

RESEARCH ARTICLE

A comprehensive measure of attitudes and behaviour: Development of the Support for Gender Equality among Men Scale

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Abstract

In this article, we develop and validate the 16-item Support for Gender Equality among Men Scale across four studies. Drawing on exploratory (Study 1, $n = 322$) and confirmatory (Study 2, $n = 358$; Study 4, $n = 192$) factor analysis, we determine a two-factor structure: public and domestic support for gender equality. In Study 3 ($n = 146$) and Study 4, we validate the scale by establishing its relationship with, among others, several prominent measures of sexism, a behavioural measure, and social desirability. The scale fills a psychometric gap in the literature: To date, no validated measure of support for gender equality, measuring both attitudes and behavioural intentions and focusing specifically on men, exists. Considering the recent increase in interest in men as allies of the feminist movement the scale functions as a useful tool to explore the topic in depth in future research.

KEYWORDS

gender equality, male allies, masculinity, scale development, sexism

1 | INTRODUCTION

Despite progress, profound gender inequality prevails across the globe, and in Western society. Perhaps most strikingly, the division of labour remains largely traditional: Women are (a) less likely to engage in paid work (American Association of University Women, 2016; Eurostat, 2019), (b) less likely to occupy top level positions (American Bar Association, 2016; Catalyst, 2015, 2016; Grant Thornton, 2018; Inter-Parliamentary Union, 2017; S&P Global, 2016), and (c) more likely to bear disproportionate responsibility for housework and childcare (Deutsch, 1999; Hochschild & Machung, 2012; Pew Research Center, 2013). While these circumstances put women at an economic disadvantage, they impede men in other ways. The traditional male gender role is associated with stereotypes that reinforce physically and mentally harmful behaviours such as risk-taking and the suppression of emotions (Bird & Rieker, 1999; Courtenay, 2000). Such behaviours can result in decreased mental and physical

health, and can help explain increased suicide rates in men (relative to women, Hawton, 2000). In comparison, it has been demonstrated that gender equality is related to greater well-being and decreased depression rates (Holter, 2014), and greater relationship stability and sexual satisfaction (Rudman & Phelan, 2007) for both women and men.

From a more societal perspective, men moving away from traditionally masculine gender roles is essential for the labour market considering that a growing number of women move from traditionally female occupations to traditionally male ones. Given the resulting labour shortage in traditionally female fields, such as care and education, men moving into such roles might address this deficiency and might further broaden the diversity of perspectives in these roles (see Croft, Schmader, & Block, 2015 for a review). A range of perspectives might result in improved decision-making and more efficient problem-solving in traditionally female fields, similar to the effect it has had within traditionally male

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board rooms (Campbell & Mínguez-Vera, 2008; Carter, Simkins, & Simpson, 2003; Erhardt, Werbel, & Shrader, 2003). In a nutshell, the academic literature has discussed the numerous benefits of gender equality for both men and women, and for society more generally, and has proposed numerous pathways towards a more gender-equal society.

While much research has focused on the circumstances that motivate women to engage in support for collective action to achieve gender equality (Breinlinger & Kelly, 1994; Gurin & Townsend, 1986; Kaplan, 1982; Kelly & Breinlinger, 1995; Noonan, 1995; Tilly & Gurin, 1990), more recently research has identified men's support for gender equality as a factor crucial for change (Armstrong, 2016; Cihangir, Barreto, & Ellemers, 2014; Drury & Kaiser, 2014; Estevan-Reina, de Lemus, & Megías, 2017). Although the body of literature on this topic is expanding, to our knowledge, no clear conceptualisation or comprehensive measure of men's support for gender equality exists to date. The aim of the current article is to address this psychometric gap.

2 | DRIVERS OF SOCIAL CHANGE: MALE ALLIES

If we are to understand when and how men might support gender equality a useful starting place is the literature on collective action, that is, the joint efforts of individuals who focus their actions on improving the conditions of the larger group to which they belong (Wright, Taylor, & Moghaddam, 1990). Traditional approaches to understanding collective action tend to focus on low status groups, for instance women (Breinlinger & Kelly, 1994; Gurin & Townsend, 1986; Kaplan, 1982; Kelly & Breinlinger, 1995; Noonan, 1995; Tilly & Gurin, 1990), as the drivers of social change (Runciman, 1966; Tajfel & Turner, 1979; van Zomeren, Postmes, & Spears, 2008). Moreover, social dominance theory (Sidanius & Pratto, 1999; Sidanius, Pratto, van Laar, & Levin, 2004) and system justification theory (Jost & Major, 2001) seem to propose that men are unlikely to engage in collective action because they are satisfied with their high-status positions and hence motivated to maintain or enhance group-based hierarchies. Thus, from this perspective, social change is seen as being dependent on women's dissatisfaction with, and their efforts to improve, the status quo.

More recent theories of social change, however, are more inclusive of high-status group members' contributions. The political solidarity model of social change (Subašić, Reynolds, & Turner, 2008), for instance, suggests that social change occurs when men start to actively challenge the current power structures in solidarity with women. Similarly, the social identity model of collective action (van Zomeren, Postmes, Spears, & Bettache, 2011) proposes that men might engage in collective action once gender inequality takes priority over group membership as it is perceived as a violation of their moral convictions.

Outside academia, there has also been increased interest in the involvement of men in social change towards more gender

equality. Acknowledging the impact that men might have if they were to join the gender equality movement, initiatives such as *HeForShe* (2017, January 24), *Men Advocating Real Change* (2017, January 24), *Token Man* (2017, January 24), and *The Good Lad Initiative* (2017, January 24) have increased in popularity. In line with these movements, empirical research on how and why men might support gender equality, and when they might not, has accrued (Armstrong, 2016; Cihangir et al., 2014; Drury & Kaiser, 2014; Iyer & Ryan, 2009; Kosakowska-Berezecka et al., 2016). Reviewing the literature and initiatives on men's support for gender equality, however, makes apparent the lack of a consistent, overarching definition and measure of men's support for gender equality: The research has tended to rely on a number of ad hoc measures and scales (see below). We believe that fruitful future research in this domain would benefit from a validated overarching measurement tool that could be used to answer broader questions on men's support for gender equality. In the following section we consider existing measures of men's support for gender equality, and outline both their strengths and limitations.

3 | MEASURING SUPPORT FOR GENDER EQUALITY

3.1 | Existing measures

Men's support for gender equality has frequently been measured with ad hoc tools, often focused on singular aspects of men's support. A few of these tools focus on support for equality in the workplace: Cihangir et al. (2014) measured participants' willingness to speak up when witnessing gender inequality by giving them the option to file a complaint against an unfair selection decision. Iyer and Ryan (2009) measured efforts to contribute to a more inclusive workplace culture by asking participants whether they actively supported affirmative action. Other research has examined men's support for gender equality by measuring their involvement in household chores and childcare. These studies use a variety of approaches, including diary entries detailing time devoted to these activities (Achen & Stafford, 2005; Bianchi, Milkie, Sayer, & Robinson, 2000; Craig, Perales, Vidal, & Baxter, 2016), or direct questions, such as "How often do you change diapers or clothes of your children?" (Kato-Wallace, Barker, Eads, & Levto, 2014). While the use of these measures have certainly given us important insights into men's support for gender equality, such measures are typically not validated empirically. With the research in this domain becoming increasingly relevant, increasing the employment of validated measures to guarantee maximum reliability and validity of our data might be commendable.

The fully validated measurement tools that do exist seem only to capture singular aspects of support for gender equality. White (2006), for instance, focuses on political activism with items such as "I joined a protest march that addressed feminist issues". Similarly, Kravitz and Platania's (1993) affirmative action scale concentrates on efforts to foster an inclusive workplace culture (e.g., "Affirmative action is a good policy"). While this approach is appropriate for

research projects on singular aspects, these measures may be inapt when investigating broader questions relating to men's support for gender equality.

There are a range of validated scales that measure attitudinal support for gender equality more broadly by covering different aspects across items. Some of the most widely used include the liberal feminist attitude and ideology scale (Morgan, 1996, e.g., "A woman should have the same job opportunities as a man" and "Doctors need to take women's health concerns more seriously"), the attitudes towards traditional-egalitarian sex roles scale (Larsen & Long, 1988, e.g., "Men make better leaders" and "Women should have as much sexual freedom as men") and the attitudes towards women scale (Spence, Helmreich, & Stapp, 1973; e.g., "Women should worry less about their rights and more about becoming good wives and mothers" and "It is ridiculous for a woman to run a locomotive and for a man to darn socks"). More recent ones include the gender role stereotypes scale (Mills, Culbertson, Huffman, & Connell, 2012, e.g., "Indicate by which gender this task should be done: Prepare meals" and "Indicate by which gender this task should be done: Mow the lawn") and the gender role beliefs scale (Brown & Gladstone, 2012, e.g., "The initiative of courtship should usually come from the man" and "Swearing and obscenity is more repulsive in the speech of a woman than a man").

While these attitudinal scales cover a broad range of aspects of support for gender equality the relevance of mere attitudes for making change is questionable. Specifically, the exclusive focus on assessing attitudes may be problematic as they do not always translate to a person's actual behaviour (Ajzen, 1991), a phenomenon that has specifically been shown to hold true in regard to gender equality (Branscombe & Deaux, 1991; Foster, Wallston, & Berger, 1980; Swim & Hyers, 1999; Woodzicka & LaFrance, 2001; Zucker, 2004). For instance, a man who might indicate theoretical disagreement with the statement that meal preparation should be done by women might practically still live in a household where all meal preparation is carried out by a woman. Accordingly, Maume (2006) argued for the need for measures of support for equality that go beyond the voicing of progressive ideologies. That is, a scale might measure not only men's attitudes, but also men's behavioural intentions regarding their support for gender equality. Some of the discussed scales further include measures of affective components (e.g., "Swearing and obscenity is more repulsive in the speech of a woman than a man", Brown & Gladstone, 2012). However, in line with the theory of planned behaviour (Ajzen, 1991, 2011), we argue that the affective component is embedded in measures of attitudes and behavioural intentions as affect serves as a background factor that influences attitudes, behavioural intentions, and ultimately behaviour. Confirming this conceptualisation of affect, Ajzen and Sheikh (2013) found that affect made no contribution over and above attitudes regarding the intention to engage in or avoid a certain behaviour.

