4.41	1.80	0.94	0.98	1.06	0.84	1.72	1.40	0.75	0.628
UAE	521	33	19.99	1.47	3.65	1.75	0.94	0.98	0.86	0.83	1.97	1.19	0.70	0.642
Ukraine	284	34	19.16	1.43	3.40	1.74	0.94	1.48	1.20	0.87	2.23	1.32	0.72	0.708
USA	375	40	19.60	2.38	3.66	1.72	0.95	0.96	0.92	0.88	1.48	1.11	0.74	0.720
Wales	209	34	30.96	10.93	3.62	1.86	0.95	0.91	1.10	0.92	1.24	1.27	0.83	0.774
Total	18,837	36	23.56	8.04	3.76	1.76	0.94	1.06	1.02	0.87	1.72	1.29	0.77	

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Table 2. Global Fit Measures from Measurement Invariance Tests for Individual-Level Scales

Scale	Level of invariance	$\chi^2$	df	CFI	RMSEA	$\Delta$ CFI	$\Delta$ RMSEA
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Collective Action Intentions		1226.55	369	0.981	0.072	-	-
	Configural invariance (equal form)						
		1836.88	569	0.977	0.071	0.004	0.001
	Metric (weak) invariance (equal factor loadings)						
	Scalar (strong) invariance (equal indicator intercepts)	3167.92	769	0.962	0.084	0.015	0.013
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Zero-Sum Beliefs about Gender		1439.38	574	0.967	0.058	-	-
	Configural invariance (equal form)						
		2142.80	814	0.954	0.061	0.013	0.003
	Metric (weak) invariance (equal factor loadings)						
	Partial scalar (strong) invariance (equal indicator intercepts) <sup>a</sup>	2659.13	894	0.941	0.067	0.013	0.006
		4135.05	1054	0.906	0.081	0.048	0.020
	Scalar (strong) invariance (equal indicator intercepts)						
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Ambivalent Sexism (2-factor structure: Hostile and Benevolent )		495.32	328	0.991	0.034	-	-
	Configural invariance (equal form)						
		946.66	488	0.975	0.046	0.016	0.012
	Metric (weak) invariance (equal factor loadings)						
	Partial scalar (strong) invariance (equal indicator intercepts) <sup>b</sup>	1376.14	528	0.955	0.060	0.020	0.014
		5069.49	648	0.784	0.124	0.191	0.078
	Scalar (strong) invariance (equal indicator intercepts)						
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1 Notes. 41 countries;  $\chi^2$  – chi square; *df* -degrees of freedom; CFI - comparative fit index; RMSEA - root mean  
 2 square error of approximation; <sup>a</sup> Intercepts for item 1, 2, 4, and 7 were released; <sup>b</sup> Intercepts for item 1, 2, and 3 were  
 3 released.

4 **Table 3. Multilevel Models Predicting Collective Action Intentions (Male Sample).**

		<i>Model 1<sub>CAI</sub></i>	<i>Model 2<sub>CAI</sub></i>	<i>Model 3<sub>CAI</sub></i>	<i>Model 4<sub>CAI</sub></i>
<i>Individual-level variables (L1)</i>	<i>Zero-sum beliefs about gender</i>	-	-0.26**	-0.10**	-0.10**
	<i>Hostile sexism</i>	-	-	-0.30**	-0.30**
<i>Country-level variables (L2)</i>	<i>Country's gender equality (GGGI)</i>	-	-5.80**	-7.10**	-7.10**
<i>Cross-levels interaction component</i>	<i>Country's gender equality (GGGI)*Zero-sum beliefs about gender</i>	-	-	-	0.01
<i>Random effects</i>	<i>Residual</i>	1.56	1.54	1.50	1.50
	<i>Intercept</i>	0.67	0.59	0.62	0.62
<i>Male sample; dependent variable: HS</i>					
		<i>Model 1<sub>HS</sub></i>	<i>Model 2<sub>HS</sub></i>	<i>Model 3<sub>HS</sub></i>	
<i>Individual-level variables (L1)</i>	<i>Zero-sum beliefs about gender</i>	-	-	0.54**	
<i>Country-level variables (L2)</i>	<i>Country's gender equality (GGGI)</i>	-	-5.31**	-4.28**	
<i>Random effects</i>	<i>Residual</i>	1.20	1.20	1.07	
	<i>Intercept</i>	0.52	0.44	0.34	

1 Notes. Number of observations: Male sample = 6,734; Number of countries = 42. \*  $p < 0.05$ . \*\*  $p < 0.01$

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3 **Table 4. Multilevel Models' Fit Indices.**

<i>Model</i>	<i>Type</i>	<i>Description</i>	$\Delta$ <i>df</i>	- 2 log likelihood	<i>AIC</i>	<i>L. Ratio</i>
<i>Male sample</i>						
<i>1<sub>CAI</sub></i>	<i>Baseline (null) model</i>	<i>Individuals nested within their country with no other predictors</i>	-	25216.32	25222.31	-
<i>2<sub>CAI</sub></i>	<i>Random coefficient and fixed predictors</i>	<i>Individual (L1), country (L2) level (GGGI)</i>	2	25012.56	25022.57	203.74**
<i>3<sub>CAI</sub></i>	<i>Random coefficient and fixed predictors</i>	<i>Individual (L1), country (L2) level (GGGI)</i>	1	24713.88	24725.88	298.69**
<i>4<sub>CAI</sub></i>	<i>Random coefficient and fixed predictors</i>	<i>Individual (L1), country (L2) level (GGGI) and cross-levels interaction (L2*L1)</i>	1	24713.88	24727.88	0.00

*Male sample; dependent variable: HS*

<i>1<sub>HS</sub></i>	<i>Baseline (null) model</i>	<i>Individuals nested within their country with no other predictors</i>	-	21661.90	21667.90	-
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2 <sub>HS</sub>	<i>Random coefficient and fixed predictors</i>	<i>Individual (L1), country (L2) level (GGI)</i>	1	21649.00	21657.00	12.90**
3 <sub>HS</sub>	<i>Random coefficient and fixed predictors</i>	<i>Individual (L1), country (L2) level (GGI)</i>	1	20073.78	20083.78	1575.22**

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1 *Notes.* Number of observations: Male sample = 6,734; Number of countries = 42. \* p < 0.05. \*\* p < 0.01

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7 [1] For all sub-indexes, scores range from 0 (imparity) to 1 (gender parity; see: World Economic  
8 Forum, 2018, for more detail about how the GGI is scored).

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