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

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25	Running Head: MEN'S SUPPORT FOR GENDER EQUALITY
26	

# Abstract

3	Men sometimes withdraw support for gender equality movements when their higher gender
4	status is threatened. Here, we expand the focus of this phenomenon by examining it cross-
5	culturally, to test if both individual- and country-level variables predict men's collective action
6	intentions to support gender equality. We tested a model in which men's zero-sum beliefs about
7	gender predict reduced collective action intentions via an increase in hostile sexism. Because
8	country-level gender equality may threaten men's higher gender status, we also examined
9	whether the path from zero-sum beliefs to collective action intentions was stronger in countries
10	higher in gender equality. Multilevel modeling on 6,781 men from 42 countries supported the
11	individual-level mediation model, but found no evidence of moderation by country-level gender
12	equality. Both country-level gender equality and individual-level zero-sum thinking
13	independently predicted reductions in men's willingness to act collectively for gender equality.
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15	
16	Word count: 140
17	KEYWORDS: gender inequality, ally behaviour, hostile sexism, collective action, culture, status
18	threats
19	Country-level and Individual-level Predictors of Men's Support for Gender
20	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 lower employee-reported job turnover and attrition, higher job satisfaction and increased 9 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).

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

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

- as a chronic reminder of women's gains. In the following sections, we explain the various
   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; Teixera, Spears, & Yzerbyt, 2019). Given that people of all genders benefit from gender equality (Holter, 2014), and that men's buy-in is essential to the 16 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 petitions to support workplace gender equity, and endorsing gender egalitarian politicians – are 10 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 (Subašic 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.

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

& Jost, 2014). They thus show a motivation to defend the status quo, which correlates negatively with system-challenging collective action (Osborne, Jost, Becker, Badaan, & Sibley, 2019). As such, some men view women as competitors rather than allies, viewing women's advances as threats to men's status (Branscombe, 1998; Fiske & Taylor, 2013). Here, we investigate if the tendency to view women's progress as threatening predicts men's (un)willingness to act as gender equality allies and we examine both individual and country level factors predictors of 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 gender hierarchy (Herek, 1986; Sidanius & Pratto, 1999; Vandello & Bosson, 2013). Men's 13 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 with lower interpersonal trust (Davidai & Ongis, 2019). In the context of gender, those higher in 5 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, & Lenes, 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.

Moreover, zero-sum thinking may negatively predict men's solidarity-based collective
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

In addition to examining the individual-level predictors described above, we examined country-level gender equality as a moderator of their relationship with the intention to support gender equality action. To that end, we used the Global Gender Gap Index (GGGI, World Economic Forum, 2018). The GGGI is an objective index of the parity of gendered outcomes for women relative to men across four fundamental categories (sub-indexes): Economic Participation and Opportunity, Educational Attainment, Health and Survival, and Political Empowerment[1]. The GGGI derives from country-level statistics, only some of which are directly
observable to individuals. Yet, a country's GGGI reflects the aggregated social, economic, and
political gains that its female citizens have amassed over time. Thus, a high country-level gender
equality is presumably visible on a daily basis via reminders of women's progress. These
reminders include news stories about feminist causes, online discussions about gender-relevant
topics (e.g., the gender wage gap, the Me Too Movement), and the visibility of women in
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.

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

Expanding beyond WEIRD countries. Research on models of collective action has
 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., Chavinska, Minescu, & McGarty, 2017; Fischer, Becker, Kito, & Nayır, 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).

For that reason the present work includes multinational data from 42 countries ranging from the very gender egalitarian Norway (0.835 on a 0.0–1.0 scale, ranked 2<sup>nd</sup> in gender equality), to the relatively inegalitarian Pakistan (0.555, ranked 142<sup>nd</sup> out of 149 countries; see the Global Gender Gap Report, 2018). We view this as an important strength of our investigation, which should allow our study to yield an expansive assessment of cross-cultural
 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 in gender equality (country-level GGGI). We reasoned that women's relative equality in high-8 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 larger project (blinded for review) that is pre-registered on OSF (blinded for review). Note that 11 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: <i>if you are reading this sentence please select 4</i> .
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).
- As shown in Table 1, the proportion of men in the national sub-samples varied from 17% (France) to 49% (India). The sub-samples also differed in the mean age of participants. Due to national differences in age and gender distribution, both variables (if applicable) were considered 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 on gender issues or using online tools (e.g., Instagram, YouTube, Facebook, Wikipedia, Blogs) 12 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 scores reflect greater intention to engage in solidarity-based collective action for gender equality. 16

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

('As women gain more social status, men lose social status'), and familial ('More family-related
decision making for women means less family-related decision making for men'). Additionally,
one item assesses zero-sum beliefs about discrimination ('Declines in discrimination against
women are directly related to increased discrimination against men'). Response options for each
item ranged from 0 (*strongly disagree*) to 5 (*strongly agree*), and we averaged them to create a
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 over men', 'Women exaggerate problems they have at work', and 'When women lose to men in 8 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, or whether the scales measure the same constructs in all countries. Usually, cultural researchers 5 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 Muthein, 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): △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.