Finally, while many of the discussed measures have been administered to men, none of them was developed to measure men's support for gender equality specifically. A scale developed to measure men's support could capture certain actions, such as increased

engagement in childcare, which would be considered support for gender equality among men, but not among women. Moreover, there might be differences in men and women's engagement in support of gender equality due to the different ways in which they are affected by gender roles, and due to society's disparate reactions towards men's and women's support for gender equality (Anderson, 2009; Cihangir et al., 2014; Czopp & Monteith, 2003). These variables might result in unique items and underlying structures in men's support for gender equality that only a scale developed on male samples would uncover.

3.2 | Conceptualising men's support for gender equality

To develop a comprehensive measure of men's support for gender equality that addresses each of these limitations a clear conceptualisation of the construct that takes into consideration the various aspects of men's support for gender equality covered by previous research is needed. Having conducted a comprehensive literature review, we suggest that there are two broader domains in which men can support gender equality, namely within the public and within the domestic sphere. Actions performed in the public sphere are visible to others, and therefore constitute an overt demonstration of one's values. For instance, a man confronting others upon hearing a sexist remark or attending a demonstration for women's rights makes an open statement in support of gender equality. He risks negative evaluations by his peers (Anderson, 2009; Rickabaugh, 1995; Rudman, Mescher, & Moss-Racusin, 2013; Twenge & Zucker, 1999), but might equally contribute to a change in perceived norms and might thereby cause a spill-over effect by inspiring other men to follow suit (Ajzen, 1991; Blanchard, Lilly, & Vaughn, 1991; Crandall, Eshleman, & O'Brien, 2002; Deutsch & Gerard, 1955; Ravis & Sheeran, 2003). However, it is possible for men to engage in public support for gender equality while sticking to a rather traditional gender division in their personal lives. Domestic support for gender equality, then, complements public support by describing to which extent a man not only pays public lip-service to gender equality, but actually implements the principles with his own female partner. This conceptualisation of domestic support for gender equality renders the construct more meaningful for men who engage in romantic relationships with women. Therefore, our theorising and research has largely been based on heterosexual men. By engaging in traditionally female tasks, such as household chores and childcare, a man undertakes actions that lie at the very core of gender equality (Croft et al., 2015; Deutsch, 1999; Haas, 2003). Interestingly, there might be differing motivations underlying domestic support for gender equality: while some men might consciously engage in these tasks for the sake of supporting gender equality, other men's intention might be to support their partners specifically (Deutsch, 1999). Regardless, men can domestically support gender equality but remain silent regarding their support in conversation with others (Atkinson & Boles, 1984; Deutsch, 1999; Greenstein, 2000). Therefore, the likely spill-over effect to other men discussed in relation to public support for gender

equality might fail to appear. Notably, these considerations apply only to heterosexual men who engage in romantic relationships with women. In a nutshell, public and domestic support for gender equality can occur independently of each other, but bear maximum potential for change when combined. With the aim of developing an item pool capturing different aspects of each domain, we conducted an in-depth review of the literature on support for gender equality and found that both constructs can be further broken down.

The literature suggests that there are at least four ways in which men can publicly support gender equality: Men might engage in political activism (Iyer & Ryan, 2009; Stewart, 2016; Subašić et al., 2008; White, 2006), speak up when witnessing gender inequality (Cihangir et al., 2014; Czopp & Monteith, 2003; Czopp, Monteith, & Mark, 2006; Drury & Kaiser, 2014; Eliezer & Major, 2011; Rasinski & Czopp, 2010; Stangor et al., 2003), show a general interest in discourse on gender equality (Houvouras & Carter, 2008; Kaufman & Kimmel, 2011; Lemaster, Strough, Stoiko, & DiDonato, 2015), and foster an inclusive workplace culture (Armstrong, 2016; Liff & Cameron, 1997). Within the domestic sphere, men's support might include treating one's partner respectfully (Frei & Shaver, 2002; Hendrick & Hendrick, 2006; Hirsch, 2003; Vannoy, 1996), an equal division of household chores (Deutsch, 1999; Dotti Sani, 2014; Kosakowska-Berezecka et al., 2016; Lyness & Brumit Kropf, 2005), and equal involvement in parenting and childcare (Deutsch, 1999; Gärtner, 2007; Haas, 2003; Kato-Wallace et al., 2014; Scambor et al., 2014). While these behaviours are certainly important with regard to female romantic partners they can further be applied to female relatives, friends, or housemates. In combination with the results from the pilot study, these aspects identified within the literature will inform our initial item pool.

3.3 | The present research

In the present research we develop and validate the Support for Gender Equality among Men Scale (SGEMS) which is designed to address the limitations we have identified. The SGEMS is a broad measure of men's support for gender equality. It specifically focuses on men's support, and comprises items capturing both attitudes and actions. In line with the reviewed literature, we propose two dimensions of the SGEMS: *Public Support for Gender Equality*, that is, support outside of the home environment, and *Domestic Support for Gender Equality*, that is, support within the home environment. We chose to develop the SGEMS with samples of heterosexual men as the second dimension *Domestic Support for Gender Equality* is more meaningful to men who engage in romantic relationships with women.

First, having conducted a comprehensive review of the literature and the results of a pilot study, we generate a 31-item item pool comprising items assessing men's attitude and behavioural intentions regarding their support for gender equality. We then test whether the proposed dimensions hold via exploratory factor analysis (Study 1) and confirmatory factor analysis (CFA; Study 2), and investigate the SGEMS's convergent and concurrent validity, and its relationship to several other variables (Study 3). All studies employed large samples

of men from the UK and the US, recruited on an online research platform (Study 1 and 3) or on public transport in the UK (Study 2).

4 | PILOT STUDY

In a short pilot study, we asked eight lay people (three women, age range 20–60) to list 10 ways in which men can support gender equality. We recruited random participants from our broader professional and personal network in the UK and in Germany. We categorized the participants' responses and found that they broadly captured the aspects of the two categories of public and domestic support for gender equality that we had previously identified within the literature review: political activism (e.g., "support marches for [gender] equality"), speaking up (e.g., "intervene if needed—show that people care about gender inequality"), speaking about (e.g., "developing a willingness to speak openly and passionately about gender inequality"), creating an inclusive workplace culture (e.g., "encourage and promote women to boardrooms of companies"), respect towards (female) partner (e.g., "[avoiding] violence as an expression of gender dominance"), equal division of household chores (e.g., "be involved in domestic duties"), and involvement in parenting and childcare (e.g., "be involved in childcare"). From the two categories that emerged in the literature review and the pilot study, we generated an item pool of 31 items. Each one of the items pertained to one of the two categories. Naturally, the two domains might include further aspects that we did not capture within the 31 items. However, due to the two-pronged approach combining theory and qualitative data, we can reasonably assume that the most prevalent aspects are covered.

5 | STUDY 1

The pilot study resulted in an item pool of 31 items describing support for gender equality among men. In Study 1, we administered these items to a sample of male online survey takers and conducted an exploratory factor analysis to examine the structure of the items.

5.1 | Method

5.1.1 | Participants and procedure

We recruited 322 male participants ($M_{\text{age}} = 29.31$, $SD = 9.49$, age ranged 16–60) from the online research platform Prolific Academic. We based sample sizes in Study 1, Study 2, and Study 4 on minimum item–participant ratio recommendations (Catell, 1978; Everitt, 1975). Most participants were American (52%) or British (45%), and all participants identified as heterosexual. Prior to calculations, we excluded three participants who completed the survey in fewer minutes than we had estimated the survey to require, or who had more than 5% missing data. None of the remaining participants had any missing data points. After giving informed consent, participants indicated their agreement with the 31 suggested items, and were

asked to report demographic information, such as age and nationality. Subsequently, they were thanked for their participation and received payment in the form of Prolific Academic credit (£ 0.45).

5.1.2 | Measures

We aimed for the established item pool to cover a range of different attitudes and behavioural intentions to ensure content validity. This resulted in 31 items (see Supporting Information): 16 items capturing public support for gender equality, and 12 items capturing domestic support for gender equality. Sample items include “I actively support peer networking and mentoring systems for my female colleagues” (public support), and “My partner and I share most household chores” (domestic support). The item pool included nine reverse-worded items (e.g., “I do not support gender quotas”) which were recoded before running the analyses. For exploratory purposes, we also included three overarching items that captured general support for gender equality. We expected that these might load onto a separate, third factor capturing support for gender equality in more general terms. An example item was “I support gender equality”. Participants indicated their agreement with the statements on a 7-point Likert scale (1 = Strongly disagree; 7 = Strongly agree).

5.2 | Results

5.2.1 | Two-factor solution

We used R Studio to run all preliminary and main analyses. To examine the underlying factor structure of the SGEMS, an exploratory factor analysis was conducted on the 22 positively phrased items.¹ In line with Cattell's scree test, five factors displayed eigenvalues above 1 (7.62; 2.87; 1.31; 1.14; 1.02), which served as a criterion for factor extraction. We applied the generalized least squares fitted linear model and an oblique rotation (promax), allowing for correlation between the two factors. The promax rotation resulted in the same factor loadings as the more commonly used oblimin rotation, but exhibited slightly higher factor loadings for most items. While there were five eigenvalues larger than one, the latter three were just marginally larger than one, and solutions with more than two factors could not be interpreted in a meaningful way. The analyses hence point towards a two-factor solution. The first factor seems to capture *Public Support for Gender Equality*, while the second factor seems to capture *Domestic Support for Gender Equality*.

5.2.2 | Dropped items

Several authors (Costello & Osborne, 2005; Hair, Black, Babin, Anderson, & Tatham, 2006) name a cut-off point of .30 appropriate

¹In the comment section of the survey, participants had indicated that the reverse-worded items were unclear. Further, when we ran an exploratory factor analysis on all items most reverse-worded items loaded onto a separate factor. These observations are congruent with recent literature (Carleton, McCreary, Norton, & Asmundson, 2006; Roszkowski & Soven, 2010; Woods, 2006). For more information on reverse-coded items within factor analysis, see the Supporting Information.

to determine practical significance in exploratory factor analysis.² All but one item (“I am in favour of men and women working in professions that are atypical for their gender”) loaded above .30 on one of the two factors, and none of the items exhibited double-loadings. We dropped the item that did not load onto either factor. To achieve a more even balance of items across domains, we dropped another item (“I actively encourage male colleagues to take paternity leave”) that exhibited substantially weaker loading than other items relating to workplace culture (loading .18–.36 lower on Factor 1). For the same purpose, we further eliminated two items (“I initiate conversations about gender equality in the workplace” and “I consult my partner before making important financial decisions”) that correlated strongly with two very similar items (“I initiate conversations about gender equality” and “I make all important decisions together with my partner”, respectively). The items that we eliminated exhibited similar loadings (difference of .05) on the two factors as the items that we retained. Applying these criteria resulted in an approximately even balance of items across categories: nine items capturing public support for gender equality, and seven items capturing domestic support for gender equality.

5.2.3 | Broader measures items

Unlike expected, the broader measures (“I support gender equality” and “Achieving gender equality would make me happy”) did not load on a separate, third factor, but loaded on the first factor (.60 and .55). This indicates that participants associated “supporting gender equality” more with public support for gender equality than with domestic support for gender equality. High correlations between the two items and other SGEMS-Public items, and a lack of additional explained variance supported this. Therefore, and as the two items did not match the interpretation of the first factor (see below), we decided not to include them in the scale. Descriptive statistics and factor loadings of the retained items are presented in Table 1.

5.2.4 | Final model statistics

In the final model, nine items loaded on the first factor capturing *Public Support for Gender Equality* ($M = 4.17$; $SD = 1.11$; eigenvalue 5.47; $\alpha = .88$), accounting for 25% of the total variance. The items loading on this factor captured political activism on behalf of gender equality, reactions when witnessing gender inequality, an interest in communication about gender inequality, and workplace behaviour with respect to gender. The second factor *Domestic Support for Gender Equality* comprised seven items ($M = 5.28$; $SD = 0.92$; eigenvalue 2.38; $\alpha = .78$), accounting for 19% of the total variance. The items in this factor addressed respect towards one's (female) partner, division of household chores, and involvement in parenting and childcare. The correlation between the two factors was significant, $r = .39$, $p < .001$.

²For more details on our decision to use the .30 factor loading as a cut-off points in factor analysis, see the Supporting Information.

Item	Mean	SD	Factor 1	Factor 2
1. Political activism for gender equality is important to me.	3.99	1.60	.74	
2. If I get the chance, I engage in political activism for gender equality (e.g., petitions, protests, debates).	3.11	1.64	.75	
3. I engage with media that report on topics related to gender equality.	3.66	1.55	.64	
4. I initiate conversations about gender equality.	3.48	1.74	.72	
5. I speak up when I witness gender inequality.	4.70	1.49	.61	
6. Offering support to people who are affected by gender inequality is important to me.	4.75	1.47	.66	
7. I actively support gender equality in my workplace.	4.93	1.51	.62	
8. I actively support networking and peer mentoring systems for my female colleagues.	4.35	1.53	.64	
9. I actively encourage female colleagues to take on leadership roles.	4.55	1.57	.55	
10. Ideally, my partner's and my financial contribution to the household would be equal.	5.11	1.48		.33
11. I am willing to make compromises for my partner.	5.75	1.14		.71
12. I make all important decisions together with my partner.	5.59	1.29		.63
13. My partner and I share most household chores.	5.18	1.47		.91
14. I feel as responsible for household chores as does my partner.	5.35	1.44		.90
15. If I were to have a child I would consider taking a part-time job to take care of my child. ^a	4.86	1.52		.32
16. If I were to have a child, I would treat a daughter in the same way as a son. ^b	5.14	1.59		.33

Note: Factor 1 = Public Support for Gender Equality; Factor 2 = Domestic Support for Gender Equality. Factor loadings below .30 are not shown.

^{a,b}In Study 1 and Study 2, item phrasing was slightly different than reported here ("I would consider taking a part-time job after childbirth" and "I treat boys in the same way as I treat girls", respectively). Item phrasing was changed after Study 2 due to some participants' comments on the ambiguous nature of the original items. See Introduction to Study 3 for more details.

6 | STUDY 2

Exploratory factor analysis in Study 1 indicated a two-factor solution: *Public Support for Gender Equality* and *Domestic Support for Gender Equality*. Thus, in Study 2 we aimed to replicate the two-factor solution using a paper-and-pencil version of the online questionnaire used in Study 1 on a substantially different sample, namely male commuters on trains in the South of England. Converging results with a substantially different sample speak to the external validity, in line with Winer's (1999) recommendations, and the robustness of the two-factor solution (Lynch, 1999; Onwuegbuzie, 2000).

6.1 | Method

6.1.1 | Participants and procedure

We recruited 358 male participants ($M_{\text{age}} = 42.75$, $SD = 16.14$, age ranged 18–90) on trains in the south of England, the majority of whom were from the UK (87%), from other European countries (8%), or from the US (1%). We excluded 35 participants who did not identify as heterosexual, and excluded 43 participants who failed to complete

the survey due to limited time on the train or because they had more than 5% missing data. We imputed data points for 35 participants who had <5% missing data, using *multiple imputation by chained equations* (MICE) in R. MICE predicts missing values from other existing variable scores while taking random sampling errors into account.

We individually approached men travelling on randomly selected trains within the UK. Most men (an estimated 80%) were willing to fill in the survey. After giving informed consent, participants indicated their agreement with the 31 items used in Study 1, and were then asked to report the same demographic information as in Study 1. Upon completion, participants were thanked for their participation and given chocolate in thanks.

6.1.2 | Measures

We used an identical paper-and-pencil version of the Study 1 online survey.³

³We collected data on all items in Study 2 and Study 3, including those that we decided to exclude from further analysis after Study 1. This is the case because the studies were run within a short period of time, and since we had considered running a direct replication of the EFA in Study 1, rather than a CFA.

TABLE 1 Factor loadings of the items for the Support for Gender Equality among Men Scale (Study 1)

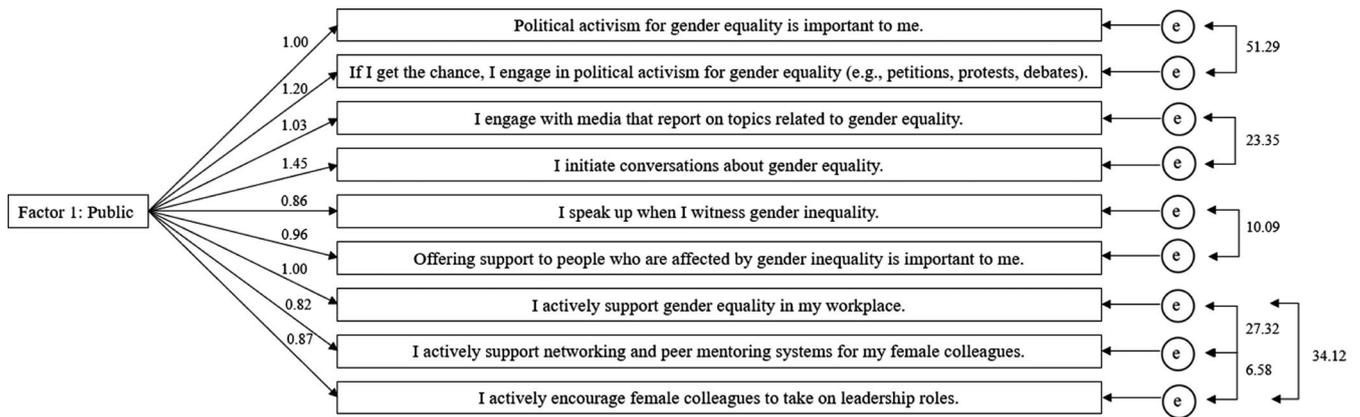


FIGURE 1 Model, unstandardized factor loadings, and errors for Factor 1 in the confirmatory factor analysis in Study 2

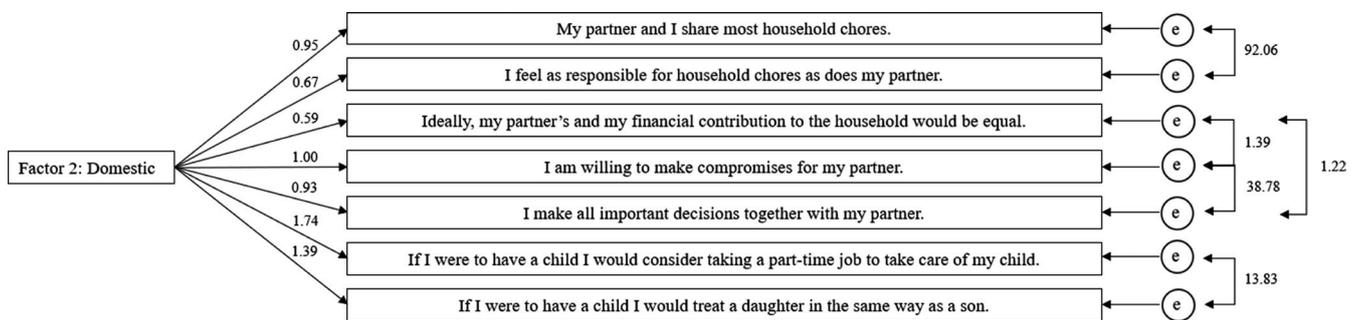


FIGURE 2 Model, unstandardized factor loadings, and errors for Factor 2 in the confirmatory factor analysis in Study 2

6.2 | Results

We validated the factor structure of SGEMS using CFA by loading the 16 items retained in Study 1 onto two factors in congruence with the structure that had emerged in the EFA in Study 1. Further, we investigated the relationship of the residuals across items to explore the possibility of hidden latent variables. As within each factor some of the items captured the same aspects, their residuals were highly correlated. To account for this, we specified which items were related to each other in our statistical model, as displayed in Figures 1 and 2.