We then tested the hypotheses using MLM (e.g., Hox, 2010) on data from 6,734
individuals (men) (Level 1) across 42 countries (Level 2). The multilevel analyses were
specified sequentially by incorporating additional predictors into each successive model to
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  $1_{CAI}$  and Model  $1_{HS}$  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.

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

# Results

2	We calculated descriptive statistics (means, standard deviations), and Cronbach's alphas
3	for the three individual-level variables, separately for each country. As shown in Table 1, the
4	three measures were generally reliable in all national sub-samples. The exception was the hostile
5	sexism scale, where Cronbach's alpha was below 0.70 in China, Kazakhstan, Nigeria, and
6	Suriname This was partly due to the small number of items in the hostile sexism scale.
7	Mean scores for the main predictor variables, that is, zero-sum beliefs about gender and
8	hostile sexism, were low in many countries and particularly in liberal Western Democracies. For
9	zero-sum beliefs, mean scores were below 1 in 17 of the 42 countries and below 2 in all
10	countries. For hostile sexism, 41 of the 42 countries were below the scale midpoint (3) and only
11	one – Nigeria – was above it.
12	Measurement Invariance of the Scales
12 13	Measurement Invariance of the Scales Table 2 presents the global fit coefficients for the three levels of measurement invariance
13	Table 2 presents the global fit coefficients for the three levels of measurement invariance
13 14	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,
13 14 15	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
13 14 15 16	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
13 14 15 16 17	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,

**INSERT TABLE 2 HERE** 

1

21

# 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	$1_{CAI}$ ), 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 $1_{HS}$ ), 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	<b>Predictors (Models 2</b> <sub>CAI</sub> , <b>3</b> <sub>CAI</sub> , <b>&amp; 4</b> <sub>CAI</sub> ). The results of the fitted Model 2 <sub>CAI</sub> confirmed that among men, stronger zero-sum beliefs predicted weaker collective action intentions ( $B = -0.26$ , $p$
13 14	
	among men, stronger zero-sum beliefs predicted weaker collective action intentions ( $B = -0.26$ , $p$
14	among men, stronger zero-sum beliefs predicted weaker collective action intentions ( $B = -0.26$ , $p < 0.01$ ). Consistent with our expectations, Model 3 <sub>CAI</sub> showed that hostile sexism partially
14 15	among men, stronger zero-sum beliefs predicted weaker collective action intentions ( $B = -0.26$ , $p < 0.01$ ). Consistent with our expectations, Model $3_{CAI}$ showed that hostile sexism partially mediated the relationship between zero-sum beliefs and collective action intentions. Hostile
14 15 16	among men, stronger zero-sum beliefs predicted weaker collective action intentions ( $B = -0.26$ , $p < 0.01$ ). Consistent with our expectations, Model $3_{CAI}$ showed that hostile sexism partially mediated the relationship between zero-sum beliefs and collective action intentions. Hostile sexism significantly and negatively predicted collective action intentions ( $B = -0.30$ , $p < 0.01$ ).

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

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 (B8 = 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 24% from a year earlier, and making it the first time the proportion of women in senior 14 15 leadership exceeded one in four (Thornton, 2019). Women currently hold 24.5% of legislative seats around the world, an increase from 13.0% in 1999 (Chesser, 2019). Apart from these 16 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 by men) in 2015 to 21 cents less in 2019 ("Gender Pay Gap Statistics for 2019 | PayScale," 19 2019). 20

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.

An alternative explanation for the negative association between country-level gender
equality and men's collective action intentions is that men may consider it unnecessary to
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

example, only 12.4% of participants in Hungary and 20,9% in Turkey perceived gender
 discrimination, compared to 36,2% in Netherlands and 27% in Sweden. Thus, future research is
 needed to determine whether men in more gender equal countries withdraw their support for
 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.

However, country-level gender equality did not moderate the relationship between men's
zero-sum beliefs and their collective action intentions. Independently of country-level gender
equality, zero-sum beliefs about gender predicted lower collective action intentions among men.
Hence, both country-level, objective indices of women's advances and individual-level,
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, regardless of their nation's level of gender equality, college students may be more aware than the 15 16 general populace of structural gender hierarchies and national and international gender equality movements. If so, this may reduce variance in their support for collective action. This is also 17 18 reflected by our results showing that male students had relatively low scores on both zero-sum 19 beliefs about gender and hostile sexism.