Using common criteria for fit indices (see Kenny, 2015 for a review), the CFA provided more evidence for the two-factor model identified in Study 1 as the specified model fitted the data well, $\chi^2(92) = 172.033$, $p < .001$, CFI = .95, RMSEA = .05, SRMR = .05.⁴ To compare, we also fit a one-factor solution, $\chi^2(93) = 195.448$, $p < .001$, CFI = .93, RMSEA = .06, SRMR = .06, but it did not fit the data as well as the two-factor solution, $\chi^2_{diff}(1) = 23.415$, $p < .001$. The Akaike information criterion (AIC), an estimator of the relative quality of statistical models, confirmed this ($AIC_{two-factors} = 18,612.526$; $AIC_{one-factor} = 18,633.940$). We further

tested for a potential solution with more than two factors: a three-factor solution, loading all public support for gender equality items on one factor, but loading items capturing respect for one's female partner and items capturing equal division in household and childcare on separate factors. The model fitted the data well, $\chi^2(90) = 170.602$, $p < .001$, CFI = .96, RMSEA = .06, SRMR = .06, AIC = 9727.056, but not significantly better than the two-factor solution, $\chi^2_{diff}(2) = 0.431$, $p = .806$. Akaike weights ($w_{two-factors} = 0.86$; $w_{three-factors} = 0.14$) indicate that the two-factor solution is 5.96 times more likely to describe the data better than the three-factor solution. Aiming to develop a comprehensive, but parsimonious measure of support for gender equality among men, and considering that we have found sufficient evidence for the two-factor solution, we follow Myung and Pitt's (1997) advice to choose the simplest model that describes the data well. The Cronbach's alphas for the public and the domestic factor were .85 and .57, respectively. The correlations between individual item test scores and the total score were all positive. The correlation between SGEMS-Public ($M = 4.17$, $SD = 1.11$) and SGEMS-Domestic ($M = 5.27$, $SD = 0.94$) was significant, $r = .33$, $p < .001$.

7 | STUDY 3

Study 2 confirmed the two-factor solution (*Public Support for Gender Equality* and *Domestic Support for Gender Equality*) on a different sample, and demonstrated that our initial interpretation of

⁴The chi-square test rejected the null hypothesis that the data fits the model well. However, several authors have discussed the limitations of the chi-square test in CFA, which lead to frequent, incorrect rejection of the null hypothesis (Hooper, Coughlan, & Mullen, 2008; Wheaton, Muthén, Alwin, & Summers, 1977). Instead, they suggest the use of a relative/normed chi-square (χ^2/df). Perfect model fit exhibits a relative/normed chi-square of 1, and the cut-off point for good fit lies between 2 and 5. Both in Study 2 and in Study 4, $\chi^2/df < 2$ holds.

the results is robust and applicable across samples and contexts. After Study 2, we made some slight changes to the item phrasing of two items. First, it became clear from several participants' comments that the item "I would consider taking a part-time job after childbirth" was ambiguous; participants noted in the comment section of the survey and in verbal feedback that this item was not applicable as they could not give birth themselves. To avoid ambiguity, we changed the item phrasing to "If I were to have a child I would consider taking a part-time job to take care of my child". Second, also using participants' comments, we re-evaluated the item "I treat boys in the same way as I treat girls" and concluded that it was not interpreted as pertaining to the participants' domestic sphere. To ensure that the scales captures a component of the participants' domestic sphere, we changed the item phrasing to "If I were to have a child, I would treat a daughter in the same way as a son". The new phrasings reflect the content of the item more clearly and should result in higher loading on the second factor, and increased reliability.

Our aim in Study 3 is to validate the SGEMS by establishing convergent, concurrent, and discriminant validity.⁵ As for convergent validity, we expect both SGEMS factors to be negatively correlated with measures of sexism. Ample evidence indicates that sexist ideologies correlate with (Glick et al., 2000, 2004; Inglehart & Norris, 2003; Napier, Thorisdottir, & Jost, 2010) and cause (Brandt, 2011; Sidanius & Pratto, 1999) gender inequality. More specifically, sexism is associated with a lower likelihood of voting for female political candidates (Swim, Aikin, Hall, & Hunter, 1995), less support for women in traditionally male (i.e., high-status) educational and occupational domains (Sakalli-Uğurlu, 2010; Swim et al., 1995), and opposition to public policies designed to attenuate male dominance (Sibley & Perry, 2010).

To capture sexist ideology, we measured hostile and benevolent sexism (Glick & Fiske, 1996), modern sexism (Swim et al., 1995), belief in traditional gender roles (Kerr & Holden, 1996), and feminist activism (Zucker, 2004). We chose these measures as they have been negatively linked to (support for) gender equality in past research: for instance, both hostile and benevolent sexism cross-culturally predict gender inequality (Glick & Fiske, 2001), and modern sexism correlates with a lack of support for policies designed to help women in education and work (Swim et al., 1995). Further, Campbell, Schellenberg, and Senn (1997) showed that modern sexism predicted gender-related political attitudes: higher levels of sexism were related to lower levels of support for the women's movement whose primary goal is to achieve gender equality. We included belief in traditional gender roles due to its conceptual closeness to domestic division of labour (Brown & Gladstone, 2012; Coltrane, 2000), and expect a higher correlation with SGEMS-Domestic than with SGEMS-Public. Complementing the latter, Zucker's (2004) succinct scale of feminist activism measures collective action in support of

women's rights. It converges with tools used in studies investigating activism more broadly (Duncan, 1999; Stewart, 2016; White, 2006; van Zomeren, Spears, Fischer, & Leach, 2004). In line, we expect a higher correlation with SGEMS-Public than with SGEMS-Domestic.

We define concurrent validity as a scale's propensity to predict real-world behaviour. Since the SGEMS aims to capture participants' actions in support of gender equality we expect a positive correlation with a real-world behavioural measure of support for gender equality. We used a behavioural measure of participation in an online petition in support of gender equality in politics as used by several studies in the past (Himmelstein & Moore, 1963; Kamenetzky, Burgess, & Rowan, 1956; Zaal, Van Laar, Ståhl, Ellemers, & Derks, 2011). We hypothesise that SGEMS-Public will be more predictive of this behavioural measure than SGEMS-Domestic as the measure is a public expression of support for gender equality, and that an association between signing the petition and SGEMS-Domestic is accounted for by its relationship to SGEMS-Public.

Finally, we aim to establish discriminant validity by including a measure of social desirability to exclude the possibility that social desirability drives the SGEMS scores as previous research has demonstrated that participants high in social desirability tend to respond more positively in relation to topics that are widely positively regarded, such as gender equality (Crowne & Marlowe, 1964). Support for gender equality is a sensitive issue within the current cultural climate. Therefore, it would be surprising if the SGEMS was completely unrelated to socially desirable response tendencies. We expect the relation to be stronger for SGEMS-Public as it is more visible and therefore subject to judgment by others. Measuring and controlling for social desirability using (short forms of) the Marlowe-Crowne scale (Crowne & Marlowe, 1960) is a common strategy to overcome the risk of demand characteristics on participants' responses (Furnham, 1986). However, accumulating evidence calls into question the validity of this measure (Uziel, 2010). Therefore, we will consider alternative interpretations in the discussion. We had also included a short measure of the Big 5 personality traits and a short measure of the Positive and Negative Affect Schedule for exploratory purposes. Please see the Supporting Information for more details on these measures.

7.1 | Method

7.1.1 | Participants and procedure

We recruited 146 male participants ($M_{\text{age}} = 31.36$, $SD = 10.42$, age ranged 18–69) from the online research platform Prolific Academic. We based the sample size on power calculations for small to moderate correlations ($r = .25$) between the variables. Prior to analyses, we excluded four participants who did not identify as heterosexual, or completed the survey in fewer minutes than we estimated the survey to require. None of the participants exhibited any missing data. Most participants were American (57%) or British (41%). After giving informed consent, participants first indicated their agreement with the 31 items from the initial item pool. Then, they filled in a variety

⁵While it would be beneficial to include an additional CFA confirming the two-factor structure, we had not originally intended to run a CFA on this data, and hence the sample size is smaller than the minimum required item-participant ratio that is recommended for CFA (Catell, 1978; Everitt, 1975). Therefore, running a CFA in Study 3 would be meaningless. Instead, we will present the results of another CFA in Study 4.

of scales that served to test for convergent and discriminant validity of our scale (see below). At the end of the survey, participants were asked to decide whether they would like to sign a petition in support of gender equality to establish concurrent validity. Finally, they were instructed to report the same demographic information as in previous studies, were thanked for their participation, and received payment in the form of Prolific Academic credit (£ 1.25).

7.1.2 | Measures

SGEMS

Both factors of the SGEMS, developed and validated in Study 1 and Study 2, respectively, were included in this study. Participants indicated their agreement with each item on a 7-point Likert scale (1 = Strongly disagree, 7 = Strongly agree). Both SGEMS-Public ($\alpha = .91$) and SGEMS-Domestic ($\alpha = .79$) exhibited acceptable reliability levels that were considerably higher than in Study 2.

Convergent validity

We included three measures of sexism to test whether the SGEMS factors correlated negatively with these. The two subscales of the ambivalent sexism inventory (Glick & Fiske, 1996) assess benevolent ($\alpha = .87$) and hostile sexism ($\alpha = .94$) towards women. The benevolent sexism subscale includes 11 items (e.g., "Women should be cherished and protected by men"), and the hostile sexism subscale includes 11 items (e.g., "Most women interpret innocent remarks or acts as being sexist"). Participants indicated their agreement with these items on a 7-point Likert scale (1 = Strongly disagree, 7 = Strongly agree).

The eight-item modern sexism scale (Swim et al., 1995) assesses the denial of sexism in our current society. Participants indicated their agreement with the items (e.g., "Discrimination against women is no longer a problem in the United States") on a 7-point Likert scale (1 = Strongly disagree, 7 = Strongly agree; $\alpha = .88$). The original scale is scored such that a high score indicates low levels of modern sexism. To avoid confusion, we reversed the total score, such that a high score indicated high levels of modern sexism.

To assess the extent to which participants believe in traditional gender roles we used four items from the gender roles beliefs scale (Kerr & Holden, 1996; e.g., "Women with children should not work outside the home if they don't have to financially"). Participants indicated their agreement with these statements on a 7-point Likert scale (1 = Strongly disagree, 7 = Strongly agree; $\alpha = .84$).

To assess feminist activism, participants filled in a six-item feminist activism scale (Zucker, 2004) that assesses political action undertaken in favour of women's rights. Participants indicated whether they had ever participated in each of the actions (e.g., "Have you ever attended a rally or demonstration on behalf of women's rights?") by indicating "no" (0) or "yes" (1; $\alpha = .73$).

Concurrent validity

We included a behavioural measure of support for gender equality to test the SGEMS's concurrent validity. We adapted a measure by Zaal et al. (2011): We provided participants with the option of signing an

online petition in support of gender equality by including the link to the external petition web page in the survey. The instructions clarified that signing the petition was optional and did not impact the participant's payment in any way. Participants indicated in our survey whether they had signed the petition or not ("yes" or "no"). To ensure that participants were honest we asked them to copy-paste the thank you note displayed after signing the petition.

Discriminant validity

We included a measure of social desirability to explore the extent to which SGEMS scores are driven by the tendency to answer questions in a manner that others will view favourably. It was measured by Strahan and Gerbasi's (1972) 10-item short-version of the Marlowe-Crowne Social Desirability scale (Crowne & Marlowe, 1964). Participants indicated their agreement with these items (e.g., "I like to gossip at times") on a 7-point Likert scale (1 = Strongly disagree, 7 = Strongly agree, $\alpha = .73$).

7.2 | Results and discussion

First, we established convergent validity by examining the correlations between the SGEMS, and each SGEMS subscale, and the measure of related constructs, namely hostile and benevolent sexism, modern sexism, belief in traditional gender roles, and feminist activism. Next, we established the SGEMS's concurrent validity by examining the point biserial correlation of the petition variable (signed vs. not signed) and the SGEMS, and each subscale. Further, we ran a logistic regression model to determine whether SGEMS-Public and SGEMS-Domestic were predictive of signing the petition over and above related scales. Finally, we established divergent validity by examining the extent to which SGEMS scores are driven by social desirability. All descriptive statistics and correlations of the measures are presented in Table 2. Table 3 presents the results of Fisher's z-test indicating whether the correlation for each variable with SGEMS-Public differed significantly from the correlation for each variable with SGEMS-Domestic, and partial correlations for each variable and each subscale while controlling for the other subscale.

7.2.1 | Convergent validity

As expected, participants who endorsed the SGEMS overall and each factor individually also endorsed belief in traditional gender roles, modern sexism, hostile sexism, and feminist activism. The correlations for modern sexism and hostile sexism did not differ significantly for SGEMS-Public and SGEMS-Domestic, but belief in traditional gender roles was more strongly correlated with SGEMS-Domestic than with SGEMS-Public. A partial correlation between SGEMS-Public and belief in traditional gender roles, controlling for SGEMS-Domestic, confirmed that the association between belief in traditional gender roles and SGEMS-Public was accounted for by its relation to SGEMS-Domestic. On the other hand, feminist activism was more strongly correlated with SGEMS-Public than with

TABLE 2 Means, standard deviations, and correlations among the measures (Study 3)

Variable	Mean	SD	1	2	3	4	5	6	7	8
1. SGEMS	4.85	0.87	–	–	–	–	–	–	–	–
2. SGEMS-Public	4.19	1.17	.91***	–	–	–	–	–	–	–
3. SGEMS-Domestic	5.69	0.87	.70***	.35***	–	–	–	–	–	–
4. BTGR	2.28	1.17	–.35***	–.21**	–.43***	–	–	–	–	–
5. MS	4.42	1.14	–.58***	–.53***	–.40***	.35***	–	–	–	–
6. HS	3.57	1.23	–.52***	–.45***	–.41***	.52***	.68***	–	–	–
7. BS	3.54	1.03	.08	–.01	–.16	.36***	.23**	.30***	–	–
8. FemAct	.49	1.05	.44***	.47***	.18*	.09	.29	–.22	.09	–
9. SocD	4.12	0.80	.19*	.20*	.06	.00	.02	–.1	.13	.07

Abbreviations: BS, benevolent sexism; BTGR, belief in traditional gender roles; FemAct, Feminist Activism; HS, hostile sexism; MS, modern sexism; SocD, social desirability.

* $p < .05$; ** $p < .01$; *** $p < .001$.

SGEMS-Domestic. A partial correlation between SGEMS-Domestic and feminist activism, controlling for SGEMS-Public, confirmed that the association between feminist activism and SGEMS-Domestic was accounted for by its relation to SGEMS-Public. Hostile and modern sexism remained correlated with each subscale when controlling for the other subscale. All of the reported effects hold when controlling for social desirability.

Inconsistent with our prediction, participants who endorsed benevolent sexism did not endorse the overall SGEMS or SGEMS-Public; however, the association between benevolent sexism and SGEMS-Domestic approached significance, and was significant once we controlled for SGEMS-Public. However, the association between SGEMS-Domestic and benevolent sexism was not significantly larger than the association between SGEMS-Public and benevolent sexism.

7.2.2 | Concurrent validity

Next, we established concurrent validity. Specifically, we hypothesised that the overall SGEMS would be positively associated with signing the petition, and that SGEMS-Public would be more positively

associated with signing the petition than SGEMS-Domestic. A total of 25 participants had signed the petition. Participants who signed the petition were more likely to endorse the SGEMS overall, $r_{pb-SGEMS}(144) = .33, p < .001$. These effects were also present for each subscale of the SGEMS: Participants who endorsed SGEMS-Public were more likely to sign the petition, $r_{pb-public}(144) = .30, p < .001$. Similarly, participants who endorsed SGEMS-Domestic were more likely to sign the petition, $r_{pb-domestic}(144) = .23, p = .004$. These correlations did not differ significantly ($t = 0.77, p = .441$); however, the association between SGEMS-Domestic and the petition was accounted for by SGEMS-Domestic's relationship to SGEMS-Public, as indicated by the correlation of the petition with SGEMS-Domestic while controlling for SGEMS-Public, $r(143) = .15, p = .079$.

Next, as an exploratory post-hoc test, we determined whether SGEMS-Public was predictive of signing the petition, over and above related scales. We did not include SGEMS-Domestic in the regressions as the partial correlations had indicated that the relation between the petition outcome and SGEMS-Domestic was accounted for by the petition's relation to SGEMS-Public. Specifically, we fitted two logistic regression models with the petition as the outcome variable. In Model 1, the related scales that we entered into the model

	r		$r_{\text{difference}}$		r_{partial}	
	SGEMS-Public	SGEMS-Domestic	t	p	SGEMS-Public	SGEMS-Domestic
BTGR	–.21**	–.43***	2.54	.012	–.07	–.39***
MS	–.53***	–.40	–1.63	.105	–.46***	–.27**
HS	–.45***	–.41***	–0.98	.330	–.40***	–.28**
BS	–.01	–.16	1.60	.113	.05	–.17*
FemAct	.47***	.18*	3.41	.000	.44***	.02
SocD	.20*	.06	1.50	.137	.19	–.01

Abbreviations: BS, benevolent sexism; BTGR, belief in traditional gender roles; FemAct, feminist activism; HS, hostile sexism; MS, modern sexism; SocD, social desirability.

* $p < .05$; ** $p < .01$; *** $p < .001$.

TABLE 3 Correlations, Fisher's z test testing for a difference between the correlations, and partial correlations when controlling for the other subscale (Study 3)

were hostile and benevolent sexism, modern sexism, belief in traditional gender roles, feminist activism, and SGEMS-Public. In Model 2, we did not enter feminist activism as it contains an item that asks specifically for participants' tendency to sign petitions for women's rights, and is therefore very closely related to the outcome variable. In Model 1, SGEMS-Public was not significantly associated with the petition. Rather, belief in traditional gender roles and feminist activism explained most of the variance in the outcome variable: A decrease in belief in traditional gender roles and an increase in feminist activism increased the odds of signing the petition (see Table 4).

We ran the same analysis entering feminist activism as a predictor while omitting the item that directly asked whether participants had signed a petition in favour of women's rights from the scale. The overall pattern did not change, but feminist activism was only approaching significance, $B(1) = .62$, $SE(B) = .37$, $z = 1.69$, $p = .092$. Notably, a post-hoc power analysis on the basis of the significance level ($\alpha = .05$), sample size ($n = 146$), and odds ratio, $Exp(B) = 1.32$, showed that the analysis of finding an effect of SGEMS-Public on signing the petition was underpowered at .37. In Model 2, however, SGEMS-Public significantly predicted the petition outcome. As anticipated, higher levels of SGEMS-Public were associated with higher odds of signing the petition.

A post-hoc analysis on the basis of the significance level ($\alpha = .05$), sample size ($n = 146$), and odds ratio, $Exp(B) = 1.71$, showed that the analysis of finding an effect of SGEMS-Public on signing the petition was sufficiently powered at .81. Full results from the logistic regression models can be seen in Table 3. Hence, while SGEMS-Public does not predict whether participants would sign a petition as accurately as feminist activism, SGEMS-Public does add information over the

other related scales. We argue that SGEMS-Public makes a valuable contribution next to feminist activism as it captures a broader construct, and still explains variance within the petition variable.

7.2.3 | Discriminant validity

While SGEMS-Domestic was not related to social desirability, the correlation between SGEMS-Public and social desirability was significant, but not large. These correlations did not differ significantly, and partial correlations between one subscale and social desirability while controlling for the other subscale showed that these results hold independently of the influence of the other subscale. None of the SGEMS items is highly correlated with social desirability; all of the items tend towards a weak relationship (three items in the .20s, four items in the .10s, and two items in the .00s). Thus, the overall relationship between SGEMS-Public and social desirability reflects an aggregation of many weak relationships.

8 | STUDY 4

In Study 1, we identified a two-factor solution (*Public Support for Gender Equality* and *Domestic Support for Gender Equality*) via EFA, and found further evidence in Study 2 via CFA. However, the data collection for Study 2 and Study 3 included all 31 items from the original item pool. Including items that are not part of the final scale might have inadvertently influenced response patterns on the SGEMS items. Therefore, our aim in Study 4 is to demonstrate that the proposed two-factor structure holds when only the 16 remaining items are included in the data collection.

To understand the underlying motivations for each type of support better, we further investigate the SGEMS's two subscales' relationship with four potentially related variables: First, we include a measure of precarious manhood beliefs (Vandello & Bosson, 2013) capturing the belief that manhood is a fragile state that is tenuous to achieve and to maintain. Specifically, men who endorse precarious manhood beliefs perceive an ongoing pressure to prove their manhood to others by engaging in stereotypically masculine behaviour, and by avoiding stereotypically feminine behaviour. We hypothesise that precarious manhood beliefs are negatively related to SGEMS-Domestic, but not to SGEMS-Public, as domestic support for gender equality, but not public support for gender equality, involves engaging in stereotypically feminine tasks.