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

effects in analyses. However, age was not a significant predictor of collective action intentions
and was therefore omitted in the reported analyses. In some national samples, moreover, the
number of male participants was relatively low (< 100). This alone should not affect our final</li>
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 to participate in collective action to support "gender equality" and equality-based policies. The 6 7 items did not ask about intentions to promote "women's progress" or "equality for women." Thus, although we assume that most readers have interpreted "gender equality" as "women's 8 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.

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

Finally, the cross-sectional, correlational nature of our data renders causal conclusions premature. Although our theoretical model implies causal paths from men's zero-sum beliefs to their collective action intentions via hostile sexism, a true test of our logic awaits further study. In particular, longitudinal and experimental designs will be essential in further tests of our
 model. Kuchynka et al. (2018) already found that experimentally manipulated reminders of
 women's progress heightened men's zero-sum beliefs about gender and accordingly reduced
 their support for workplace gender equity policies. However, it will be important to replicate this
 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 country20 level factors predict men's willingness to support gender equality.

Solidarity efforts to combat gender inequalities will not succeed as long as equality is
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.
9	
10	
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## Table 1. Samples' Composition, Country's GGGI, Cronbach's alphas, and Descriptive Statistics of the Measured Variables in 42 Countries.

Country	Ν	% of men	Age		Collect Intentio	tive Action ons	n		um Perspe r Status	ective of	Hostile	e Sexism		GGGI
			М	SD	М	SD	Alpha	М	SD	Alpha	М	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	

Scale	Level of invariance	$\chi^2$	df	CFI	RMSEA	ΔCFI	ΔRMSEA

Collective Action Intentions	Configural invariance (equal	1226.55	369	0.981	0.072	-	-
	form)						
	Metric (weak) invariance (equal	1836.88	569	0.977	0.071	0.004	0.001
	factor loadings)						
	Scalar (strong) invariance (equal indicator intercepts)	3167.92	769	0.962	0.084	0.015	0.013
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	2659.13	894	0.941	0.067	0.013	0.006
	(equal indicator intercepts) <sup>a</sup>						
		4135.05	1054	0.906	0.081	0.048	0.020
	Scalar (strong) invariance (equal indicator intercepts)						
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)						
		1376.14	528	0.955	0.060	0.020	0.014
	Partial scalar (strong) invariance (equal indicator intercepts) <sup>b</sup>						
		5069.49	648	0.784	0.124	0.191	0.078
	Scalar (strong) invariance (equal indicator intercepts)						

1 *Notes.* 41 countries;  $\chi^2$  – chi square; d*f*-degrees of freedom; CFI - comparative fit index; RMSEA - root mean

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
released.

		Model 1 <sub>CAI</sub>	Model 2 <sub>CAI</sub>	Model 3 <sub>CAI</sub>	Model 4 <sub>CAI</sub>
Individual-level variables (L1)	Zero-sum beliefs about gender	-	-0.26**	-0.10**	-0.10**
	Hostile sexism	-	-	-0.30**	-0.30**
Country-level variables (L2)	Country's gender equality (GGGI)	-	-5.80**	-7.10**	-7.10**
Cross-levels interaction component	Country's gender equality (GGGI)*Zero-sum beliefs about gender	-	-	-	0.01
Random effects	Residual	1.56	1.54	1.50	1.50
	Intercept	0.67	0.59	0.62	0.62

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

Male sample; dependent variable: HS

		Model 1 <sub>HS</sub>	Model 2 <sub>HS</sub>	Model 3 <sub>HS</sub>
Individual-level variables (L1)	Zero-sum beliefs about gender	-	-	0.54**
Country-level variables (L2)	Country's gender equality (GGGI)	-	-5.31**	-4.28**
Random effects	Residual	1.20	1.20	1.07
	Intercept	0.52	0.44	0.34

## 2

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

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

 1<sub>HS</sub>
 Baseline (null)
 Individuals nested within
 21661.90
 21667.90

 model
 their country with no
 other predictors

2 <sub>HS</sub>	Random coefficient and fixed predictors	Individual (L1), country (L2) level (GGI)	I	21649.00	21657.00	12.90**
3 <sub>HS</sub>	Random coefficient and fixed predictors	Individual (L1), country (L2) level (GGI)	1	20073.78	20083.78	1575.22**

1	<i>Notes.</i> Number of observations: Male sample = 6,734; Number of countries = 42. * $p < 0.05$ . ** $p < 0.01$
2	
3	
4	
5	
6	
7	<sup>[1]</sup> 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 GGGI is scored).
9	
9 10	