Second, we included a measure of gender-specific system justification (Jost & Kay, 2005), that is, the extent to which an individual believes that current policies and societal structures serve the greater good by providing fair opportunities to both men and women. The concept is an adapted form of the more general system justification belief (Kay & Jost, 2003). We expect that gender-specific system justification will be negatively related to both public and domestic support for gender equality as previous research has found that people scoring high on system justification engage in justification of the

TABLE 4 Logistic regression model for petition (Study 3)

Variable	B	SE(B)	Exp(B)	z	p	R ² Nagelkerke
Model 1						
Intercept	-0.37	2.43	0.69	-0.15	.880	.33
HS	-0.07	0.31	0.93	-0.23	.821	
BS	-0.03	0.24	0.97	-0.13	.895	
MS	-0.07	0.32	0.93	-0.23	.816	
BTGR	-1.03	0.33	0.36	-3.13	.002	
FemAct	0.65	0.27	1.92	2.39	.017	
SGEMS-P	0.28	0.30	1.32	0.95	.343	
Model 2						
Intercept	-2.10	2.25	0.12	-0.93	.351	.28
HS	-0.05	0.30	0.95	-0.18	.857	
BS	0.02	0.22	1.02	0.10	.922	
MS	0.05	0.30	1.05	0.16	.873	
BTGR	-0.95	0.35	0.39	-2.70	.007	
SGEMS-P	0.54	0.27	1.71	2.00	.046	

Note: Logistic regression on Petition (0 = petition not signed, 1 = petition signed).

Abbreviations: BS, benevolent sexism; BTGR, belief in traditional gender roles; FemAct, Feminist Activism; HS, hostile sexism; MS, modern sexism.

existing status quo (Jost, Banaji, & Nosek, 2004). Supporting gender equality, however, both within the public and the domestic domain, would presuppose a critical evaluation of the current gender system and a desire for change to the system.

Third, we included a measure of social dominance orientation (Pratto, Sidanius, Stallworth, & Malle, 1994). The measure captures an individual's preference of inequality between social groups. Past research has found relations between social dominance orientation and a multitude of social and political ideologies fostering group-based hierarchies, and has found that men endorse social dominance orientation more frequently than women do. We expect that social dominance orientation will relate negatively to both public and domestic support for gender equality as previous research has found associations between these variables and social and political ideologies that maintain group-based hierarchies in general and with regard to gender specifically. For instance, people scoring high on social dominance orientation were found to believe that women and men are naturally different and should take over different roles in society (Pratto et al., 1994). This belief would negatively affect men's engagement in both public and domestic support for gender equality.

Moreover, we included a measure of objectification of women (Swami & Voracek, 2013), capturing the extent to which a person judges women's bodies from appearance, rather than from competence. The measure was adapted from the initial Self-Objectification Scale (Fredrickson, Roberts, Noll, Quinn, & Twenge, 1998). It might be considered a limitation that the scale's rank-order format and scoring system, and the resulting ipsative data, do not allow for the calculation of standard estimator of internal consistency (Calogero, 2011; Hill & Fischer, 2008). However, we chose this measure as it seems to capture a more subtle and passive form of objectification than other scales that assess more extreme forms of objectification of women (Gervais, Davidson, Styck, Canivez, & DiLillo, 2018). During a time in which a multitude of perpetrators are being convicted for sexual harassment (Carlsen et al., 2018), men might be hesitant to indicate their misdeeds within an online questionnaire. Moreover, while evidence has shown that sexual harassment gravely impacts women when it does occur (Lim & Cortina, 2005; Paludi, 1990; Williams, 1996), it is less pervasive than the more commonplace, everyday judgement based on appearance that women experience (Fredrickson & Roberts, 1997; Moradi & Huang, 2008; Swim, Hyers, Cohen, & Ferguson, 2001). Therefore, the latter seemed more relevant for the purpose of this research.

One might argue that it might be more difficult for men to assess the competence of a woman's body, as opposed to the more easily observable appearance of a woman's body. However, the survey instructions are phrased in an abstract way, that is, men are prompted to assume that they have information on both the appearance and the competence of the female body in question. An even distribution across both appearance- and competence-based items seems to indicate that men are indeed assumed to be knowledgeable on both domains. We expect the SGEMS to correlate positively with this measure as the sexual objectification of women is a powerful form of oppression frequently directed against women in Western society,

as detailed in feminist theory and research (American Psychological Association, Task Force on the Sexualization of Girls, 2007; Fredrickson & Roberts, 1997; Moradi & Huang, 2008; Szymanski, Moffitt, & Carr, 2011). In line with feminist theory, the objectification of others is associated with stronger sexist attitudes (Swami et al., 2010), and sexist attitudes are associated with decreased support for gender equality, especially in the public domain (Sakallı-Uğurlu, 2010; Sibley & Perry, 2010; Swim et al., 1995). Therefore, the association between objectification for women and public support for gender equality might be stronger than the association between objectification for women and domestic support for gender equality.

Finally, we included two attitudinal measures: religiosity (Gorsuch & McFarland, 1972) and political ideology (Shook & Fazio, 2009). Given that previous studies found a negative relationship between approval of gender equality and religiosity (Diehl, Koenig, & Ruckdeschel, 2014; Feltey & Poloma, 1991), we expect a decrease of support for both public and domestic support for gender equality in religious men. Considering the higher moral value placed on care and fairness in liberal political ideology in comparison to conservative political ideology (Graham, Haidt, & Nosek, 2009; Lakoff, 2010), we expect that both public and domestic support for gender equality decrease with an increase in conservative political ideology.

8.1 | Method

8.1.1 | Participants and procedure

We recruited 192 male participants ($M_{\text{age}} = 37.51$, $SD = 12.38$, age ranged 18–67) from the online research platform Prolific Academic. Most participants were British (85%) or American (15%), and all participants identified as heterosexual. Prior to calculations, we excluded three participants who completed the survey in substantially fewer minutes than we had estimated the survey to require, or who had more than 5% missing data. None of the remaining participants had any missing data points. After giving informed consent, participants completed the survey and were asked to report demographic information, such as age and nationality. Subsequently, they were thanked for their participation and received payment in the form of Prolific Academic credit (£ 0.82).

8.1.2 | Measures

SGEMS

Both factors of the SGEMS, developed and validated in Study 1 and Study 2, respectively, were included in this study. Participants indicated their agreement with each item on a 7-point Likert scale (1 = Strongly disagree, 7 = Strongly agree). Both SGEMS-Public ($\alpha = .92$) and SGEMS-Domestic ($\alpha = .68^6$) exhibited reasonable reliability levels that were higher than in Study 2.

⁶Reliability increases ($\alpha = .70$) when removing the item "If I were to have a child I would consider taking a part-time job to take care of my child". This item was endorsed less frequently than the other items. However, in line with theory and previous research, it captures a substantial part of domestic support for gender equality and is therefore an essential part of the domestic support for gender equality subscale.

Precarious manhood beliefs

We measured precarious manhood beliefs ($\alpha = .90$) with the seven statements that Vandello, Bosson, Cohen, Burnaford, and Weaver (2008) used to measure whether participants perceive manhood as tenuous and elusive. Participants indicated their agreement on a 7-point Likert scale (1 = Strongly disagree, 7 = Strongly agree). An example item is "Manhood is not assured—it can be lost".

Gender-specific system justification

We measured gender-specific system justification ($\alpha = .84$) with eight items previously used by Jost and Kay (2005). Participants indicated their agreement with the statements on a 9-point Likert scale (1 = Strongly disagree, 9 = Strongly agree). An example item is "Society is set up so that men and women usually get what they deserve".

Social dominance orientation

We measured social dominance orientation ($\alpha = .96$) with Pratto et al. (1994) 16-item Social Dominance Orientation scale. Participants indicated their positive or negative feeling towards the objects or statements on a 7-point Likert scale (1 = Very negative, 9 = Very positive). An example item is "Some groups of people are simply inferior to other groups".

Objectification of women

We measured objectification of women with a modified version of the Self-Objectification Scale (Fredrickson et al., 1998), previously used by Swami and Voracek (2013). We asked participants to rank-order five competence-based (e.g., energy level) and five appearance-based (e.g., sex appeal) body attributes from which has the greatest impact on how they regard women ("9") to the least impact on how they regard women ("0"). We obtained an overall score by subtracting the sum of competence-based items from the sum of appearance-based items. Scores range from -25 to $+25$, with higher scores indicating a greater emphasis on appearance, and therefore higher levels of objectification of women. The correlation of the sum between the competence- and appearance-based items was significant ($r = -.59, p < .001$).⁷

Attitudinal measures

Religiosity. In line with Gorsuch and McFarland (1972), we assessed participants' religiosity with two questions. First, we asked participants to indicate their religious preference. Participants could choose between several options (Christianity, Islam, Judaism, Buddhism), or could specify a religion not listed. Then, we asked participants, to indicate how important religion is to them on a scale ranging from 1 (not at all) to 9 (extremely important).

Political ideology. In line with Shook and Fazio (2009), we assessed political ideology by asking participants to indicate how they identify politically on a scale ranging from 1 (liberal) to 7 (conservative).

8.2 | Results

All descriptive statistics and correlations of the measures are presented in Table 5. Table 6 presents the results of Fisher's z-test indicating whether the correlation for each variable with SGEMS-Public differed significantly from the correlation for each variable with SGEMS-Domestic, and partial correlations for each variable and each subscale while controlling for the other subscale.

8.2.1 | Confirmatory factor analysis

We validated the factor structure of SGEMS using CFA running the same analysis as in Study 2, again accounting for highly correlated residuals among related items (see Figures 3 and 4). The CFA provided additional evidence for the two-factor model identified in Study 1 and confirmed in Study 2 as the specified model fit the data well (see Kenny, 2015), $\chi^2(92) = 149.192, p < .001, CFI = .96, RMSEA = .06, SRMR = .06$. To compare, we again fitted a one-factor solution, $\chi^2(93) = 195.788, p < .001, CFI = .93, RMSEA = .08, SRMR = .08$, but it did not fit the data as well as the two-factor solution, $\chi^2_{diff}(1) = 45.596, p < .001$. The AIC, an estimator of the relative quality of statistical models, confirmed this ($AIC_{two-factors} = 9725.235; AIC_{one-factor} = 9769.830$). We further tested again for the three-factor solution, loading items capturing respect for one's female partner and items capturing equal division on household and childcare on separate factors. Again, the data fitted the three-factor solution well, $\chi^2(90) = 147.013, p < .001, CFI = .96, RMSEA = .06, SRMR = .05, AIC = 9725.259$, but not significantly better than the two-factor solution, $\chi^2_{diff}(2) = 2.178, p = .337$. Akaike weights ($w_{two-factors} = 0.71; w_{three-factors} = 0.29$) confirm that the two-factor solution is 2.49 times more likely to describe the data better than the less parsimonious three-factor solution. The Cronbach's alphas for the public and the domestic factor were .92 and .66, respectively. The correlations between individual item test scores and the total scale score were all positive.

8.2.2 | Precarious manhood beliefs

As predicted, participants who endorsed precarious manhood beliefs reported lower levels of domestic support for gender equality, but did not report lower levels of public support for gender equality. However, these correlations did not differ significantly from each other.

8.2.3 | Gender-specific system justification

As expected, participants who endorsed gender-specific system justification reported lower levels of public support for gender equality. However, there was no association between gender-specific system justification and SGEMS-Domestic. The difference between these correlations was significant.

⁷Hill and Fischer (2008) and Calogero (2011) argued that a rank-order format and scoring system, as used for the measure of objectification of women, renders standard estimates of internal consistency meaningless. Instead, they proposed to report the correlation between the sums of each scale component. The negative correlation confirms the inverse nature of the relationship. Moreover, the magnitude of the correlation is an indicator of the dispersion of ranks across the two components.

TABLE 5 Means, standard deviations, and correlations among the measures (Study 4)

Variable	Mean	SD	1	2	3	4	5	6	7	8
1. SGEMS	4.84	0.88	-	-	-	-	-	-	-	-
2. SGEMS-Public	4.22	1.24	.92***	-	-	-	-	-	-	-
3. SGEMS-Domestic	5.63	0.8	.65***	.31***	-	-	-	-	-	-
4. PM	4.41	1.37	-.08	-.03	-.16*	-	-	-	-	-
5. SJ-gender	4.47	1.40	-.25***	-.29***	.04	.10	-	-	-	-
6. SDO	4.42	1.16	-.64***	-.39***	-.37***	.26***	.40***	-	-	-
7. Obj	2.17	12.26	-.15*	-.13	-.12	.02	.04	.08	-	-
8. Rel	2.30	2.27	-.01	-.03	.03	.16*	.10	.07	-.10	-
9. Pol	3.43	1.46	-.30***	-.32***	-.12	.17*	.45***	.47***	.05	.12

Abbreviations: Obj, objectification of women; PM, precarious manhood beliefs; Pol, political ideology; Rel, religiosity; SDO, social dominance orientation; SJ-gender, gender-specific system justification.

* $p < .05$, ** $p < .01$, *** $p < .001$.

	r		$r_{\text{difference}}$		r_{partial}	
	SGEMS-Public	SGEMS-Domestic	t	p	SGEMS-Public	SGEMS-Domestic
PM	-.03	-.16*	1.54	.125	.02	-.14
SJ-gender	-.29***	.04	-3.05	.003	-.31***	.07
SDO	-.39***	-.37***	-0.26	.795	-.29***	-.28***
Obj	-.13	-.12	-0.12	.906	-.10	-.09
Rel	-.03	.03	-0.70	.483	-.06	.05
Pol	-.32***	-.12	-2.46	.015	-.28***	-.01

TABLE 6 Correlations, Fisher's z test testing for a difference between the correlations, and partial correlations when controlling for the other subscale (Study 4)

Abbreviations: Obj, objectification of women; PM, precarious manhood beliefs; Pol, political ideology; Rel, religiosity; SDO, Social Dominance Orientation; SJ-gender, gender-specific system justification.

* $p < .05$; ** $p < .01$; *** $p < .001$.

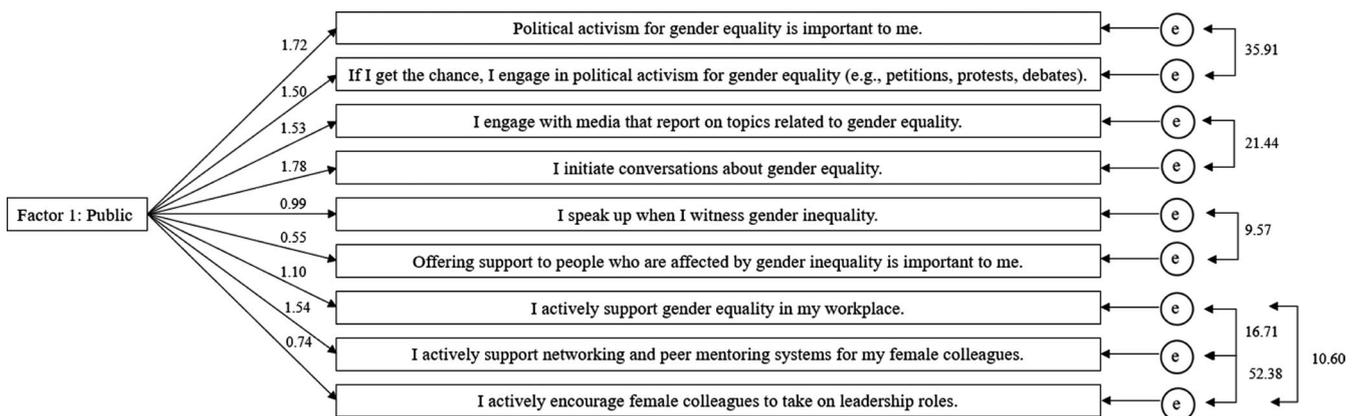


FIGURE 3 Model, unstandardized factor loadings, and errors for Factor 1 in the confirmatory factor analysis in Study 4

8.2.4 | Social dominance orientation

As expected, participants who endorsed social dominance orientation reported lower levels of both public support for gender equality and domestic support for gender equality. The correlations for

SGEMS-Public and SGEMS-Domestic did not differ significantly. Partial correlations of social dominance orientation and SGEMS-Public and SGEMS-Domestic confirmed that these correlations were not accounted for by one of the factors, but remained significant when controlling for SGEMS-Domestic and SGEMS-Public, respectively.

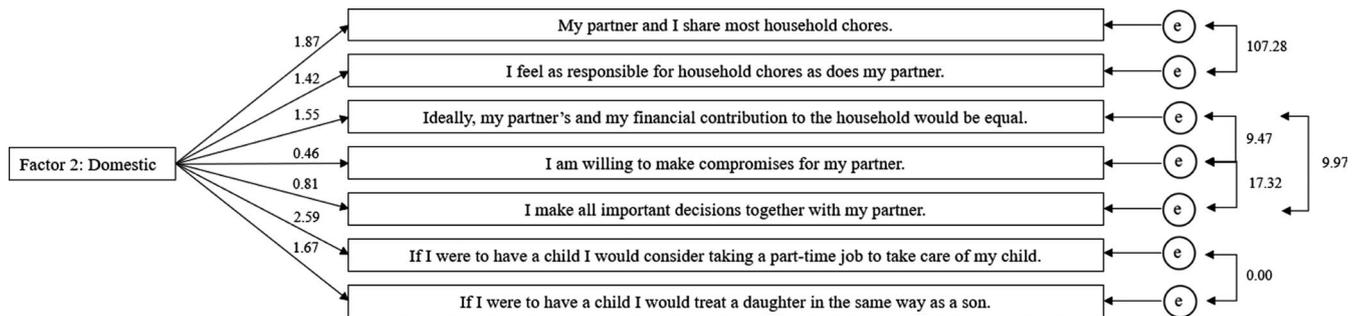


FIGURE 4 Model, unstandardized factor loadings, and errors for Factor 2 in the confirmatory factor analysis in Study 4

8.2.5 | Objectification of women

We found tentative evidence for a negative association between objectification and domestic support for gender equality: The correlations between the objectification of women and SGEMS-Public and SGEMS-Domestic were in the expected direction, albeit not significant. The overall SGEMS was negatively related to the objectification of women.

8.2.6 | Attitudinal measures

The majority of the participants were not religious (65%) or were Christian (27%), and the remaining participants indicated Islam (3%), Buddhism (1%), Hinduism (1%), Creativity (0.5%), or Jehovah's witness (0.5%) as their religious preference. In contrast to what was predicted, there was no relationship between religiosity and SGEMS-Public or SGEMS-Domestic. As predicted, political ideology was negatively related to SGEMS-Public, and was marginally negatively related with SGEMS-Domestic. That is, participants' support for gender equality decreased with increasing conservatism, and this holds specifically for public support for gender equality. The difference between these correlations was significant, and a partial correlation of political ideology and SGEMS-Domestic, controlling for SGEMS-Public, showed that the correlation between political ideology and SGEMS-Domestic was accounted for by its relation to SGEMS-Public.

9 | GENERAL DISCUSSION

The purpose of the present research was to develop and validate a brief, yet comprehensive, measure of men's support for gender equality to be used in future research. Our aim was for this measure to encompass the various singular aspects of the construct that had been discussed and measured in previous research. Further, this scale addresses limitations of previous scales as it was developed to measure men's support specifically, and includes both attitudinal measures, and measures of more tangible actions. Results across the four studies employing diverse samples provided strong support for the proposed two-factor structure: public support for gender equality and domestic support for gender equality.

In a pilot study, we confirmed that laypeople's suggestions are congruent with our review of the literature on men's support for gender equality. Using the literature review and a pilot study, we developed a pool of 31 items that were designed to capture the full breadth of support for gender equality. In Study 1, we used EFA on a sample of professional online survey takers to reduce this item pool to 16 items that factored into two subscales: public support (nine items) and domestic support (seven items). In Study 2 and in Study 4, we replicated this factor structure with the final 16 items. Study 2 was carried out on a different sample and with a different survey medium (train commuters completing pen and paper questionnaires), and supported the two-factor solution.

In Study 2, reliability of SGEMS-Domestic was lower than in the other studies. This might be the case because this study employed a fundamentally different, less homogeneous sample as the data was not collected via a panel of survey takers. Further, as the data collection took part on a train, most participants were exposed to environmental noise while filling in the survey, and some participants experienced time pressure as they were to depart the train shortly after being approached. This might have compromised their attention, and influenced their response patterns. While sufficiently high within the other studies, the reliability of the SGEMS-Domestic was consistently lower than the reliability of SGEMS-Public. Specifically, the item "If I were to have a child I would consider taking a part-time job to take care of my child" seems to decrease the reliability of the domestic subscale. It may be the case that taking a part-time job entails a career and status sacrifice that is not necessarily inherent to the other items of the SGEMS-Domestic. Therefore, men may be more hesitant to endorse this item. Moreover, the item might also require hypothetical thinking as not all men included in the sample had children. However, in line with theory and previous research, it captures a substantial part of domestic support for gender equality and is therefore an essential part of the domestic support for gender equality subscale.

Notably, due to the nature of some of the items' phrasing (e.g., "I feel as responsible for household chores as does my partner") the domestic subscale might fall short of capturing household arrangements in which the man does more housework than the woman. However, at this point the number of households falling into this

category is still very small (e.g., Hochschild & Machung, 2012; Pew Research Center, 2013; Sayer, England, Bittman, & Bianchi, 2009). Therefore, this limitation is unlikely to substantially affect the average scale score across participants. Moreover, the observed factor loadings of the items that are ambiguous in this way were in line with the other items of the domestic subscale. This seems to indicate that the ambiguous items were perceived and answered as originally intended.

In Study 3 and in Study 4, we explored the SGEMS's relationship to related constructs. In Study 3, we demonstrated that the SGEMS (and each of the subscales) was correlated in the expected directions with convergent measures of sexism, such that it was negatively related to hostile sexism, modern sexism, and belief in traditional gender roles, and positively related to feminist activism. The relation between SGEMS-Public and belief in traditional gender roles, and the relation between SGEMS-Domestic and feminist activism was accounted for by the other subscale in each case. There was no correlation between SGEMS-Public and benevolent sexism. Possibly, this is related to Glick and Fiske's (1996, 2001) findings that a benevolently sexist attitude in men implies making sacrifices in order to protect and valorise women, which is often perceived as beneficial, or at least not detrimental, to women. Indeed, benevolently sexist attitudes might sometimes manifest in behaviour that outwardly appears like support for gender equality (Estevan-Reina et al., 2017; Hopkins-Doyle, Sutton, Douglas, & Calogero, 2019). For example, a man's attempt to protect a woman (benevolent sexism) might include speaking up against gender inequality (public support for gender equality). While SGEMS-Domestic was trending towards a significantly negative correlation with benevolent sexism, the relation was not significant overall. These results seem to mirror results from previous research conducted on adolescents in Spain (del Prado Silván-Ferrero & López, 2007). However, when controlling for the effect of SGEMS-Public a significant negative correlation between SGEMS-Domestic and benevolent sexism emerged. This finding is in line with Glick and Fiske's (1996) finding that a man endorsing benevolent sexism would similarly endorse traditional gender roles, and would therefore not consider household chores and childcare his responsibility. This would result in decreased domestic support for gender equality.

Finally, SGEMS-Public was positively associated with tangible and active public support for gender equality, measured by signing a petition for women's rights. There was some evidence that SGEMS-Public predicted whether participants would sign the petition over and above hostile and benevolent sexism, modern sexism, and belief in traditional gender roles. SGEMS-Domestic did not predict the petition outcome. This was not surprising as the behavioural measure of support was representative of public support for gender equality. Concurrent validity is likely to be domain-specific, such that SGEMS-Domestic would be more predictive of behavioural measures that speak to domestic support of gender equality, for instance actually taking a part-time job after childbirth. Measuring SGEMS-Domestic behaviourally might be challenging as it mainly covers behaviours within the home

environment. Given that our study relied on survey responses, it was not possible for us to collect this data. However, within future research it might be possible to measure whether participants would engage in household chores or childcare within on- or off-line simulations of the domestic setting.

Notably, SGEMS-Public, but not SGEMS-Domestic, was positively associated with social desirability. We suggest that this may be because social desirability is positively related to conformity to socially acceptable values, avoidance of criticism, and gain of social approval (Huang, Liao, & Chang, 1998; King & Bruner, 2000). This kind of appraisal is more likely to occur in response to public support than in response to domestic support as the latter tends to remain private. This interpretation goes hand in hand with Uziel's (2010) conclusion that high scores on social desirability are a "less than perfect measure of response set" (p. 247), but rather are an indicator of an agreeable, emotionally stable, and interpersonally adjusted personality style. Either way, the effect reflects an aggregation of many weak relationships as none of the SGEMS items is highly correlated with social desirability, and does not, therefore, carry any major implications. Future research might want to expand on this by investigating the effect of social desirability on the SGEMS by using a more recent measurement tool. The Balanced Inventory of Desirable Responding (Hart, Ritchie, Hepper, & Gebauer, 2015), for instance, might expand on the current results as it captures the construct's multi-dimensional nature comprising self-deceptive enhancement and impression management.

In Study 4, we found that precarious manhood beliefs were negatively related to domestic support for gender equality, but not to public support for gender equality. The opposite pattern occurred for gender-specific system justification. These findings indicate that the underlying motivations for failing to support gender equality might differ for the public and the domestic domains. It is possible that levels of domestic support for gender equality are related to concerns about masculinity, but not to perceptions of justice in relation to the current system. This may be because men are likely to perceive their engagement in domestic support for gender equality as a personal decision that primarily affects their partner, rather than as a form of political activism to contribute to a more gender-equal society. Public support for gender equality, on the other hand, is more clearly tied to political activism and the intention to achieve broader societal change. Therefore, its relation to perceptions of justice in the current system is not surprising. In line with our predictions, both subscales were negatively related to social dominance orientation and were negatively, albeit not significantly, related to objectification for women.

9.1 | Future research

While our initial studies suggest that the SGEMS is a useful measure of men's support for gender equality, future research needs to be conducted to further investigate whether the factor-structure of the SGEMS holds within other populations both within and across

cultures. Within cultures that tend to be more (e.g., Iceland, Finland, Norway) or less (e.g., Syria, Pakistan, Yemen; World Economic Forum, 2016) gender equal the mean responses might differ from those in our UK and US samples. Furthermore, the relevance of different aspects might differ, and additional aspects may be required. For instance, creating inclusive workplace cultures might not be so relevant in countries where women are yet to achieve more basic rights and might not commonly enter the workforce. In countries where women are yet to achieve equal access to education or in which violence against women is still more accepted, these topics could be added.

In addition to creating versions of the SGEMS that are applicable to other countries, exploring and measuring homosexual men's way of supporting gender equality might be useful. The domestic factor does not apply to this subgroup of men due to their different relationship to women, but comparing their score on the first factor to that of heterosexual men might be worthwhile. Different mechanisms might drive their responses. On the one hand, their own minority status might lead them to identify more with the feminist cause, as individuals who hold intersecting social identities that are differentially privileged may find it easier to recognise the privilege they hold in a dominant identity (Cole, 2008, 2009; Cole & Luna, 2010). On the other hand, homosexual men might be particularly concerned with sustaining the gender hierarchy, considering their own status of reduced power among men, a phenomenon that has been termed "queer sexism" (Ward, 2000).

Moreover, the SGEMS is an explicit measure of support for gender equality which has been validated in relation to other explicit measures. In future research it might be interesting to examine the SGEMS's correlation with implicit measures of support for gender equality, for instance, during the selection of employees. Implicit measures capture real-life situations well, and have been used widely in previous research (Ashby, Ryan, & Haslam, 2006; Bruckmüller & Branscombe, 2010); therefore, gaining insight into the SGEMS's relation to these measures could be valuable.

Finally, we believe that the SGEMS will be a useful tool to investigate a variety of research questions related to the role of men as allies to the gender equality movement. Rather than relying on ad hoc measures and measures focusing on singular aspects, researchers can employ this validated scale covering a broader range of questions on men's support for gender equality. Future research may employ the scale to identify demographic groups of men that are more, or less, supportive of gender equality and might investigate the underlying reasons. In fact, some of the constructs measured in Study 4 might point towards explanations for men's (lack of) support for gender equality, and might therefore constitute good starting points for research to this purpose. Precarious manhood beliefs and the implied mandate to avoid everything that is considered feminine, for instance, might explain men's lack of domestic support for gender equality. Identifying factors that explain (a lack of) support for gender equality in men might be a starting point towards more effectively encouraging men's support. It will be important to

hereby distinguish between the two subscales and separately investigate factors related to (a lack of) public or domestic support, and potential barriers to men's support for gender equality. It is possible that the barriers in the way of public support for gender equality are closely related to the continuing stigma around feminism, and the fear of being evaluated negatively by one's peers when publicly speaking up for gender equality (Anderson, 2009; Rickabaugh, 1995; Rudman et al., 2013; Twenge & Zucker, 1999). At the same time, prescriptive societal norms for men to avoid all feminine, as proposed by the theory of precarious manhood (Vandello & Bosson, 2013), might explain men's reluctance to engage in domestic support for gender equality.

Next to these theoretical considerations, the two-factor structure of the SGEMS might also be used as a starting point for future interventions. Initiatives aiming to increase men's support for gender equality, such as *HeforShe*, *The Good Lad Initiative*, or *TokenMan*, could focus their efforts on (one of) the two factors and could specifically aim to increase men's public or domestic support for gender equality. Items from each scale could form the basis for deciding which aspects to focus on. At the same time, the scale could be employed to evaluate an initiative's effectiveness and impact.

10 | CONCLUSION

To conclude, engaging more male allies in supporting gender equality is an essential and timely endeavour. To fully understand this movement, we need a strong, empirically validated scale to understand how, precisely, men can support gender equality. The present research developed and validated the SGEMS, a brief, yet comprehensive, measure that assesses support for gender equality among men in the public and in the domestic sphere. The SGEMS has demonstrated robustness across populations and multiple measures of construct validity. Furthermore, it is short enough to be employed in a wide range of research and in practical contexts, especially since its subscales may also be used separately to answer research questions pertaining to one of the two domains. Therefore, SGEMS adds value to research in the field of gender equality by assessing an aspect not currently covered by existing scales.

CONFLICT OF INTEREST

The authors have no conflict of interest to declare.

ETHICAL STATEMENT

We confirm that research reported in this manuscript has been conducted in accordance with the APA Code of Conduct and the BPS ethics guidelines. Informed consent was obtained from the participants, participation was voluntary, and anonymity has been guaranteed. Results are reported honestly. The submitted work is original and not (self-)plagiarized, and authorship reflects individuals' contributions.

TRANSPARENCY STATEMENT

The data is publicly available at <https://ore.exeter.ac.uk/repository/handle/10036/10894>.

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SUPPORTING INFORMATION

Additional supporting information may be found online in the Supporting Information section.

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